

The Impact of Taxation on Economic Growth Using ARDL Approach: A Case Study of Pakistan

ABSTRACT

Aim: The proposed investigation aims to inspect the relationship between growth and development of the economy and taxation in the case of Pakistan.

Methods: The study adopts secondary quality approach and research design for data collection and data analysis. The study collects secondary data from authentic sources for the period of 2013 to 2021, where all the latest articles are selected which used the ARDL approach for empirical analysis. The research applies secondary qualitative data analysis techniques such as systematic literature review and thematic analysis to develop reliable findings and valid findings by comparing and contrasting findings of previous researches.

Results/findings: The results of the study indicate that in the overall economic growth of Pakistan is negatively affected by taxation policy in the country. Thus, the research implies some policy changes, which includes that it could be

imperative to reduce the indirect taxes if the administration wants to amplify economic growth.

1. Introduction

Contemporary policies of taxation pursue different policy objectives. Taxation is basically aimed at raising the required funds for the public expenditure for redistributing the income, stabilizing the economy, overcoming externalities, influencing on the resources allocation and have to support the economic growth as well (Egbunike, Emudainohwo and Gunardi, 2018). The main reason for efficiently designing the taxation is to attain the objectives of the desired fiscal policy efficiently by restraining the unexpected distortions, reducing the tax collection cost and promoting the economic growth. The taxation efficiency and the tax structure tends to play an important part in attaining the economic growth and fiscal consolidation (Stoilova and Patonov, 2012). Romer and Romer (2010) has elaborated that taxation policies are implemented for financing the budget deficit and countering the different other effects on the economy. The government utilizes the taxation proceeds for rendering the traditional functions that involve public goods provision, maintaining law and order, defending against different external aggression, regulating the trade and business for ensuring economic and social support.

There are many issues faced by the Pakistan in terms of the taxation system. The taxation system is rarely developed on the basis of taxation cannons such as certainty, principle of equality, economy, convenience, elasticity, productivity, simplicity and co-ordination cannon. Furthermore, it is also elaborated that the base of income tax is quite limited and there are very less tax payers in Pakistan as well. Only a small proportion of people are paying taxes. Tax evasion has been common issue in Pakistan which restricts the economic growth as well (Ahmad, Sial and Ahmad, 2016). The government has been working on reducing the practices of tax evasion and tax avoidance as well but it has not been much

improved so far. Therefore, the study is being conducted to evaluate the influence of taxation on the economic growth of the Pakistan. The study explores the taxation policies of Pakistan and their limitations. Further, it explores how the taxation system is influencing on the economic growth of Pakistan.

2. Review of Literature

Odum, Odum and Egbunike (2018) has evaluated the influence of taxation of the economic growth by focusing on the fiscal policy framework of Nigeria using the time series data. The data set of the study has been evaluated using the Granger Causality Test, Pearson Coefficient correlation, OLS regression, and VECM. The obtained results has indicated that the taxation has the positive and significant influence on the economic growth. Furthermore, the study conducted by Dackehag and Hansson (2012) evaluated the impact of taxation on the economic growth of the country. They have studied the taxation using the statutory tax rates on the personal income and corporate income and GDP growth for the economic growth using the 25 rich OECD countries panel data. The results has indicated that the personal and corporate income taxation has the negative influence on GDP growth.

The study conducted by Andrasic, Kalas and Mirovic (2017) has presented the empirical approach for the taxation and economic growth of US. The study has conducted the diagnostic tests and formulated the regression model by employing basic econometric methods. The findings of the study has indicated that the personal income taxation has the weak relationship with the GDP growth. The results obtained from the regression has identified the significant influence of taxation on the GDP growth of the country. Kalas et al (2018) has also developed the study to identify the impact of taxation on GDP growth in the context of Serbian and Croatian. The panel regression approach has been used by the study for sufficiently identifying the effect of the different taxation forms on GDP growth of the countries. The results obtained from the random effect model have indicated that corporate income taxation has the significant and positive effect on the GDP growth of the countries. Another study conducted by Ahmad, Ahmad and Yasmeen

(2013) has evaluated the impact of taxation on the economic growth of Pakistan using the time series data over the period of 1976-2011. The dependent variable considered in the study is GDP whereas it has considered taxes, exchange rate, life expectancy, and trade liberalization as the independent variables. On confirming the stationarity of the variables using ADF test, it has incorporated ARDL approach for finding the relationship between the variables. The results of the study has confirmed that the taxation and exchange rate have the significant and negative influence on the economic growth both in short run and long run.

3. Methodological Framework

The study is based on the qualitative research design which indicates the use of the data in the form of texts for conducting this study. The data is obtained from the journal articles since it is the review article hence it is implied that the secondary data collection technique is used in this study. The review of the different articles published on the topic has been conducted in this study through the use of content analysis. The journal articles and publications that are used in this study has been included from the time frame of 2015 to 2020 since it provides with the latest information on the technique. Any research which is older than this period is not considered to be included in the study. Furthermore, the researcher also includes those articles that are published in English language and are searched on the basis of keywords. The articles are searched on the platform of Google Scholar where almost articles are available for the review. The keywords used for the analysis are taxation, economic growth and ARDL approach. It helped the researcher to find the most relevant articles for the review.

4. Analysis and Discussion

With an aim to inspect the link amid taxation and growth of economy in Pakistan, the first theme developed is "Taxation and economic growth are positively and significantly related". However, to analyse this theme first article that has been chosen was proposed by Ahmad et al. (2020), where the researcher analysed how the economic growth of Pakistan in terms of GDP is related to taxation policies, and researcher added one more variable that is exchanged. In this

article, the researcher considerable observations in terms of time series data collected from 1980 to 2015 for specified economic variables. Analysis was done using the ARLD method. This study explored both short and long-term consequences of taxation on the growth of economy in Pakistan. First, the researchers analysed data stationery by using the ADF test, then long and short term association was investigated using ARDL. Findings indicated that policies of tax has a strong but undesirable influence on the growth of GDP of the country, and exchange rate is also similarly related to economic growth. Consequently, the findings implied that policymakers must emphasise fiscal strategy and policy, which is essential to endorse maintainable growth of economy.

These fallouts are in accordance with the findings developed by Nwanakwere (2019), where the researcher proposed that in the case of Nigeria that *value-added tax and petroleum profit tax* has a positive connection with the growth of economy in terms of rising GDP as well as customs duties and excise duties have a negative association with the GDP. These findings were developed by using the ARDL method on time series data collected for *petroleum profit tax (PPT)*, *value-added tax (VAT)*, *company income tax (CIT)*, and *excise and customs duties (ECD)*. These findings suggest effective utilisation of so as to enhance the influence of tax on the economy as tax benefit rather than negative impacts. The findings also suggest that the tax slab should be higher for the main economic base of the country; for instance, in Nigeria, profit tax is imposed in the petroleum sector as its main economic sector, similarly in Pakistan Agriculture sector being the main economic base, must be taxed in higher terms, and same is the case with value-added tax (Hassan et al., 2015). This is because the net earnings of these firms are much higher than that of other industrial sectors. However, in Pakistan, current tax policies signifies that the agricultural sector is charged with less or low tax charges and primary tax revenue as a tax against individual household income or taxes on salaries (Stoilova and Patonov, 2013). This limits, buying power of the household, reducing the consumption and spending cycle, leading population to save rather

than spending. This limits velocity of money in the economy, and entire GDP is disrupted (Odum et al., 2018).

Moreover, another theme that can be developed is "Earnings and corporate levies both are the leading tax factors for administrations" from the study of Durusu-Ciftci et al. (2018). The same is the case with Pakistan that both of these taxes have major economic effects. The panel discoveries for thirty OECD states for the tenure from 1995 to 2016 specify that just tax and levy on consumption has a significant and negative influence on long-run earnings. Though, as type and sign of coefficients of tax are varied for the state-specific consequences, it was concluded that taxation has varied impacts on income. Though in the case of Pakistan, the population have slight consideration for communal welfare, they attempted to avoid tax payments.

Further, taxes and levies are likewise not paid as of political support. Therefore, Pakistan has formulated taxation policies with high reliance on indirect levies and taxes on products and services as these are complex to avoid and levies on tax on income. However, developed countries rely more on direct taxes (Egbunike et al., 2018). These taxes form 38% of the aggregate revenue from the tax in Pakistan that also shows ineffective tax policies. Direct taxes on income directly impact low, and high-income earners and sales tax charged against basic commodity lead to price hike causing inflation. This leads to a low economic cycle, and thus economic growth is hindered (Odum et al., 2018).

Another theme can be developed from the results of McNabb, 2018 that "taxes and government expenditure are negatively correlated". This implies that when government expenses are low, economic growth is hindered. The researcher utilised panel data for the period of twenty five years from 1975 to 2011. The data was collected for 25 OECD rich states and discovered the adverse association amongst corporate earnings levies and growth of economy. It was determined that a higher rate or charge of tax impacts growth of economy adversely or negatively. Though in order to stabilize or grow the economy of Pakistan, it is essential that government should impose a lesser tax charge to maximise tax incomes through

higher spending and earnings from sales tax, and that earnings could be spent on increasing industrial efficiency. Increasing tax revenue with encouraging spending is more beneficial rather than increasing tax slab or rate, which limits spending (Stoilova and Patonov, 2013).

Moreover, another theme that can be developed is "indirect levies or taxes have a negative and substantial influence on the growth of economy in Pakistan. In this regard, Ahmad et al. (2018) used Augmented Dickey-Fuller unit root tests to examine the stationary of each variable in the investigation. *Auto-Regressive Distributed Lag (ARDL)* and *bounds test* method for co-integration was smeared to project and analyse the long and short-term association amid the economic indicators. It was indicated by the results that if one per cent augmentation in indirect levies or tax charge, economic progress could descend by 1.68%. Coefficient of ECM of indirect taxes demonstrates a 45% adjustment velocity in a fiscal year.

Consequently, in perspective of the current tax policy of Pakistan, this study implies that it is domineering to reduce indirect taxes and augment the direct taxes if the government wants to amplify the growth of the economy. This is because currently, direct taxes contribution among aggregate revenue from the tax is just 33%, and the contribution of indirect taxes is almost 63%. In contrast, it must be reversed to ensure amplification of economic growth (Hassan et al., 2015).

Above results provisions the results provided by Andrasic et al. (2017) where it was also found that personal income taxation has a weak relationship with the GDP growth; however, the government is suggested to lessen the tax slab or tax rate on personal income and increase corporate tax rates particular on the sector on which economy is based and the sector which generates most considerable income that is agriculture in case of Pakistan. The research also found an adverse affiliation amongst personal income tax and economic progress in the US using the ARDL causality model.

Moreover, Ahmad, Ahmad and Yasmeen (2013) also supports the findings from above discussed themes in the light of existing researchers where Ahmad et

al. (2013), by using the ADF and ARDK approach, concluded that the taxation and rate of exchange have the significant and adverse effect on the economic progress both in *short and long-term* cases. The researcher collected time-series data for 35 years from 1976 to 2011 and growth of economy was as measured by GDP and rate of tax was taken as a percentage of GDP.

Another theme is developed as "Sales tax, and other indirect tax significantly are positively and related with economic growth of Pakistan". In this regard, Munir and Sultan (2018) examined the effect of taxes and levy charge on economic development in the long as well as short run. The research used time-series data where real GDP was taken as a dependent factor, and diverse taxes were considered predictor variables. The researcher also used the ARDL model to analyse data obtained from 1976 to 2011 in terms of yearly frequency. The fallouts of this study indicated a positive link of taxes with economic growth. Particular sales tax and trade taxes were found to enhance the country's economic growth in both the short and long term. However, the researcher also concluded that income taxes hinder or adversely influence economic growth in the short-term period because real earnings or income tends to decline due to heavy tax payments. Therefore, in terms of policy implications, the government must upsurge taxes by augmenting tax foundations. Indirect tax normally indicates negative influence after one or two years. Consequently, the administration must reduce its dependency on indirect taxes. On the other hand, the government can also promote awareness regarding tax payments among the individuals, which enhance the tax morale of the population with an enhanced tax base.

5. Conclusion and Recommendation

Above review, the article leads to several conclusions. At first, it can be concluded that the tax charge is negatively and significantly impacting on the economic growth of Pakistan both in the case of short and long-run. In contrast, higher tax against income limits savings and spending, which leads to low consumption and overall GDP is disrupted both in short and long-run. Pakistan is

confronting enhancing socio-economic issues such as political variability, crime, poverty, unemployment, lesser rate of literacy and the law and order situation and crisis of energy as well; in this perspective, people feel insecure in terms of income if the government imposes heavy tax payments which brings inflation as well. This can also avert investors to invest in Pakistan due to insecurity that further economic activities Pakistan because industries lack capital. All these aspects widely impact the economic performance of any economy and outcomes as a declined level of GDP. Pakistan relies on taxes from indirect sources, and indirect taxes relies on the sale of services and goods. Due to these kinds of taxes and citizens are adversely affected. Thus, the study concludes that tax collected from indirect sources could have a substantial and adverse influence on economic development in the long term. Rendering to the results, it could be imperative to reduce the indirect taxes if the administration wants to amplify economic growth. In current times, the contribution of direct taxes out of entire revenue from taxes is just 37%, and the contribution of tax from indirect sources is 63%. Thus it needs to be vice versa if the government needs to enhance economic growth.

In terms of policy recommendations, it is suggested that the country is required to descend its direct taxes. In the procedure of collection of tax, political uncertainty is a huge obstacle, whereas law and order position is circuitously associated with taxation. Constancy of the economies signifies higher investment and obtainability of additional jobs. Moreover, primary aspect of the rapid economic growth is to appeal to international financiers in the country. And this can be attained by relaxed fiscal policy such as low trade and international investment tariffs. Thus, tax changes in fiscal aspects rather than monetary aspects can be proven as a useful tool to attain and sustain economic stability in Pakistan in the long run. Additionally, it can also be proposed that the tax system must be rendered to the mortars of productivity, convenience, equity simplicity, diversity, benefit, economy, certainty, elasticity, convenience and standards of co-ordination to get the aim of high economic growth using reforms in taxation.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

UNDER PEER REVIEW

References

- Ahmad, N., Ahmad, A. and Yasmeen, K., 2013. The Impact of Tax on Economic Growth of Pakistan: An ARDL Approach. *Journal of Basic and Applied Scientific Research*, 3(11), pp.392-398.
- Ahmad, S., Ali, M., & Khan, S. 2020. The Impact of Taxation on Economic Growth Using ARDL Approach: A Case Study of Pakistan. *Journal of Finance and Economics Research*, 5(2), 89-95.
- Ahmad, S., Sial, H. M., & Ahmad, N. 2018. Indirect taxes and economic growth: An empirical analysis of Pakistan. *Pakistan Journal of Applied Economics*, 28(1), 65-81.
- Chughtai, M.W., Malik, M.W. and Aftab, R., 2015. Impact of Major Economic Variables on Economic Growth of Pakistan. *Acta Universitatis Danubius: Oeconomica*, 11(2).
- Dackehag, M. and Hansson, A., 2012. Taxation of income and economic growth: An empirical analysis of 25 rich OECD countries. *Journal of economic development*, 21(1), pp.93-118.
- Durusu-Ciftci, D., Gokmenoglu, K. K., & Yetkiner, H. 2018. The heterogeneous impact of taxation on economic development: New insights from a panel cointegration approach. *Economic Systems*, 42(3), 503-513.
- Egbunike, F.C., Emudainohwo, O.B. and Gunardi, A., 2018. Tax revenue and economic growth: A study of Nigeria and Ghana. *Signifikan: Jurnal Ilmu Ekonomi*, 7(2), pp.213-220.
- Hassan, B., 2015. The role of value-added tax in the economic growth of Pakistan. *International Journal of Public Policy*, 11(4-6), pp.204-218.
- Kalaš, B., Mirović, V. and Andrašić, J., 2017. Estimating the impact of taxes on the economic growth in the United States. *Economic Themes*, 55(4), pp.481-499.

- Kalaš, B., Mirović, V. and Andrašić, J., 2018. Empirical analysis of value added tax and inflation rate: Tuckey's HSD test in selected Western Balkan countries. *Ekonomika*, 64(2), pp.99-109.
- McNabb, K. 2018. Tax structures and economic growth: new evidence from the government revenue dataset. *Journal of International Development*, 30(2), 173-205.
- Munir, K. and Sultan, M., 2018. Are some taxes better for growth in Pakistan? A time-series analysis. *International Journal of Social Economics*.
- Nwanakwere, J. T. 2019. Tax and Economic Growth in Nigeria: An ARDL Approach. *JurnalEkonomi&Studi Pembangunan*, 20(2), 124-134.
- Odum, A.N., Odum, C.G. and Egbunike, F.C., 2018. Effect of Direct Income Tax on Gross Domestic Product: Evidence from the Nigeria Fiscal Policy Framework. *Indonesian Journal of Applied Business and Economic Research*, 1(1), pp.59-66.
- Romer, C.D. and Romer, D.H., 2010. The macroeconomic effects of tax changes: estimates based on a new measure of fiscal shocks. *American Economic Review*, 100(3), pp.763-801.
- Stoilova, D. and Patonov, N., 2013. An empirical evidence for the impact of taxation on economy growth in the European Union. *Tourism & Management Studies*, pp.1031-1039.