EVALUATING THE IMPACT OF DIRECT TAXES ON ECONOMIC GROWTH: EMPIRICAL EVIDENCE FROM JORDAN

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ABSTRACT

Existing literature reports contradictory findings about the impact of direct and indirect taxes on economic growth of different economies. In this regard, the objective of the current research is to investigate the impact of direct taxes on the economic growth of Jordan. GDP is considered an indicator of economic growth, so the impact of direct taxes is evaluated using the GDP of Jordan. The study has adopted a quantitative research approach using the autoregressive distributed lag (ARDL) technique. The findings of the study indicate that direct taxes (DT) have a significant negative effect on the economic growth of Jordan. This current research has significant implications for the Jordanian government and the policymakers of the Jordanian economy, and it is recommended that they should make significant modifications in levying direct taxes in a way that will contribute positively to the economic development of the country.

Contribution/Originality: This study contributes significantly to the literature of economic growth and tax laws, especially in the Jordanian context. Moreover, it contributes to the knowledge of the Jordanian public, government and policy makers that they need to revise the taxation laws to eliminate their negative impact on the economic growth of Jordan.

1. INTRODUCTION

Governments finance their expenditures by imposing taxes on the public, which are levied to taxpayers depending on their income brackets. Governments design different policies for the collection of taxes and ensure that the taxpayers are making appropriate payments for a determined time period, while governments also offer tax relief and allowances for positive individual behaviors. In terms of the economy, taxes transfer the wealth of businesses and households to the government, while the government ensures the use of this wealth for public wellbeing in terms of infrastructure, health systems, roads, defense, schools, law and court systems and enhancement of the economy. However, all governments do not successfully accomplish this.

Tax must be paid by the public to contribute to the state budget according to the regulations of the state. Tax is not only the source of revenue for a state's spending needs but it also helps governments to regulate the economy with a responsibility to mobilize financial resources with sufficient capacity and regularity. Through taxes, governments not only generate revenue for their spending needs but also direct the balance of production and consumption by regulating the behaviors of businesses and individuals. A suitable and appropriate tax policy

contributes to the promotion of economic growth, while an unreasonable tax regime has a negative impact on economic growth and halts the consumption behavior of individuals.

Taxes are mainly levied in two ways. Direct taxes (DT) are levied directly on taxpayers who are obliged to bear the burden and these taxes cannot be transferred to any other individual; indirect taxes (IDT), for which the taxpayers do not bear the economic burden, are collected from the intermediaries. So, the two types of taxes differ in terms of their revenue base, their collection process, and bearers of the economic burden; therefore, the two taxes also have different effects on the economic growth of the nation. An appropriate combination of these taxes may contribute positively to economic growth, otherwise these may also have adverse effects (Nguyen, 2019). This research focuses on the effect of DT on economic growth by providing evidence from Jordan.

The impact of direct and indirect taxes on economic growth has been reported in previous literature for different economies. Similarly, studies have also reported the impact of overall taxes in the context of Jordan, but very limited evidence is provided. Literature also lacks evidence of the impact of direct taxes on the economic growth of Jordan. Therefore, there is a need to highlight the role of direct taxes in Jordan's economic growth so that the government and concerned authorities can plan accordingly.

Thus, by studying the impact of direct taxes on economic growth in Jordan, the current research aims to fill this gap in the literature. It not only also contributes to literature but also to the knowledge of Jordanian government officials, economists, and policymakers. In light of the findings, the concerned authorities can develop policies accordingly so that the tax structure in Jordan is in favor of the economic growth of the country. The current research also contributes to the knowledge of the Jordanian public so they should be aware of how the taxes paid by them are contributing to the economic growth of their country. This study is a novel contribution to the literature because rare evidence is found in literature on the impact of direct taxes on economic growth in the context of Jordan. However, the relationship between taxes and the economy has been studied in different aspects, but such direct relationships indicating the impact of direct taxes are rarely reported.

1.1. Jordanian Tax System

The taxation system in Jordan differs from other countries because the income generated from worldwide sources (outside Jordan) is not taxable in Jordan, but the income generated within Jordan is taxable for both resident Jordanians and non-residents. Even the multinational companies operating in Jordan are obliged to pay taxes on the income that is generated in Jordan because they are considered residents and are generating income from the utilization of Jordanian sources. Therefore, the taxable income in Jordan is defined as "the income derived from Jordan or from Jordanian sources through income from dividends" (ISTD, 2022). The Income and Sales Tax Department in Jordan is run by The Ministry of Finance, which determines the tax rates for individual and corporate incomes at different rates. Some important taxes levied in the Jordanian economy include corporate income tax, value-added taxes, personal income tax, and local income tax, which is levied on certain items such as consumption tax, property and transfer property tax, income tax, stamp duty, and social security contributions (ISTD, 2022).

1.2. Problem Statement

Researchers have so far reported the contribution of various factors towards economic growth, but the relationship of economic growth with the tax system, tax revenues, or different types of taxes is among the most controversial areas of literature. Although various factors determine the economic growth of a country, taxes are found to have more dominating direct and indirect effects on economic growth. The tax revenue of the Jordanian government has been increasing with each passing year reaching JOD 605.60 million by December 2021, which is almost 16% of the Jordanian national product (World Bank, 2022). This indicates that government revenue occupies a huge part of the gross national product. Figure 1 shows the motivation for this current research.
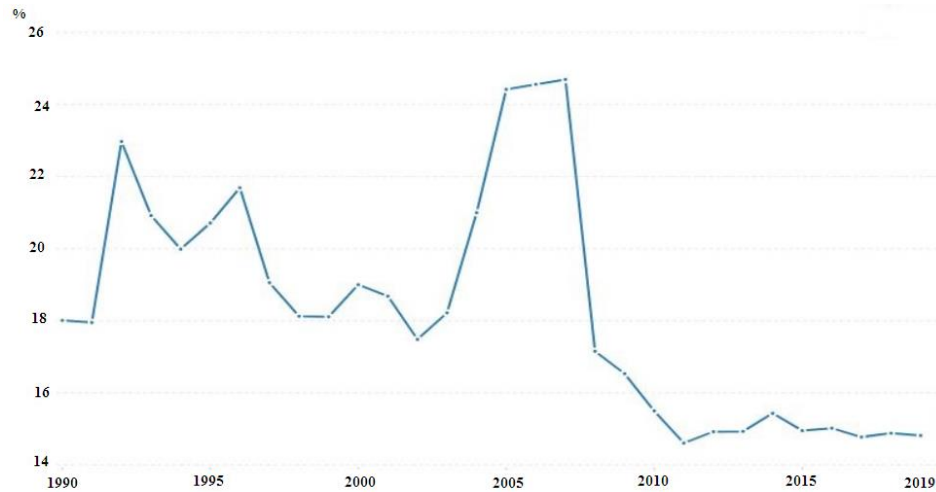
Figure 1. Tax revenue percentage of GDP from 1990–2019 (Jordan).
Source: World Bank (2022).

1.3. Research Objective

Direct (DT) and indirect (IDT) taxes differ in their effect on the economic growth of a country (Korkmaz, Yilgor, & Aksoy, 2019), but this study only focuses on investigating the effect of DT because these are the taxes where the taxpayer has to bear the ultimate burden that cannot be transferred to anyone else. The main objective of the current research is to assess the impact of direct taxes (DT) on the economic growth of Jordan.

Section 2 incorporates the review of previous relevant studies that helps to propose the hypothesis for the current study, which is further tested through the data analysis technique elaborated in Section 3. Empirical findings from the analysis are detailed in Section 4, and Section 5 contains the conclusion.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The association of taxes with economic growth has been investigated by many researchers, mostly indicating that taxes positively influence economic growth (Gashi, Asllani, & Boqolli, 2018; Owino, 2018; Rahul, 2015). However, some researchers have also reported the absence of a relationship between taxes and the economic growth of certain countries (Gbato, 2017; Mehrara, Masoumib, & Barkhi, 2014). Specifically investigating the relationships between economic growth, indirect taxes, and direct taxes, the studies have reported contradictory findings, with some indicating direct taxes as the focus of governments, while others report indirect taxes as governments' priority (Gbato, 2017; Owino, 2018).

The fiscal policy of a country plays a significant role in the regulation of revenues, public debt, and government expenditures, with the intention that fiscal tolerance will be achieved gradually over time (Rasheed & Tahir, 2012). It also incorporates various policy issues such as government contributions toward economic development and growth, the suitable size of the state, redeployment of the benefits earned from the economic growth, social development, enhancement of employment opportunities, provision of social justice by eliminating the wealth and income inequality among different income classes and generations, and assurance of economic efficiency through the appropriate allocation of resources (Padda & Akram, 2010).

The policies announced by governments have a significant impact on different aspects of the economy and the individuals residing there (Rasheed, Ahmad, & Javid, 2021a). Different public policy instruments affect the economy in different ways, but among all these, the changes in tax rates have quite different effects. Various studies have reported the relationship between economic growth and the revenue policies of the government (Anastassiou & Dritsaki, 2005; Muriithi, 2013; Rasheed, Ahmad, & Javid, 2021b; Stoilova & Patonov, 2013).

Ferede & Dahlby (2012) investigated the relationships between income tax rates, private investments, and economic growth. Using panel data for almost 30 years, the study reported that the increase in corporate income

taxes results in reducing economic growth and private investments. Anastassiou & Dritsaki (2005) investigated the relationship between economic growth and tax revenues in Greece. The study indicated that tax revenues have a unidirectional relationship with the economic growth of the country. Similarly, Kesavarajah (2014) indicated a unidirectional association of value-added taxes, income taxes, and international taxes with the economic growth in Sri Lanka. However, studies have indicated different types of relationships between taxes and economic growth in different economies. Dehghan & Nonejad (2015) indicated a negative impact of different taxes, including indirect taxes and business and corporate taxes, on economic growth in Iran, while Stoilova & Patonov (2013) indicated an efficient effect of direct taxes on the economic growth of EU member countries, and Muriithi (2013) indicated a positive impact of value-added taxes on economic growth in Kenya.

Iqbal, Azam, & Shinwari (2015) reported a positive impact of general taxation on the economic growth of Pakistan, arguing that the taxes collected are spent on different projects that contribute to the growth of the economy. Ahmad, Sial, & Ahmad (2018) investigated the impact of direct taxes on Pakistan's economy and reported that indirect taxes negatively influence the economic growth of the country, especially in the long run. Similar findings are also reported by Aamir et al. (2011), indicating that indirect taxes have a significant negative impact on the economic growth of Pakistan. The study also compared the tax structure in India's economy, which has a major focus on direct taxes. The study reported a positive impact of direct taxes on the economic growth of India.

Babatunde, Ibukun, & Oyeyemi (2017) also reported a positive impact of tax revenues on economic growth in Africa, indicating that the revenue collected from taxes contributes to the growth and development of the economy. The tax collections are not only utilized by the government for their own expenditures but also contribute significantly to the prosperity of the economy in different ways. Similarly, Kalas, Mirovic, & Andrasic (2017) and Geetanjali & Venugopal (2017) also reported the positive impact of tax revenue increased the economic growth of America and India, respectively. The authors indicated that when the tax revenue increases in the economy, the governments make different investments in projects that ultimately contribute to the growth of the economy.

Egbunike, Emudainohwo, & Gunardi (2018) studied the relationship of tax revenues with economic growth in Benin and found a positive impact of increased tax revenues on economic growth. An increase in tax revenue is also an indication that the economy is flourishing and the income levels in the economy are rising, hence they are able to pay more tax to contribute to their economy. In return, the governments collecting increasing amounts of taxes are able to spend these revenues on economic development and growth. All the above-mentioned studies have reported a positive contribution of taxes toward the economic growth of different countries.

Literature also provides evidence of negative impacts of taxes, indicating that taxes impose a burden on the public and the overall economy (Ogundana, Ogundana, Ogundana, Ibidunni, & Adetoyinbo, 2017). In this regard, Palić, Žmuk, & Grofelnik (2017) reported a significant negative impact of personal income taxes on the economic growth in Croatia. The authors indicate that personal income tax creates a burden for the public in a way that limits their spending power. People feel it as a burden, and because the taxes are not utilized in the most efficient manner, there is a negative impact on the economic growth of the country.

Macek (2015) also reported that personal income taxes and corporate income taxes have a significant negative impact on economic growth. Moreover, value-added taxes were also found to have a negative impact on economic growth. The authors suggested that both personal income and corporate income tax rates should be reduced. On the other hand, the governments can increase the rates of indirect taxes so that the decline in revenues can be adjusted.

Ogundana et al. (2017) investigated the relationship between direct and indirect taxes on economic growth separately, and they reported that, although indirect taxes were found to contribute positively to the economic growth of Kenya, direct taxes were found to have a negative impact. Similarly, Mdanat et al. (2018) studied the relationships between tariffs, consumption, and income taxes with the economic growth of Jordan measured by the GDP growth of the country. The study indicated a positive relationship between tariffs and consumption with GDP, while income taxes were found to have a negative impact. All these studies indicate the relationship of tax revenues, tax rates,

general taxation, etc., with the economic growth of different economies. The studies indicate that different types of taxes have different impacts on economic growth. Moreover, the impact also varies from economy to economy. But most of the studies indicate similar findings, i.e., that indirect taxes have a positive impact on economic growth and direct taxes have a significant negative impact on economic growth. Literature reports rare evidence for the separate impacts of direct or indirect taxes on economic growth, especially in the context of the Jordanian economy. In most economies, direct taxes are found to have a negative impact on economic growth, therefore this research specifically studies the impact of direct taxes on the economic growth of Jordan. It is assumed that, like most economies across the globe, direct taxes also have a negative impact on the economic growth of Jordan. In this regard, the following hypothesis is proposed:

Ho: Direct taxes (DT) have a negative impact on the economic growth of Jordan; DT negatively affects the GDP of the Jordanian economy. The next section elaborates on the research methodology adopted by the current research to test the hypothesis.

3. RESEARCH METHODOLOGY

The current study is based on a quantitative research approach as it investigates the impact of DT on the GDP (economic growth) of the Jordanian economy. It incorporates secondary quantitative data for the period from 2000 to 2021, which is analyzed using the autoregressive distributed lag (ARDL) approach. The data was collected from the official site of the Jordanian e-government (https://portal.jordan.gov.jo) and from the website of the World Bank (http://data.worldbank.org). The variables under study are initially switched to their natural logarithms (Shahbaz, Hye, Tiwari, & Leitao, 2016) so that consistent results could be achieved. For the empirical estimation of the proposed hypothesis2, the relationship of the variables under **study is stabilized** through the following model:

$$LGDP_t = a_0 + a_1 LDT_t + \varepsilon_t \text{ (1)}$$

$LGDP_t$ indicates the natural logarithm of GDP as an indicator of economic growth and is the dependent variable of the study. LDT_t is the natural logarithm of DT, and a_1 is the cointegrating vector that indicates the relationship among the variables.

Table 1. Descriptive statistics.

Stat.	LGDP	LDT
Mean	23.50	21.74
Median	23.68	21.82
Maximum	24.18	22.34
Minimum	22.51	20.85
Standard Deviation	0.60	0.49
Skewness	–0.45	–0.76
Kurtosis	–1.43	–0.69
Jarque–Bera	4.652	3.796

3.1. Descriptive Statistics of Variables

Table 1 contains the values of the descriptive statistics for each variable. The values of skewness and kurtosis are in the normal range, meaning that the data is not skewed or complicated. Moreover, the insignificant Jarque–Bera values indicate that the data for both variables are normally distributed. Further, to avoid the problems of spurious regression (Newbold & Granger, 1974), checking the stationary form of the time series data becomes imperative. For this purpose, the augmented Dickey–Fuller (ADF) test is employed (Phillips & Perron, 1988).

3.2. ARDL (Autoregressive Distributed Lag) Approach

The ARDL bounds test was developed by Pesaran, Shin, & Smith (2001) and is used to investigate the long-term relationship among variables. It provides a better indication of the long-run relationship compared to traditional cointegration testing (Rasheed & Tahir, 2012) and has several advantages comparatively (Rasheed et al., 2021b). It

allows the incorporation of variables with different levels of integration, and the error correction model (ECM) can be derived from this approach. It helps to indicate the short- and long-term dynamics of the relationships and provides reliable results even for smaller sample sizes (Pesaran et al., 2001).

4. RESULTS AND DISCUSSION

To test the stationary form of the data, the Phillips–Perron (PP) and the augmented Dickey–Fuller (ADF) unit root tests are employed. The results for both tests are reported in Table 2.

Table 2. Unit root test results.

Variable	PP	ADF
LGDP	–1.89	–2.320
	–4.16	–4.15
ΔLGDP	–7.496	–7.026
	–4.16*	–4.15*
LDT	–4.572	–4.619
	–4.15*	–4.15*

Note: * indicates significance at the 1% level. Lower values in the columns indicate the test statistics using SIC (Schwarz information criterion).

The test results reported in Table 2 indicate that one of the variables is stationary at I(0) and the other is stationary at I(I), so the use of the ARDL bounds test is suitable for studying the relationship among these variables because it allows us to examine the relationship among variables with an integration of level I(0) or I(I) but not I(II). The results indicated that the data series for DT is trend stationary, while the data series for GDP is found to be non-stationary. The unrestricted error correction model (ECM) has a deterministic trend. The relationship of change in GDP (economic growth) with DT is modeled as follows:

$$LGDP_t = a_0 + a_1 LGDP_{t-1} + a_2 LDT_{t-1} + \sum_i^n \gamma \Delta LGDP_{t-i} + \sum_j^p \delta \Delta LDT_{i-j} + \beta trend + \varepsilon_t \quad (2)$$

In the above model, coefficients Υ and δ indicate the short-term relationships, while the α coefficients indicate the long-term relationships. The ARDL approach tests the following hypothesis indicating the non-existence (H_0) or existence (H_1) of cointegration among the variables.

H_o: $a_0 = a_1 = 0$ (Non-existence of cointegration among the series).

H_1: $a_0 = a_1 = 0$ (Existence of cointegration among the series).

The hypothesis is tested through the F-test, while the optimal lag length for the model is estimated (3, 1) through the Akaike information criterion. The estimated test value (13.89) at a 5% significance level is above the upper bound CV (8.71), indicating the presence of cointegration between Jordanian DT and economic growth (see Table 3).

Table 3. Results of cointegration (ARDL bounds test).

Model	Optimal Lag	F-statistic	Lower Bound	Upper Bound	Sig. Level
LGDP=f(LDT)	(3.1)	13.89	4.39	5.43	10%
			5.32	6.43	5%
			7.42	8.71	1%

The test results reported in Table 4 indicate a negative effect of DT on GDP (economic growth), i.e., a 1% increase in DT results in a 20% decrease in GDP. The fixed coefficient was found to be insignificant, while the trend was found be statistically significant.

Table 5 shows the results of the ECM estimation. The Cointeq. (-1) indicates the speed of adjustment for long equilibrium. The values of the Cointeq. (-1) coefficient were found to be significantly negative at the 1% significance level, which indicates that 25% of the disequilibrium in the previous time period is corrected in the following period.

DT was also found to have a significant negative relationship with GDP in the short term. This indicates that, in the short run, the increase in DT has a negative impact on the GDP (economic growth) of Jordan.

Table 4. Long-run relationship test results (ARDL test).

Variable	Coefficient	t-stat.	p-value
LGDP(-1)	0.432	3.21	0.002
LGDP (-2)	-0.098	-0.75	0.513
LGDP (-3)	0.109	0.67	0.003
LDT	0.315	0.31	0.219
LDT (-1)	-0.206	3.28	0.001
C	-0.598	-0.87	0.876
@trend	-0.0056	-2.93	0.002

Table 5. Estimation of ECM approach.

Variable	Coefficient	t-stat.	p-value
LDT	-0.391	-2.31	0.002
Cointeq.(-1)	-0.254	-3.47	0.001

Note: EC = LGDP_SA-(-0.391*LDT_SA.

5. CONCLUSION AND IMPLICATIONS

Tax collection by governments is purely to ensure the availability and sustainability of public services including education, infrastructure, health care, public investments and the overall economic development of the country. Especially in developing economies, the tax revenues are used for different aspects of economic development. Therefore, the taxation policies are also established accordingly with core objectives to provide incentives for the private sector to support their investments, to regulate the appropriate allocation of resources, to control inflation, create resources for the public sector, and to eliminate the inequality of wealth and income among different classes. Hence, the changes in taxation policy and, ultimately, the changes in tax rates, significantly influence the economic growth of the country. Two forms of taxes are levied: direct taxes (DT) which are paid by the taxpayer directly, and indirect taxes where the burden is transferred to an intermediary. This study has investigated the impact of DT on the economic growth of Jordan. GDP was used as an indicator of economic growth, so the relationship of DT with economic growth (GDP) was tested using ARDL approach because the variable GDP was found to be non- stationary. The estimation results indicate that DT has a negative impact on the GDP (economic growth) of Jordan in the long run as well as the short run, which indicates that an increase in DT causes a decline in economic growth in Jordan. The data shows that the government revenue has been increasing over the years, which also indicates that an increase in DT is a negative sign for the Jordanian economy. In light of the findings of this research, DT imposes a burden on the public as well as on the overall economy of the country. However, although tax revenues are used in favor of the public, when these taxes are causing a negative impact on the economic growth of the country, how can this be in the favor of public?

This research has significant implications for the Jordanian government and the concerned authorities. It is recommended that they review their tax policies and revise the direct tax rates. Reducing the rates of DT will work in favor of the economic development of the country. Moreover, reduced tax rates will contribute to the consumption habits of the public, which could be a better contribution toward economic growth to revive businesses in an economic crisis situation.

The government and concerned authorities must work on making a positive contribution of tax revenues toward the economic growth of Jordan. This could be done by creating harmony between the direct and indirect taxes so that the financial resources can be mobilized sufficiently, and the governments' spending needs can also be fulfilled. The government could also restructure Jordan's tax system and reduce the proportion of direct taxes so that the burden could be eliminated from the public. The decline in revenue could be compensated by increasing the proportion of the

indirect taxes. The Jordanian government must also focus on revising the rates of corporate income taxes, especially for small and medium enterprises, so that they can focus on the establishment of their business, which will be a positive contribution to economic growth. Furthermore, reducing the income tax rate may have a significant impact on the employment rate of the country, which would ultimately be a positive contribution to economic growth. On the other hand, the rate for VAT could be increased, which could be a great contribution to increasing the governments' revenue while not having any significant negative impact on the economic growth of the country.

REFERENCES

Aamir, M., Qayyum, A., Nasir, A., Hussain, S., Khan, K. I., & Butt, S. (2011). Determinants of tax revenue: A comparative study of direct taxes and indirect taxes of Pakistan and India. *International Journal of Business and Social Science, 2*(19), 173-178.

Ahmad, S., Sial, H., & Ahmad, N. (2018). Indirect taxes and economic growth: An empirical analysis of Pakistan. *Pakistan Journal of Applied Economics, 28*(1), 65-81.

Anastassiou, T., & Dritsaki, C. (2005). Tax revenues and economic growth: An empirical investigation for Greece using causality analysis. *Journal of Social Sciences, 1*(2), 99-104.Available at: https://doi.org/10.3844/jssp.2005.99.104.

Babatunde, O. A., Ibukun, A. O., & Oyeyemi, O. G. (2017). Taxation revenue and economic growth in Africa. *Journal of Accounting and Taxation, 9*(2), 11-22.Available at: https://doi.org/10.5897/jat2016.0236.

Dehghan, M., & Nonejad, M. (2015). The impact of tax rates on economic growth of Iran in the Years 1981-2010. *Journal of Finance and Accounting, 3*(6), 220-226.Available at: https://doi.org/10.11648/j.jfa.20150306.18.

Egbunike, F. C., Emudainohwo, O. B., & Gunardi, A. (2018). Tax revenue and economic growth: A study of Nigeria and Ghana. *Journal of Economics, 7*(2), 213-220.Available at: https://doi.org/10.15408/sjie.v7i2.7341.

Ferede, E., & Dahlby, B. (2012). The impact of tax cuts on economic growth: Evidence from the Canadian provinces. *National Tax Journal, 65*(3), 563-594.Available at: https://doi.org/10.17310/ntj.2012.3.03.

Gashi, B., Asllani, G., & Boqolli, L. (2018). The effect of tax structure in economic growth. *International Journal of Economics & Business Administration (IJEBA), 6*(2), 56-67.

Gbato, A. (2017). Impact of taxation on growth in Sub-Saharan Africa: New evidence based on a new data set. *International Journal of Economics and Finance, 9*(11), 172-193.Available at: https://doi.org/10.5539/ijef.v9n11p173.

Geetanjali, J., & Venugopal, P. (2017). Impact of direct taxes on GDP: A study. *IOSR Journal of Business and Management, 6*(1), 21-27.

Iqbal, N., Azam, M. F., & Shinwari, S. (2015). Empirical analysis of tax revenues and its impact on economic growth of Pakistan. *Journal of Economics and Sustainable Development, 6*(1), 110-117.

ISTD. (2022). Tax laws in Jordan. Income and sales tax department. Ministry of Finance. Jordan. Retrieved from https://istd.gov.jo/Default/EN/

Kalas, B., Mirovic, V., & Andrasic, J. (2017). Estimating the impact of taxes on the economic growth in the United States. *Economic Themes, 55*(4), 481-499.Available at: https://doi.org/10.1515/ethemes-2017-0027.

Kesavarajah, M. (2014). Tax composition and output growth: Evidence from Sri Lanka. *Staff Studies Central Bank of Sri Lanka, 44*(1&2), 33-67.Available at: https://doi.org/10.4038/ss.v44i1-2.4693.

Korkmaz, S., Yilgor, M., & Aksoy, F. (2019). The impact of direct and indirect taxes on the growth of the Turkish economy. *Public Sector Economics, 43*(3), 311-323.Available at: https://doi.org/10.3326/pse.43.3.5.

Macek, R. (2015). The impact of taxation on economic growth: Case study of OECD countries. *Review of Economic Perspectives, 14*(4), 309-328.Available at: https://doi.org/10.1515/revecp-2015-0002.

Mdanat, M. F., Shotar, M., Samawi, G., Mulot, J., Arabiyat, T. S., & Alzyadat, M. A. (2018). Tax structure and economic growth in Jordan, 1980-(2015). *EuroMed Journal of Business, 13*(1), 102-127.Available at: https://doi.org/10.1108/emjb-11-2016-0030.

Mehrara, M., Masoumib, M., & Barkhi, F. (2014). The effect of fiscal shock on inflation and economic growth in developing countries. *International Letters of Social and Humanistic Sciences, 41*, 184-191.Available at: https://doi.org/10.18052/www.scipress.com/ilshs.41.184.

Muriithi, C. (2013). The relationship between government revenue and economic growth in Kenya. *International Academic Journal of Information Sciences and Project Management, 1*(1), 87-109.

Newbold, P., & Granger, C. W. (1974). Spurious regressions in econometrics. *Journal of Econometrics, 2*(2), 111-120.Available at: https://doi.org/10.1016/0304-4076(74)90034-7.

Nguyen, H. H. (2019). Impact of direct tax and indirect tax on economic growth in Vietnam. *The Journal of Asian Finance, Economics and Business, 6*(4), 129-137.Available at: https://doi.org/10.13106/jafeb.2019.vol6.no4.129.

Ogundana, O. M., Ogundana, O. M., Ogundana, O. M., Ibidunni, A. S., & Adetoyinbo, A. (2017). Impact of direct and indirect tax on the Nigerian economic growth. *Binus Business Review, 8*(3), 215-220.

Owino, O. B. (2018). The trade off between direct and indirect taxes in Kenya: An empirical analysis. *Journal of Economics and Development Studies, 6*(4), 187-201.Available at: https://doi.org/10.15640/jeds.v6n4a16.

Padda, I. H., & Akram, N. (2010). The impact of tax policies on economic growth: Evidence from Asian Economies. *The Pakistan Development Review, 49*(4), 961-971.Available at: https://doi.org/10.30541/v48i4iipp.961-971.

Palić, I., Žmuk, B., & Grofelnik, B. (2017). The long-run impact of personal income taxation on economic development: Evidence from Croatia. *Croatian Review of Economic, Business and Social Statistics, 3*(1), 35-44.Available at: https://doi.org/10.1515/crebss-2017-0003.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics, 16*(3), 289-326.Available at: https://doi.org/10.1002/jae.616.

Phillips, P. C., & Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika, 75*(2), 335-346.Available at: https://doi.org/10.1093/biomet/75.2.335.

Rahul. (2015). Role of direct and indirect tax in development of Indian economy. *International Journal of Research in Finance and Marketing, 5*(12), 15-28.

Rasheed, H., & Tahir, M. (2012). FDI and terrorism: Co-integration & Granger causality. *International Affairs and Global Strategy, 4*(12), 1-5.

Rasheed, H., Ahmad, H., & Javid, A. Y. (2021a). Gold vs. PSX sectors during political uncertainties: An event study analysis. *Business Review, 16*(2), 1-20.

Rasheed, H., Ahmad, H., & Javid, A. Y. (2021b). Is gold a hedge and safe haven during political uncertainties. *Business & Economic Review, 13*(2), 1-28.

Shahbaz, M., Hye, Q. M. A., Tiwari, A., & Leitao, N. C. (2016). Economic growth, energy consumption, financial development, international trade and CO2 emissions in Indonesia. *Renewable and Sustainable Energy Reviews, 25*(1), 109-121.Available at: https://doi.org/10.1016/j.rser.2013.04.009.

Stoilova, D., & Patonov, N. (2013). An empirical evidence for the impact of taxation on economy growth in the European Union. *Tourism & Management Studies, 3*(2), 1031-1039.

Worldbank. (2022). Tax revenue of government: Ministry of Finance. Retrieved from: https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS?locations=JO.