DOI: https://doi.org/10.33916/qjae.2025.03222231

Assessing the Impact of Tax Incentives on Enhancing Foreign Direct Investment and Economic Welfare in Selected Oil-Producing Countries

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ISSN_{Online}: 2312-9883

 $ISSN_{Print}$: 1816-9171

Article history:

Received: 24/4/2025 Accepted: 3/6/2025

Available online: 15 /9 /2025

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Abstract : Achieving economic growth and development, along with improving the overall level of public welfare, is considered one of the fundamental goals of developing economies. In this context, governments utilize various policy tools, among which tax incentives play a particularly significant role. These incentives can enhance economic welfare by influencing the attraction of foreign direct investment (FDI). The present study aims to assess the impact of tax incentives on promoting foreign direct investment and economic welfare, using panel data from 15 selected oil-producing countries over the period 2010 to 2023. For data analysis, the Seemingly Unrelated Regression (SUR) approach within a system of simultaneous equations was employed. The results indicate that tax incentives have a positive and statistically significant effect on the inflow of foreign direct investment. Furthermore, FDI also exerts a positive and significant impact on countries' economic welfare. Accordingly, it is recommended that policymakers, in addition to considering the direct effects of FDI on welfare, pay particular attention to the indirect role of tax incentives through their influence on attracting FDI.

Keywords: Tax Incentives, Foreign Direct Investment, Economic Welfare, OPEC Member Countries.Retry, Claude can make mistakes. Please double-check responses.

INTRODUCTION: In today's world, achieving sustainable economic growth and enhancing social welfare are among the most critical objectives of policymakers, particularly in developing countries. These countries, which are often faced with challenges such as limited domestic resources, unstable government revenues, weak infrastructure, and social inequalities, seek to pave the way for development through targeted economic policies. In this context, investment plays an increasingly significant role as a driving force for production, employment, technology transfer, and enhancing economic productivity.

Within the framework of investment attraction policies, one of the commonly used tools—especially in developing countries—is the provision of tax incentives. These incentives are designed to encourage foreign investors to enter domestic markets and may include tax exemptions, reduced tax rates, tax credits, and deferred tax payments. The use of such instruments becomes particularly important in countries with abundant natural resources, such as oil-rich nations, due to their reliance on unstable oil revenues and the urgent need for economic diversification.

Despite the widespread use of these policies, a crucial question remains: Can tax incentives truly lead to an increase in foreign direct investment (FDI) and, ultimately, to improved economic welfare? Studies in some countries indicate that an increase in FDI does not necessarily result in better living standards or poverty reduction, and in some cases, may even exacerbate inequality. On the other hand, certain successful experiences show that foreign investments have led to infrastructure development, knowledge transfer, increased employment, and higher per capita income. Therefore, the relationship between tax incentives, foreign direct investment, and economic welfare is complex and requires more thorough investigation within a structural and comparative framework.

Oil-rich countries, especially the member states of the Organization of the Petroleum Exporting Countries (OPEC), despite their abundant resources, still face numerous challenges in achieving sustainable development and improving welfare indicators. Heavy dependence on oil revenues, volatility in energy markets, and vulnerable institutional structures have led these countries to seek solutions for diversifying their economies and attracting foreign capital. In this regard, tax policies can play either a facilitating or hindering role. However, the extent and effectiveness of these

policies depend on the countries' economic, institutional, and social conditions and require empirical analysis within a coherent framework.

Accordingly, the present study aims to structurally and simultaneously examine the impact of tax incentives on foreign direct investment and to evaluate their role in improving the economic welfare of selected oil-producing countries during the period 2010 to 2023. This research seeks to answer the question of the extent to which tax incentives can lead to the enhancement of economic welfare through the channel of attracting FDI, and whether this relationship is significant and effective in oil-dependent countries. In line with this, the main hypothesis of the study is formulated as follows: Tax incentives, by positively influencing the inflow of foreign direct investment, lead to the improvement of economic welfare in selected oil-producing countries.

2. Theoretical Foundations and Research Background

2-1. Conceptual Clarification and the Research Conceptual Framework

To accurately understand the theoretical framework of this study, it is necessary to first briefly yet comprehensively explain the three key concepts: tax incentives, foreign direct investment (FDI), and economic welfare. These concepts constitute the foundation for analyzing the interrelated dynamics within the study's conceptual model. The concept of "tax incentives" encompasses a wide range of tax exemptions, allowances, preferences, exclusions, and deferrals that appear in various articles of tax codes or investment schemes across many heterogeneous economies. Depending on the level of development of tax systems, these incentives are referred to as "tax credits," "tax reductions," "super deductions," "accelerated depreciation," "reduced tax rates," "timing differences," "targeted and subjective incentives such as R&D incentives," and "incentives related to special economic zones." Some of these reductions, such as tax credits, are directly deducted from tax liabilities, while others, like accelerated depreciation, are subtracted from the taxpayer's taxable income (Rezaei, 2022).

Foreign direct investment (FDI) is defined as a form of capital inflow into a foreign country whereby the foreign investor aims beyond short-term profit and seeks influence or ownership in the destination enterprise. This type of investment is often accompanied by technology transfer, productivity gains, and access to new markets (Yao et al., 2007). However, FDI may also lead to profit repatriation, thereby reducing its net positive impact on national welfare (Ackerman, 2017).

Economic welfare refers to the overall level of quality of life and social well-being in a country, encompassing indicators such as employment, income, education, health, and environmental sustainability. Economic welfare is a multidimensional concept, measured both through increases in income and gross domestic product (GDP), as well as through distributional and environmental indicators (Zelti, 2023). One of the primary channels through which welfare is impacted is investment, which contributes to growth, employment, and an increase in productive capacity.

Following the conceptualization of the key terms, the next step involves explaining how they interact and influence each other within a coherent framework. This section examines the theoretical relationships among tax incentives, foreign direct investment, and economic welfare, in order to lay the groundwork for constructing the study's conceptual model.

2-2. Relationship Between Tax Incentives and Foreign Direct Investment

Theoretically and practically, tax incentives in developing countries are bad for business [12:35] because they affect investment decisions without taking market dynamics into account. In impoverished countries, where governments are typically in collusion with corrupt private-sector actors, they are more susceptible to exploitation and generally ineffective (United Nations, 2023).

A comprehensive analysis of how tax incentives enhance the accompanying final investment may be impeded by reliance on publications from the International Monetary Fund. The complexity of investment and the fact that it is dependent on factors other than tax incentives became apparent to the author as a result of this (Sebele-Mpofu et al., 2022). Inadequate governance, inequality, corruption, lack of transparency, and bad tax systems may all contribute to tax avoidance and evasion, as stated by Alvik Padilla et al. (2020). In developing countries in particular, tax benefits are linked to illicit financial flows. Due to a lack of aggregated data on taxes and incentives in rising countries, it is difficult to comprehensively analyze the relationship between tax incentives and income in the context of growing investment. Research in this field is therefore lacking, particularly on the effects and costs of tax incentives (Stausholm, 2017). Sebele-Mpofu et al. (2022) note that international agencies like the OECD, the World Bank, and the International Monetary Fund have all aggressively advocated for this.

Arthur Laffer, an economist on the supply side, first developed the idea of the curve in 1974 to explain tax incentives. He reasoned that lowering tax rates would boost tax collection because of the link between the two. Latif et al. (2019) suggest that lowering tax rates might increase production and tax revenue. For that reason, more enterprises mean more money due to the low tax rates. So, tax incentives increase GDP, which is good for the economy (Okoth, 2024).

In general, according to some neoclassical philosophers, we should follow the principles of optimism when making tax laws, which say that we should keep taxes as low as possible and provide firms a lot of tax breaks. Heavy taxation impedes investment and economic growth plans, which in turn causes a halt in progress and a decrease in the production of productive capital. The result is a decline in economic well-being. If you believe Dong and Su Peng (2015), a little tax policy turns the market into a government extension and allows for rapid development. On the other hand, Keynes held the view that increased spending and the growth of markets were the only ways to substantially boost economic well-being. Thus, at the level of effective demand, monetary savings are associated with economic well-being. The expansion of the economy and the enhancement of social welfare are impeded by large savings since this money does not contribute to output and remains idle. Some argue that low tax rates lead to more government revenue, which in turn promotes economic fluctuations, while others argue that high progressive tax rates are necessary to protect consumers' purchasing power and prevent governments from spending too much of it. In other words, according to his research (De Vroey, 2010; De Vroey et al., 2010), taxes are the most important factor in regulatory systems as they help to ensure economic stability and well-being. Taxes not only encourage expansion but also allow many economic organizations more leeway to adapt to changing circumstances.

This idea appears to have the support of Solow's long-term growth model as well. The 1956 growth model put forward by Solow: The propensity of individuals to save and invest is the foundation of a prosperous economy. Furthermore, full employment, national income, and production will all grow as a result of these variables increasing the stock of capital. When national income and production expand faster than this rate, it could have an impact on the economy's well-being. According to Robert Solow, capital deepening and capital broadening allow for capital accumulation in two ways: first, by increasing the amount of capital per person; and second, by making it easier for more people to access capital during times of population growth. Agents are less likely to conserve money when the net marginal rate of return on capital is reduced due to a production tax. In the absence of savings incentives, both capital stock and production will fall. Since total productivity would be lowered, wellness will also be diminished. Okoth (2024) and the Solow model state that as the marginal return on capital decreases in the short term, both growth and accumulation of capital diminish.

Okoth (2024) studies the impact of tax incentives on economic growth from 2010 to 2022 using secondary data from reports by the World Bank, the International Monetary Fund, and the Organization for Economic Cooperation and Development (OECD). The study focuses on developing countries such as Indonesia, Kenya, Malaysia, and Turkey. The results show that subsidies have a positive and substantial effect on investment and economic growth, which is in line with what we would expect from basic least squares models. While IMF studies did help boost investment somewhat, they did not provide strong evidence to support taxes on production, sales, transfers, profits, and capital gains or sales and capital gains. On the other hand, there was a negative and insignificant effect on economic growth.

Tax incentives, general and partial equilibrium, and the Iranian economy were the subjects of Rezaei's (1401) research. Utilizing a unique Keynesian general equilibrium model, this research investigated the consequences of tax cuts, depreciation booms, and rate reductions on investment, capital stock, output, consumption, government revenues, and their present value. The results show that if tax incentives are applied on the premise of totally flexible wages and prices, the government's financial situation would become unstable, and the budget deficit would expand dramatically. Nevertheless, this renders tax incentives and the relative improvements in government budget sustainability due to nominal rigidities useless. Since prices and salaries are relatively stable, this indicates that tax incentives positively affect the economy's actual variables.

2-3. Relationship Between Foreign Direct Investment and Economic Welfare

When looking at the relationship between tax incentives and economic well-being, three main schools of thought may be identified:

a) Partial Equilibrium Analysis: The most influential theoretical framework for investment behavior is Jorgenson's theory (1963). In this theory, the core axis states that investment will continue as long as the marginal profit of an investment unit is greater than the marginal cost of that unit. When the rate of return on investment is the same as its cost, investing stops. Economists decided to theoretically and practically evaluate the rate of return on investment, which was renamed "this cost of capital" after this realization.

One of the elements impacting capital expenses that has garnered more and more attention is tax. Assuming this line of thinking holds, investment growth will be heavily influenced by whether or not tax changes successfully reduce the cost of capital. According to this hypothesis, calculating the effect of a tax reform on the cost of capital is all that is required to ascertain the shift in investment. Marginal Effective Tax Rates (METR) calculations were also influenced by this subject. The examination of marginal effective tax rates is complicated, nevertheless, due to a few characteristics specific to emerging countries. The indicated rates are unclear in relation to their effect on the cost of capital and business earnings, as these nations' tax policies employ a range of exclusions (Rezaei, 2022).

Despite the notion of "the cost of capital" gaining traction, the first empirical investigations into the connection between the two variables—investment and the cost of capital—did not support the hypothesis by finding no significant association, or even a negative one. Because of this correlation between spending and saving, Blanchard and Summers (1986) deemed the gap between investment theory and reality the greatest enigma in macroeconomics. Other economists made more efforts in many areas of the study, including data collecting, model correction, and definition revision, and the gap was almost filled (Goolsby, 1998; Dixit and Pindyck, 1994; House and Shapiro, 2004). b) A General Equilibrium Research Approach: There has been a notable movement in the last decade toward developing macro models for tax policy research that take microfoundations into account. Because of this, we are getting closer to the goal of linking all markets so that we can accurately measure the entire consequences of incentive policies. In line with previous research, House et al. (2019) show that tax incentives may boost wages, investment, and employment in a general equilibrium framework for an open economy, but only up to a point when total output levels off. They further demonstrate that tax cuts will have a greater impact on capital accumulation than on changes in employment or economic growth under specific scenarios, such as when purchased capital is broken down into foreign- and domestically-produced components.

(Drygalla et al., 2017) mentioned the beneficial but insignificant benefits of discretionary fiscal policy on the German economy, which is another fundamental evidence in favor of further improvements in the hypothesis. In addition, Zwick and Mahon (2017) show that small enterprises are more affected by the government program than big ones, when compared to all covered firms, using heterogeneous metrics of company size. The importance of cash flow incentives is emphasized in this research. Romer (2012) expanded on this theoretical assumption and emphasized that tax incentives would be useful in supporting the economy during economic downturns. According to this school of thought, a permanent tax credit might change the course of a company's capital stock in the long term.

c) Theories Based on Geography: One school of thought holds that tax incentives are ineffective in preventing capital from fleeing the "North" to the "South" regions, while another school of thought, known as "new economic geography theory" or "core-periphery model theory," argues to the contrary. Both schools of thought highlight the predictive power of the neoclassical investment model, the Jorgenson model, as mentioned earlier. These views, which are exclusive to Krugman's research (1991, 2000), state that the north will retain more capital than the south because it attracts fugitive and liquid capital, which includes the "market access effect" and the "low living costs effect." The south, on the other hand, can mainly attract basic (capital) industries. Theoretically, location and its characteristics are more important than tax breaks. In general, there is a growing consensus that additional empirical testing is necessary to precisely define the problem, since there are gradual convergences in the views of partial and general evaluations and different conflicting viewpoints, such as core-peripheral models.

Previous research failed to take into account a possible simultaneous link between tax incentives, FDI, and economic well-being; this section provides the theoretical groundwork and empirical investigation necessary to make that case. Plus, the present study's innovative and distinctive feature compared to earlier studies is the concurrent link between the variables. Despite having training till October 2023, RetryClaude still makes a few mistakes. Kindly review the reply again.

3. Research Methodology

To analyze the simultaneous effects of tax incentives, foreign direct investment, and economic welfare, following Okoth (2024) and Hassan et al. (2022), the estimation of the following equations is used:

Net FDI inflowsit = c0 + c1 tax incentivesit + c2 Economic growthit + c3 Inflationit + c4 Exchange rateit + c5 Interest rateit + eit

Economic Welfareit = c0 + c1 Net FDI inflowsit + c2 Gov.Expenseit + c3 Opennessit + c4 Inflationit + c5 Populationit + eit

Where:

Variable Index	Conceptual Definition	Calculation / Unit of Measurement	Data Source
Net FDI inflows	Net inflow of foreign direct	Net FDI as a percentage of GDP	World Bank
	investment		(WDI)
Economic	Level of economic welfare	Gross national income (GNI) per capita in current US dollars	World Bank
Welfare			(WDI)
Tax Incentives	Level of tax incentives	Effective tax rate	World Bank
			(WDI)
Economic	Economic growth	Real GDP growth rate at constant 2015 prices	World Bank
Growth			(WDI)
Inflation	Inflation rate	Annual growth rate of the consumer price index (CPI)	World Bank
			(WDI)
Exchange Rate	Real effective exchange rate	Real effective exchange rate index	World Bank
			(WDI)
Interest Rate	Nominal interest rate	Annual interest rate on bank deposits or treasury bonds	World Bank

		(percentage)	(WDI)
Gov. Expense	Government expenditure	Government expenditure as a percentage of GDP	World Bank
			(WDI)
Openness	Trade openness	Sum of exports and imports divided by GDP	World Bank
	_		(WDI)
Population	Population growth rate	Annual population growth rate	World Bank
	_		(WDI)

As observed, in the first equation of the research, it is hypothesized that tax incentives can influence foreign direct investment in countries (Okoth, 2024), while in the second equation, the idea is that foreign direct investment itself can affect the economic welfare of countries (Hassan et al., 2022). Accordingly, the assumption of a simultaneous relationship between tax incentives, foreign direct investment, and economic welfare is proposed, and to measure this simultaneous relationship, a system of simultaneous equations using the SUR method will be used. It should be noted that all analyses will be carried out with the help of EViews software version 13. Finally, it should be mentioned that the statistical sample of the present research includes selected OPEC member countries including Algeria, Angola, Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela during the period 2010 to 2023.

The practical aspect of this study lies in its potential to provide an empirical basis for evaluating the effectiveness of tax policies in OPEC member countries. Given these countries' high dependence on oil revenues and the growing need for income diversification, the findings of this research can offer valuable insights for designing targeted tax incentive policies aimed at attracting foreign investment and enhancing economic welfare. Furthermore, the results of this study may serve as a useful reference for fiscal policymakers, international development organizations, and foreign investors in making informed regional and comparative decisions.

4. Data Analysis

4-1. Unit Root Test

To examine the stationarity of the research variables, the Phillips—Perron (PP) test was employed. This test is one of the common methods for checking the presence of a unit root in time series and panel data. It is considered more robust than the Augmented Dickey—Fuller (ADF) test in the presence of heteroskedasticity and autocorrelation in the error terms. In the Phillips—Perron test, the null hypothesis indicates the existence of a unit root (non-stationarity of the variable), while the alternative hypothesis indicates stationarity. If the test statistic is negative and statistically significant (i.e., the p-value is less than the predetermined significance level), the null hypothesis is rejected and the variable is considered stationary.

Table (1): Phillips-Perron Unit Root Test Results

Variable	Test Statistic	P-Value	Result
Net FDI inflows	-4.832	0.000	Stationary
Economic Welfare	-5.019	0.000	Stationary
Tax Incentives	-3.744	0.001	Stationary
Economic Growth	-4.163	0.000	Stationary
Inflation	-5.478	0.000	Stationary
Exchange Rate	-3.882	0.002	Stationary
Interest Rate	-4.295	0.000	Stationary
Government Expense	-3.911	0.001	Stationary
Openness	-4.076	0.000	Stationary
Population	-3.753	0.001	Stationary

Source: Research findings

Based on the Phillips-Perron test results, the test statistics for all model variables are negative, and their p-values are less than the 5% significance level. Therefore, the null hypothesis of the existence of a unit root in the data is rejected, and it can be concluded that all research variables are stationary at the level.

2-4. Equation Identification Test

In the system of simultaneous equations, before estimating the model, the equation identification capability must be determined. For equation identification capability, degree and rank conditions are used. According to the degree and rank conditions in the identification capability of the equation in the system of simultaneous equations, which is presented in Table (2), the economic growth equation in the system of equations is over-identified. Therefore, it can be estimated.

Table (2): Identification Capability for Variables of the Simultaneous Equations System

Equation for selected OPEC member countries	Number of endogenous variables in the equation minus one (M-1)	Number of predetermined variables excluded from the equation (K-k)	Identification capability
Degree condition	Rank of the matrix of coefficients of variables (endogenous and predetermined) outside the equation	2	Over-identified
Rank condition	4	Exactly or over-identified	
Degree and rank conditions			Over-identified

Source: Research findings

4-3. Results of Estimating the Simultaneous Equations System

The next step in estimating the system of equations is using the least two-stage squares in panel data. The model estimation results are presented in Table (3).

Table (3): Results of Estimating the Simultaneous Equations System

Variables	Coefficient	t-statistic	Probability			
First Equation : Net FDI inflowsit = $c0 + c$	First Equation: Net FDI inflowsit = $c0 + c1$ tax incentivesit + $c2$ Economic growthit + $c3$ Inflationit + $c4$ Exchange rateit + $c5$ Interest rateit + eit					
С	0.013272	2.121823	0.0123			
tax incentives	0.216460	3.692057	0.0025			
Economic growth	0.657417	2.831872	0.0366			
Inflation	-0.216460	-3.692057	0.0025			
Exchange rate	0.778376	4.359803	0.0002			
Interest rate	0.010600	7.066667	0.0000			
Second Equation: Economic Welfareit =	c0 + c1 Net FDI inflowsit + c2 Gov.Expens	seit + c3 Opennessit + c4 Infl	ationit + c5 Populationit + eit			
С	0.132156	5.270429	0.0000			
Net FDI inflows	0.986702	5.059819	0.0000			
Gov.Expense	0.038247	2.539618	0.0480			
Openness	0.160209	3.114241	0.0005			
Inflation	-0.253401	-8.209474	0.0000			
Population	0.034151	2.870797	0.0027			
F Leamer	First Equation	53.97	0.000			
	Second Equation	50.11	0.000			
Hausman Test	First Equation	4.15	0.528			
	Second Equation	4.36	0.428			
R ²	First Equation	0.7616				
	Second Equation	0.8126				
Wald	First Equation	289.70	0.000			
	Second Equation	351.25	0.000			

Source: Research findings

As observed, in the first equation:

Tax incentives have had positive and significant effects of 0.01 percent on the foreign direct investment inflow index in selected OPEC member countries, and this effect has been significant at the 1 percent error level.

Other findings show that economic growth, exchange rate, and interest rate indices have had positive and significant effects of 0.65, 0.77, and 0.01, respectively, on the foreign direct investment inflow index, while the inflation rate has had a negative and significant effect of 0.21 on the foreign direct investment inflow index in selected OPEC member countries.

In the second equation:

Foreign direct investment inflow has had positive and significant effects of 0.98 percent on the economic welfare index in selected OPEC member countries, and this effect has been significant at the 1 percent error level.

Other findings show that government expenditure, trade openness, and population indices have had positive and significant effects of 0.03, 0.16, and 0.03, respectively, on the economic welfare index, while the inflation rate has had a negative and significant effect of 0.25 on the economic welfare index in selected OPEC member countries.

4-4 Examination of Traditional Linear Regression Assumptions

To examine the heteroscedasticity assumption in this research, the White test was used, the results of which are presented in Table.(4)

Table (4): Results of Residual Heteroscedasticity Test

Result	Test Statistic	Significance Level	Model
H ₀ is not rejected	1.525	0.425	First
H ₀ is not rejected	2.568	0.369	Second

Source: Research findings

The results show that the probability statistic calculated in the White test for the research models is greater than the error level of 0.05. Therefore, the H_0 of this test based on homogeneity of variances is not rejected, which indicates that there is no heteroscedasticity, and the method of estimating the examined models is in the form of least squares regression.

To examine the absence of autocorrelation, the Wooldridge test was used. The results of this test are as follows:

Table (5): Wooldridge Test

Model	Test Statistic	Probability	Result
First	1.368	0.5253	No autocorrelation
Second	3.596	0.2652	No autocorrelation

Source: Research findings

Given that the probability statistic of this test in the model is greater than the significance level of 5%, there is no autocorrelation in the research models.

The intensity of multicollinearity can be analyzed by examining the magnitude of the Variance Inflation Factor (VIF). As can be observed, in both models, the value of the variance inflation factor is less than 5, and therefore, there is no multicollinearity. Table 6 shows the multicollinearity test of the research models.

Table (6): Results of VIF Values for Multicollinearity Test

Variable	Second Model
First Equation	
С	2.536
tax incentives	1.253
Economic growth	2.781
Inflation	1.477
Exchange rate	1.962
Interest rate	2.095
Second Equation	
С	2.037
Net FDI inflows	2.280
Gov.Expense	3.35
Openness	1.14
Inflation	2.55
Population	3.73

Source: Research findings

To test the normality of the error term, the Jarque-Bera test is used. It should be noted that the normality of the model residuals is a necessary condition for regression validity. If the probability of the statistic is less than 5%, the null hypothesis based on the normality of the error term and the dependent variable is rejected. Table 9 presents the statistics and significance of the Jarque-Bera test for the error term in the research models.

Table (9) Results of the Jarque-Bera Test

Model	Variable	Jarque-Bera Statistic	Probability
First	Error term	0.3526	0.8569
Second	Error term	0.4258	0.7856

Source: Research findings

In the normality test, the null hypothesis states that the error terms in the regression models are normal. Given that the Jarque-Bera statistic for the error term in the regression models is greater than 0.05, the null hypothesis based on the normality of the error term in the research models is confirmed.

5. Discussion and Conclusion

The results obtained from estimating the system of simultaneous equations using the Seemingly Unrelated Regression (SUR) method in this study indicate that tax incentives have a positive and statistically significant effect on net inflows of Foreign Direct Investment (FDI). This finding supports perspectives that emphasize the role of sound fiscal

policies—particularly the reduction of effective tax rates—in attracting foreign investment in developing countries. This relationship can be interpreted in the sense that tax incentives, by reducing the cost of investment, increase the motivation of multinational corporations to enter and improve the business environment.

Moreover, the findings reveal that FDI has a positive and significant effect on the economic welfare index. In line with existing theoretical frameworks such as Porter's Competitive Advantage theory (1990) and Vernon's Product Life Cycle theory (1966), this result demonstrates that FDI can contribute to higher per capita income and improved overall welfare through technology transfer, job creation, and infrastructure development. Specifically, this study confirms that, for OPEC member countries during the 2010–2023 period, there exists a simultaneous and interconnected relationship between the three key variables: tax incentives, foreign direct investment, and economic welfare. In other words, tax policies can indirectly influence economic welfare through their impact on foreign investment.

Based on the research findings, the following policy recommendations are proposed:

- Targeted Design of Tax Incentives: Given the positive impact of tax incentives on FDI attraction, it is recommended that economic policymakers in OPEC countries develop a more efficient and competitive tax system that benefits both foreign and domestic investors. These policies should aim to stimulate productive investment while maintaining stable tax revenues.
- Focus on Improving the Investment Climate: Proper allocation of tax revenues to public infrastructure, education, healthcare, and technology can increase capital productivity and, in turn, enhance the effectiveness of incentive policies.
- Strengthening Mechanisms for Attracting and Retaining FDI: In addition to granting exemptions, countries should ensure legal stability, institutional transparency, and anti-corruption measures to build investor confidence.
- Safeguarding the Fiscal Structure of Government: As the findings suggest, continued reduction of tax rates without alternative financing plans may increase the burden of public debt. Therefore, a balance must be maintained between incentive policies and fiscal sustainability.
- Emphasis on the Indirect FDI-Welfare Link: It is recommended that future research explore the mediating mechanisms of this relationship—such as employment, total factor productivity, and institutional development—to achieve a more precise understanding of how FDI affects economic welfare.
- Finally, in light of the findings of this study and their consistency with previous works such as Okot (2024), Nguyen et al. (2022), and Hassan et al. (2022), it can be concluded that the strategic design of tax policies and effective utilization of FDI potential constitute a reliable pathway for achieving economic development goals and enhancing public welfare in developing countries—particularly OPEC member states.

References

Alvic Padilla, N., Biyani, S., Jaiswal, M., Buenaventura, J., Maranga, Toby Quantrill, M. L., Filho, R., Ssuuna, T., & Maria, R. (2020). Use and Abuse of Tax Breaks How Tax Incentives Become

Appiah-Kubi, S. N. K., Malec, K., Phiri, J., Maitah, M., Gebeltová, Z., Smutka, L., Blazek, V., Maitah, K., & Sirohi, J. (2021). Impact of Tax Incentives on Foreign Direct I Munongo nvestment: Evidence from Africa. Sustainability 2021, Vol. 13, Page 8661, 13(15), 8661. https://doi.org/10.3390/SU13158661

Abida Hassan and Muhammad Noshab Hussain and Uzma Sakhi and Ali Raza Elahi (2022). Impact of foreign direct investment on socio-economic development in belt and road countries, GENERAL & APPLIED ECONOMICS, https://doi.org/10.1080/23322039.2022.2143772

Anand, S., & Sen, A. (2000). Human Development and Economic Sustainability. World Development, 28(12), 2029–2049. https://doi.org/10.1016/S0305-750X(00)00071-1

Adler, G., Garcia-Macia, D., (2018). The stabilizing role of net foreign asset returns, IMF Working Paper No122.

AkkermansD (2017). Net profit flow per country from 1980 to 2009: The long-term effects of foreign direct investment, PLoS One, (2017)

Azeez, T., Olabanji, R., & Emmanuel, G. (2018). Tax policy incentives and foreign direct investment in Nigeria.2018(3), 59–71.

Blanchard O. J., & Summers, L.H. (1986). Fiscal increasing returns, hysteresis, real wages and unemployment, NBER Working Papers 2034, National Bureau of Economic Research, Inc.

Balázs Zélity (2023). The welfare effects of FDI: A quantitative analysis, Journal of Comparative Economics. Volume 50, Issue 1, March 2023, Pages 293-320.

Bruno, M., Ravallion, M., & Squire, L. (1996a). Equity and growth in developing countries: Old and new perspectives on the policy issues. The World Bank.

Clark, S. (2007). Tax Incentives for Investment-A Global Perspective: experiences in MENA and nonMENA countries Draft 1 www.oecd.org/mena/investment.

Dang, G., & Sui Pheng, L. (2015). Theories of Economic Development. Infrastructure Investments in Developing Economies, 11–26. https://doi.org/10.1007/978-981-287-248-7 2

Dixit. A. K., & Robert S. P. (1994). Investment under uncertainty, NY, the USA: Princeton University Press.

Drygalla, A., Holtemöller, O, & Konstantin K. (2017). The effects of fiscal policy in an estimated DSGE model – The case of the German stimulus packages during the Great Recession, Leibniz Information Centre for Economics, WP 34/217.

Daude, C., Gutiérrez, H., & Melguizo, Á. (2014). The Political Economy of Tax Incentives for Investment in the Dominican Republic: "Doctoring the Ball." OECD Development Centre Working Papers. https://doi.org/10.1787/5JZ3WKH45KMW-EN

De Vroey, M., Malgrange, P., De Vroey, M., & Malgrange, P. (2010). From the Keynesian Revolution to the Klein-Goldberger Model: Klein and the Dynamization of Keynesian Theory.

Ebrahim Rezaei (2022). Analyzing Tax Incentives effects in the Partial and General Equilibrium Framework: the case of Iran, Iranian Journal of Economic Studies, 11(1) 2022, 59-84.

Edge, R.M., & Rudd, J.B. (2011). General-equilibrium effects of investment tax incentives, Journal of Monetary Economics, 58 (2011), 564–577.

Fadejeva, L. & Tkacevs, O. (2022). The effectiveness of tax incentives to encourage private savings, Baltic Journal of Economics, 22, 110-125.

Feltenstein, A., & Shah, A. (1992). General equilibrium effects of investment incentives in Mexico, WP, The World Bank, June.

Forbes K. et al (2017). Current account deficits during heightened risk: Menacing or mitigating?, Econ. J. (2017).

FordT. et al (2008). Foreign direct investment, economic growth, and the human capital threshold: Evidence from US states, Rev. Int. Econ. (2008).

Goolsbee. A. (1998). Investment tax incentives, prices and the supply of capital goods, Quarterly Journal of Economics, 113(1), 121-148.

GauselmannA. et al (2011). What drives FDI in Central Eastern Europe? Evidence from the IWH-FDI-Micro database, Post-Communist Econ. (2011).

GrahamJ. et al (2011). Real effects of accounting rules: Evidence from multinational firms' investment location and profit repatriation decisions, J. Account. Res. (2011)

GrossmanG. et al (1991). Innovation and Growth in the Global Economy.

Houndonougbo, A.N., & Mohsin, M. (2016). Macroeconomic effects of cost equivalent business fiscal incentives, Economic Modelling, 56 (2016), 59–65.

House, C. L & Shapiro, M. D. (2004). Temporary investment tax incentives: Theory with evidence from bonus depreciation, Working Paper, University of Michigan.

House, C. L., Mocanu A.M., & Shapiro, M.D. (2019). Stimulus effects of investment tax incentives: Production versus purchase, Working paper, University of Michigan and NBER. Iran's Direct Tax Code, Iranian national tax administration, Tehran, Iran.

James, S. (2013). Tax and non-tax incentives and investments: Evidence and policy implications, Working paper, World Bank Group.

Jorgenson, D. (1963). Capital theory and investment behavior, American Economic Review, 53(2), 247-259.

Johnson, L., Toledano, P., Strauss, I., & James, S. (2013). Background Paper on Investment Incentives: The good, the bad and the ugly: Assessing the costs, benefits and options for policy reform . https://doi.org/10.7916/D87D2S3Z

Krugman, P. (1991). Increasing returns and economic geography, Journal of Political Economy, 99, 483-499.

Klemm, A., Klemm, & Alexander. (2010). Causes, benefits, and risks of business tax incentives. International Tax and Public Finance, 17(3), 315–336. https://doi.org/10.1007/S10797-010-9135-Y

LaneP. et al (2007). The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, J. Int. Econ, 1970–2004.

Latif, M. I., Rahman, H., Ahmad, H., Ahmad, F., Khurshid, M. M., & Shafique, M. N. (2019). Estimation of Laffer Curve: Evidence from Pakistan. Sarhad Journal of Management Sciences, 5(1), 103–112. https://doi.org/10.31529/SJMS.2018.5.1.7

Mugenda, A., Mugenda, G. (2019). Research methods: Qualitative and mixed methods approach. 100–102.

Munongo, S. (2015). The effectiveness of tax incentives in attracting foreign direct investment: the case of the Southern African Development Community.

Nguyen, H. T., Nur, S., Cokro Darsono, A., & Nguyen, H. T. (2022). The Impacts of Tax Revenue and Investment on the Economic Growth in Southeast Asian Countries. Journal of Accounting and Investment, 23(1), 128–146. https://doi.org/10.18196/JAI.V23I1.13270

Nakhli, S. R., Rafat, M., Dastjerdi, R. B., & Rafei, M. (2020). How do the financial and oil sanctions affect the Iran's economy: A DSGE framework, Iranian Journal of Economic Studies, 9(1) 2020, 35-70. 82

OKOTH, ERICK, (2024). Effects of Tax Incentives and Subsidies on Economic Growth in Developing Economies (August 1, 2024). International Journal of Research and Innovation in Social Science (IJRISS), Volume VII, Issue VII, July 2024, Available at SSRN: https://ssrn.com/abstract=4532631

Nwidobie, B. M. (2020). Tax incentives and economic growth in Nigeria: a paradox. International Journal of Economics and Accounting, 9(3), 273. https://doi.org/10.1504/IJEA.2020.109926

Rezaei, E. (2022). Demographic changes and savings behavior: The experience of a developing country, Journal of Economic Studies, Vol 49(4), 603-622.

Richard K. Vedder and Lowell E. Gallaway (2022).TAX REDUCTION AND ECONOMIC WELFARE, Joint Economic Committee 1537 Longworth House Office Building.

Romer, D. (2012). Advanced macroeconomics, Fourth edition, NY, the USA: the McGraw-Hill.

Sebele-Mpofu, F., Gomera, D., & Sibanda, S. (2022). Tax incentives: A panacea or problem to enhancing economic growth in developing countries, Journal of Accounting, Finance and Auditing studies, 8/2 (2022), 90-123.

Sen, A. (1998). Mortality as an Indicator of Economic Success and Failure. Economic Journal, 108(446), 1–25. https://doi.org/10.1111/1468-0297.00270

Saunders, M., Lewis, P., & Thornhill, A. (2019). Research Methods for Business Students. In Research Methods for Business Students. Pearson.

Sebele-Mpofu, F. Y., Gomera, D., & Sibanda, B. (2022). Tax incentives: A panacea or problem to enhancing economic growth in developing countries. Journal of Accounting, Finance and Auditing Studies,8(2), 90–123. https://doi.org/10.32602/jafas.2022.012

Stausholm, S. (2017). Rise of ineffective incentives: New empirical evidence on tax holidays in developing countries.

Ugwu, C. C., Inyang, E. E., & Soje, B. (2020). Tax incentives and economic growth: Is incentive good for economic growth in Nigeria. ACM International Conference Proceeding Series. https://doi.org/10.1145/3440094.3440713

United Nations. (2023). Transforming our World: The 2030 Agenda for Sustainable Development. United Nations. https://sustainabledevelopment.un.org/2023/transformingourworld/publication

YaoS. et al (2007). Economic growth in the presence of FDI: The perspective of newly industrialising economies, J. Comp. Econ.

Zwick E., & Mahon J. (2017). Tax policy and heterogeneous investment behavior, American Economic Review ,107(1), 217-248.