The impact of FDI policies in diversifying the structure of public revenues in the Omani economy for the period 2002-2022

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Abstract

The present study investigates how FDI contributes to the diversification of public revenues in the Omani economy between 2002 and 2022. FDI is a key component of the serious economic strategies that many nations have implemented to diversify their sources of public income. The importance of FDI varies by industry, impacting income source diversification and lowering reliance on a single source, hence limiting the possibility of adverse future effects. Using the A.R.D.L model, the study uses sophisticated econometric analysis to quantify how FDI affects public revenues in the oil and gas industry as well as other economic sectors. The study comes to a number of important conclusions, including the following: FDI in the oil and gas extraction industry greatly increases public income in the near term. On the other hand, FDI in other economic sectors has a considerably beneficial influence on public revenues over the long term, while FDI in this area shows a significantly negative effect.

Keywords: FDI, Economic Diversification, Oil and Gas Extraction Sector, Oil Revenues, Non-Oil Revenues.

Introduction

Cross-border investments made by foreign businesses to boost output are referred to as FDI.. FDI is categorised based on specific criteria: by establishment type (Greenfield investment and non-greenfield investment) and by ownership (joint ventures and wholly owned investments). FDI offers various benefits to host countries, including stimulating economic development, increasing employment opportunities, transferring knowledge, diversifying income sources, and subsequently increasing public revenues.

By combining local and international capital to meet finance constraints, FDI acts as a bridge to bridge the gap between affluent and developing countries (Al Shubiri, 2016, p. 8). The determinants of FDI, which fall into two groups, are the subject of an expanding corpus of empirical research. Traditional elements such market size, availability of natural resources, labor costs, human capital, population size, level of economic openness, return on investment, and political considerations are the emphasis of the first . With the argument that investors cannot fully capitalize on conventional advantages because of the high costs associated with inadequate and inefficient infrastructure in host countries, the second category places an increasing focus on the role of infrastructure as a main driver of FDI. As a result, strong infrastructure is seen as necessary for investment success (Ibrahim et al., 2019, p. 883).

Host governments implement various policies to influence FDI location decisions, which can be classified into investment incentives, local infrastructure and skills development, regulatory environment, governmental institutions, and international governance arrangements (Craigwell, 2006, p. 2).

The advanced managerial expertise gained by international firms provides domestic firms with competitive skills. By analysing the behaviour of multinational corporations (MNCs), local firms can learn how to optimise production through predefined integration of inputs or achieve a set level of output with fewer integrated inputs. Additionally, cost-effectiveness is a crucial factor influencing economies of scale (Husain et al., 2021, p. 2).

Economic diversification refers to government policies aimed at investing in multiple economic sectors to mitigate the adverse effects of economic downturns in any single sector. To achieve sustainable economic growth and development, diversification is essential, as opposed to sectoral specialisation.

Many resource-dependent economies, particularly oil-rich nations, experience the dominance of a single sector in generating public revenues, while the contribution of other economic sectors remains limited. Consequently, such economies adopt policies to diversify revenue sources and enhance existing streams. One of these policies is sector-targeted FDI, which aims to develop alternative revenue-generating sectors to complement resource-based revenues, thereby minimising the adverse effects of economic reliance on a single sector.

Review of Literature

1.1 Theoretical Framework of FDI

1.1.1 Concept of FDI

Physical capital, manufacturing technology, management abilities, goods and services, marketing know-how, advertising, and organizational procedures are all components of FDI (Mahembe & Odhiambo, 2014, p. 63). The amount that citizens of one nation invest in a foreign business that they really control is another definition of FDI (Alharthi & Alamoudi, 2024, p. 4). According to Rismawana et al. (2021), p. 53, it may also be described as investments made by home corporations in international enterprises with the aim of increasing output. Accordingly, FDI is any foreign investment made by a resident entity in one country into commercial activities in another with the goal of establishing a long-term stake (Makoni, 2015, p. 161).

FDI entities are primarily identified as multinational corporations and large enterprises with the capability to invest in foreign nations (regions or markets) (Kukaj & Ahmeti, 2016, p. 296).

1.1.2 Types of FDI

FDI can be classified according to different criteria. Based on establishment type, FDI is divided into two categories:

- **Greenfield FDI**, where investment is directed towards establishing new production units in foreign countries.
- **Non-Greenfield FDI**, which involves investment through acquisition or purchasing a share of ownership in a local company (Rismawana et al., 2021, p. 53).

From an ownership perspective, FDI can be divided into joint ventures and wholly owned investments.

- **Joint ventures** involve external investors partnering with local investors to achieve common goals and mutual interests. This form of investment allows partners to jointly

control investments, share leadership, assume risks together, and divide profits from the invested capital, regardless of the capital structure.

- **Wholly owned investments** refer to foreign companies establishing fully owned subsidiaries abroad (Kukaj & Ahmeti, 2016, pp. 293–294).

1.1.3 Importance of FDI

Numerous benefits of FDI support resilient economic development, such as the creation of jobs, higher tax revenues, improved production and productivity, and revolutionary effects on the socioeconomic environment of the host nation (Alharthi & Alamoudi, 2024, p. 2).

The inflow of FDI can yield several positive effects for host countries. It can mitigate capital ownership risks by providing diversification through investment and help correct policy errors made by governments in managing capital flows (Rismawana et al., 2021, p. 53).

The literature on the effects of FDI suggests that multinational corporations establishing subsidiaries in foreign countries differ from domestic firms in two key ways (Bruhn et al., 2020, p. 42):

1. They compete with other multinational corporations (MNCs) and local businesses that often have a better understanding of the home market and customer preferences because of their technology advantages and greater knowledge of global markets.
2. The existence or entry of MNCs changes the equilibrium of the market, forcing local businesses to improve their productivity in order to preserve their profitability and market share.

1.2 Theoretical Framework of Economic Diversification

1.2.1 Concept of Economic Diversification

The process by which the government works to increase the variety of economic products generated each year through different production channels is known as economic diversification. To make sure that a failure or economic slump in one area does not have a detrimental effect on the economy as a whole, it may also be viewed as an investment plan across many industries. According to some academics, rerouting funds from surplus sectors to deficit sectors increases the likelihood of economic growth and development in a diverse economy (Owan et al., 2020, p. 3).

The need of structural transformation and economic diversity for long-term economic growth has long been emphasized by development economics, especially by the structuralist school in Latin America (Hartmann and Pyka, 2013, p. 2). According to recent studies, growing diversification rather than specialization is associated with economic progress in low- and middle-income nations (Klinger and Lederman, 2009, p. 101).

1.2.2 Types of Economic Diversification

Diversification can take various forms and be analysed at different levels. In practice, there are two main pathways to diversification: vertical and horizontal. Given the different uses of primary commodities associated with each strategy, the available diversification path for policymakers depends on multiple factors, including the resources the country possesses.

- **Vertical diversification** involves adding value to a primary commodity by engaging in subsequent activities that expand the product offering of a specific commodity, including processing and utilisation.
- **Horizontal diversification** entails the emergence of sectors unrelated to the traditional commodities upon which the country has relied or those that fall outside the existing productive structure of the country (Dominguez and Nkurunziza, 2024, p. 4).

1.2.3 Concept of Public Revenue Diversification

Increasing the number of economic sectors that target government spending and make a substantial contribution to government income is known as financial diversification. One important indicator of financial diversity is the percentage of government revenue that comes from various industries. Taxes, borrowing from both local and foreign sources, currency issue, and development aid are just a few of the financial options available to governments.

Financial diversification may involve reducing reliance on a single or limited number of sources, particularly extractive industries, by generating a more varied and sustainable mobilisation of domestic revenue. It may also include expanding the tax base and optimising the use of underutilised tax instruments. Both elements of financial diversification are essential, as taxation represents the most sustainable source of revenue. Historically, governments in developing countries have sought to utilise the available financial tools—revenues and expenditures—to stimulate structural transformation (Usman and Landry, 2021, pp. 6–7).

1.3 Importance of Economic Diversification

Economic diversification is of paramount importance as it reduces reliance on a single sector as the primary contributor to total government revenue and GDP. Other sectors should be adequately funded and equipped to ensure substantial outputs and contributions. Economic diversification is crucial for long-term economic growth (Chris et al., 2015, p. 481).

Diversification is particularly important for developing and least developed countries as it fosters job creation, structural transformation, and economic development (Freire, 2017, p. 1). Some oil-producing and exporting developing nations have long recognised that economic dependence on oil is unsustainable, as such reliance increases their vulnerability to external shocks in the long term due to declining natural resource production (Yu III, 2022, p. 20).

Open economies are particularly susceptible to external shocks that increase output volatility, potentially leading to severe consequences. Countries experiencing higher output volatility tend to have slower growth rates (Bacchetta et al., 2009, p. 82). Because resource-rich nations are more susceptible to economic shocks brought on by shifting commodity prices and resource depletion, a low degree of economic diversification can be harmful (Lashitew et al., 2020, p. 2).

Since resource-rich countries frequently follow the price cycles of global commodities, economic diversification itself can be a key policy goal by reducing boom-and-bust cycles (Lashitew et al., 2020, p. 4).

1.4 Policies Required for Economic Diversification

In developing nations that depend on oil production or exports, economic diversification is usually accomplished through a planned and policy-driven economic transition, in which the public sector rather than relying solely on a market-driven approach plays a crucial role in creating new economic activities and promoting the expansion of the private sector.

In order to ensure that economic diversification is carried out in an organized manner, minimizing or mitigating negative economic and social consequences, proper policy and financial space must be available both domestically and internationally. This will allow national policymakers to design and implement the right mix of policies, financial instruments, investment tools, and other necessary measures.

Due to the significant differences among oil-producing countries in terms of economic resources, population size, land, and natural resources, economic diversification policies must be tailored to the specific national circumstances of each country (Yu III, 2022, pp. 33–34).

Developing countries dependent on commodities continue to face challenges in effectively utilising natural resource revenues to build diversified and resilient economies. The decision to pursue a diversification strategy requires appropriate macroeconomic and financial policies. Transparency and good governance in managing resource revenues are also crucial in implementing strategic plans. Political, social, and economic factors can influence a government's willingness and ability to develop or implement a comprehensive diversification strategy supported by an optimal policy mix (Dominguez and Nkurunziza, 2024, p. 5).

Resource revenues present an opportunity to alleviate financial constraints and support economic diversification. However, some resource-rich developing countries have not achieved domestic investment rates proportional to their increased resource revenues. This pattern of underinvestment often leads to stagnation in the productive structure of the domestic economy, discouraging private investments.

Public spending of resource revenues on both consumption and investments in tangible assets has been widely criticised due to government failures, which can be categorised into two broad groups:

1. **Political inefficiencies in public investment** – These include elite capture (through corruption, nepotism, and politically motivated incentives) and weak tax collection efforts, which can hinder accountability.
2. **Economic inefficiencies in public investment** – These arise from government incapacity for effective investment, limited absorptive capacity, and exclusion issues, as well as financial instability due to commodity price volatility and the **Dutch disease** (Lebdioui, 2020, p. 5).

1.5 Theoretical Foundation of the Role of FDI in Public Revenue Diversification

FDI can contribute to public revenue growth, as directing foreign investments into specific economic activities can enhance the national treasury, either directly or indirectly.

FDI can have a **direct impact** on public revenue growth by increasing tax revenue, duties, and domain income (such as state-owned assets). Moreover, **indirectly**, FDI can support public revenue by financing public projects, particularly in infrastructure, which can have a positive spillover effect on local economic sectors and subsequently lead to long-term public revenue growth.

2. Methodology

The significance of this research stems from the importance of FDI across various sectors of the Omani economy and its crucial role in diversifying and increasing sources of public revenue. To achieve the research objective, data from the **National Centre for Statistics and Information** and the **Ministry of National Economy**—specifically, the **Foreign Investment Statistics Bulletin** and the **Annual Statistical Yearbook** of the **Sultanate of Oman**—were utilised. The research aims to clarify the role of FDI across different sectors of the local economy in diversifying public revenue in Oman over the period **2002–2022**.

The research problem is summarised in answering the following question:

Has FDI across different sectors of the local economy contributed to diversifying and increasing sources of public revenue?

This question defines the role of FDI over different timeframes.

The research is based on the hypothesis that **FDI across specific economic sectors can target key industries that contribute to the creation or expansion of public revenue, thereby leading to a more diversified and increased revenue base in the economy.**

The research employs the **inductive analytical method**, which involves analysing the evolution of FDI and public revenue data over a specific time series. This allows for an examination of the economic reality, an analysis of economic phenomena and their development over the study period, and the deduction of the resulting economic impacts.

To measure the relationship between the economic Var.s used in this research, the **A.R.D.L model** was applied as follows:

$$TR = c + \lambda TR_{t-1} + \beta_1 FO_{t-1} + \beta_2 FOT_{t-1} + \sum_{i=1}^{n} a_1 TR_{t-i} + \sum_{i=0}^{m} a_2 FO_{t-i} + \sum_{i=0}^{m} a_3 FOT_{t-i} + \mu_t$$

2.1 Data Analysis

The development of **FDI** and **public revenues** in the Omani economy over the research period can be analysed using **Tables (1 and 2)**, as follows:

Table (1): Development of **FDI at Current Prices** in the Omani Economy for the Period **2002–2022** (Million Omani Rials).

% contribution of FDI in other sectors	FDI contribution to the oil and gas %sector	Growth %rate	Total	Growth %rate	FDI in other sectors	Growth %rate	FDI in the oil and gas extraction sector	Years
54.3	45.7		720.4		391.5		328.9	2002
52.1	47.9	29.0	929.4	23.7	484.1	35.4	445.3	2003
55.0	45.0	1.8	945.7	7.5	520.5	-4.5	425.2	2004
57.2	42.8	68.0	1588.9	74.6	908.7	60.0	680.2	2005
60.9	39.1	38.4	2199.4	47.4	1339.1	26.5	860.3	2006
59.0	41.0	60.0	3518.8	55.0	2075.6	67.8	1443.2	2007
53.0	47.0	27.6	4491.0	14.6	2378.6	46.4	2112.4	2008
47.4	52.6	12.5	5053.1	0.8	2396.7	25.8	2656.4	2009
50.1	49.9	9.0	5505.7	15.2	2760.8	3.3	2744.9	2010
54.0	46.0	10.5	6086.1	19.0	3284.6	2.1	2801.5	2011
52.8	47.2	5.1	6395.8	2.8	3377.8	7.7	3018.0	2012
48.4	51.6	8.3	6926.2	-0.8	3349.1	18.5	3577.1	2013
46.0	54.0	9.1	7556.7	3.8	3475.4	14.1	4081.3	2014
56.7	43.3	-8.8	6889.4	12.4	3907.7	-26.9	2981.7	2015
50.8	49.2	17.3	8079.1	4.9	4100.3	33.4	3978.8	2016
40.9	59.1	32.0	10662.2	6.4	4363.4	58.3	6298.8	2017
32.7	67.3	19.1	12694.2	-4.8	4154.1	35.6	8540.1	2018
32.9	67.1	5.7	13412.5	6.1	4406.2	5.5	9006.3	2019

36.4	63.6	6.3	14261.1	17.7	5184.1	0.8	9077.0	**2020**
31.4	68.6	24.6	17762.6	7.7	5584.9	34.2	12177.7	**2021**
28.9	71.1	15.9	20592.6	6.6	5953.7	20.2	14638.9	**2022**

The table has been prepared by the researchers based on the following sources:

- **National Centre for Statistics and Information** – *Foreign Investment, Sultanate of Oman, various editions from different years.*
- **Ministry of National Economy** – *Foreign Investment Statistics Bulletin, Directorate General of Economic Statistics, Sultanate of Oman, various editions from different years.*

The **simple growth rate** has been calculated using the following formula:

$$r=\left(\frac{P_t - P_{t-1}}{P_{t-1}}\right) \times 100$$

2.1.1 FDI

For the purpose of analysis, **FDI** has been categorised based on **sectors**, specifically:

- **Oil and Gas Extraction Sector**
- **Other Economic Sectors**

2.1.1.1 Oil and Gas Extraction Sector

Table (1) illustrates that **FDI in the oil and gas sector** experienced growth in most years of the study period. In **2003**, FDI grew by **35.4%**, following an increase in global oil prices. The highest growth rate was recorded in **2007**, at **67.8%**, due to the continued rise in oil prices, highlighting the increasing concentration of **FDI in the oil and gas sector**. However, in **2015**, the sector witnessed the largest decline in **FDI**, with a **26.9% decrease**, following the collapse in global crude oil prices. This confirms that rising oil prices act as a catalyst for increased **FDI**, which in turn leads to higher public revenues.

Throughout the study period, the **FDI contribution to the oil and gas sector** remained consistently high. The lowest recorded contribution was in **2006** at **39.1%**, while the highest was in **2022** at **71.1%**, demonstrating a continued focus of **FDI on oil and gas extraction**. This further reflects the persistent **resource-dependent nature** of the Omani economy.

2.1.1.2 Other Sectors

Table (1) presents **FDI in non-oil economic sectors**, showing that **FDI in the overall non-oil sectors of the national economy exhibited varying growth rates**. The highest growth rate was recorded in **2005 at 74.6%**, reflecting an increase in **FDI inflows into non-oil sectors**. In contrast, the **largest decline occurred in 2018, with a decrease of 4.8%**.

The highest **FDI contribution to non-oil sectors** was recorded in **2006 at 60.9%**, but this share **declined in subsequent years**, reaching its lowest level in **2022 at 28.9%**. This indicates a **shrinking share of non-oil sectors in total FDI**, reducing their importance in **generating and increasing public revenues**.

2.1.2 Public Revenues

Table (2) provides an overview of the **development of public revenues** in the Omani economy over the research period.

2.1.2.1 Total Oil Revenues

Total oil revenues, including **net oil revenues and natural gas revenues**, experienced growth in most years of the study period, primarily driven by **global oil price trends**. The revenues increased at the start of the **time series** but declined in **2009 by 13.0%**, following the **U.S. subprime mortgage crisis**, which impacted the global economy.

As oil prices **recovered**, oil revenues resumed their growth trajectory, recording a **40.2% increase in 2011**. However, following the **global collapse in oil prices**, total revenues declined significantly in **2015 by 40.0%**. The highest growth in **oil revenues was recorded in 2021, at 42.1%**, following a **gradual recovery in oil prices**.

Table (2) highlights the **high contribution of oil revenues to total public revenues** throughout the research period, confirming the **rentier nature of the Omani economy**. The highest contribution of **oil revenues** was recorded in **2013 at 85.7%**, while the lowest contribution was in **2020 at 68.2%**.

2.1.2.2 Non-Oil Revenues

By examining the **time series in Table (2)**, fluctuations in **non-oil revenue growth rates** become apparent. The most significant **decline in non-oil revenues** occurred in **2009, with a decrease of 6.7%**, while the highest **growth rate was recorded in 2016, at 25.6%**.

The **contribution of non-oil revenues** to total public revenues remained **low** throughout the research period. The lowest **share** was observed in **2013 at 14.3%**, whereas **2020 recorded the highest contribution at 31.8%**, following a decline in **oil revenue share**.

These findings indicate that **the abundance of oil revenues has diminished the relative importance of other revenue sources**, reinforcing the economy's dependence on oil.

Table (2) Development of public revenues at current prices in the Omani economy (for the period 2002-2022 (million Omani riyals

The percentage of non-oil revenues to public revenues%	The percentage of oil revenues' contribution to public revenues%	Growth rate %	Total public revenue	Growth rate %	Non-oil revenues	Growth rate %	Total oil revenues	Growth rate %	Natural gas revenues	Growth rate %	Net oil revenue	Years
24.3	75.7		3010		732.4		2277		76.6		2201	2002
27.3	72.7	9.8	3305	23.1	901.9	5.5	2403	13.6	87	5.3	2316	2003
21.9	78.1	22.2	4040	-1.9	884.4	31.3	3156	188.4	250.9	25.4	2905	2004
21.2	78.8	11.6	4511	8	955	12.7	3556	56.9	393.6	8.8	3162	2005
22.9	77.1	10.4	4980	19.4	1141	8	3839	55.9	613.5	2	3226	2006
24.2	75.8	18.9	5921	25.5	1432	16.9	4489	32.2	810.9	14	3678	2007
21.4	78.6	29	7639	14.3	1636	33.7	6003	12.2	909.9	38.5	5093	2008
22.6	77.4	-11.7	6748	-6.7	1527	-13	5222	-19.6	731.3	-11.8	4491	2009
19.2	80.8	17.3	7916	-0.7	1516	22.6	6400	27.2	929.9	21.8	5470	2010
15.6	84.4	34.2	10625	9	1653	40.2	8971	26.1	1173	42.6	7798	2011
15.3	84.7	26.8	13474	24.5	2059	27.2	11415	35	1584	26.1	9831	2012
14.3	85.7	3.2	13908	-3.7	1983	4.5	11925	-5.6	1495	6.1	10430	2013
15.7	84.3	1.4	14108	11.7	2215	-0.3	11893	12.9	1688	-2.2	10205	2014
21.3	78.7	-35.7	9068	-13	1927	-40	7141	-12	1484	-44.6	5656	2015

|												
31.8	68.2	-16.1	7608	25.6	2420	-27.3	5188	3.5	1537	-35.4	3651	2016
27.1	72.9	11.9	8514	-4.6	2308	19.6	6206	-0.8	1524	28.2	4682	2017
21.8	78.2	28.6	10950	3.2	2382	38	8567	33.2	2031	39.6	6536	2018
24.5	75.5	-3.3	10589	8.7	2590	-6.6	7999	-6.4	1901	-6.7	6099	2019
31.8	68.2	-19.7	8503	4.5	2706	-27.5	5798	-2.1	1860	-35.4	3938	2020
26.4	73.6	31.7	11195	9.2	2953	42.1	8241	41.3	2629	42.5	5613	2021
22.8	77.2	29.3	14473	11.7	3300	35.6	11172	35	3548	35.8	7625	2022
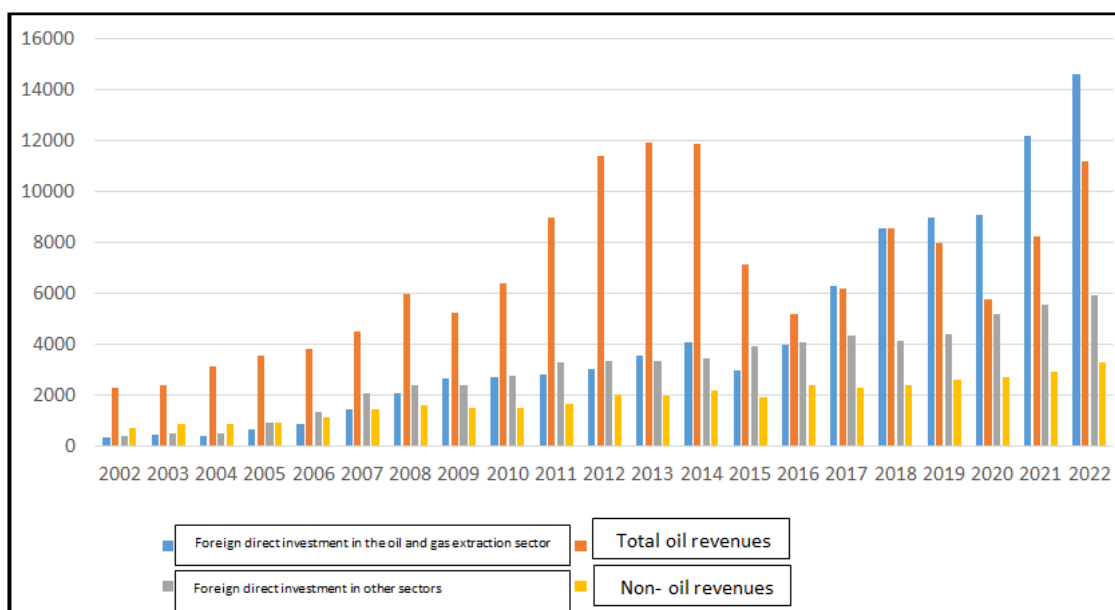
Figure (1): Development of FDI and Public Revenues in the Omani Economy for the Period 2002–2022 (Million Omani Rials)

The figure has been prepared by the researchers based on **Tables (1 and 2)**.

Figure (1) illustrates the increase in **total oil revenues** in most years of the study period, which coincides with the **rise in FDI in the oil and gas extraction sector**.
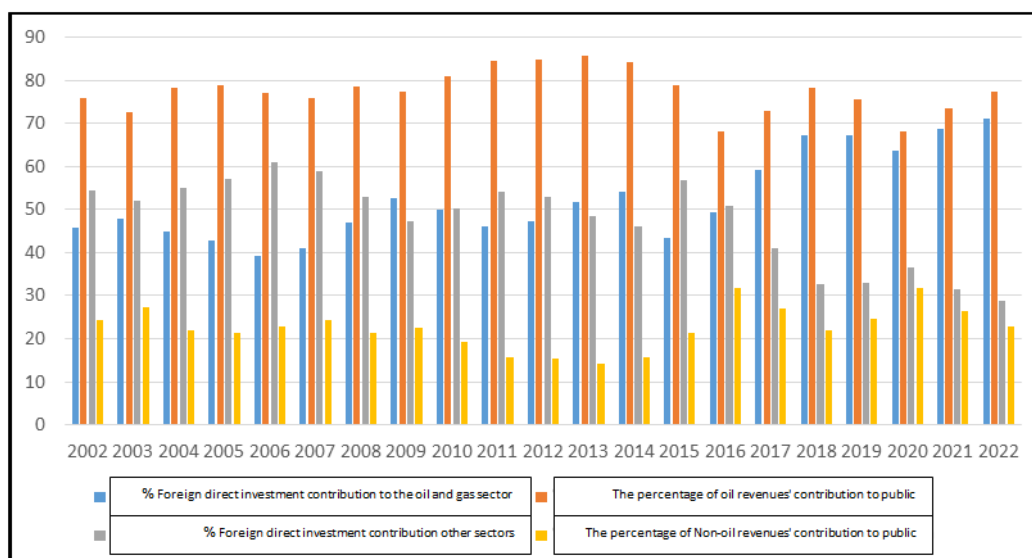
Figure 2. Evolution of the contribution of FDI and public revenues to the Omani economy for 2002-2022

Figure (2): Increase in the Contribution of Oil Revenues to Total Public Revenues, Coinciding with the Rise in FDI in the Oil and Gas Sector

Figure (2) illustrates the **increase in the percentage contribution of oil revenues to total public revenues**, which coincides with the **rise in FDI in the oil and gas sector**.

2.2 Analysis of Econometric Test Results

The econometric analysis in this research is based on a set of **economic Var.s**, which can be expressed by the following function:

TR=F(FO,FOT) Where:

- **TR** – Total Public Revenues (**Dependent Var.**)

The **independent Var.s** are:

- **FO** – FDI in the Oil and Gas Sector
- **FOT** – FDI in Other Sectors

2.2.1 Unit Root Test

Table (3) presents the results of the **Augmented Dickey-Fuller (ADF) Unit Root Test**. The results indicate that **all Var.s are stationary at the first difference**.

- The **TR Var.** is stationary **with an intercept only** at a **10% significance level** and **without an intercept and trend** at a **1% significance level**.
- The **FO Var.** is stationary **with an intercept and trend** at a **5% significance level**.
- The **FOT Var.** is stationary **with an intercept only** at a **1% significance level**, **with an intercept and trend** at a **5% significance level**, and **without an intercept and trend** at a **10% significance level**.

Table 3: Extended Dickie Fuller test for the root of the unit

UR TEST
Null Hypothesis: the Var. has a unit root
At Level

		TR	FO	FOT
With Constant	t	-1.6366	3.0639	0.0202
	Sig..	*0.4455*	*1.0000*	*0.9500*
		no	no	no
With Constant & Trend	t	-2.6777	0.8774	-2.7335
	Sig..	*0.2549*	*0.9994*	*0.2355*
		no	no	no
Without Constant & Trend	t	0.7468	4.3340	3.9297
	Sig..	*0.8676*	*0.9999*	*0.9998*
		no	no	no
	At First Difference			
		d(TR)	d(FO)	d(FOT)
With Constant	t	-2.9274	-0.4506	-4.1370
	Sig..	*0.0607*	*0.8775*	*0.0057*
		*	no	***
With Constant & Trend	t	-2.8015	-4.4668	-4.0168
	Sig..	*0.2133*	*0.0122*	*0.0278*
		no	**	**
Without Constant & Trend	t	-2.7744	0.5785	-1.8356
	Sig..	*0.0083*	*0.8304*	*0.0643*
		***	no	*

Notes:
a: (*)Significant at the 10%; (**)Significant at the 5%; (***) Significant at the 1% and (no) Not Significant
b: Lag Length based on SIC
c: Probability based on MacKinnon (1996) one-sided p-values.

Table of researchers preparing based on E-views12.

2.2.2 Estimating the Public Revenue Function Using the A.R.D.L Model
Table (4) presents the **ARDL test results** for the **public revenue function**. The findings indicate that:

- **R2 = 0.881204**, meaning that the **independent Var.s explain 88.12%** of the variation in the **dependent Var.**. The remaining **11.88%** is attributed to **other factors not included in the model** and the **random error term**.
- **Adjusted R2 = 0.816407**.
- **F = 13.59932**, which is **significant at the 1% level**, confirming that the estimated model is **statistically significant**.
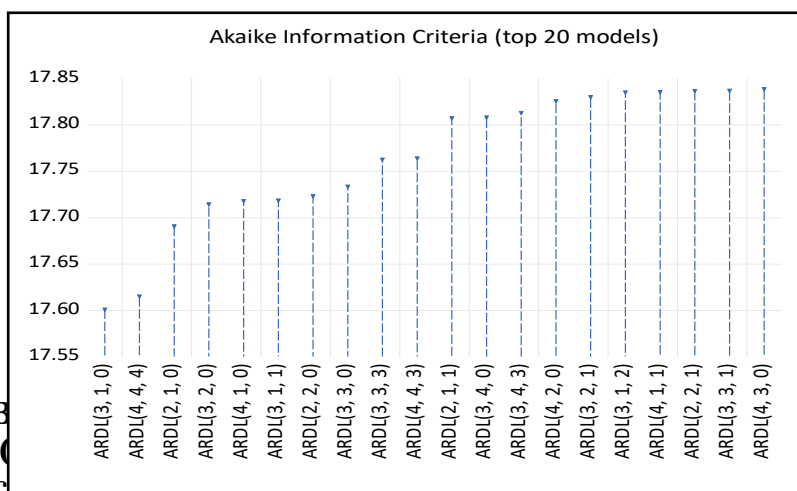
Table

Var.	Coef.	S.E.	t	Sig..*
TR(-1)	1.288235	0.213661	6.029334	0.0001
TR(-2)	-0.434589	0.294667	-1.474845	0.1683
TR(-3)	-0.386629	0.260071	-1.486625	0.1652
FO	1.418288	0.492071	2.882283	0.0149
FO(-1)	-2.073551	0.596402	-3.476767	0.0052
FOT	1.996902	1.116716	1.788191	0.1013
C	-477.7724	1442.864	-0.331128	0.7468
R2	0.881204	Mean dependent var		9484.839
Adjusted R2	0.816407	S.D. dependent var		3124.944
S.E. of regression	1338.970	Akaike info criterion		17.52249
Sum squared resid	19721240	Schwarz criterion		17.86875
Log likelihood	-150.7024	Hannan-Quinn criter.		17.57023
F	13.59932	Durbin-Watson stat		1.999061
Sig.(F)	0.000161			
*Note: p-values and any subsequent tests do not				

> account for model
> selection.

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Based on the Akaike standard, shown in figure 3, the optimal slowdown periods are (3,1,0), since they give the least value.

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2.2.3 B

Table (...s show that the **F = 2.769245**.
When c... ...ance level, it is observed that the F is **greater than the lower bound (2.63) but smaller than the upper bound (3.35)**.
This places the result within the **inconclusive decision region**, meaning that it is not possible to definitively confirm or reject the existence of a **long-term equilibrium relationship** between the Var.s.

Table 5 Boundary Test

F-Bounds Test				
Test Statistic	**Value**	**Signif.**	**I(0)**	**I(1)**
F	2.769245	10%	2.63	3.35
k	2	5%	3.1	3.87
		2.5%	3.55	4.38
		1%	4.13	5

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2.2.4 Diagnostic Tests

2.2.4.1 Serial Correlation LM Test

Table (6) presents the results of the **Serial Correlation LM Test**. The findings indicate that the **p-values for the F and Chi-Square** are **not significant at the 5% level**.
This suggests that the **estimated model does not suffer from the Sig.lem of serial correlation in the residuals**, and therefore, the **null hypothesis is accepted**.

Table 6 results of the serial link test

LM Test:			
F	0.027754	Prob. F(2,9)	0.9727
Obs*R2	0.110334	Prob. Chi-Square(2)	0.9463

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2.2.4.2 Heteroskedasticity Test

Table (7) presents the results of the **Heteroskedasticity Test**. The findings indicate that the **p-values for the F and Chi-Square** are **not significant at the 5% level**.

This suggests that the **estimated model does not suffer from heteroskedasticity**, meaning that the **null hypothesis is accepted**.
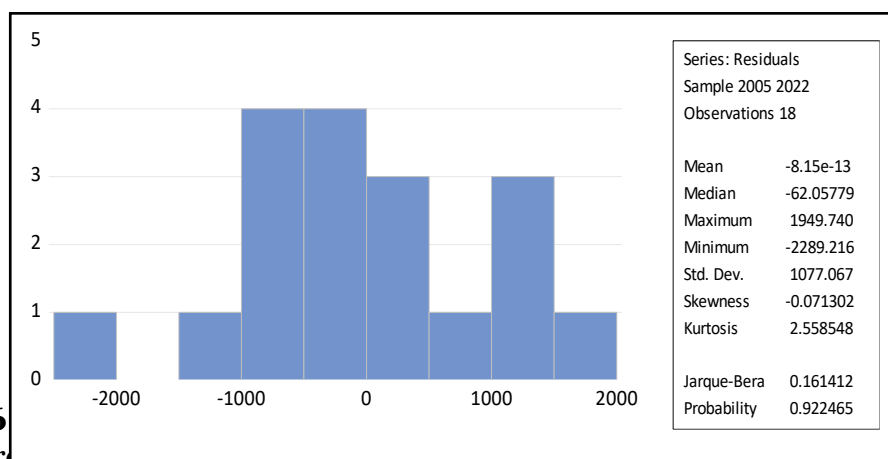
Table 7: Inequality test

Heteroskedasticity Test			
F	0.447266	Prob. F(6,11)	0.8326
Obs*R2	3.530118	Prob. Chi-Square(6)	0.7400
Scaled explained SS	1.027353	Prob. Chi-Square(6)	0.9846

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2.2.5 Histogram-Normality Test

Figure (4) illustrates the results of the **Histogram-Normality Test**. The findings show that the **p-value for the Jarque-Bera test** is **not significant at the 5% level**.

This indicates that the **estimated model follows a normal distribution of random errors**.

Series: Residuals	
Sample 2005 2022	
Observations 18	
Mean	-8.15e-13
Median	-62.05779
Maximum	1949.740
Minimum	-2289.216
Std. Dev.	1077.067
Skewness	-0.071302
Kurtosis	2.558548
Jarque-Bera	0.161412
Probability	0.922465

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2.2.6 ...Model

According to Figure (5), the Theil U2 is 0.211, which is close to zero. Additionally, the **bias proportion (BP) is 0.021**, the **variance proportion (VP) is 0.078**, both of which are also **very close to zero**.

Meanwhile, the **covariance proportion (CP) is 0.900**, which is **close to one**.

These results indicate that the **estimated model is reliable for forecasting purposes and for guiding future economic policymaking**.
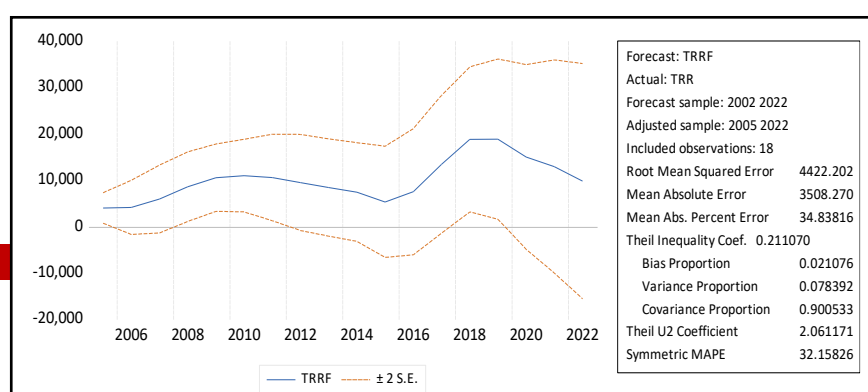

Forecast: TRRF	
Actual: TRR	
Forecast sample: 2002 2022	
Adjusted sample: 2005 2022	
Included observations: 18	
Root Mean Squared Error	4422.202
Mean Absolute Error	3508.270
Mean Abs. Percent Error	34.83816
Theil Inequality Coef.	0.211070
Bias Proportion	0.021076
Variance Proportion	0.078392
Covariance Proportion	0.900533
Theil U2 Coefficient	2.061171
Symmetric MAPE	32.15826

Figure 5. Predictive performance test for the error correction model
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2.2.7 Structural Stability Test of Model Parameters

Based on **Figure (6-A)**, the **CUSUM test** shows that the **cumulative sum of residuals lies within the critical bounds**, indicating that the **estimated parameters are stable at the 5% significance level**.
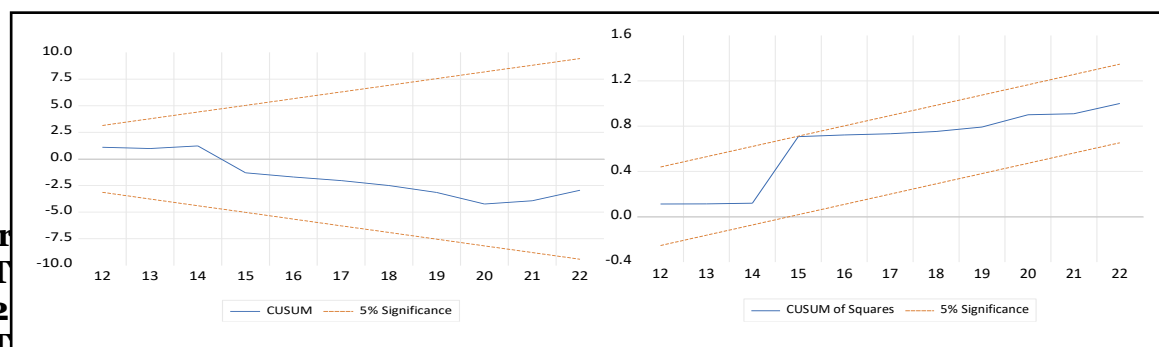
Similarly, according to **Figure (6-B)**, the **CUSUM of Squares test** confirms that the **cumulative sum of squared residuals remains within the critical bounds**, meaning that the **Var.s included in the model are stable at the 5% significance level**.

A   B

2.2.8.1 Estimation of Short-Term Parameters and the Error Correction Term

Table (8) shows that **FDI in the oil and gas sector has a statistically significant positive impact on total public revenues at the 1% significance level**.

This means that **an increase in FDI in the oil and gas sector by one unit leads to an increase in public revenues by 1.41 units**, indicating that **higher FDI in the oil and gas sector enhances public revenues**, which is consistent with **economic reasoning**.

Table 8: Short-term parameters and error correction model

ECM Regression Case 2:				
.Var	**.Coef**	**.S.E**	**t**	**Sig..**
D(TR(-1))	0.821217	0.190427	4.312494	0.0012
D(TR(-2))	0.386629	0.216990	1.781779	0.1024
D(FO)	1.418288	0.265543	5.341090	0.0002
CointEq(-1)*	-0.532983	0.141950	-3.754727	0.0032
R2	0.729185	Mean dependent		579.577

		var	8
Adjusted R2	0.671154	S.D. dependent var	2069.696
S.E. of regression	1186.870	Akaike info criterion	17.18916
Sum squared resid	19721240	Schwarz criterion	17.38702
Log likelihood	-150.7024	Hannan-Quinn criter.	17.21644
D.W TEST	1.999061		

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As shown in **Table (8)**, the **error correction term CointEq(-1) = -0.532983** is **negative and statistically significant at the 1% level**. However, since its absolute value is **less than one**, this indicates that the **speed of adjustment is very slow**.

Specifically, the adjustment process requires **1 / 0.532983 = 1.876**, meaning **it takes more than a year to correct short-term imbalances and reach long-term equilibrium**.

2.2.8.2 Long-Term Parameters

Table (9) indicates that **FDI in the oil and gas sector has a statistically significant impact on public revenues at the 5% significance level in the long term**. However, this effect is **negative**, meaning that **an increase in FDI in the oil and gas sector by one unit will lead to a decrease in public revenues by 1.22 units in the long run**.

This can be explained by the fact that **higher public revenues derived from oil rents reduce the significance of other revenue sources**, either **directly** (due to an abundance of rent-based wealth) or **indirectly**, as **oil rents influence the exchange rate, thereby weakening the ability of other sectors to generate revenue**.

Table 9. Long-term parameters

Equation Levels Case 2:				
.Var	**.Coef**	**.S.E**	**t**	**Sig..**
FO	-1.229426	0.537463	-2.287464	0.0430
FOT	3.746656	1.225734	3.056663	0.0109
C	-896.4128	2674.968	-0.335112	0.7438
EC = TRR - (-1.2294*FOR + 3.7467*FOTR - 896.4128)				

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Meanwhile, **Table (9)** shows that an **increase in FDI in non-oil sectors** has a **statistically significant positive impact on public revenues at the 5% significance level in the long term**.

This means that **an increase in FDI in non-oil sectors by one unit will lead to an increase in public revenues by 3.74 units in the long run**.

Thus, **directing FDI towards non-oil economic sectors contributes to diversifying revenue sources, ultimately leading to higher public revenues in the long term**.

Discussion of Results

The impact of FDI on the Omani economy has been the subject of several studies. To the best of our knowledge, however, no particular analysis has been done on the effect of FDI by sector (oil and gas extraction vs other sectors) on public revenues.

For example, Bait Ali Sulaiman & Shabbir (2020) contend that Oman's infrastructure, accessibility, policy environment, and regulatory framework all play a significant role in luring FDI. They do, however, contend that Oman should prioritize creating rules that are welcoming to investors and enhancing the business climate.

Similarly, Pauceanu (2016, p. 392) highlights that two key factors attracting foreign investment to the region are political and economic stability. Additionally, factors like low corporate operating costs, a large market, and high purchasing power make Oman an appealing destination for investments. This suggests that the Omani government has enhanced incentives for foreign investment through the implementation of several beneficial legislation and regulations, lower tax rates, free zones, and business incubators.

The **key contribution** of this research lies in measuring the **role of FDI**, categorised into **two main sectors**:

1. **FDI in the oil and gas extraction sector**
2. **FDI in non-oil economic sectors**

The **econometric tests** indicate that in the **short term**, **FDI in the oil and gas extraction sector has a statistically significant positive impact on public revenues**.

However, in the **long term**, the findings reveal that:

- **FDI in the oil and gas extraction sector has a statistically significant negative impact on public revenues**.
- **FDI in non-oil sectors has a statistically significant positive impact on public revenues**.

This underscores the importance of **diversifying revenue sources beyond oil rents**, reinforcing the **need to promote FDI in non-oil sectors** to ensure sustainable economic growth and financial stability.

Conclusions

FDI across different sectors of the **local economy** contributes to **creating new sources of revenue or increasing public revenues**, thereby **diversifying and expanding public revenue streams** within the economy.

By analysing the **time series data**, it is evident that **FDI remains heavily concentrated in the oil and gas extraction sector**, while its role in **non-oil economic sectors has declined**. This highlights the **continued reliance on a rentier economic structure**. Furthermore, the dominance of **oil and gas revenues in total public revenues** is closely aligned with the increasing share of **FDI in the same sector**.

The **econometric tests** reveal that in the **short term**, **FDI in the oil and gas extraction sector has a statistically significant positive impact on public revenues**, meaning that **higher FDI inflows lead to increased public revenues**.

Nonetheless, the results show that FDI in the oil and gas industry has a statistically significant detrimental effect on public income over the long run. This is explained by the fact that other revenue streams become less significant over the long run as a result of the constant influx of rent-based income.

Similarly, Pauceanu (2016, p. 392) highlights that two key factors attracting foreign investment to the region are political and economic stability. Additionally, factors like low corporate operating costs, a large market, and high purchasing power make Oman an appealing destination for investments. This suggests that the Omani government has enhanced incentives for foreign investment through the implementation of several beneficial legislation and regulations, lower tax rates, free zones, and business incubators.

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