UNIVERSITY OF GDAŃSK - FACULTY OF ECONOMICS

Salih Ahmed Elfurti

Field of science: Social Sciences
Scientific discipline: Economics and Finance

FOREIGN DIRECT INVESTMENT AS A FACTOR OF LIBYA'S ECONOMIC DEVELOPMENT

Doctoral dissertation supervised by
Dr hab. Sylwia Pangsy-Kania
Professor at University of Gdansk

Sopot, 2025

Streszczenie

ZAGRANICZNE INWESTYCJE BEZPOŚREDNIE JAKO CZYNNIK ROZWOJU GOSPODARCZEGO LIBII

Salih Ahmed Elfurti

Zagraniczne inwestycje bezpośrednie (ZIB) odgrywają kluczową rolę w promowaniu wzrostu gospodarczego i rozwoju w krajach je przyjmujących, uwzględniając wzrost zatrudnienia, transfer innowacji oraz integrację z globalną gospodarką. W niniejszej rozprawie zbadany został wpływ zagranicznych inwestycji bezpośrednich na rozwój gospodarczy Libii, ze szczególnym zwróceniem uwagi na stabilność polityczną, zmienne makroekonomiczne oraz zasoby pracy. Wykorzystując dane z lat 1990-2021 oraz metodę Autoregressive Distributed Lag (ARDL) zbadana została stacjonarność w krótkim i długim okresie, współzależność oraz przyczynowość pomiędzy analizowanymi zmiennymi, którymi były: eksport ropy naftowej i gazu, inflacja, PKB per capita, otwartość handlowa, kursy wymiany, zasoby pracy oraz zagraniczne inwestycje bezpośrednie.

Wyniki empiryczne wskazują, że tylko eksport ropy naftowej i gazu oraz kurs wymiany mają istotny pozytywny wpływ na napływ ZIB do Libii. Inflacja wykazuje pozytywny wpływ na FDI w krótkim okresie, ale nie ma istotności w okresie długim, podczas gdy otwartość handlowa i PKB per capita nie mają istotnego wpływu na ZIB w żadnym z okresów czasowych. Analiza pokazuje również, że zarówno zasoby pracy, jak i ZIB pozytywnie wpływają na wzrost gospodarczy Libii, zarówno w krótkim, jak i długim okresie. Jednak eksport ropy naftowej i gazu wykazuje negatywną zależność względem PKB, skutkując obniżeniem kosztów produkcji przy zmniejszeniu wolumenu eksportu.

Wyniki badań wskazują na potrzebę wdrożenia polityk stabilizujących kursy wymiany, optymalizujących eksport zasobów oraz rozwijających wykwalifikowaną siłę roboczą, aby przyciągnąć ZIB i wspierać zrównoważony wzrost gospodarczy w Libii. Rozprawa zawiera rekomendacje oparte na badaniach empirycznych uzyskanych w wyniku analizy danych z lat 1990-2021 oraz wynikach testów predykcyjnych na kolejne dziewięć lat. Wnioski te, szczegółowo przedstawione w Rozdziale 7, sugerują, że decydenci i przyszłe rządy powinny podejmować świadome decyzje dotyczące przyciągania ZIB oraz strategii rozwoju gospodarczego Libii.

Słowa kluczowe: zagraniczne inwestycje bezpośrednie, stopa inflacji, kurs wymiany, otwartość handlowa, eksport ropy naftowej i gazu, PKB *per capita*, zasoby ludzkie, determinanty napływu ZIB, wzrost gospodarczy, rozwój gospodarczy, Libia.

FOREIGN DIRECT INVESTMENT AS A FACTOR OF LIBYA'S ECONOMIC DEVELOPMENT
[Salih Ahmed Elfurti]

Abstract

Foreign Direct Investment (FDI) play a crucial role in promoting economic growth and development efforts in host countries, including employment growth, transfer of innovation, and integration into the global economy. This dissertation investigates the impact of FDI on Libya's economic development, with particular focus on political stability, macroeconomic variables, and labor force dynamics. Using annual data from 1990 to 2021, an Autoregressive Distributed Lag (ARDL) approach examined short- and long-run stationarity, cointegration, and causality among variables including oil and gas exports, inflation, GDP per capita, trade openness, exchange rates, labor force, and FDI.

Empirical results indicate that only crude oil and gas exports and the exchange rate exert significant positive impacts on FDI inflows to Libya. Inflation shows a short-run positive effect on FDI but lacks long-run significance, while trade openness and GDP per capita do not significantly influence FDI in either time horizon. The analysis also shows that both the labor force and FDI positively affect Libya’s economic growth in both the short and long run. However, crude oil and gas exports exhibit a negative relationship with GDP, reflecting reduced production costs when export volumes decrease. These findings underscore the need for policies that stabilize exchange rates, optimize resource exports, and develop a skilled labor force to attract FDI and foster sustainable economic growth in Libya.

The dissertation includes recommendations based on empirical outcomes derived from testing the data collected during the study period (1990-2021) and the results of prediction tests for the next nine years. These insights, detailed in Chapter 7, suggest that policymakers and future governments should make informed decisions regarding the attraction of FDI and the economic development strategy in Libya.

Keywords: foreign direct investment, inflation rate, exchange rate, openness trade, crude oil and gas export, GDP per capita, human resources, determinants of FDI inflows, economic growth, economic development, Libya.

Acknowledgements

During this journey During this journey, I have met wonderful individuals who have supported, prayed for, and advised me in achieving my goal of completing my doctoral studies at one of the best economic universities in Poland. I would like to take this opportunity to express my gratitude for each moment and word of encouragement that has uplifted my spirit.

First and foremost, I thank God for granting me the strength and power throughout this experience, far away from my home and family for many years, to obtain a high qualification in education (PhD) from the renowned Gdansk University of Economics.

I am deeply grateful to my family for the support I received during this crucial time. My father played a significant role in my academic journey since my first days at school; losing him was not easy. "Oh God, forgive him and have mercy on him." I extend my heartfelt thanks to my mother for her unwavering prayers, love, and support. Her influence has shaped me into the person I am today, and I am eternally grateful for her presence in my life. I wish her good health and happiness, trusting that God will continue to bless her as she has blessed our family with her love and devotion.

To my supervisor, I am profoundly thankful and highly appreciative of your time, guidance, and support while completing my research study. Your prompt responses and valuable insights have been instrumental in my success. I would also like to thank the board of Gdansk University for accepting my PhD topic and providing me with the opportunity to achieve my dream of earning a PhD degree at Gdansk University.

Finally, I would like to express my gratitude to all my teachers and classmates for being a part of my academic journey since my first class in school. Your companionship and support have made this experience enriching and memorable.

List of publications

Salih, A. E. (2025). The impact of inflation and GDP per capita on the foreign direct investment in Libya. National Scientific Conference 9th edition, www.promovendi.pl. ISBN: 978-83-973073-2-2

Rutkowska, M., Tutaj, J., Malafikh, N. S.S., Łasecki, M., Elfurti, S.A.(2022). Practical management of decision problems in regional organization. Book, Case study: Final product management. Published at CeDeWu Sp. z o.o. ISSN 978-83-8102-570-6. PDF

Abbreviations

ARCH	Autoregressive Conditional Heteroskedasticity
ARDL	Autoregressive Distributed Lag
CH	Humane Capital
EXR	Exchange Rate
FAD	Fund for Agriculture Development
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FDIF	Foreign Direct Investment Future
FDIF	Foreign Direct Investment Future
FI	Foreign Investment
GCRG	Global Crisis Response Group
GDP	Gross Domestic Product
GDPF	Gross Domestic Product Future
GECL	General Electric Company of Libya
HCI	Humane Capital Index
HR	Humane Resource
IC	Investment Climate
IDV	Individualism Distance Index
ILO	International Labour Organization
IMF	International Monetary Fund
INF	Inflation Rate
IREA	International Renewable Energy Agency
LAB	Libyan Audit Bureau
LCAA	Libyan Civil Aviation Authority
LF	Labor Force
LF	Labor Force
LIA	Libya Investment Authority
LM	Lagrange Multiplier
LOOS	Libya Office of Statistics
LYD	Libyan Dinar
LYD	Libyan Dinar
M&A	Merger and Acquisition
MNCs	Multinational Corporations
MNEs	Multinational enterprises
O&GENR	Oil and Gas Export Natural Resource
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Squares
OPEC	World Organization of Petroleum Countries Reports
OT	Openness Trade
OT	Openness Trade
PC	Per Capita
PC	Per Capita
PDI	Power Distance Index
RGDP	The actual gross domestic product
RMB	Chinese Currency
SEZ	Special Econonmic Zones

SSA	Sub-Sharan Africa
UAE	United Arab Emirates
UAI	Uncertainty Avoidance Index
UENOCL	European Union National Oil Company of Libya
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
US	United State
US	United State currency
US	United State currency
VECM	Vector Error Correlation Model
VIF	Variance Inflation Factors
WBDIs	World Bank Development Indicators
WHO	World Health Organization
WIRs	World Investment Reports
WTO	World Trade Organization

Table of Contents

Introduction

Foreign investment inflows, particularly foreign direct investment (FDI), play a strategic role in a country's development by addressing capital shortages and facilitating technology transfer. FDI is widely perceived to positively impact a host country's economic growth through direct and indirect channels. Over the past few decades, many countries have amended their laws, regulations, and international agreements governing foreign investment. They have also opened financial markets and removed restrictive policies, reflecting a global trend toward liberalizing capital movement and encouraging foreign investment. (Banga, 2003; Hunya, 2000; Saxegaard, 2011; Okwu et al., 2020). Following a period of interest in Asia's economic opportunities, investors shifted their focus to African countries, creating opportunities for accelerating Libya's economic development. Foreign direct investment plays a crucial role in the socio-economic development of Africa. Investments related to new technologies, infrastructure and the manufacturing industry are particularly valuable for host countries as they enhance economic competitiveness.

There is usually a negative correlation between the possession of minerals or oil and political stability and democratization in Africa. Since numerous reforms are being introduced in some countries, further growth in FDI inflows to Africa can be expected. These reforms improve the investment climate. Due to the undercapitalization of African economies, these investments can – with the proper allocation of the associated profits – play a significant role in improving the standard of living for the inhabitants of the continent (Czernichowski, 2009).

In the case of Libya, foreign direct investment-inward FDI is heavily concentrated on the energy sector, which is considered the country's primary source of wealth. Oil, Libya's dominant export commodity, provides over 90% of the national income through the exploration and sale of crude oil and its derivatives. This has significantly helped society to emerge from the poverty experienced before the discovery of oil while also significantly increasing the nation's GDP.

From 1970 to 1994, Libya successfully developed several sectors, including the construction of new schools, universities, hospitals, public services centers, and electricity stations, as well as the establishment of production industries that met local market demands. However, since 1994, Libya has faced political conflicts with other countries with advanced economies, leading these nations to halt trade and cooperation with Libya in different fields. In recent years, Libya has attempted to overcome the negative impact experienced over the past

decades by preparing a development plan. This plan covers all sectors and aims to attract foreign companies to benefit from its experience and advanced technology.

Additionally, 90% of Libya's foreign direct investment inflows focus on investing in the oil sector (Abdulhakim A.A., 2016). Therefore, it is of great importance for the Libyan state to encourage foreign direct investment to develop other sectors such as education, health care, transportation, tourism, and agriculture, similar to other countries in North Africa and the Middle East. Libya possesses vast natural resources such as oil, natural gas, and gold, which are in global demand. Libya's strategic geographic location between the African and European continents further enhances its potential as an essential channel for exchanging material and products between developed and developing regions.

The Motivation and Problem Specification

Most developed and developing countries seek to attract foreign direct investment (FDI) to achieve key economic goals such as job creation and technology transfer and support local investment financially and administratively. As a result, the process of attracting foreign investments has become a significant priority for many developing countries. It is essential to work on discovering different methods to provide the appropriate investment climate in the host nation so that this investment can contribute to long-term plans and development.

Libya is one of the world's top oil-exporting countries, with production levels often reaching 1.2 million barrels per day. Its Brent oil, globally recognized for its high quality and high price, commands 85 US dollars per barrel[1]. Attracting foreign direct investments to the Libyan economy will diversify its economic base, allowing the country to benefit from foreign companies' advanced expertise in management, operation, and advanced technology and their experience in investing national wealth. However, the fluctuation of oil prices has made liberalization and economic reform programs more demanding in the current and upcoming years. Therefore, the contribution of direct foreign investments in the country's projects can make foreign participation a significant motive for the success of local projects, particularly in terms of management and marketing, helping them gain international recognition. This underscores the motivation for choosing this research topic.

According to the annual revenue report issued by the Libyan Central Bank in 2023, the Ministry of Oil and Gas continues to generate the majority of its income from petroleum

[1] Petroleum Export Nations Organization/ Annual report (2022). The mentioned average price was recorded on Accessed date 30/11/2023. This Website provides daily prices of petroleum more infor reading the input is available in this website/ https://www.opec.org/opec_web/en/data_graphs/40.htm.

exports. For example, in 2022, oil and oil royalties were LYD 130.5 billion. However, in 2023, the revenue from the oil sector decreased slightly to 121.7 billion. In contrast, revenue from other sections, such as tax revenue, customs, and telecom, was only LYD 3.9 billion in 2022 and 4.2 billion in 2023 . These figures show the heavy reliance of the Libyan economy on oil exports.

The primary challenge facing Libya's economic development is not the scarcity of financial resources or unavailability of national resources; it is rather related to the shortage of qualified human resources, limited modern technology and insufficient integration into global markets. In addition, there is a need to restore confidence and credibility in the legal and regulatory framework to create a business-friendly environment that encourages foreign investment. Addressing these issues is critical for reducing the economy's dependence on oil and gas exports and fostering sustainable growth.

First motivation: One of the primary reasons for focusing on FDI is its growing importance as a driver of economic development, particularly in resource-dependent economies. Over the past few decades, FDI has emerged as a critical factor for oil-producing and non-oil-producing nations. Its inflows stimulate economic growth and facilitate the development of sectors that are often difficult for countries to manage independently, especially those with limited financial resources or structural issues like the Dutch disease.[2] Libya, with its heavy reliance on oil exports and vulnerability to external shocks, serves as a compelling case study for understanding the transformative potential of FDI.

Second motivation: This research is also motivated by its potential to inform policymakers as Libya prepares for its first election in over 50 years. The anticipated political and economic stability could pave the way for new trade and economic agreements with developed nations. Such agreements would establish stronger international ties and attract foreign investment, essential for diversifying Libya's economy and reducing its dependence on oil revenues.

Third motivation: Another key motivation for this study is the limited availability of research on the impact of FDI in Libya. While there are numerous studies on FDI globally, few focus on its specific effects on the Libyan economy. This dissertation aims to fill this gap by

[2] The definition of Dutch disease is an economic phenomenon that describes the negative effect on a country's economy following a significant increase in income from a specific sector, particularly natural resources. In 1959, the Netherlands experienced a change in the manufacturing sector caused by the discovery of natural gas. The mechanism involves appreciation in the currency, which negatively impacted the country's export value as it became less competitive and led to an increase in import levels, ultimately negatively impacting economic diversification and growth.

providing a comprehensive analysis of how FDI influences Libya's economy in both the short and long term, thereby contributing to the existing body of knowledge.

Fourth motivation: The persistently high unemployment rate in Libya, which has remained around 20% from 2000 to 2021 (O'Neil, 2023), further highlights the importance of this research. According to World Statistic Indicators (2023), the standard unemployment rate for a stable economy typically ranges between 3% and 5%. This thesis will explore the relationship between FDI inflows, GDP growth, and their impact on the labour market. Doing so will provide actionable insights for the government to address unemployment and integrate more effectively into the global economic system, mainly through organizations like the World Trade Organization (WTO), which require economic liberalization and increased investment.

Fifth motivation: This research also seeks to bridge the gap between Libya's local business environment and global standards. By examining the differences between these environments, the study aims to identify strategies for aligning Libya's economic practices with international norms, thereby attracting more foreign investment and fostering sustainable development.

Sixth motivation: Finally, this study investigates the relationship between oil and gas exports (O&GE) and Libya's GDP. Preliminary findings suggest a strong correlation between these variables, highlighting the potential benefits of refining oil domestically before export. Such a policy shift could generate higher revenue and create more value-added jobs, providing a viable solution to some of Libya's economic challenges.

The Aim, Hypotheses and Research Questions

The aim of the dissertation is to present the role and impact of FDI on Libya's economic development. Directly from the aim of the study arises the main research hypothesis, which has been formulated as follows:

H0: Foreign direct investment plays an important role in Libya’s economic development.

Furthermore, two supporting hypotheses have been formulated in the dissertation:

H1: There is a positive relationship between natural resources (crude oil and gas) and the attraction of foreign direct investment to Libya, with the significance of this factor being the greatest among all the variables studied.

H2: There is a positive relationship between the influence of FDI on GDP, and this factor is the most significant among all the variables studied.

To verify Hypothesis 1, and the impact FDI inflows to Libya the following factors was examined: the export of crude oil and gas, inflation, GDP per capita, trade openness, and

exchange rate. To verify Hypothesis 2, the volume of the labour force, crude oil and gas exports, and FDI were analysed to demonstrate their contribution to Libya's economic growth.

The research aims to address the following key questions:

- How does foreign direct investment impact Libya's economic growth?
- To what extent can the Libyan economy attract foreign investments, and what factors influence its readiness?
- What barriers hinder the inflow of foreign direct investments to Libya?
- Have the existing investment laws facilitated the flow of FDI into Libya in recent years?

Research Methodology

The methodological and analytical approaches used in the thesis are drawn from the empirical literature focusing on foreign direct investment, economic growth and development, in order to examine the objectives of the research.

The methodology employed in this dissertation is based on quantitative analysis, utilizing a regression analysis model in EViews. The study examines data spanning 30 years through eight econometric tests, applying the autoregressive distributed lag (ARDL) model. The ARDL approach, developed by Pesaran in 2001, is a modern and robust method for examining stationarity, cointegration, and causality between variables in the short and long run. The steps involved in this methodology include:

- multiple regression analysis,
- coefficient of determination R2,
- the breusch-godfrey test (LM),
- the autoregressive conditional heteroskedasticity (ARCH),
- multicollinearity problem (VIF) test: variance inflation factors,
- the jarque-bera test,
- the co-integration approach (The Bound test),
- ARDL model.

These methods aim to determine the relationships, trends, or causal links between the analysed variables. Multiple regression analysis quantifies the influence of numerous independent variables (predictors) on a dependent variable (outcome). It assesses how much each predictor contributes to the variation in the outcome. The coefficient of determination R2 measures the impact of independent variables on the dependent variable, indicating how well the regression model fits the data. A value of 0 means no explanatory power, while a value of 1 indicates a perfect explanation of variability. The Breusch-Godfrey Test (LM) assesses

autocorrelation in a model. Autocorrelation can result in biased regression coefficient estimates, reduced precision, and flawed statistical inference. The Autoregressive Conditional Heteroskedasticity (ARCH) test examines residual heteroskedasticity, indicating that the variance of the residuals varies with the independent variables. The Multicollinearity Problem (VIF) variance inflation factors test assesses the degree to which a predictor variable in a statistical model is influenced by multicollinearity. This phenomenon occurs when two or more predictor variables exhibit a high correlation, potentially affecting the stability and interpretability of the model's coefficients. The Jarque-Bera test checks the normality of residuals, which is crucial for valid regression inferences. The null hypothesis states that the data is normally distributed. The null hypothesis is rejected if the p-value is below the significance level (e.g., 0.05), suggesting that the data does not follow a normal distribution. The co-integration approach (The Bound test) determines whether a co-integration exists between variables, indicating a long-term equilibrium relationship. The ARDL model is utilized to determine the extent of the effects of multiple independent variables on the dependent variable while facilitating the simultaneous testing of key hypotheses.

The study is divided into two parts. The first part presents the statistical findings, illustrating the correlation relationships between the variables. The second part provides a detailed explanation and interpretation of these results.

Structure of the Dissertation

To achieve the goal and verify the hypotheses, the dissertation is divided into seven chapters, preceded by an introduction. Each chapter is designed to address specific aspects of the research.

In Chapter 1, presenting the theoretical framework of FDI, attention is drawn to the role of investment in economic development, including its definition, forms, and investment climate; the concept, forms, and types of FDI; the positive and negative impacts of FDI on the host economy; global FDI flow trends for the research period 1990 to 2022; the distribution of FDI across various sectors, including primary, manufacturing, and services; and the difference between economic growth and development.

In Chapter 2, illustrating the theoretical background on the relation between FDI and economic development, attention is drawn to the explanation of economic growth theories, including classical, nonclassical, and modern theories, as well as FDI theory; the role of FDI in national competitiveness, introduced by economist Michael Porter in 1990; review of previous studies including the statistical result of these papers; an analysis of critical sectors

contributing to the country's economic development, such as oil& gas, energy, telecommunication, agriculture and tourism, and the important of FDI to develop these sectors.

In Chapter 3, introducing the Libyan economic development, attention is drawn to the history and determinants of Libya economic growth and development since oil discovery in the 1950s; international and dynamics of foreign trade in Libya economy; trade openness in relation to Libya's GDP, including calculations of the trade balance, import, and export levels; introducing the major sectors driving the Libyan economy, such as the oil and gas, energy, telecommunications, agriculture, and tourism sectors; and the role of FDI on economic development.

In Chapter 4, presenting the foreign direct investment in Libya, attention is drawn to the development, role, and importance of FDI in Libya; factors influencing investment climate in Libya; comparing Libya's FDI landscape with that of its regional counterparts; investment laws, incentives, exemptions and guarantees under law No. 9 (2010); the absorptive capacity of the Libyan economy: its concept and determinants; foreign investment opportunities in Libyan economic development; providing an overall idea of the investment climate in general and its role in attracting foreign investment to Libya in particular; and recommendations for attracting foreign direct investment to Libya.

In Chapter 5, presenting the foreign direct investment in Libya; trend and development, attention is drawn to the provide information about FDI flows in the form of tables and figures starting from Libya state during the period between1990-2022; the flows of foreign direct investment inflow/outflow in African regions such as Central Africa, South Africa, North Africa, and West and East regions; illustrate the trend of a global form of investments such as gross -border Merger and Aquations (M&A) and greenfield investments; and illustrate inflow and outflow trends of FDI in developed and developing nations.

In Chapter 6, showing the impact of FDI on the economic development of Libya-research objectives and methodology, attention is drawn to the empirical examinations include the impact of FDI on the economic growth in Libya and the discussion of the result- this would be based on the outcomes obtained from a practical part; explanation of variables applied in this study ;the regression model analysis and multiple regression analysis by using the ARDL model in the EViews system; the causal relationship between FDI and economic growth in Libya will be based on two hypotheses mentioned above in the abstract, and to determine the short and long-term impact of variables used; and provides the prediction relationship for eight years until 2029 of the used dependent and independent variables and the improvement area required.

In Chapter 7, introducing, the recommendations and conclusions, attention is drawn to provide the recommendation and conclusion based on the empirical result from the panel data tested in this research; create a starting point for further considerations on this topic, and it will identify the limitations and propose some key element “recommendations” in the area of the research that can be used in future work; and the conclusion answers the questions and summarises the overall result of the research.

The Objectives of the Study

The main objective of this study is to conduct a statistical analysis to identify the factors that influence the foreign direct investment inflows to Libya and the impact of FDI on the country's economic development. The detailed objectives of this study can be identified as follows:

- Examining the efforts made by the Libyan state to attract foreign direct investments over the past two decades. In part of Chapter 3, the researcher will discuss the law of investments, including tax reduction, customs facilities and exemptions, and Article 5 of Law No. 1997, which was enacted to promote foreign investment and support Libya’s economic development plans.
- Presenting the effect of FDI on the development of various economic sectors in Libya. This includes analyzing how FDI has contributed to enhancing the quality of national products for export to global markets, reducing reliance on imported goods and services, and creating a trade surplus. This surplus can be reinvested locally to develop other sectors.
- Finding how Libya can attract more foreign direct investments to develop non-oil sectors and utilize it to promote the country's economy while mitigating potential negative impacts. It will also investigate statistical methods that can help policymakers make the right decision to increase the flow of FDI to the country and show the advantages and disadvantages of the inflow of foreign capital on local investments and the receiving economy.
- Libyan currency (LYD) maintained a strong exchange rate against major currencies such as the US dollar (USD) and the euro (EUR) for three decades, averaging 1.25 LYD per 1 USD. However, in 2021, the government decided to change the value of the local currency by 70%, setting the exchange rate at 4.41 LYD per 1 USD. This section will analyze how the Libyan Dinar exchange rate fluctuations to the US Dollar impacted the inflow of foreign investment to Libya and was one of the barriers to foreign investment.

The Scope of Study and Population

This research focuses on Libya, a North African nation with Tripoli as its capital. Geographically, Libya is bordered by Tunisia, Egypt, Sudan, Chad, Algeria, and Niger, covering an area of approximately 2 million square kilometers. As of 2021, the population was recorded at 6.7 million. Libya boasts a Mediterranean coastline stretching about 1,950 kilometers north, providing a strategic link to European markets. The country has abundant natural resources, including oil, natural gas, and gold, which have historically played a central role in its economy.

Politically, Libya is currently in a transitional phase. Before the 2011 revolution, the nation was governed by the Jamahiriya system, led by the Gaddafi regime, for over four decades (1969–2011). This period of authoritarian rule significantly shaped Libya's political and economic landscape, and its legacy continues to influence the country's development trajectory.

The study will examine the period from 1990 to 2021, analyzing available data and information to identify trends, challenges, and opportunities related to Libya's economic and political evolution during this timeframe.

Data Specification and Data Collection

While previous studies have examined several factors influencing foreign direct investment separately, this study combined multiple factors to obtain more comprehensive and statistically robust results. The variables in this study are organized into two cases. In the first case, the dependent variable is foreign direct investment (FDI), and the independent variables are per capita GDP, inflation, exchange currency rate, openness to trade, and oil and gas exports. In the second case, the dependent variable is Gross domestic product (GDP), and the independent variables are labour force, foreign direct investment (FDI), and oil and gas exports.

The primary data sources for this study include the Central Bank of Libya, the World Bank Development Indicators (WDI) Database, and the Libya Office of Statistics (LOOS). Additional data is obtained from the United Nations Conference on Trade and Development (UNCTAD) database, World Investment Reports (WIR), Libya Investment Authority (LIA), TradingEconomics.com/World Bank, Macrotrends World Population, various world statistical reports, and reports from the Organization of the Petroleum Exporting Countries (OPEC). Moreover, numerous publications and books by economists, as well as many previous studies on the same topic conducted in various countries worldwide, will be considered.

The collected data will be organized into tables and indicators relevant to the study's focus. These indicators are interconnected with all sectors of the Libyan economy, including:

- industrial sector,
- service sector, with special attention to the tourism sector,
- agriculture and mining,
- crude of the petroleum sector.

Expected Results and Importance of the Study

The expected results of this study will be based on the outcomes of testing the hypotheses outlined in the dissertation**.** The findings are anticipated to provide insights into increasing foreign direct investment inflows in Libya and their positive impact on economic growth. Key recommendations may include:

- proposing ways to attract more foreign investment and encourage individual and corporate investments in Libya,
- advocating for policies that solidify the role of the private sector in driving economic growth,
- highlighting opportunities to develop the service sector and create employment opportunities.
- recommending opening borders and the removal of barriers to trade and investment, particularly in underdeveloped sectors such as agriculture and production.

The research is significant as it focuses on the laws and legislation governing foreign investment in Libya and their impact on the country's economic development. By examining the flexibility and clarity of these laws, the study aims to identify ways to create a more favourable investment climate. This, in turn, would encourage foreign investors to establish projects in Libya, contributing to the nation's economic growth and diversification.

CHAPTER 1
THEORETICAL FRAMEWORK OF FDI

1.1. The role of investment in economic development: definitions, investment forms, and investment climate

Attracting foreign investments necessitates the establishment of a robust economic foundation and infrastructure coupled with a strategic approach to international competition. Such investments bring technical expertise, human capital, and financial resources that can significantly contribute to a nation's economic development. Investment, as an activity, is a critical mechanism through which individuals and institutions seek to achieve their financial goals by generating future returns. Investors may choose from various investment types, each carrying its level of risk and potential reward. These include investments in banking institutions, stocks, bonds, money market instruments, mutual funds, hedge funds, and other financial vehicles.

The concept of investment has been defined in various ways by economists, reflecting differing perspectives on its role and significance. For instance, Ziad Ramadan (1988, p. 13) defines investment as the act of taking risks by entrusting current funds to investment managers with the expectation of future returns. This definition emphasizes the risk-reward relationship inherent in investment activities.

Adam Smith, a foundational figure in classical economics, equated investment with saving, arguing that saving leads to capital accumulation, which is essential for production and economic growth. Smith highlighted the importance of investing resources such as labour and land to enhance productivity and generate wealth (Smith, 2023). In contrast, other classical economists like David Ricardo focused on comparative advantage and the role of labour in production, viewing investment as part of a broader economic system influenced by trade dynamics and market conditions.

From a macroeconomic perspective, investment refers to expenditures by businesses and households that increase an economy's capacity to produce goods and services. This includes physical investments such as purchasing machinery, constructing buildings, and developing infrastructure (Pettinger, 2015). Investment is a crucial component of gross domestic product (GDP), as reflected in the GDP formula:

$$GDP = C + I + G + NX$$

Where:

C - Consumption (refers to household expenditure on various goods and services)
I - Investment (it is important for the growth of the economy, including both (residential and non-residential investments), which refers to the capital goods, such as machinery, equipment, and new construction, that are bought to create mainly consumer products in the economy).
G- Government (purchases represent the goods and services purchased by the nation or the local governments, including food, machines, medicine, etc.).
NX- Net Exports (illustrates the difference between (exports and imports- the value of goods and services exported abroad and the value of goods and services imported from abroad)

In this study, investment is viewed as the utilization of various economic resources with the expectation of achieving future gains. These returns can manifest as monetary income, increased efficiency, or cost reductions, all measured within a specific period. Companies are motivated to invest abroad and establish a physical presence in new markets rather than merely exporting or outsourcing production to local firms. Several factors drive companies to choose foreign direct investment as their preferred method to penetrate and explore target economies:

- business expansion,
- knowledge and technology transfer,
- cost reduction,
- risk diversification.

Business expansion is one of the primary motivations for foreign investors. When a company becomes successful, it often seeks to move abroad or physically operate in a new destination. This allows foreign firms to enter larger markets (market seekers), understand local markets and customer needs, and directly supply goods and services to the local market. This approach enables them to gain more customers, which might be challenging for some foreign companies to achieve through intermediary dealers or other suppliers (Gentvilaite, 2010).

Knowledge and technology transfer through FDI can occur in various forms. For instance, a foreign company may establish a new corporation or acquire a local business by purchasing shares or controlling interest, either partly or wholly. Combining two firms with different cultures can lead to an exchange of knowledge, experience, and technology. As a result, foreign investors can enhance their capabilities and understanding of other businesses in different environments.

Cost reduction in advanced economies can often be challenging due to higher taxes, labour wages, and the unavailability of raw materials and agricultural products. These factors encourage foreign firms to pursue cross-border strategies to access natural resources, reduce production costs, and increase project profitability (Calimanu, 2021). During the Second World

War, a significant portion of European and American Foreign Direct Investment (FDI) was driven by the quest for natural resources. Approximately 60 per cent of foreign company stock was dedicated to natural resources (Dunning, 1993). Dunning emphasizes that these motivations were crucial for companies seeking to mitigate the risks associated with wartime disruptions and to ensure access to essential materials and technology during the conflict. Additionally, developing countries attempt to attract FDI by offering various advantages such as favourable tax incentives, customs exemptions, and high-quality infrastructure (Khine, 2008). Risk diversification is another factor. When a company expands and begins producing in different economies, it can protect itself from political fluctuations or economic shocks that may occur in some countries. Operating abroad and in diverse destinations can reduce this risk and ensure business continuity.

In general, when firms consider operating abroad, they must carefully consider important factors such as regulations, investments, market culture, and trade barriers and restrictions of the target destination. These factors can hinder business objectives or aid in making informed decisions. Moreover, the motivations for firms to invest abroad still depend on the size of the firms and the type of industry they aim to enter.

In the last few decades, there has been growing discussion among scholars and policymakers about the critical role of a country's investment climate in economic growth. This focus underscores the need for both local and foreign investors to have a favourable environment that encourages investment, boosts economic activity, and promotes overall prosperity.

Many scholars argue that the investment climate depends on investors' desires and the form of investment projects. However, most auditors indicate that a favourable and attractive investment environment is built on political stability, respect for property rights, democracy, and substantial economic fundamentals (Tuomi, 2011; Sabir et al., 2019) cited in Parfait Beri, (2020). Another economist, Nicholas Stern (2003, pp. 10), in his lecture titled "Investment Climate: Lessons and Challenge," defines the investment climate as the country's current and future policy, institutional, and behavioural environment that impacts business returns and project investment. Another scholar describes it as a wide-ranging set of factors, such as regulatory framework, infrastructure, and market dynamics, that affect investment efficiency and associated risks (Razzakovich, 2019).

In recent times, economists more commonly associate the investment climate with the broader business environment, highlighting its role in shaping capital flows and investor confidence. A good investment climate has been found to be one of the main factors leading to

an increase in opportunities for emerging market countries to receive substantial Foreign Direct Investment (Kinda, 2010). Data covering 77 developing countries indicates that factors restricting FDI flows to most states include infrastructure gaps, funding shortfalls, and weak institutional frameworks.

In Africa, a favourable investment climate, such as "the ease of doing business," has a significant effect on FDI inflows to African countries. The African Union (2003) established the African Peer Review Mechanism (APRM) to encourage investment and economic growth. This approach is designed to provide suitable governance, facilitate institutional transformation, and boost growth (Njuguna & Nnadozie, 2022). Auditors suggest that most foreign investments are directed toward resource-rich African nations rather than those lacking resources, such as Libya, Sudan, South Africa, and Nigeria.

Regarding the relationship between FDI and economic growth, numerous studies indicate that foreign direct investment contributes to the host country's economic growth. However, some argue that this relationship is inconsistent (Bénétrix et al., 2023). Their empirical examination suggested an unstable relationship between variables like FDI and economic growth. They identified four reasons that might prevent researchers from reaching precise statistical results. First, the relationship between FDI and a country's GDP may not always exist. Second, there might be a positive correlation between FDI and economic growth in some cases, but it may not be significant enough to be measured at the macro level. Third, statistical errors can impact the estimated relationship between FDI and growth. Fourth, the provided FDI data could be applied to or measured in different activities, which might differ from the examiners' or public perception of FDI. Ultimately, the analyzed studies may experience endogeneity biases caused by the absence of specific variables and reverse relationships.

According to a recent report by the U.S. Department of State (2024), Libya's investment climate presents excellent opportunities for both local and foreign investment through the country's reconstruction needs, high consumer market, and abundant natural resources. This is in addition to the interest and support of the Government of National Unity (GNU) elected in 2021 to encourage the inflow of foreign companies to Libya. However, several factors negatively impact the investment environment, such as unclear bureaucracy, corruption in public administration, burdensome regulations, and political instability.

In 2019, the Libyan Investment Authority (LIA), the legal body responsible for investment management in the country, with total funds reaching USD 68.4 billion that same year, reformed its strategy toward economic growth and diversification of income sources.

However, recent political divisions have created some economic challenges that have affected trade agreements between the country and potential nations targeted by the current GNU plan. Information regarding Libya's investment climate is available in Chapter 4 of this research.

The association between financial markets and economic development has garnered more attention in recent decades. Fresh perspectives on growth models and financial theories have forged the relationship between finance and development. This theory was primarily explained by Joseph Schumpeter in his work on "creative destruction" in 1911. Schumpeter stated that innovation and entrepreneurship, financed by credit, are important drivers of economic growth. Since then, various economists, such as Robert King and Ross Levine in the 1990s, have explored and debated this suggestion, examining the relationship between financial development and economic growth. Their 1993 publication addressed the correlation-versus-causation issue by demonstrating that nations with more significant financial development experienced higher economic growth rates over the following 30 years. In their paper, financial development was measured using credit levels, such as bank loans and bonds issued. They concluded that, contrary to the notion that finance solely supports economic growth, their findings failed to support the idea that finance leads to economic growth.

Several mechanisms illustrate the contribution of financial markets to economic growth. For instance, efficient capital allocation and direct funds from savers to borrowers facilitate investments in productive ventures. Liquidity provision enhances market liquidity, making it easier for investors to buy and sell assets, encouraging investment. In addition to financing new projects and technologies, financial markets promote entrepreneurship and innovation, which are crucial for long-term growth.

Many researchers have approved empirically the positive correlation between the financial markets and economic development. For example, the stock market development in the United States of America, the United Kingdom, China, and Japan significantly impacts their economic growth. The study supported the theory that the development of the stock market is a significant factor in driving advanced and emerging nations' economic growth (Wong & Zhou, 2011): the Bank sector and its role in the economic growth of a country. The investigation made using the regression analysis model data applied to 24 commercial banks in Nepal showed that commercial bank lending has a strong positive impact on economic growth (Timsina & Pradhan, 2017). The auditor suggested different factors that the government and policymakers need to address to promote the country's economic growth, such as formal sector financing, development of the financial market and infrastructure, and providing an interest-responsive investment climate to boost bank loans, which lead to economic growth.

Moreover, investment and saving play a crucial role in fostering economic development. They represent assets obtained to earn income and augment the value of the original principal. In other words, investors aim for better returns from selling the asset than the original amount invested. Traditionally, investments consisted of bank deposits, post office savings, and insurance and real estate policies. However, global economic growth in modern times has restructured investments to include shares, bonds, mutual funds, hedge funds, cryptocurrency, fixed income, debenture, and real estate, among others. Table 1 below are brief explanations of the major common types of investment.

Table 1. The major types of investments

Bonds	Share	Mutual fund	Real estate
Bonds, debit securities that allow investors to lend amount of money to borrower in exchange for periodic fixed income of interest payment and at the maturity date investors will receive back the principle. the most type of bonds are corporate bonds, government bonds and municipal bonds. including bonds in investment portfolio can balance risk.	Share, representing the ownership of a company, business usual issued equity to increase capital in order to expending the operation or investing in another venture. when the investors buy shares, this means become a part of the ownership of a company. Investors can gain income throughout receiving dividends if the company generating profits.	MF, which managed by professional fund managers, is investment vehicle that pools money from multiple investors to create a diversified portfolio of securities such as, stocks, bonds, money market instruments. the aims from mutual fund, is to achieve specific objective of investment at the attempt to spreading the risk cross different types of assets.	RE involves the purchase of physical properties such as residential homes, land, and commercial properties with the purpose of generating future benefits. These benefits can come in the form of income (e.g., rental properties provide consistent cash flows) or capital appreciation (property values often increase over time).

Source: Own elaboration based on Christina (2021).

The International Monetary Fund (IMF) study issued in 1990 states that a positive relationship exists between saving, investment, and growth rate in developing nations. They also suggested that in the scenario of complete capital mobility across countries, local investment changes would occur independently of national saving adjustment. Therefore, the role of national saving in driving investment is based on the level of capital accessibility across borders.

Actual investment is defined as the funds allocated toward physical assets such as equipment, machinery, and other tangible assets rather than financial instruments like shares, bonds, debentures, etc. Actual investment is crucial for businesses to enhance productivity and growth. There are several mechanisms through which real investment dramatically impacts

economic growth. First, business investment can influence short- and long-term economic growth. For example, in the short term, an increase in real investment directly leads to increased output in the economy, boosting production capacity and directly raising GDP as physical capital is produced and sold. In the long run, a higher level of physical capital increases the economy's overall capacity to produce goods and services, creating opportunities for more output using the same production factors. Second, public investment, such as government spending on infrastructure, enhances productivity and encourages new private investment, which leads to economic growth. Well-managed public investment can result in substantial returns, whereas poor governance could limit growth potential.

Libya owns financial portfolios in different sectors such as healthcare, industries, energy, financials, information technology, real estate, etc. These investments are located in the EU, North America, and Asia regions. The Libyan Investment Authority (LIA) is the legal body managing these investments. The types of financial investments include deposit certificates amounting to USD 20.39 billion, shares with a market value of USD 7.63 billion, and an investment portfolio amounting to USD 7.05 billion, according to LIA (2022). The return from stock investments alone reached USD 260.34 million in the same year. More information about Libyan local and foreign investments is provided in Chapter 5 of this research.

Economists have widely defined the investment climate as the environment in which domestic and foreign sectors can thrive and achieve their targeted growth rates. This environment plays a pivotal role in attracting foreign investments to host economies (Yavuz Selim, 2013). Broadly, the investment climate encompasses the geographical, political, economic, and social conditions that influence businesses' performance and operational efficiency within an economy. It includes a range of factors such as political stability, security, economic policies, and social dynamics, all of which collectively shape the decision-making process of investors—from the initial consideration of an investment opportunity to the eventual realization of their investment objectives and expansion goals.

Research indicates that the concept of the investment climate, as explored in prior studies, is a multifaceted system that interacts with various environmental and societal elements. These include individuals, organizations, diverse sectors, and political, social, economic, legal, and legislative variables. Furthermore, the investment climate is often viewed as the outcome of effective national investment management, supported by the strategic use of economic policy instruments—particularly fiscal and monetary measures—aimed at enhancing economic growth rates and bolstering competitive capabilities both domestically and

internationally (Jorge Izquierdo, 2009). Consequently, nations that successfully cultivate a conducive investment environment are more likely to attract significant levels of investment. Investors typically prioritize countries with predictable economic conditions, robust legal frameworks, low corruption levels, effective corporate governance mechanisms, and well-functioning business institutions.

The Libyan economy has undergone a critical transitional phase in recent years, during which the state has sought to implement substantial reforms and structural changes. These efforts have focused on restructuring economic, production, and service institutions while also encouraging greater participation from joint-stock companies, partnerships, and individual investors in investment and production activities. Additionally, the government has taken steps to promote entrepreneurial initiatives. For instance, several laws and regulations have been introduced or amended to stimulate economic growth, diversify income sources, and reduce reliance on the oil sector. Adopting modern technologies has also been emphasized as a key component of these reforms.

To support these objectives, it has become imperative for Libya to establish a favourable investment climate capable of attracting foreign capital and encouraging investors to initiate projects aligned with the state's broader policy framework. Achieving economic and social development goals necessitates providing essential infrastructure, including reliable transportation networks, efficient port and airport services, water and electricity supply, sewage systems, education and training facilities, and telecommunications networks. Social welfare factors, such as customs and tax exemptions, access to accurate information and data for foreign investors, and streamlined administrative procedures, are critical components of an attractive investment climate. These elements are among the most significant policies for attracting foreign investments, particularly in intense global competition among nations.

The following are the primary factors that constitute the investment climate:

- macroeconomic conditions,
- political stability,
- infrastructure,
- access to market,
- workforce qualifications.

The investment climate refers to a set of conditions that influence investors' decisions regarding where to allocate capital within a given country. The most critical factors of the investment climate typically include macroeconomic stability, political stability, infrastructure

quality, market access, and workforce qualifications. These elements collectively shape the attractiveness of a country as a destination for foreign investment.

Macroeconomic stability is a fundamental factor in attracting foreign investors. Key indicators such as low inflation rates, stable currency values, and minimal corruption levels are essential for fostering investor confidence. In recent years, the economic landscape of the Middle East and North Africa (MENA) region has experienced fluctuations due to various factors, including global oil market dynamics and geopolitical tensions. For instance, following a period of economic challenges, the MENA region witnessed a notable recovery in 2022, with GDP growth reaching 5.4%. This recovery was primarily driven by rising global oil prices and the easing of COVID-19 restrictions, which stimulated economic activity worldwide (Bassam Sebti, 2023).

A stable political environment fosters long-term investor confidence. The nature of a country's political system, its constitutional framework, and the relationship between the state and society significantly influence the predictability of its investment climate. Conversely, political instability often deters investment due to heightened uncertainty and risk, adversely affecting business operations. In the MENA region, ongoing conflicts and geopolitical instability continue to undermine economic stability as a barrier to foreign and domestic investment and hinder potential economic recovery (Abdelkader Nassour et al., 2022).

The availability of robust infrastructure systems, including transportation, energy, healthcare, education, and digital infrastructure (such as data centers, cloud computing, and cybersecurity), is vital in attracting foreign direct investment (FDI). Infrastructure investment is critical for sustainable economic development, particularly in emerging markets. By enhancing productivity, connectivity, and overall economic growth, infrastructure projects contribute significantly to a country's investment appeal (Leonardo Iacovone et al., 2023).

Market access refers to the ability of businesses to enter and operate within cross-border markets by selling goods and services. Ease of market access is a key determinant of a country's attractiveness to investors. Key components of market access include openness to foreign companies, regulatory approvals, and the facilitation of capital flows. For instance, providing equal treatment to local and foreign businesses, streamlining regulatory processes (such as licensing and asset transfers), and minimizing barriers to capital movement are essential for creating an investor-friendly environment (Mohammad Ghaziani et al., 2023).

The quality and efficiency of a country's labour market are critical for long-term economic growth and poverty reduction. Understanding labour market dynamics, including employment rates, wage levels, and overall economic efficiency, is essential for assessing a

country’s investment potential. The alignment between workforce skills and business requirements is particularly important; a mismatch, especially in countries undergoing economic restructuring, can increase unemployment rates (Gaëlle & Stefano, 2007). The quality of a country’s investment climate significantly impacts its ability to attract FDI. A favourable investment climate enhances foreign investors' perceptions of a target destination, thereby increasing investment inflows. Countries with efficient bureaucracies, strong institutions, and investor-friendly regulations are more likely to attract FDI, enhance global competitiveness, and achieve sustainable economic growth.

1.2. The concept, forms, and types of the foreign direct investment

There are many concepts of foreign investment, which are defined as investing in assets or items purchased by a company or individual to generate future benefits. Companies or individuals often invest in other countries in pursuit of specific goals, and this investment, if properly utilized, can play a significant role in developing the economy and trade of the host country. It provides the necessary capital to create a developed industrial economy and modern technical, administrative, and technological expertise (Dinh Thi Thanh Binh, 2009).

Foreign direct investment has been defined from various auditors' perspectives. For instance, FDI is an investment made by an investor from one (home) nation into a new business or an existing company in another (host) country. FDI typically involves a lasting interest, referring to the long-term relationship between the direct investor and the direct investment enterprise or control by the foreign investor in the company, commonly representing around 10 per cent of the shares (Abamu, 2022). From a macroeconomic perspective, FDI is an active form of capital flow across borders from nations of origin to destination countries, identified in the balance of payments. The features of interest include flows of capital, stocks, and revenues obtained from investments (Lipsey, 2001, as cited in Dennisia, 2010). Another auditor defined FDI as direct non-local investors (FDI-sending nation) who hold a percentage of ordinary shares to obtain voting rights in the resident company (FDI-receiving economy) (Eller et al., 2006; OECD, 2008).

Moreover, investment is one of the sources the state uses to fill the gap in domestic resources, as local savings are often insufficient to cover total investments. However, foreign capital has helped develop the manufacturing sector in many industrialized and developing countries worldwide.

The United Nations Conference on Trade and Development (UNCTAD, 2019) defines foreign direct investment as a long-term relationship between a company in the investor's residence in one country and a different firm resident in the host country. The capital that a foreign direct investor transfers to a foreign company or receives from a foreign affiliate is referred to as FDI inflows. From the perspective of another economy, the outflow of foreign direct investment represents the same flow.

Foreign investment has many forms, including direct and indirect foreign investment. As our study focuses on foreign direct investment, we will emphasize the first type, which involves the transfer of foreign capital to invest abroad directly in industrial, financing, construction, agricultural, tourism, or service units. The primary goal for investors is profit, while the host nation aims for development and economic growth. Foreign investment may involve establishing a company or purchasing full or partial shares of a company across borders, whether the company operates branches that carry out any type of production or service activities in several foreign countries. Some international organizations, such as the International Monetary Fund (IMF) and the Organization for Economic Cooperation and Development (OECD), require that for foreign direct investment to qualify, a foreign company must hold a minimum of 10% of the total shares of the domestic project (IMF, 2004).

There are several ways that FDI can impact the host country's economic growth: motive, target, and direction (Zavery, 2022). From the motive perspective (natural resource seeking), these resources can include materials such as oil, gas, and other materials not available in the home country (Ploeg, 2010), and efficiency and strategic asset-seeking, which involves looking for skilled and qualified labour at lower costs, as seen in India's economy (Steve et al., 2014).

Targeting FDI effects, mergers, and acquisitions can be either domestic market-oriented (horizontal FDI) or export-oriented (vertical FDI). The purpose of FDI inflow in the former type is to produce and manufacture goods that can then be exported abroad, not for local market consumption. The motivation behind this is to avoid costs such as transportation, tariffs, and anti-dumping measures (Pavlova, 2018). The second purpose and motivation are to present the products in another region and expand the corporation's investment; goods will be sold locally (Donny Susilo, 2018).

An essential issue in the context of FDI effects is their direction. Inward direct investment refers to any foreign company establishing an office in the domestic country. This is also called direct investment in the reporting economy. Bringing technology, capital, and expertise into the receiving economy increases economic growth and reduces unemployment.

Outward direct investment, also known as foreign direct investment abroad, occurs when a company established in a domestic country is acquired by a parent company operating in another foreign country. This supports local firms in expanding globally and seeking new markets and resources. However, it usually leads to a reduction in job opportunities in the home country if production shifts across borders (Lee, 2020; Zavery, 2022).

According to previous studies by researchers such as Theodore Moran (1998) and Anja Lorenzen (2007), the types of FDI—such as greenfield investments, brownfield investments, and joint ventures—have distinct contributions and benefits for investors and host economies. These studies highlight the importance of understanding the advantages and disadvantages of each FDI type to maximize their economic impact. Below, Table 2 illustrates the types of FDI and their respective pros and cons.

Table 2. The advantages and disadvantages of greenfield investment and brownfield investment

Types of FDI			
Greenfield Investment		Brownfield Investment	
Advantages	Disadvantages	Advantages	Disadvantages
Establishing a company from scratch: When a business starts its projects in the host nation, it needs to transfer advanced technology, expertise, and an international brand that do not exist in the local markets. Long-term profitability: Greenfield investment involves a long-term plan to operate abroad, helping the company establish a strong presence in the market, increase profitability, and promote the economic growth of the host economy. Government incentives: As a strategy to attract FDI, host countries often offer various facilities such as tax reductions, customs	Greenfield investment risks: This type of investment carries risks such as the cost of starting a project from the ground up and market risk, including the time needed for a company to enter the market and for its products to become familiar to customers. Impeding entrepreneurship: An increased inflow of FDI to the host economy can crowd out local firms in terms of the labor market. For example, foreign enterprises usually offer better job incentives to attract educated domestic individuals. Market competition: The significant financial capital and advanced machinery that foreign companies apply to new projects in the	Cost and risk reduction: Compared to greenfield investments, brownfield investments are less costly and risky for investors. For instance, a foreign company purchases an already established business that is using existing infrastructure. Therefore, the timing and fixed operating costs are reduced. Increased production and capital accumulation: Brownfield investments contribute to higher levels of company production and capital accumulation, positively impacting the host nation's economy. Prompt market entry and streamlined administrative processes: The availability of supply chains and customer data from the corporation that foreign	Legacy problems: The history and market position of the acquired project often come with financial issues such as high liabilities or outdated machinery and technology. These factors require significant upgrades, leading to unexpected costs for reconstructing the acquired company. Uncertainty in information: Brownfield investments can suffer from uncertain information about the acquired business, including the inability to obtain accurate and complete financial data, such as assets and liabilities. Investors may not find the expected facilities to meet their operational requirements.

exemptions, and infrastructure support. This can help increase FDI inflows. Job creation: Many countries require foreign companies to hire local employees before setting up projects in the host country.	host country help reduce the cost and time of production. Consequently, there is a substantial chance that foreign companies may dominate the market in terms of competition. Operational challenges: Large multinational enterprises often apply specialized strategies and use advanced technologies. Investors may face a lack of qualified personnel to run the business, necessitating increased operational costs due to the additional training required for workers.	investors invest in facilitates easier access to the local market. Strategic location: Brownfield investments often occur in urban areas, reusing and promoting lands. This provides better access to infrastructure and markets.	Restriction risks: The current structure of the acquired business might limit renovation options, necessitating additional costs. Furthermore, the complexity of obtaining regulatory approvals to operate can lead to project delays. Market demand: This type of investment is often situated in less desirable regions, which can impact demand and rental rates, negatively affecting the profitability of the business.

Source: Own elaboration based on authors Bayar (2017); Assamah (2021); Nguyen (2023); Goce Dimovski (2020); Pupkin (2023); Schatz (2007).

Greenfield investment refers to businesses that start from the ground up in the receiving economy. For example, foreign investors establish a company from scratch by renting or purchasing land and buildings, acquiring materials and machinery, and training and hiring employees. The distinguishing feature of greenfield investment is the establishment of new corporations or subsidiaries in the host country. Another researcher explains that greenfield investments contribute to capital accumulation and productivity by creating new facilities, whereas brownfield investments may not have such advantages (Bayar, 2017).

Greenfield investments have several advantages and disadvantages for investors and the host economy. Some examples are presented in the above figure. Despite some drawbacks, greenfield investments offer many benefits, such as starting the project from the beginning, which requires providing local materials and hiring local labour, transferring new knowledge and technology to the domestic market, and creating competition. Additionally, greenfield investments have long-term operating and profitability potentials that lead to economic growth.

Brownfield investment, also known as cross-border mergers and acquisitions (M&A), occurs when foreign investors or companies invest in the host nation by buying assets or shares of an already existing local business or project rather than establishing new businesses, as in the greenfield method. Brownfield investment is seen as an interest for foreign multinational companies to take over local existing projects (Takayama, 2023). Several advantages and disadvantages of brownfield investments must be considered when foreign investors plan to adopt this form of investment.

Moreover, the positive and negative impacts of greenfield and brownfield investments can depend on the country, industry, and market conditions where foreign direct investment occurs. Hence, foreign investors should consider the business environment, investment laws, and market conditions in their study of operating abroad in the receiving economy.

Within the joint investment framework, two parties participate: one is a national legal person belonging to the public or private sector, and the other is a foreigner involved in production, marketing, or service operations within the host country. Participation is not limited to capital share but includes management, expertise, and patents. The foreign company exercises a sufficient right to manage the project without complete control, benefiting the local investor. This preference for joint investment among foreign investors is due to their desire to reduce the risks they may face in the future.

The most typical form of joint venture investment involves varying proportions of ownership between domestic investors and foreign enterprises, often around a 60-40 venture. The majority of the stocks are held by one party. However, the exact share amount can be agreed upon by the partners and according to the laws regulating foreign ownership in the host nation. Most countries limit the percentage foreign investors can own to around 49-51% of the total capital, ensuring that management activities and operations remain under domestic control.

Wholly owned investments by foreign investors are highly desirable for multinational companies because they provide absolute and complete control over the project's management. However, some developing countries may refuse to grant permission for full ownership of investment projects due to fears of economic and political dependency and the prevalence of monopolies that foreign companies might cause in the host country market.

On the other hand, some developing countries actively work to attract foreign investments and grant wholly owned investment status to promote their national economies and solve unemployment issues by providing job opportunities. These projects often take the form of agreements between foreign and local parties (public or private), wherein the components of a commodity or product are supplied by the first party to the second party for assembly, giving the product its final form. Foreign investors are attracted to this type of investment due to lower labour and raw material costs or the large size of the host country’s market (Hosni, 1999).

Foreign indirect investment refers to investment made in securities such as stocks and bonds, aiming to achieve a specific rate of return without exercising any control or participating

in managing the project. Therefore, the foreign investor does not own all or part of the investment project.

1.3. The effects of FDI for the host country's economy

Foreign direct investment (FDI) plays a pivotal role in fostering sustainable economic growth, particularly in developing countries striving to address challenges such as poverty, unemployment, and technological gaps. As a developing nation, Libya has sought to leverage FDI to enhance its economic and social development efforts, aiming to improve its citizens' living standards. The following discussion addresses the question: *What are foreign investment's positive and negative effects on the receiving economy?*

FDI has numerous positive impacts on host economies. For instance, it can significantly enhance social capital by funding infrastructure projects like road repairs, water and electricity networks, and large-scale developments like transportation hubs, gas stations, and railways. These projects not only support the investment itself but also benefit the broader community. FDI also boosts international trade, particularly through efficiency-seeking investments that increase export levels and open new market channels for the host country. This can lead to higher export revenues, reducing trade balance deficits. When domestic firms supply materials or goods to foreign-owned export businesses, the host economy's exports can grow even further. Efficiency-seeking FDI can also increase imports, as businesses may source goods from abroad, ultimately creating a positive long-term impact on the host country's trade balance (Kurtishi-Kastrati, 2013). Additionally, FDI fosters competitive practices in local markets, enhancing the dynamic potential of domestic enterprises and regions (Prakash & Assaf, 2001; Karaszewski, 2007). These advantages can help transform economies like Libya's from consumer-driven societies reliant on imports to productive, self-reliant economies capable of producing essential goods.

FDI also addresses foreign currency gaps by bringing in external capital, often surpassing official development assistance. This expands foreign currency reserves, enabling countries to import essential goods, medicines, and advanced machinery (Ceyla Pagarbasioglu, 2020). Furthermore, FDI creates jobs, increases productivity, and strengthens the domestic economy, thereby raising demand for foreign currency. It also helps bridge savings gaps in developing nations by generating surplus capital that can be reinvested in future development projects. Additionally, FDI fills revenue gaps through taxes and customs duties, reducing pressure on the balance of payments in emerging economies (Abdul Hamid, 1969, P.120).

The presence of foreign companies can generate new income streams for local service providers, such as accounting and consulting agencies, real estate managers, and transportation companies. FDI facilitates technology transfer, training local workers in advanced machinery and organizational skills, and increasing the utilization of local raw materials. This can lead to reduced production costs for local enterprises, as foreign companies often produce some of the inputs needed by domestic firms (Maryam Asghari, 2014). Moreover, FDI creates direct and indirect employment opportunities. Direct employment occurs when foreign companies hire local workers, while indirect employment arises from increased demand for local suppliers and services due to the presence of foreign firms (Kurtishi-Kastrati, 2013).

FDI can also help reduce emigration by providing skilled individuals with opportunities to work for multinational companies within their home countries. This can mitigate the brain drain phenomenon, where highly educated individuals leave their home countries for better opportunities abroad.

However, FDI is not without its drawbacks. One significant negative impact is the creation of a dual economy, where foreign businesses dominate specific sectors while domestic firms operate in less developed areas. This is common in oil-producing countries, where the economy becomes overly reliant on a single sector, leading to structural imbalances (Emako et al., 2023). Another concern is foreign companies' overexploitation of natural resources, particularly in industries like oil extraction, mining, and logging. Without proper regulation, this can lead to environmental degradation and the depletion of non-renewable resources (Maryam Asghari, 2014).

Political risks also pose challenges for foreign investors. Government policy changes, business type restrictions, ownership limits, and difficulties in repatriating profits can deter investment. Corruption and weak institutional frameworks further exacerbate these issues (Kamga Wafo, 1998). Additionally, the repatriation of profits by foreign investors often results in significant capital outflows, hindering local investment and economic growth (Vasileiso Chartas, 2012). The influx of multinational enterprises (MNEs) can also negatively impact local industries, as small and medium-sized enterprises (SMEs) may struggle to compete with foreign firms' advanced technology and financial resources, potentially leading to business closures and job losses (Tushar Ahmed, 2020).

FDI can also strain the host country's balance of payments. While initial capital inflows are beneficial, subsequent profit repatriation and imports by foreign companies can lead to financial outflows, recorded as debits on the capital account (Selma Kurtishi-Kastrati, 2013). Furthermore, FDI can introduce social and cultural changes, as foreign companies bring new

practices and lifestyles that may influence local traditions. While cultural exchange can be positive, it may also harm local customs if not managed carefully (Goraieb et al., 2019; Dunning, 1995).

Over-reliance on foreign investors for technology and investment can create economic vulnerabilities. If production costs rise or political instability occurs, foreign companies may withdraw their investments, leading to job losses and economic instability (Lipsey, 2002). Transferring outdated or environmentally harmful industries to developing countries can have long-term negative consequences, particularly in sectors requiring high energy and labour inputs (Nashashibi, 1980).

While FDI can increase employment opportunities, it may also lead to job displacement as domestic producers struggle to compete with foreign firms. This can result in layoffs and higher unemployment rates, depending on the nature of the investment and the host country's economic conditions (H. Dunning, 1993; Anna Golejewska, 2001). Trade deficits can also arise if the host country relies heavily on imports rather than boosting exports, negatively impacting GDP growth and increasing national debt (Odhiambo, 2014).

To maximize the benefits of FDI while mitigating its drawbacks, host countries must establish clear policies and regulations that align with international investment laws. This ensures that developed and developing nations can negotiate terms that protect their interests and promote sustainable growth. The spillover effects of FDI refer to the externalities created when foreign firms influence the performance of domestic companies. Positive spillovers include increased competition, which can drive domestic firms to improve productivity and efficiency. However, this competition can also threaten small and medium enterprises, as foreign companies often possess advanced technology and globally recognized brands (Arif-Ur-Rahman & Inaba, 2021). The effects of the labour market can be beneficial, as workers' movement between foreign and domestic firms facilitates knowledge and skill transfer. However, wage disparities and the potential for brain drain, where skilled workers are drawn to higher-paying foreign firms, can disadvantage local companies (Sari et al., 2016).

FDI can also integrate domestic firms into global value chains, providing opportunities to access international markets and adopt advanced technologies. However, if foreign companies prefer sourcing inputs from their home countries, local firms may miss out on these opportunities, limiting their growth (Christine Qiang, 2021). Ultimately, the extent of positive or negative spillover effects depends on the sector and industry in which foreign companies operate. Governments can mitigate negative spillovers by implementing policies that support local firms and encourage balanced growth.

Generally speaking, while FDI offers significant benefits such as job creation, technology transfer, and economic growth, it also presents challenges like resource exploitation, cultural impacts, and economic dependency. Host countries must carefully manage FDI to maximize its advantages while minimizing its potential downsides, ensuring sustainable and inclusive development.

1.4. Global trends in FDI flows (1990-2022)

Over the past few decades, emerging markets have emerged as leading destinations for foreign direct investment. Notably, countries such as China and India have become prominent exporters of FDI from emerging economies, establishing themselves as key investors in developing and advanced economies (Gudowski & Piasecki, 2020). From the perspective of host countries, the primary objective of attracting FDI inflows is to achieve economic growth by promoting various sectors, including primary industries, manufacturing, and services. FDI contributes to boosting exports in several ways, such as providing additional funds to expand production for export markets, facilitating the transfer of technology and knowledge from foreign partners, and upgrading the export structure of the host nation (F. Ahmed, 2018, cited in Sahoo & Dash, (2022). Developing nations, in particular, are attractive destinations for foreign investors due to their lower labour and material costs compared to investors' home countries, encouraging international expansion and profit generation (Abdulghader Ali, 2014).

At a macroeconomic level, studies indicate that the contribution of FDI to economic growth depends on the host country's absorptive capacity. Key factors include the accumulation of human capital, the development of financial systems, economic liberalization, and the overall condition of local investment (Herzer Dierk, 2010, cited in Emako, Nuru, & Menza, 2022). FDI is recognized as one of the fastest-growing economic activities globally, playing a significant role in the economic development of developing countries (Roshna & Younis Ahmed, 2019). For instance, Oziewicz (1998) examined the importance of FDI in the economic development of ASEAN countries, highlighting both the benefits and risks associated with FDI inflows.

This section provides an overview of global inward and outward FDI trends over the past three decades. According to data from UNCTAD (2023), presented in Table (3) and Figure (6) on the following pages, global FDI flows have tripled in both inflows and outflows. This growth reflects the widespread acceptance and encouragement of FDI by many countries, driven by its social and economic benefits. As a result, FDI has become a critical strategy for

nations aiming to enhance their economic performance and international competitiveness. However, a host country's overall economic landscape and long-term prosperity depend on additional factors, such as economic freedom, institutional quality, and the rule of law (Jérémie Bertrand, 2024). Table 3 below provides a detailed breakdown of global FDI inflows and outflows for the period 1990–2022, distinguishing between developed and developing economies.

Table 3. The world inflows of FDI for the period (1990-2022), in USD million

Global Foreign Direct Investment (FDI)						
Period	Global FDI Flows	World FDI Inflows	Developed Economies	Developing Economies	Global FDI Flows Growth	Developing ConRate
1990	448 762,45	204 887,7	171 279,5	33 608,2	0,0%	0%
1992	370 733,84	164 685,0	112 105,3	52 579,7	-17,4%	39%
1994	543 168,26	255 893,7	153 719,5	102 174,3	46,5%	34%
1996	787 223,19	392 778,7	246 473,0	146 305,6	44,9%	25%
1998	1 361 007,04	681 509,3	509 573,1	171 936,2	72,9%	-7%
2000	2 519 176,63	1356 685,1	1133 973,8	222 711,3	85,1%	7%
2002	1 086 894,37	590 311,3	424 916,1	165 395,2	-56,9%	-22%
2004	1 607 306,13	699 234,5	441 206,6	258 027,9	47,9%	33%
2006	2 774 281,40	1413 371,3	1009 581,3	403 790,0	72,6%	25%
2008	3 202 431,72	1488 307,6	900 466,3	587 841,2	15,4%	12%
2010	2 784 302,71	1393 014,2	760 395,1	632 619,1	-13,1%	34%
2012	2 758 256,33	1469 073,1	789 189,8	679 883,3	-0,9%	0%
2014	2 781 972,05	1411 830,0	718 232,1	693 597,9	0,9%	4%
2016	3 534 073,48	2003 453,7	1343 604,0	659 849,7	27,0%	-12%
2018	2 390 186,47	1375 436,9	678 199,8	697 237,1	-32,4%	-1%
2020	1 693 836,86	961 983,2	315 461,3	646 521,9	-29,1%	-9%
2022	2 784 493,85	1294 738,2	378 320,3	916 417,9	64,4%	4%

Source: Own elaboration based on UNCTAD, https://unctad.org/topic/investment/investment-statistics-and-trends(accessed: 17.02.2022).

Based on the data from UNCTAD 2022 presented in Table No. (2) global FDI flows have significantly increased from approximately USD 448.76 billion in 1990 to about USD 2,519.18 billion in 2000, marking a growth of around 461% over a span of ten years. However, FDI experienced a decline at the beginning of the second decade in the 2000s, a trend that persisted for about five years. In 2000, FDI flows were USD 2,519.18 billion, which decreased by approximately 42% to USD 1,607.31 billion in 2004.

Additionally, it can be observed from the information above that global FDI flows recorded a decline and negative growth of -29.1% in 2020, influenced by the global issue of COVID-19. Nevertheless, a recovery was observed in 2022, with global FDI reaching USD 2,784 billion, a positive increase of 64.4%. The highest growth rate in global FDI flows was recorded in 2000 at 85.1%, while the lowest percentage was experienced in 2002 with a decline of -56.9%, amounting to a reduction of more than USD 1,400 billion compared to 2000.

The proportion of foreign direct investment inflows from the total global FDI flows during the first seven years of the 1990s was less than 49% compared to the FDI world outflow, which represented over 53% of global FDI. However, this trend shifted during the last three years, from 1997-2000, with FDI inflows representing more than 52% of global FDI flows. In recent years, the portion of FDI inflows from global flows has declined, representing 46% in 2022 compared to 57% in 2020.

The growth rate of FDI in developing countries, as shown in Table No. (2) recorded over 30% growth between 1992 and 1994. Zero percentage growth was recorded in 2012, while a significant decrease was noticed in 2002 at negative -22%. Recovery was observed with almost USD 1 billion of FDI inflows into developing nations in 2022, marking a 4% increase compared to 2020, when it recorded more than USD 646,52 billion.

The number of multinational companies (MNCs) that favour relocating abroad has increased worldwide in recent decades due to significant pressure from political and public entities to meet targets in their home countries. Environmental regulations and the rapid evolution of automation and robotics are other factors that have impacted MNCs' ability to run business internally and generate reasonable benefits (Casella, 2024, cited in Irwin-Humt, 2024).

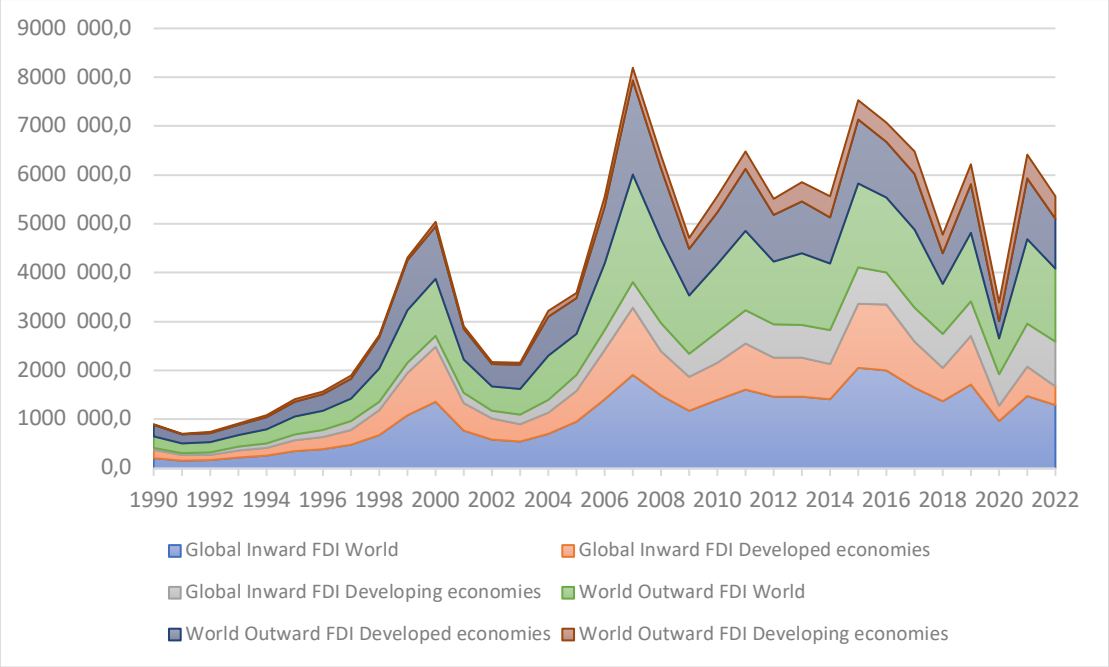


Figure 1. The global inflows and outflows of FDI for the period (1990-2022), USD million

Source: Own elaboration based on UNCTAD, https://unctad.org/topic/investment/investment-statistics-and-trends(accessed: 17.02.2022).

Figure 1 shows that fluctuations in the global inflow and outflow of foreign direct investment (FDI) can be attributed to numerous economic and political reasons. However, the flow of FDI has experienced significant growth, rising from a low of approximately USD 352.81 billion in 1991 to about USD 4,097.59 billion in 2007, which was the highest recorded level of FDI in global flows. This sustained high percentage of FDI flows compared to the period before 2000 indicates that many developing countries have actively encouraged foreign investments to address various economic issues, such as reducing unemployment by providing job opportunities, improving domestic investment, and revitalizing national economies (Ali Abdulghader, 2014). Additionally, a remarkable recovery was observed in 2021, with an increase of about 89%, following the significant decline in global FDI flows caused by the pandemic in 2020.

Regarding the issues addressed in this paper, it is essential to pay special attention to FDI flows in the African region, particularly FDI share inflows on an annual average basis. An earlier study found that FDI flows to Africa have been relatively low compared to other regions. For instance, from the early 1990s until 1998, FDI to Africa represented only 1.80% of global share inflows. From 1990 to 2000, this figure decreased by 1%, but it began to rise again two years later, reaching approximately 2.5% of global share inflows. During the mid-1990s to

2000, Africa received around USD 340,340 million in FDI. The main recipient countries in the African region include South Africa, Morocco, Nigeria, Algeria, Angola, and Sudan.

Moreover, the primary sources of FDI to Africa come from various developed nations. For example, the United States contributed USD 9.25 billion, France contributed USD 4.36 billion, and the United Kingdom and Germany contributed USD 3.27 billion and USD 2.48 billion, respectively (Dupasquier & Patrick N, 2005). A recent report from UNCTAD (2023) indicated that FDI to Africa reached USD 80 billion in 2021 but declined to USD 45 billion in 2022. More detailed information and charts can be found in Chapter No. 5 of this research.

Global sectoral FDI flows are generally categorized into three main sectors: the primary sector (including petroleum, mining, agriculture, forestry, and fishing), the secondary sector (involved in processing raw materials into final-market-ready items), and the services sector (comprising transportation, health, education, finance, electricity, gas, and water, among others) (Emako et al., 2022). The services sector has been the most attractive for FDI due to its positive contribution to economic growth. In the United States, the manufacturing sector's gross output is considered higher than the rest of the private sector. The U.S. is listed as the top recipient of FDI in the global manufacturing sector, significantly contributing to the nation's economic growth. From 2009 to 2015, the manufacturing sector's output increased to USD 4.5 trillion, providing more than 2.4 million job opportunities. FDI investment, particularly in chemical materials and machinery (Bea, 2016). The U.S. FDI outflow position increased by almost USD 212.2 billion at the end of 2022 compared to 2021. Cross-industry, the manufacturing sector recorded the most significant growth, with an amount of USD 172.8 billion in the EU, particularly in the Netherlands and the UK (Bea, 2019-2021).

In 2022, China ranked second in attracting substantial investment across different industries, recording a 5.2% increase of USD 3.82 trillion compared to 2021. Singapore is well-known for its advanced manufacturing projects, while Germany is recognized as a key player in manufacturing FDI in Europe (Alex Irwin-Hunt, 2022).

Studies have found that FDI contributions by sectors vary between nations based on their unique characteristics and related sector policies. Regionally, the manufacturing sector is considered reliable in East Asia (China) and North America (Canada). Africa's primary sector is the preferred sector for FDI, which most states have adopted (Sayek & Dilek Aykut, 2007). Another study examining 11 Central and Eastern European countries found a positive correlation between finance-sector FDI and economic growth (Eller et al., 2006). Empirical results have indicated that lower-income and moderate-income countries experience a significant positive impact of FDI in manufacturing on economic growth, while the FDI

services sector records a lower percentage (Doytch & Uctum, 2011). A recent study in Egypt examined the impact of aggregate and sectoral FDI in manufacturing, agriculture, and services on economic growth. The results show that FDI in the services sector positively impacts economic growth in association with local private investment, while other factors do not have a significant impact (Hanafy & Marktanner, 2019).

Recent data from UNCTAD (2023) includes the number and value of global FDI for greenfield investments and cross-border (M&A) investment projects in the primary, manufacturing, and services sectors over the last 20 years. The services sector has received the most substantial investment, followed by manufacturing, with the primary sector receiving the least. The figures 2 and 3 below provide more information on FDI flows through developed and developing countries by sector in terms of greenfield investment and mergers and acquisitions, including the number of projects and their value in a million USD.

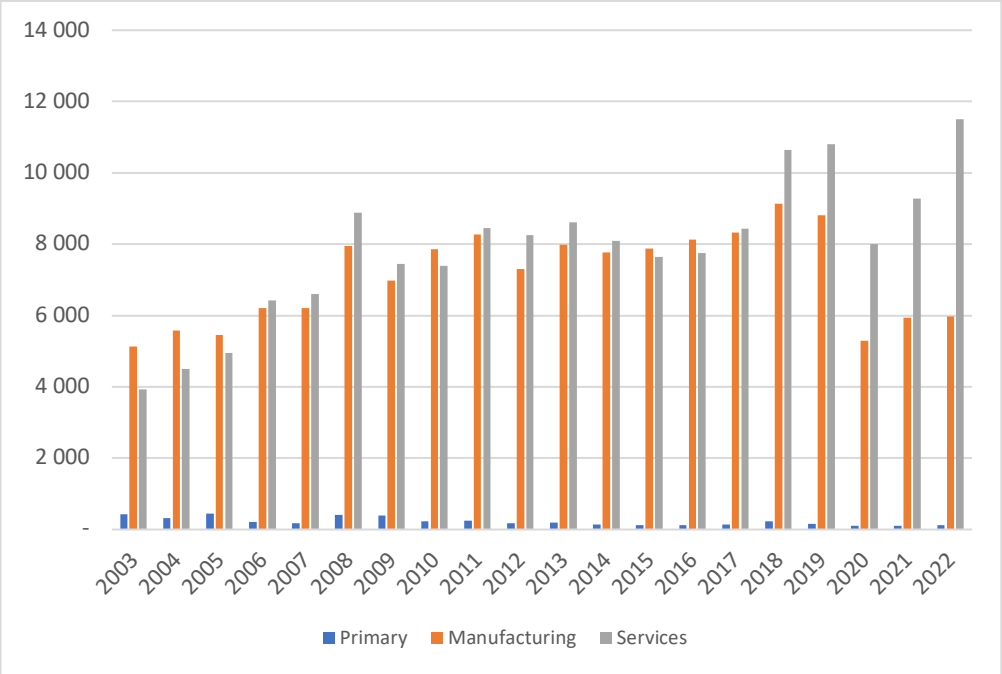


Figure 2. The number of greenfield investment projects for the period (1990-2021)

Source: Own elaboration based on UNCTAD data period (1990-2022).

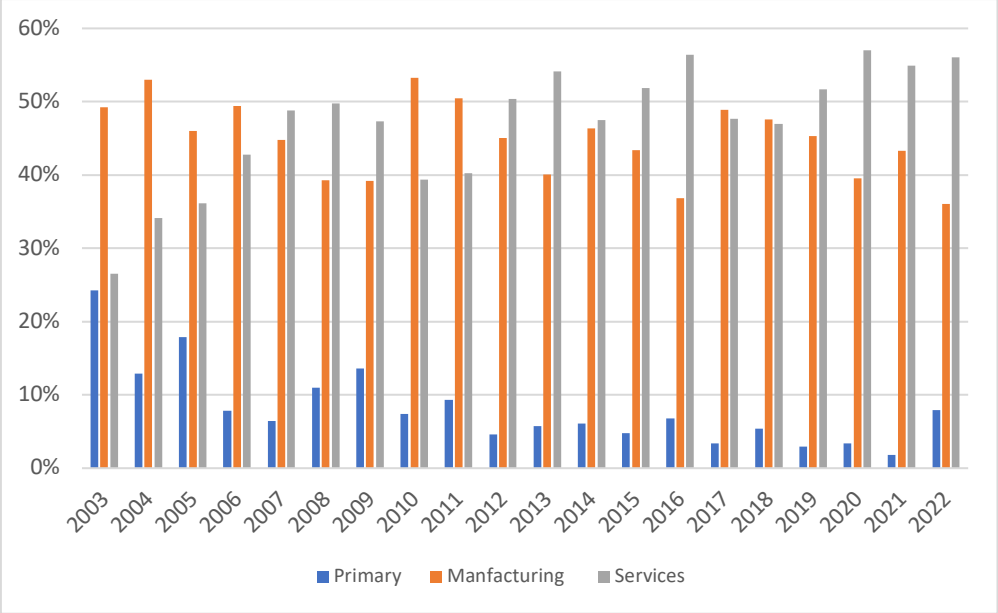


Figure 3. The value of greenfield investment FDI in percentage for the period (1990-2021)

Source: Own elaboration, based on UNCTAD data period (1990-2022).

The greenfield investment data presented in Figures 3-4 indicates a significant increase in the number of greenfield investment projects in developed economic countries. From 2003 to 2010, the number of projects increased by 85%, reaching 90,298 projects globally, amounting to USD 4.75 billion. In the subsequent period from 2011 to 2022, the number of projects increased to 167,284, amounting to USD 8.287 billion.

In emerging market nations, the number of greenfield investment projects increased by 137% from 2003 to 2010, recording 13,823 projects with a total investment of USD 1,15 billion. In the second period, from 2011 to 2022, the number of projects increased to 32,819, amounting to USD 3.18 billion.

In Africa, greenfield investments operate in various sectors, such as natural resources, businesses, financial services, renewable energy, food and beverages, and communication and information technology. The industry sector, particularly in extracting oil, gas, and metals, represents around 47% of the total greenfield investments in the region. Despite the high value of shares attracted by this industry, the total number of investment projects remains relatively small. From 2006 to 2010, approximately 480 projects drew an investment of USD 197 billion. However, in recent years, a reduction has been noticed in the industry sector, amounting to USD 109 billion from 2016 to 2020, representing around 31% of opened greenfield investments.

Other sectors have recorded increases, particularly renewable energy, which increased from 2% to 8% from 2016 to 2020. The total investment in Africa's food and beverages sector is approximately USD 14 billion. Investment in communication and financial technology slightly increased from USD 21 billion to USD 22 billion from 2006 to 2010 and 2016 to 2020, respectively (Morgan, Farris, & Johnson, 2022).

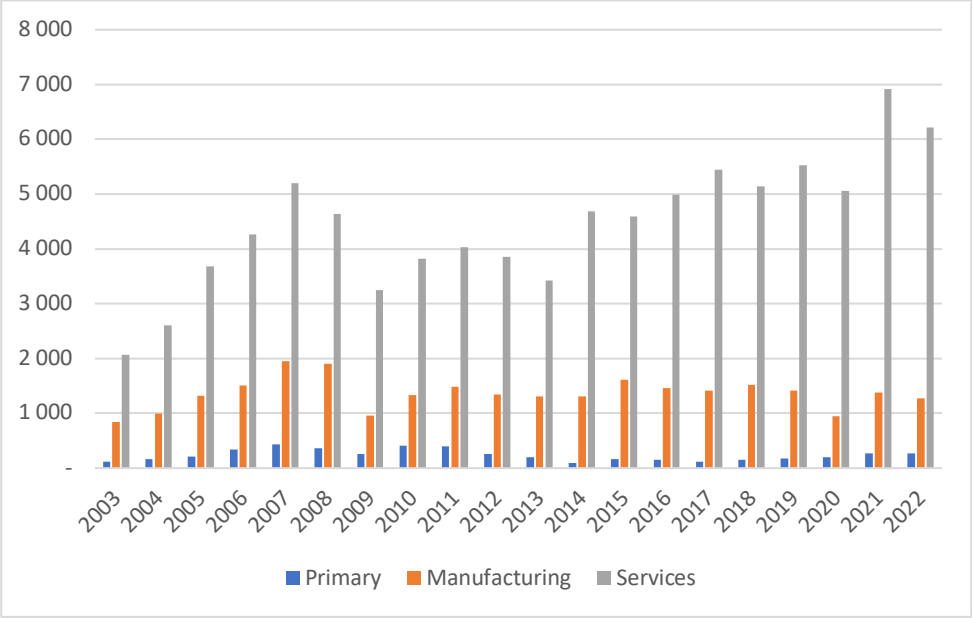


Figure 4. The number of M&As of FDI for the period (1990-2021)

Source: Own elaboration based on UNCTAD data period (1990-2022).

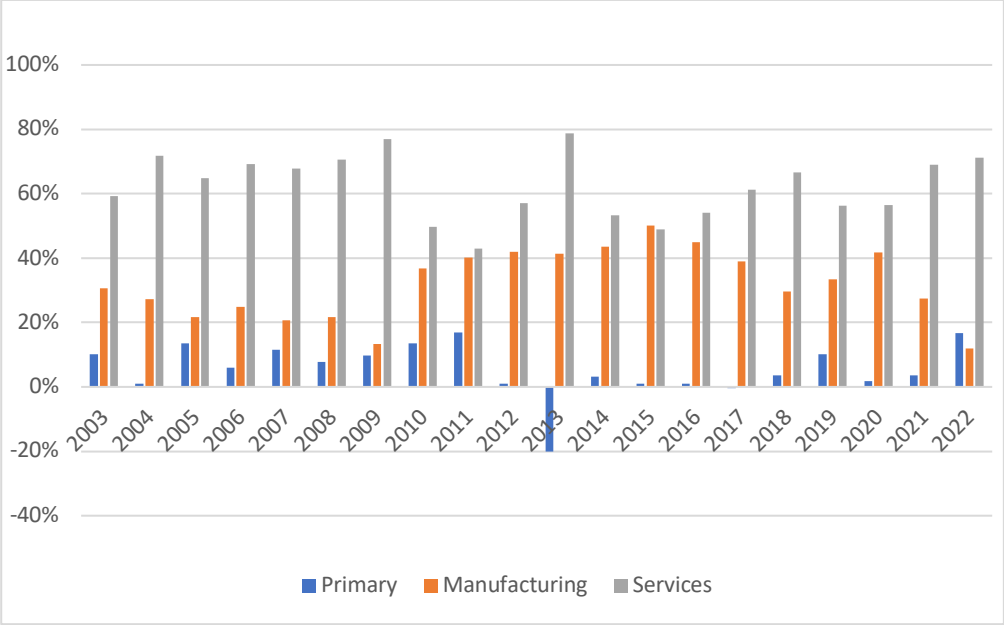


Figure 5. The value of M&As of FDI for the period (1990-2021)

Source: Own elaboration based on UNCTAD data period (1990-2022).

The figures above 4-5 demonstrate that cross-border mergers and acquisitions (M&As) in the services sector have the highest amount of foreign direct investment among the three sectors, reaching approximately USD 503.62 billion. Compared to previous years, the investment declined to USD 285 billion and USD 268 billion in 2019 and 2020, respectively. The highest investment percentages were recorded in finance, insurance, information and communication, and transportation and storage services, amounting to USD 342.2 billion, USD 77.6 billion, and USD 28.5 billion, respectively. Although the manufacturing sector saw a decrease from USD 202.19 billion in 2021 to USD 84.72 billion in 2022, it remains the second-highest sector for global FDI, having reached USD 193.4 billion over the last seven years of the study (2015-2022). The primary sector recorded an increase in 2022, reaching USD 118.23 billion from USD 26.93 billion.

One of the largest cross-border investment deals in the primary sector was by the United States Newmont company, which acquired the Canadian Goldcorp gold mining company for USD 9.9 billion (UNCTAD, 2022). In Africa, cross-border M&A deals (excluding South Africa) in 2022 reached a total amount of USD 9.7 billion in the first quarter. Compared to the first quarter of 2021, this marked an increase of 196 transactions. The significant increase was due to the acquisition by the international Swiss shipping line, Mediterranean Shipping Company (MSC), of the logistics business of Ballore SA, amounting to USD 6.32 billion. North and West Africa received the largest deals, each recording 30% of the total, with West Africa obtaining USD 1.86 billion, the lion's share of investment. Recovery was noted in East Africa, which picked up 23% of the total deals (Marylou Creig, 2022).

In conclusion, despite fluctuations in FDI worldwide resulting from various economic factors since the financial crisis in 2008, a significant increase of nearly three-fold was observed by the end of the research study in 2022 in both advanced and developing economic countries. This study highlights Libya's economy as one of the African countries examined. For more detailed information on inward and outward FDI in developing and developed economies, including the African region and particularly Libya, refer to Chapter 5.

1.5. Economic growth and development

Economic growth and development are two essential aspects in the field of economics. The main distinction between these two elements is that economic growth refers to an increase in the level of output for goods and services in a particular country or region over a period of

time. Commonly, economic growth is measured by gross domestic product (GDP) (Tejvan P, 2018). On the other hand, economic development goes beyond the quantitative considerations of economic growth and focuses more on promoting various social and economic factors (Ivan & Ashley, 2023).

There are key differences between economic growth and economic development. Economic growth primarily focuses on quantitative changes, whereas economic development seeks qualitative enhancement. Economic growth aims at short-term changes by increasing the level of output. In contrast, development tends to have long-term plans for sustainability. Economic growth highlights the importance of production and consumption, while economic development emphasizes equality and well-being. Economic growth is often measured using financial metrics, whereas economic development emphasizes non-financial indicators such as education and healthcare. In terms of achievement, economic growth can be obtained through capital accumulation, while economic development requires investment in enhancing human capital. Lastly, although economic growth is an essential condition for development, it is insufficient to guarantee the achievement of development, which aims to promote overall prosperity, equity, and long-term sustainability (Testbook, 2023).

The advantages and disadvantages of economic growth and development are worth noting. Economic growth positively impacts the employment rate by increasing job opportunities, leading to higher financial well-being and a better standard of living for residents. Additionally, economic growth encourages foreign investment and trade opportunities, enhancing infrastructure development. Moreover, higher tax income enables the government to increase investment in public sectors, leading to economic stability (Tejvan P, 2018; Siman B, 2022). However, economic growth has several disadvantages, such as high consumption rates and unsustainable production systems, which may result in increased inflation. Another disadvantage is the reliance on external factors, such as global market trends and conditions. Furthermore, economic growth can create gaps in income and wealth distribution (Tejvan P, 2018).

The advantages and disadvantages of economic development are also significant. Economic development leads to improved availability of education and healthcare support systems. Another positive impact is the sustainable utilization of natural resources to protect environmental integrity. Moreover, economic development solidifies institutional integrity and democratic governance. However, the disadvantages include the long-term nature of plans, which demand patience and dedication. Achieving economic development may also present challenges in aligning economic growth with environmental safeguards.

In conclusion, while there are many differences between economic growth and development and the ways both can be achieved, economic growth is crucial as it provides investment, resources, and opportunities supporting significant economic development. Both growth and development aim to improve the well-being of a country's population and can be influenced by political and institutional factors. Therefore, both concepts are essential for achieving a nation's goals by creating long-term economic stability. Governments and policymakers should implement the right strategies to maximize benefits and reduce negative impacts by fulfilling growth and development in the economy.

Chapter summary

This chapter provides a comprehensive overview of investment. For example, by focusing on the role of investment, its definition, forms and major types of investments such as, bonds, share, mutual fund and real estate etc. and its contribution in the economic growth and development for a country. The first chapter has also highlighted the important of investment climate and its factors that influence the attractiveness of particular market for foreign investors, for instance, macroeconomic conditions, political stability, infrastructure, access to market and workforce qualification. In addition, introduced how crucial is the favorable investment climate in fostering sustainable economic development.

This part of the research explored general concept of the foreign direct investment, and its types are detailed., such as, greenfield investment and brownfield investment including the advantages and disadvantages of these investments on the host economy. Moreover, the researcher has cover in this part of the study the evolution of global FDI in last three decades and considering the key factors that lead to increase and reduce the flows of foreign investment throughout the world including the global crisis in 2008, covid-19 in 2020, the changing in the world trade agreements and technological advancement. Attention has by to the movement of global FDI by sectors such as, primary, manufacturing and services, and which region has the big portion of investment and in which sector.

Last but not least, this part of the research provides a general overview of economic growth and development, the key differences between these two aspects, and the way that both are achieved. Furthermore, the advantages and disadvantages have been included for both economic growth and development.

CHAPTER 2
THEORETICAL BACKGROUND ON THE RELATION BETWEEN FDI AND ECONOMIC DEVELOPMENT

2.1. The classical and neoclassical theories of economic growth

Economic growth is defined as an increase in the production of goods and services within an economy. This growth is typically measured by the rise in a country's Gross Domestic Product (GDP) over time. In contrast, economic development is a broader concept that encompasses not only economic growth but also qualitative improvements in standards of living, such as better access to education, healthcare, and improved infrastructure. Therefore, to analyze development, one must first consider economic growth. It can be said that development is growth plus qualitative changes in the economy. Various theories attempt to provide multiple explanations regarding economic growth and foreign direct investment. These theories differ in their interpretation, depending on the approach each theory was created to be used for analysis.

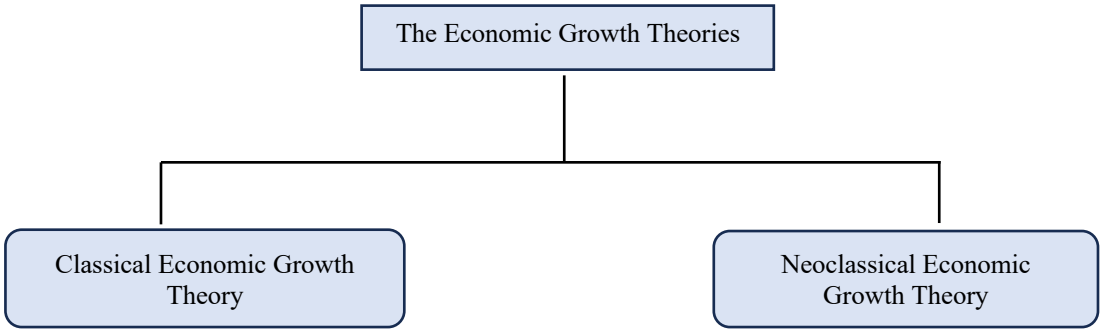


Figure 6. The economic growth theories

Source: Own elaboration.

The classical theory of economic growth was first articulated by Adam Smith[3] in his seminal work, *The Wealth of Nations* (1776). David Ricardo subsequently expanded this foundational theory in *Principles of Political Economy and Taxation* (1817), where he elaborated on

[3] The major contributions of Adam Smith to the classical theory of economic growth in his book of The Wealth Of Nations in (1776) covered, Division of Labor, Role of Capital Accumulation, Invisible Hand, and Market Expansion, for example about the market Expansion, he thought that the extent of the market limits the division of labor, larger markets facilities greater specialization and innovation, leads to driving the economic development further.

concepts such as the law of diminishing returns and its implications for capital accumulation. In his Essay on the Principle of Population (1798), Thomas Malthus linked population growth to the potential for economic stagnation. Later, John Stuart Mill contributed to the discourse by emphasizing long-run economic growth, arguing that it could be achieved through mechanisms such as enhanced labour productivity and capital accumulation (Lanza, 2012). These classical economists posited that markets possess an inherent ability to self-correct and achieve equilibrium, leading to full employment. They advocated for minimal government intervention, asserting that market forces alone could yield efficient economic outcomes.

A central tenet of classical economic growth theory is the role of international trade in fostering economic development. According to this perspective, nations with a comparative advantage in producing certain goods can benefit significantly from trade by specializing in them and exporting them to other countries (Salvadori, 2003). David Ricardo's theory of comparative advantage (1817) underscores this idea, asserting that a country need not be the most efficient producer of all goods to benefit from trade. Instead, it can gain by focusing on the production of goods in which it holds a relative advantage (Kalim Siddiqui, 2018).

While the classical theory offers valuable insights into economic development, it has been critiqued for its limited consideration of technological progress as a growth driver. This gap in the classical framework led to the development of neoclassical growth theory in the mid-20th century, primarily through the work of economists such as Robert Solow and Trevor Swan. The neoclassical model integrates technological progress as a critical determinant of long-run economic growth, arguing that sustained economic improvement cannot rely solely on physical capital accumulation. Instead, it emphasizes the importance of complementary factors such as human capital and technological innovation.

Neoclassical growth theory represents a departure from classical assumptions and has paved the way for further advancements in economic thought. Among these is the modern theory of growth, which emerged in the 1990s through the contributions of economists such as Paul Romer and Philippe Aghion. This theory, often referred to as endogenous growth theory, highlights the role of technological progress and its positive impact on economic growth. It also identifies factors such as market competition, market size, and trade openness as key determinants of the rate of technological advancement.

Another significant development in economic theory is institutional economics, pioneered by Douglass North and Ronald Coase. This framework emphasizes the importance of institutions—such as property rights, legal systems, and contractual enforcement—in shaping economic growth. Institutional economists argue that well-functioning institutions create a

stable environment conducive to economic activity, thereby facilitating production, distribution, investment, and exchange. For instance, production involves the creation of goods and services through manufacturing or agriculture, while distribution ensures these goods reach consumers. Investment refers to the allocation of resources to establish new businesses or expand existing ones, and exchange encompasses the trade of goods and services across businesses and nations.

Endogenous growth theory, developed by economists such as Paul Romer and Robert Lucas between the 1980s and 1990s, further underscores the importance of education, training, and human capital in driving long-term economic growth. This theory advocates for investments in education, research, and development, asserting that these factors are critical to fostering sustained economic progress (Najeh & Walid Ali, 2019).

Finally, nonclassical growth theories, which emerged between the 1950s and 1960s, challenge some fundamental assumptions of classical growth theory. Prominent contributors to this body of work include Stephen Hymer, John Dunning, and Peter Buckley. These theories explore the relationship between foreign direct investment (FDI) and economic growth in host countries. Contrary to classical perspectives, which often downplayed the benefits of FDI, nonclassical theorists argue that foreign investors and host countries can derive mutual benefits. However, the extent of these benefits depends on both parties' policies, strategies, and practices. Hymer, Dunning, and Buckley highlight several advantages of FDI, including technology transfer, job creation, and enhanced economic growth in host countries (Nayyar Rishika, 2014). Hymer, Dunning, and Buckley highlight several advantages of FDI, including:

- international trade openness is achieved by establishing new economic channels and relationships with developed countries and entering new markets for exporting local goods,
- utilization of the country's available human and natural resources and cannot explore locally,
- increasing the efficiency of the local labour and attracting large amounts of foreign capital,
- reducing imports of goods and services through the new production process that flows from these investments.

In recent years, many developing nations have actively encouraged foreign direct investment inflow, leveraging its potential to drive economic growth and development. This approach mirrors the strategies previously employed by advanced economies, such as the

United States and China, which have historically benefited from the significant contributions of FDI to their economic progress.

2.2. The classical theory of FDI

Earlier theories on foreign investment acknowledged its potential benefits but also raised concerns about the extent to which host countries gain from such investments. Critics argue that the primary beneficiaries of foreign investments are often the investing companies themselves rather than the host economies. Several key reasons support this perspective. For instance, many foreign companies tend to repatriate their profits to their home countries rather than reinvest them in the host nation, limiting the local economic impact. Additionally, the technology transferred by foreign investors may not align with the host country's economic, social, or cultural development needs. Furthermore, foreign investments can sometimes lead to political interference, as investors may exert pressure on local political parties or governments to advance their interests, potentially undermining the sovereignty and development priorities of the host nation.

The classical theories of foreign direct investment include:

- product life-cycle theory,
- internalization theory,
- monopolistic advantage theory,
- oligopolistic theory,
- strength of currency theory,
- industrial organization approach,
- location theory.

The Product Life-Cycle Theory, developed by economist Raymond Vernon in 1966, explains how a product progresses through distinct stages over its lifespan. Vernon proposed that a product undergoes four key phases: introduction, growth, maturity, and decline. Developed countries innovate and introduce new products to their domestic markets in the initial stage. During the growth stage, as demand for the product increases, companies expand production to meet domestic needs and begin exporting surplus goods to international markets. At this point, the product becomes more standardized, and production processes become more efficient, enabling exports to other developed countries (Dennisia, 2010).

In the maturity stage, the product reaches its peak demand in the market. Companies often relocate production to developing countries to maintain cost competitiveness, where lower

labour and material costs reduce expenses. This shift is driven by the changing nature of the product and the need to remain competitive in a saturated market. Finally, in the decline stage, demand for the product diminishes, and companies gradually reduce or cease its production. Vernon's Product Life-Cycle Theory provides valuable insights into the patterns of international trade and investment and the role of innovation in driving economic growth. The theory has been particularly useful in explaining U.S. corporations' foreign direct investment (FDI) activities in Western Europe's manufacturing sector following the Second World War.

The theory of internalization, initially introduced by Casson in a national context in 1937, was further developed by Buckley and Casson in 1976. This theory expanded on the concept of internalization within the context of FDI, which was first articulated by economist Stephen Hymer in his 1960 doctoral dissertation. John Dunning later contributed to the theory by introducing the Ownership, Location, and Internalization (OLI) framework, which outlines the three key advantages driving FDI: ownership-specific advantages, location-specific advantages, and internalization advantages (Rugman, 1980).

The internalization theory explains why firms often prefer FDI over alternative strategies such as exporting or licensing. Proponents of the theory argue that firms are more likely to invest abroad when they possess specific advantages, such as superior access to financial resources, advanced technology, efficient production techniques, innovative marketing strategies, and economies of scale. Additionally, firms may benefit from proprietary assets, such as trademarks or patents, which provide a competitive edge in foreign markets. Dunning (1979, 1988, 1993) emphasized that no single theory can fully explain the complexities of multinational enterprises or the various forms of internationalization. According to the OLI framework, a firm will engage in FDI if it possesses three key advantages: ownership-specific advantages (O), location-specific advantages (L), and internalization advantages (I). The interplay of these advantages enables firms to achieve greater profitability through FDI compared to alternative strategies such as exporting or licensing (Gray, 1996).

The Monopolistic Advantage Theory is a key framework in studying foreign direct investment (FDI). It posits that multinational corporations (MNCs) prefer to operate across borders rather than confining their production and operations to their home countries. This preference persists despite the potential advantages and disadvantages of operating abroad. One of the primary benefits for MNCs entering foreign markets is the ability to leverage their monopolistic advantages, such as unique technologies, patents, brand recognition, and

advanced management skills. These assets enable MNCs to contribute significantly to the local markets of host countries.

Hymer, a pioneer of this theory, argued that MNCs possess a competitive edge over local firms due to their proprietary assets, which are difficult for competitors to replicate. This advantage allows MNCs to set reasonable prices and generate substantial profits. Hymer also noted that MNCs might invest in foreign countries to access natural resources that are either unavailable or more costly in their home countries. John Dunning later expanded this theory in the 1970s by introducing the concept of ownership advantages, which refer to the unique assets, capabilities, and advanced skills that give firms a competitive edge over their rivals (Siddharthan, 1982).

However, there are also disadvantages associated with MNCs entering foreign markets. These include increased investment costs due to the need for additional services such as insurance, banking, marketing, advertising, and transportation. Furthermore, MNCs may face cultural, linguistic, and political risks in the host country. Despite these challenges, the Monopolistic Advantage Theory explains why MNCs invest abroad and underscores the importance of proprietary assets and ownership advantages in their decision-making processes.

The Theory of Oligopolistic Reaction, developed by Knickerbocker (1973), focuses on the behaviour of multinational enterprises (MNEs) in oligopolistic markets. Knickerbocker argued that MNCs often internationalize alongside their competitors to maintain their strategic position in the global market. This behaviour is driven by two primary motives: first, the desire to expand their presence in the host country's market, and second, the opportunity to benefit from the resources available in the target country. Knickerbocker highlighted that in oligopolistic markets, firms often mimic each other's strategies to avoid losing market share. For example, if a competitor begins producing locally in a host country rather than exporting, different firms may follow suit to prevent being underpriced or losing their competitive edge (Dinkar Nayak, 2014).

A limitation of Knickerbocker's theory is that it primarily focuses on the uncertainty of production costs in the host country and does not fully explain the initial motivations for firms to engage in FDI. Additionally, the theory is most applicable in industries with high concentration levels, where a few large firms dominate the market and produce similar products. In such cases, firms are more likely to follow each other's actions. For instance, Knickerbocker's analysis of U.S. multinational enterprises in industries such as chemicals, electronics, and automotive demonstrated that firms often imitate each other's FDI strategies.

However, this behaviour diminishes in industries with diversified production strategies (Edward & Ditshwen, 2018).

Knickerbocker's theory also highlights how FDI decisions—such as when, where, and how to invest—are influenced by international rivals' anticipated or actual strategies in oligopolistic industries (Hansen & Hoenen, 2016). From a societal welfare perspective, FDI in oligopolistic industries can have both positive and negative effects. On the one hand, it can encourage innovation and challenge less efficient firms, benefiting consumers. On the other hand, it may lead to higher prices and reduced consumer choice if oligopolistic firms dominate the market (Ietto-Gillies, 2012).

The Strength of Currency Theory has been explored in several studies as a potential explanation for foreign direct investment (FDI) patterns. For instance, Aliber (1970) proposed a hypothesis suggesting that the strength of a country's currency influences FDI flows. His analysis, supported by positive statistical outcomes, indicated that advanced economies with strong currencies—such as the United States, the United Kingdom, and Canada—tend to experience higher FDI outflows. Similarly, Dinkar and Rahul (2014) argued that nations with strong currencies are more likely to invest in developing countries with weaker currencies, as this allows them to leverage variations in market capitalization rates and gain a competitive advantage. However, Edward and Ditshwen (2018) noted that this theory fails to fully explain the dynamics of FDI between advanced economies with strong currencies and less industrialized or emerging nations, suggesting that additional factors may be at play.

Kojima (1973, 1975, 1985), a scholar from Japan, offered a unique perspective on the Strength of Currency Theory, diverging from the Western-centric views prevalent at the time. While his theory did not fully account for the global expansion of local businesses, it provided valuable insights into the motivations behind Japanese FDI outflows. Kojima argued that one of the primary drivers for Japanese companies to invest abroad was their inability to maintain competitiveness in the domestic market. Specifically, less efficient firms were compelled to relocate to emerging economies, while highly efficient firms dominated the Japanese market. This dynamic led to cross-border investments as less competitive firms sought opportunities in foreign markets with lower production costs and weaker currencies (Dinkar, Rahul & Choudhury, 2014, 12).

The industrial organization approach was developed by Canadian economist Stephen Hymer in his research, which was conducted in 1960 and later published in 1976. His work, which focused on multinational firms, formed the basis of his PhD thesis. Hymer's theory was supported by many scholars, including Knickerbocker, Dunning, Caves, and Cohen (1973,

1974, and 1975). Hymer's research aimed to outline international production within an imperfect market structure, emphasizing the capability of foreign direct investment (FDI) to compete with domestic firms that have more significant experience in meeting market requirements (Dinkar Nayak, 2014, p. 4).

Other researchers, such as Graham and Krugman (1989), applied the industrial organization approach to examine the growth of foreign direct investment in the United States. They found that two decades prior, American companies were more efficient domestically and globally than foreign firms, particularly in terms of technology and leadership skills. This higher efficiency resulted in lower foreign direct investment inflows at that time. The auditors' study supported the hypothesis that one of the primary reasons for the increase in FDI inflow to the US market in recent years is the enhanced ability of foreign businesses to compete with American companies, which have seen a relative decline in strength and performance compared to previous years (Lizondo, J. S 1991, p 53).

The location theory explains the optimal placement of economic activities such as industrial plants, retail businesses, and service facilities (Susan, 2015). Various factors influence foreign direct investment (FDI) in a host economy, depending on the interests and goals of foreign firms. The location theory seeks to explain the primary targets of multinational enterprises (MNEs) when investing in a host state. These factors can be categorized into two primary groups: those that discourage investment and those that may encourage it.

The first category includes the location features of natural resources and markets in the receiving economy and the ease of obtaining raw materials. The second category encompasses economic policies, political stability, market size and growth, labour quality, and technological capacity. These factors are crucial for FDI to consider when selecting a target destination and making informed decisions (Marandu & Ditshweu, 2018).

Some scholars suggest that attractive locations for foreign businesses may lead to an "agglomeration economy." Alfred Weber's (1909) model focuses on minimizing the cost of transport and labour to choose the most suitable location for industrial operations. Edgar Hoover's (1948) book, "The Location of Economic Activities," studies the factors affecting the spatial distribution of production and consumption. German economist August Losch, one of the pioneers of locational analysis, emphasized the importance of marketing and achieving maximum profitability through sales revenue in his book "Economics of Location" (1940). He argued that locations with fewer industrial companies tend to be less attractive compared to crowded areas with numerous industrial companies due to reduced transport costs and the availability of raw materials needed for production (Krugman, 1993).

2.3. The role of foreign direct investment in national competitiveness

The role of foreign direct investment in national competitiveness is highlighted in the Diamond Model introduced by economist Michael Porter in 1990. This comprehensive framework explains the global competitiveness of industries, emphasizing that a higher level of competitiveness leads to increased inflows and outflows of FDI. Porter identified several key weaknesses impacting Libya's economic growth.

Firstly, factor conditions refer to a nation's endowments of resources, such as skilled labour, infrastructure, and capital. Porter suggested that the analysis and description of productive factors like land, labour, and capital are often performed internationally. This generalization fails to strategically identify competitive advantages in specific sectors (Porter, 1990a, pp. 127-128, cited in Vlados, 2019). Libya faces challenges such as poor infrastructure and a lack of skilled workforce, hindering economic growth. For instance, the fishing industry in Libya, with its long Mediterranean coastline and rich marine biodiversity, suffers from illegal fishing and lack of regulation. Although some fish processing facilities and cooperatives exist, most suffer from outdated equipment, poor operational conditions, and limited productivity. More than 10,000 people are employed in this industry, but training and skills development are needed to enhance efficiency and sustainability in fishing practices (FILOGH, 2019).

Demand conditions refer to the nature and size of local market demand that drive innovation and improvement. Porter suggested three essential attributes of home demand. Firstly, the composition of demand guides how a company understands, interprets, and reacts to buyers' preferences. Secondly, home demand's size and growth pattern can amplify national benefits in a particular sector. This composition of demand is complex, covering local and global needs (Porter, 1990a, pp. 143-161, cited in Vlados, 2019). Thirdly, the internationalization of domestic demand influences national competitiveness. Recently, local market demand in Libya has been impacted by political conflict since 2011, leading to a decline in consumer purchasing power.

Related and supporting industries refer to the presence of competitive supplier-associated industries and internationally competitive sectors. Libya's significant dependence on the oil and gas sector restrains the expansion of diverse supporting industries and limits new advancements. Strategy, structure, and rivalry illustrate the conditions governing how companies are established and managed and the nature of domestic rivalry. To perform globally, firms require capable local rivals and intense domestic competition. The business

environment in Libya has been impacted by regulatory challenges, reducing competition due to government controls (Porter, 1990; Gautam S. Kumar and Sirui Li, 2011).

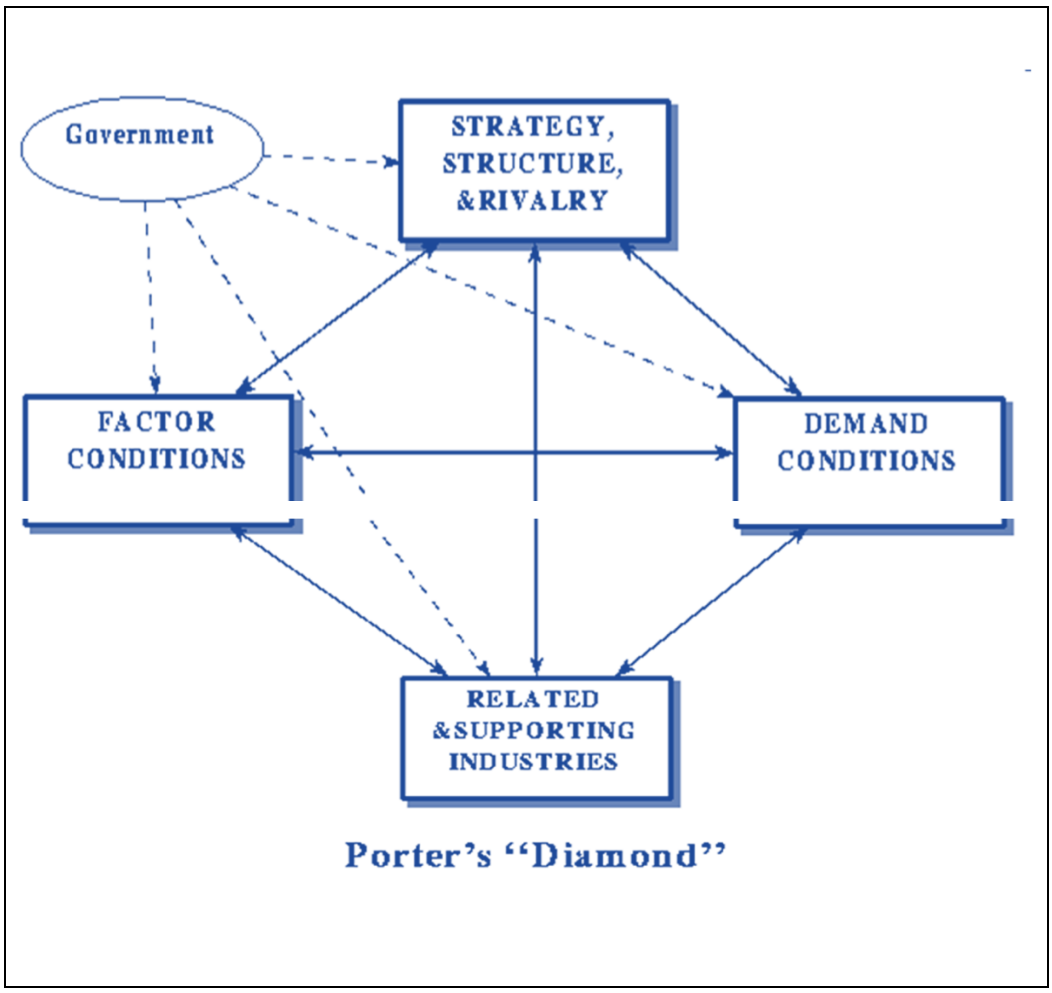


Figure 7. The Porter's diamond model for the competitive advantage of nations

Source: Based on Porter (1990, p. 127).

The above-mentioned Figure 7 illustrates the Diamond Model, which holds significant importance in economics due to its multifaceted contributions to the economy. This model provides a structured approach to understanding how nations promote competitive advantages in specific industries. It is particularly useful for reforming government economic policies; by examining the drivers of national advantage, policymakers can create strategies that enhance infrastructure and technological innovation. Additionally, understanding the model enables businesses to choose better strategies for locating and investing in their operations. The model also explains the reasons behind the international competitiveness of various industries, effectively answering how economies can establish a strong presence in a rapidly globalizing world (Porter M., 1990).

2.4. The impact of FDI on economic growth

Zun (2017) aimed to determine whether increasing foreign direct investment (FDI) positively affects the economic growth (GDP) of the host country in the long and short term, covering the period between 1989 and 2015. Using the Vector Error Correlation (VECM) Model, the study found that while FDI inflows to Myanmar had a positive long-term effect, it was not statistically significant. In the short term, FDI showed a negative impact when most Western firms stopped investing. The study also found that the trade deficit of the host country contributed to the negative long-term relationship between the balance of trade and GDP growth. To achieve significant economic growth, the study recommended that Myanmar's government should focus on economic stability and amend FDI policies.

Wakyereza (2017) investigated the impact of FDI on Uganda's economic growth between 1985 and 2015, focusing on employment creation, poverty reduction, and economic growth using the Solow-Swan Model. The study found that poverty, employment, and economic growth are multidimensional, with tourism being Uganda's largest foreign exchange inflow. The government implemented fiscal, monetary, and commercial policy reforms to achieve higher economic growth, increase job opportunities, and reduce poverty. The study demonstrated that FDI alleviated private capital limitations in Uganda, providing improvements and benefits to the host country's economy.

Ali Abdulghader (2014) examined the contribution of FDI and other foreign capital to Algeria's economic growth and domestic investment from 1997 to 2010. The study analyzed the relationships between FDI, domestic investment, and economic growth, considering the impact of absorptive capacity. The findings indicated that FDI plays a crucial role in the economic development of African countries by integrating them into the global market. The study recommended ensuring political and security stability, providing incentives like tax exemptions on necessary machinery and goods, and improving infrastructure and financial services to attract more FDI. Amending investment laws was also suggested to increase foreign capital inflows, positively impacting Algeria's economic growth.

Steve Loris and Gui-Diby (2014) explored the relationship between FDI, domestic capital, and economic growth in Africa from 1990 to 2010. Using growth models, the study examined the impact of FDI and domestic capital on GDP, as well as the effects of economic growth and FDI on domestic capital. The study concluded that increasing domestic capital positively affects GDP growth and attracts more foreign investment to the host country.

Donny Susilo (2018) investigated the impact of FDI on different sectors and their influence on economic growth in the United States, covering the period from 2000 to 2017. The study found that some sectors, such as manufacturing, wholesale trade, retail trade, information, and real estate (rental and leasing), positively impacted economic growth. However, sectors like insurance, professional scientific, and technical services negatively contributed to economic growth. The study suggested that not all forms of foreign investment benefit the receiving economy, supported by the results obtained.

Olookoyo (2012) analyzed the impact of FDI on Nigeria's economic development, covering over 30 years (1970–2007). The study used the Ordinary Least Square (OLS) regression technique to test the relationship between actual gross domestic product (RGDP) and FDI. The findings confirmed that FDI positively supports domestic investment, employment creation, technology transfer, and increased domestic competition. The study recommended that Nigeria should leverage its natural resources to attract FDI, improve related sectors, and focus on policies that enhance foreign investment's contribution to domestic investment, reducing unemployment. The study also found that the exchange rate, balance of payments, and FDI negatively affected Nigeria's economic growth.

Syed Ali Raza (2019) examined the correlation between FDI and economic growth in the presence of good governance in OECD countries, analyzing data from 1996 to 2013 using the fixed effect model and GMM estimator. The findings showed a significant positive impact of all selected variables on economic growth. A unidirectional causal relationship was observed between corruption control, political stability, accountability, and economic growth. In contrast, a bidirectional causal relationship was found between FDI and regulatory quality on economic growth. The study suggested that maintaining institutional quality and preventing corruption through effective policymaking are crucial for better economic growth and higher FDI inflows.

Ivan Milojevic (2016) analyzed Serbia's national economic growth weaknesses, attributing them to international economic isolation and a lack of natural resources during the 20th century. This made Serbia less attractive to foreign investors, leading to FDI inflows focused on banking and local investment, allowing foreign investors to control most businesses. The study implemented an empirical analysis showing that exchange rates, exports, imports, and state expenditures positively predict economic development, while FDI, public debt, and trade openness do not positively impact economic growth. The study recommended reducing the budget deficit's share of GDP to manage public debt effectively.

Adams (2009) examined FDI's contribution to economic growth in Sub-Saharan Africa, aiming to investigate its influence on promoting local investment, efficiency improvement, and transferring new technology and managerial skills. The study concluded that although the study countries managed to attract FDI, it did not significantly impact the region's economic growth. The study recommended focusing on high-quality foreign investment distributed across different sectors to benefit from FDI.

Developing countries often face significant economic challenges, including poor-quality domestic production, a lack of advanced technology for resource extraction or public service provision (such as transportation and telecommunications), and high unemployment rates. In this context, attracting substantial foreign direct investment can help mitigate or alleviate these issues. A study by Hamidah, Saad, Abu Hassan, and Ibrahim (2016) examined the impact of FDI on employment rates in Malaysia, analyzing data from 1980 to 2012 using the Autoregressive Distributed Lag (ARDL) model. The study found that a decline in FDI in 2009 led to job losses and increased unemployment, as many workers were employed in FDI-driven projects. The research also considered factors such as gross domestic product (GDP), the participation of foreign workers, and exchange rates. The results indicated that FDI and foreign labour contributed to reducing unemployment, which peaked at 7.5%. Additionally, outward FDI created opportunities for exporting local goods and establishing connections with international markets. The study recommended that policymakers address the decline in FDI inflows to prevent further national production and potential human resource losses.

Elgamodi (2017) explored factors influencing foreign investment in Libya, particularly in the tourism sector. Despite Libya’s rich historical heritage, including ancient Phoenician sites, the tourism sector has been neglected. The study suggested that collaboration between local, private, and foreign investors could revitalize this sector, generating long-term economic benefits. However, lacking skilled human resources in tourism has hindered FDI inflows. Unlike neighbouring countries like Tunisia, Morocco, and Egypt, Libya lags in this area. The study emphasized the need for improvements in the education system and domestic organizations to support tourism development. Diversifying the economy through investment in tourism could also enhance macroeconomic stability.

Haque (2020) investigated the impact of FDI on Saudi Arabia’s economic development, focusing on the period from 1984 to 2016. Using cointegration tests, the study identified key factors influencing FDI inflows. It found that Saudi Arabia’s reliance on oil exports has limited investment in non-oil sectors, creating opportunities for FDI. The study also highlighted the

importance of strong institutions in attracting FDI and recommended greenfield investments to reduce dependence on the petroleum sector.

The relationship between exchange rates and FDI has been widely studied. Tan et al. (2021) examined this dynamic in Zhejiang, China, from 1985 to 2019. Using vector error correction models and Granger causality tests, the study found that RMB depreciation against the USD positively influenced FDI in the long term. However, short-term exchange rate fluctuations had no significant impact. The study also noted that trade openness and currency appreciation affected FDI inflows, emphasizing the importance of human capital and infrastructure development in attracting foreign investment.

Maqsood Ahmad (2020) analyzed the impact of FDI, exchange rates, and employment on remittances and economic growth in Pakistan from 1972 to 2019. The study found no direct relationship between FDI, exchange rates, and remittances. However, it identified a positive correlation between FDI, labour force participation, and GDP growth. The study recommended that policymakers focus on increasing remittances, as they significantly contribute to long-term economic development.

Khamis Hareb Alshamsi (2015) studied the influence of inflation and GDP per capita on FDI inflows to the UAE from 1980 to 2013. Using the ARDL model, the research found that inflation had no significant impact on FDI, likely because it remained below a critical threshold. In contrast, GDP per capita positively influenced FDI inflows. The study advised maintaining low inflation and monitoring GDP per capita to sustain FDI growth.

Tsaurai (2018) explored the impact of inflation and financial institution development on FDI in Southern Africa. The study found that inflation negatively affected FDI inflows, while financial sector development had a limited impact. The research recommended controlling inflation and strengthening financial institutions to attract FDI.

Tomi Joutsen (2014) examined the short-term impact of FDI on per capita GDP in sub-Saharan Africa from 2005 to 2013. Using ordinary least squares (OLS) regression, the study found a positive relationship between FDI and GDP per capita, suggesting that even short-term FDI inflows can contribute to economic growth.

Nadar (2021) investigated the long-term impact of FDI on India's GDP per capita from 1970 to 2019. Using Granger causality tests, the study found no short-term correlation but identified a significant positive relationship in the long term. The research recommended prioritizing long-term FDI investments to maximize economic benefits.

Qamar uz Zaman (2018) analyzed the role of trade openness in attracting FDI to Iran, Pakistan, and India from 1982 to 2012. The study found that trade openness, along with factors

like inflation, exchange rates, and GDP per capita, significantly influenced FDI inflows. The research concluded that countries with higher trade openness are more likely to attract substantial FDI.

Table 4. Foreign direct investment and economic growth

Countries-Period	Research/Methodology	Authors/Year	Result
Libya (1990-2021)	The impact of FDI on economic growth/ Multiple linear regression model and estimation using ordinary least squares (OLS). Autoregressive distributed lag (ADRL) model, Bound test 2001, by Pesaran 2001.	Salih Ahmed Elfurti (2023)	The factors that impact FDI inflow: In the short run, inflation rate, openness, trade, and exchange rates were positive. In the long run- the openness trade and exchange rate relationship with FDI inflow were positive, and the inflation rate showed a negative impact. Second hypothesis: In the short run, the labour force, oil and gas exports, and FDI inflow were negative; however, in the long run, they were positive.
Myanmar (1989-2015)	The impact of FDI on economic growth/ Vector Error Correlation (VECM) Model.	BANN, Zun (2017)	Short run- Negative impact Long run -Positive effect, however not significant. The trade deficit was one of the reasons that caused the negative long-term sight between the balance of trade and the growth economic rate GDP.
Uganda (1985-2015)	The impact of FDI on employment rate, poverty and economic growth of the country/ Solow-Swan Model	Ronald.S Wakyereza(2017)	Tourism is considered the largest foreign exchange inflow in the nation and has Short/long run. Different policies amended by the government in the aspect of monetary, commercial and fiscal as the plan of economic development
Algeria (1997-2010)	The impact of FDI on economic growth/Cobb-Douglas production function.	Abdulghader Ali (2014)	Increased FDI inflow leads to Short/long positive impacts on economic growth.
Africa (1990-2010)	The impact of FDI on economic growth/The	Gui-Diby (2014)	The impact of FDI and DI on GDP.

	system generalized method of moment (SYS-GMM).		FDI improve domestic investment, and DI positively impact GDP
United States (2000-2017)	The impact of FDI on different sectors on economic growth/ Multiple linear regression model and estimation by using ordinary least squares (OLS).	Donny Susilo (2018)	Apply 10 sectors: Manufacture, wholesale trade, retail trade, information, actual state (rental and leasing, Short /long positive effect. Insurance professionals in the scientific and technical services sector negatively impact economic growth.
Nigerian(1970-2007)	The impact of FDI on different sectors on economic growth/ Ordinary Least Square (OLS) regression technique to test.	Olokoyo, Felicia Omowunmi(2012)	FDI has a positive impact on the country's economic development.
OECD countries(1996-2013)	The relationship between FDI and economic growth in the presence of sound governance system in the OECD countries/ The fixed effect model and the GMM estimator	Nida Shah, Imtiaz and Syed(2019)	Factors such as corruption control, political stability, and institutional quality positively impact the nation's economic growth.
Serbua(2001-2011)	Financial analysis of foreign direct investment on the economic growth of developing countries/ Regression analysis method.	Bozidar Raicevic (2016)	Exchange rate, export-import and expenditures positive. FDI, public debt and openness trade.
Sub-Saharan Africa(1990-2003).	Foreign Direct investment, domestic investment, and economic growth in Sub-Saharan Africa/ OLS and effect estimation methods.	Samuel Adams(2009)	Domestic investment has a positive impact on economic growth. However, in the long run, this effect was not significant.
Malaysia(1980-2012)	the impact of foreign direct investment on the Unemployment rate/ Autoregressive distributed lag model (ARDL).	Hamidah Irpan, Rosfadzimi Saad, Abu Hassan Shaari, Abd Halim Noor and Noorazilah Ibrahim(2016)	FDI inflows provide job opportunities and help decrease the country's unemployment rate.
Libya (1995-2010)	the motivational Factors for Foreign Direct Investment in Tourism in Libya/ the phenomenological paradigm.	Khaled H A Elgamodi(2017)	Encouraging Foreign companies is necessary to improve the tourism sector, which can contribute to the economic growth in Libya.
Saudi Arabia (1984-2016)	Does Oil Rent Deter Foreign Direct Investment? / Cointegration method used.	Mohammad Haque 2020	Factors that affect FDI inflow : Lack of domestic investments. Dependent Significantly on the oil sector.

			Quality institutions positively impact FDI inflow in the nation.
China(1985-2019)	Influence of exchange rate, interest rate and inflation rate on foreign direct investment inflow/ Vector error Correction model, cointegration test and Granger causality.	Lan, Yifan and Alemayehu (2021)	FDI increases in China when the exchange of RMB against USD goes down in the long run. The three mechanisms applied in the research, such as wealth, cost and demand and their effect on FDI inflow was negative.
Pakistan (1972-2019)	The impact of employment rate, exchange rate and foreign direct investment on worker's remittances and economic growth/Regression estimation model.	Maqsood Ahmed, Ghulam Ghouse, Afsheen Hashmat Naeem Ur Rehman Aribah and Sana(2020)	The factors applied are as follows: FDI, direct investment, exchange rate and labour force, and remittance on GDP, which had a positive impact in the long run.
United Arab Emirates (UAE)(1980-2013)	The impact of the inflation rate and Per capita GDP on the foreign direct investment/the auto-regressive distributed lag (ARDL) model.	Khamis Alshamsi, Mohd Hussin and Muhammad Azam (2015)	The long-run inflation rate has a positive impact, one of the reasons that (Inflation was under the threshold level). GDP per capita-positive impact.
Southern Africa(1995-2014)	Investigating the impact of inflation rate on the Foreign Direct Investment/ Pooled OLS and fixed effect methods.	Kunofiwa Tsaurai (2018)	Pooled OLS method, Inflation rate-negative impact. Fixed effect-Inflation rate-were positive. Financial institution and inflation rate on FDI both methods were negative
Africa (2005-2013).	Does FDI affect GDP per capita growth in sub-Saharan Africa/ Regression model Ordinary Least squares (OLS)?	Tomi Jouteen and Hakan Norline (2014)	FDI inflow has a positive influence on the country's GDP per capita.
India (1970-2019).	The impact of the FDI on the GDP Per capita in India using Granger causality/ Wald test VECM approach Vector Error Correction and Pairwise Granger test.	Nadar Anand (2021)	Short: There is no relationship between FDI and GDP per capita. The relationship between FDI and GDP per capita was significant in the long run.
Asian countries: Iran, Pakistan and India (1982-2012)	Trade Openness and FDI inflow Asian Countries case study/ Regression analysis Fixed effect and Pooled OLS techniques.	Zaman, Yasin, Muhammad, and Zhang (2018)	Openness leads to increased FDI inflow- (positive impact).

Source: Own elaboration Based on previous research.

In conclusion, Table 4 has demonstrated various outcomes related to the impact of foreign direct investment (FDI) on the economic growth of host countries, both in the short and

long term. By applying different methods, strategies, and factors, the study provided statistical results covering a wide range of years and regions, including America, Asia, South and North Africa, and Middle Eastern countries. Most auditors concluded that FDI has been beneficial due to its positive contributions to developing various sectors such as infrastructure, manufacturing, real estate, trade openness, oil, and tourism. These benefits have improved economic conditions in many nations worldwide by enhancing production efficiency and attracting significant capital inflows from foreign investment.

2.5. Key sectors driving the country's economic growth

Several crucial factors contribute to the economic growth of a country. This research identifies specific factors requiring the Libyan government's attention to promote both oil and non-oil sectors. By focusing on these, Libya can achieve diversification, foster economic growth and development, and enhance the quality of life for its citizens. These factors include:

- oil and gas sector,
- energy sector,
- telecommunications sector,
- agricultural development,
- tourism development.

Developing countries rich in natural resources, particularly in **oil and gas**, can benefit substantially. Revenue from these sectors can address many economic challenges by creating jobs and business opportunities, reducing poverty, and improving living standards. Additionally, funds generated from these industries empower nations to pursue development projects across various fields, including education, healthcare, industry, tourism, agriculture, and telecommunications. However, reliance on these sectors can incur environmental and social costs (Kathryn, 2000).

The impact of the oil and gas sector on a country's economy can be both positive and negative. On the positive side, money from the oil and gas sectors contributes to economic prosperity by increasing investment in infrastructure, human capital, and social services. Trade and cooperation levels can rise in nations attracted by substantial oil revenue, benefiting the region. Conversely, focusing on investments and returns from exporting oil products can lead to "Dutch disease." Significant increases in global oil prices may cause domestic currency appreciation, boost imports from external markets, and negatively impact domestic industries. Economies driven primarily by oil revenue may experience periods of decreased income from this sector, affecting their ability to carry out development projects and provide services to

citizens (Sayed, 2016). Furthermore, foreign direct investment (FDI) has significantly contributed to the oil industries in MENA, playing a crucial role in these countries' economies. FDI has aided developing nations in extracting and utilizing natural resources, such as oil and gas, and transferring advanced technology. The MENA region holds approximately 70% of the world's proven oil reserves, positioning it as a central player in the global oil market.

Recently, MENA nations have attempted to reduce heavy dependence on the oil industry by implementing economic diversification strategies. These strategies include promoting modern industries, increasing non-oil exports, and encouraging FDI. Countries in the Middle East have leveraged oil wealth to build modern infrastructure, reduce unemployment, and improve social indicators (Fasano & Iqbal, 2023). In North Africa, Algeria, Libya, and Egypt are the highest producers and holders of oil and gas, accounting for about 57% of Africa's reserves. However, in the last decade, political conflicts and the global shift to renewable energy have posed challenges to these countries, leading to decreased production and reserves (Dominic, 2022).

The **energy sector**, particularly electricity, is a key factor in a country's economic growth. A causal relationship exists between higher gross domestic product (GDP) and increased electricity consumption, access, reliability, and affordability. Governments worldwide have benefited from electricity to provide public services such as education, healthcare, and water. The energy sector is vital for business production, and the absence of electricity would severely hinder the production of goods and services (Kelsey, 2022). The relationship between electricity consumption and economic development is evident. Advanced economies with high living standards demand more electricity than poorer nations. This sector contributes to nearly all economic activities, and investment in energy can lead to economic development (Moss & Kincer, 2023).

Most developing nations are emerging markets undergoing industrialization. FDI positively impacts energy consumption in these countries in various ways. For instance, FDI offers energy-saving technologies and renewable energy sources, as foreign firms implement environmentally friendly policies from countries with higher environmental standards (Polat, 2018). Moreover, FDI can encourage energy consumption driven by industrial development and business expansion, bringing managerial expertise, modern ideas, and sustainable development contributions.

In recent decades, according to the International Renewable Energy Agency (IRENA) Report (2022), countries across the MENA region have adopted renewable energy plans as essential elements toward achieving global climate goals. Investment in clean energy projects,

particularly solar and wind energy, has significantly increased, benefiting from favourable weather conditions, diversifying the economic base, and reducing reliance on oil.

The recent development in the global telecommunications system has made this sector significant in economic development. The substantial revenue generated by telecommunications encourages multinational companies to expand rapidly worldwide. Literature highlights a bidirectional relationship between telecommunications development and economic activities. Economic growth impacts telecommunications expansion, while improvements in telecommunications systems stimulate economic activities such as GDP growth and labour productivity (Rahman, 1996).

The rapid growth of the **telecommunications** industry generates substantial revenue for businesses and connects the world. It also significantly contributes to job creation across various fields, such as customer support, IT services, and data processing. This sector reduces unemployment rates and positively boosts overall economic growth (Singh & Kaur, 2023). Additionally, telecommunications systems have helped developed and developing countries close gaps by sharing essential knowledge, ideas, and services during the development stages. FDI has played a significant role in developing telecommunications systems in developing countries. The telecommunications market has attracted substantial domestic and foreign investments, providing financial resources to support government efforts in advancing telecommunications systems and improving the quality and availability of telecom services for all citizens (Sandeep & Surender, 2013). FDI brings technology and expertise that local companies may lack or cannot afford, accelerating research and innovation within the local telecommunications sector (Kalotay, 2004). On the other hand, some believe that the entry of foreign firms may restrict local investment opportunities and reduce regulatory standards.

In Africa, the telecommunications sector has grown significantly in recent years. Although challenges remain in rural areas due to high infrastructure investment costs focused mainly on urban centers, adopting digital technology over analogue has been crucial. This shift has improved service quality in many countries across the region (Richardson & Jensen, 1998). Chinese corporations such as Huawei and ZTE have played a significant role in promoting telecommunications systems in Africa by offering affordable options supported by government funds. The applied strategies have helped launch advanced technology networks, such as 3G and the next generation of G5 (Micheal, 2022).

In short, telecommunications play a vital role in promoting development and boosting economic growth across the African region. Today, millions of people have access to low-cost smartphones and internet services. This increased connectivity has given individuals and

companies unprecedented access to information, services, and markets. Consequently, digital platforms, mobile banking, and e-commerce have significantly increased economic contribution and entrepreneurship opportunities. Recently, the development of telecommunications infrastructure has attracted substantial foreign investment in Africa.

Investment in the **agriculture** sector plays a critical role in developing a country's economy, reducing poverty, and increasing food security. Numerous economists have debated this topic, starting with Arthur Lewis (1950), who introduced the Dual Economy Model. He argued that investment in agriculture leads to economic growth in the industrial sector by providing a lower-cost source of raw materials and labour. In 2007, Simon Johnson and Daron Acemoglu investigated the relationship between agriculture and economic growth in sub-Saharan Africa, finding that the sector has a significant positive impact on these economies.
Investment in agriculture has helped developing countries like India and Brazil reduce poverty, provide job opportunities, and address food security challenges. According to Pfunzo (2017), there are three key areas where investment in agriculture should be directed: research, infrastructure, and human capital.

Investment in agricultural research can be achieved through education for students interested in this field, focusing on factors such as climate conditions and biotechnology. This investment can improve production quality and support farmers with training, loans, irrigation systems, and advanced equipment.

Investment in infrastructure is crucial as many regions have the natural conditions needed to start agricultural projects, but farmers lack modern technology due to insufficient investment. Essential resources for these projects include water, electricity, storage facilities, and transportation.

Human capital is vital for the development of any sector. It refers to individuals' skills, abilities, and knowledge, which can generate economic value. Educated farmers with high skills and knowledge can create value, manage innovation, and improve productivity, promoting the growth and sustainability of the agriculture sector.
Libya has significant potential for agricultural development due to its vast size (approximately 2 million km^2) and ample water resources, such as the Great Man-Made River, established in 1983. This industrial river delivers about 2.5 million cubic meters of water daily to nearly all Libyan cities. The country also has favourable weather conditions for planting various fruits and vegetables. Agriculture has accounted for about 6% of Libya's GDP and around 20% of the workforce in the past two decades. This sector primarily supplies the local market with

crops such as wheat, barley, olives, citrus fruits, date palms, and vegetables. Livestock, particularly sheep and goats, are also raised.

Many developing countries have invested in the tourism sector, which has become one of the largest global industries contributing to economic growth due to the high revenue generated. In 2021, travel and tourism accounted for about 6.1% of the global GDP, amounting to approximately 5.8 trillion U.S. dollars. While there was an increase compared to 2020, the percentage was higher before the COVID-19 pandemic, reaching over 10% of the global GDP. Countries with warm weather, vast lands, historical sites, and long coastlines, such as Turkey, Morocco, Libya, Egypt, and Tunisia, attract significant numbers of tourists. Asian countries like Singapore, Thailand, Malaysia, and Indonesia also draw many visitors from around the world. Influxes of tourists can positively impact a country's economic growth by creating thousands of jobs and providing opportunities for developing countries to diversify away from primary product dependency. Successful tourism destinations encourage FDI, leading to the establishment of new hotels, restaurants, and service offices as well as improvements in transportation and insurance companies. This diversification increases economic output and helps developing countries earn foreign currency. Additionally, FDI can enhance healthcare and education sectors by attracting international trainers and doctors, contributing to tourism development.

Previous studies have examined government policies and legislation supporting economic diversification away from oil dependency towards other industries, such as tourism, in the UAE (Mubarak, 2013). Approximately 50 years ago, the UAE transformed from a desert-covered state into a regionally renowned tourism and global investment center by reinvesting oil revenue into various sectors, including real estate, construction, tourism, telecommunications, shipping, and finance. The UAE's liberal and market-oriented policies laid a strong foundation for successful economic diversification

Mageda (2011) investigated the barriers to rural tourism development in Libya and examined the suitability of tourism education programs in preparing students and employees. The researcher argued that the government should not neglect this sector, given the successful experiences of other developing countries. The development of rural tourism in Eastern Libya could make it a sustainable and globally attractive destination, increasing revenue from this sector and reducing reliance on oil production.

However, there are disadvantages to relying heavily on tourism. Income from tourism is often unstable and seasonal. Additionally, not all profits generated by businesses like travel agencies and hotels may remain in the country, as many business owners prefer to transfer

funds abroad. Overcrowding and habitat loss for residents are also concerns. Therefore, investing in the tourism industry can be risky and expensive. Nations must focus on features that attract tourists, such as transportation, land availability, infrastructure improvements, and strong telecommunications and internet connectivity.

Chapter Summary

This chapter focuses on three key areas related to foreign direct investment (FDI) and its impact on economic growth and development.

First, it acknowledges the theories of FDI, such as the product life cycle, internalization theory, monopolistic advantage theory, strength of currency theory, oligopolistic theory, industrial organization approach, and location theory. These theories emphasize how FDI increases the inflow of capital, technology, and managerial expertise to the host country, providing essential advantages for promoting economic growth, such as access to the global market.

Second, it provides information about the role of FDI in national competitiveness, using Michael Porter's model, which indicates that higher levels of competitiveness lead to increased inward and outward FDI. Additionally, it addresses the key weaknesses and challenges impacting economic growth in Libya, including poor infrastructure systems, a shortage of qualified workers, and the impact of political instability on market demand and purchasing power in the Libyan market. Other factors considered are related and supporting industries, as well as strategy, structure, and rivalry.

Third, this chapter includes previous studies and investigations covering the same research topic: the impact of FDI on economic growth and development. The reviewed articles and research span various regions, including Africa, Asia, Europe, and North and South America. Most studies have confirmed an increase in FDI in these regions and a positive correlation between FDI inflows and economic growth. Moreover, the chapter highlights the contribution of factors that are vital to a nation's economic growth, such as oil and gas sector, energy sector, telecommunication, tourism sector development, agriculture sector growth. These elements present an extensive framework for investigating and encouraging FDI inflow and benefiting from its positive impacts on fostering economic development.

Therefore, a country needs to focus on various factors to achieve long-term sustainable economic growth and reduce reliance on oil and gas. This includes investing in energy,

telecommunication, agriculture and tourism sectors, and attracting foreign direct investment. Government and policymakers should employ comprehensive and integrated techniques to ensure that policy frameworks support FDI attraction and benefit from its positive social and economic contributions in the short and long term.

CHAPTER 3
LIBYAN ECONOMIC DEVELOPMENT

3.1. The history and determinants of Libya’s economic development

Before the discovery of oil in 1959, Libya's economy was described as weak, with deficits in the general budget and balance of payments. Most projects suffered from structural deficits, and local production was insufficient to meet the domestic market's demand. The standard of living was low compared to the global average, with a per capita income of only about USD 115 in 1959-1960 (H.B. Sharabi, 1963). Agriculture and livestock were the most popular activities, with around 70% of Libyans engaged in agriculture, yet these sectors contributed only 23% to the country's GDP.

The industrial sector was limited, consisting mainly of food industries such as canning fish and agricultural products or traditional industries like carpet making and simple household appliances. These industries relied primarily on agricultural or animal production, such as canning tomatoes or spinning wool. The lack of capital for sector development resulted in an inability to absorb surplus labour from agriculture. Government funds before the oil discovery were insufficient to develop public utilities such as healthcare, education, and public transportation due to limited state revenues. Libya relied on foreign support and assistance from international bodies, including the United Nations, which provided a primary source of income and employment for many Libyans. In 1959, foreign aid and military expenditures accounted for around 28 per cent of the national income, totalling approximately 59.5 million Libyan dinars. This increase was due to rising prices of goods and services and the growing involvement of foreign nations and companies in natural resource exploration.

Libya's economy began to improve in 1962 when the country started exporting oil. The exploration and discovery of oil in the Amal and Zelten fields took about five years, and over 35 companies were granted concession contracts for drilling and resource exploration (Libyan Oil and Gas Corporation). The government implemented measures to regulate oil exports, which reached about 3 million barrels per day, accounting for approximately 16 per cent of total OPEC production. In 1963, Libya achieved a trade balance surplus of about 38 million Libyan dinars. As a result, the economy became less dependent on foreign support and agricultural commodities. Libya invested heavily in infrastructure, education, healthcare, and other productive fields, spending hundreds of millions of USD through successive three- and five-year development plans (Abdul Rahman Awad, 1997).

In the mid-seventies, many public companies were established to import and distribute goods and services, with public institutions taking over the provision of these services. This policy aimed to balance supply and demand and maintain reasonable prices for all citizens. During this period, the state began to control most economic activities, nationalizing commercial enterprises. Key measures included:

- establishing a system to control and rationalize imports and expand the prohibited goods list,
- implementing mandatory pricing for all goods and services,
- subjecting all goods to an import licensing system,
- working with a distribution system based on individual quotas and designated distribution centers.

However, these policies led to several problems, such as low production efficiency, lack of interest in quality improvement, and reduced production costs, resulting in market challenges. The government has implemented various policies and regulations to promote economic growth. Economic reforms focused on liberalizing trade and services, encouraging private sector participation, and ending market monopolies to enable competition. Policies aimed to create a favourable economic environment, facilitate production needs, and improve quality to global standards. Lastly, the government sought to diversify and expand Libyan exports and improve the balance of payments situation.

Additionally, in recent years, Libya has made efforts to attract FDI to develop the non-oil sector and increase the level of trade with foreign markets. This strategy aims to diversifying the country's economic base and reduce its dependence on the oil industry, which is crucial for sustainable growth. However, several challenges have hindered the investment and development projects. The primary obstacles to FDI inflows in Libya include political and security instability following the revolution of February 17, 2011, and the need for reforms needed in the foreign investment framework, as the last relevant law was issued 2010.

3.2. International trade in Libya's economy

International trade is crucial for advanced and developing economies, as it optimizes the use of available economic resources, provides the necessary operating requirements and technology for the production process, and increases capital inflow. It involves the buying and selling goods and services between nations based on signed agreements. Nations establish policies and rules governing this trade. Foreign trade, a part of economics, focuses on partial

units like exports and imports (Al-Yazouri, 2019). Economic openness can be measured by the percentage of international trade (exports + imports) relative to gross domestic product (GDP); a higher percentage indicates a higher level of trade openness. Some scientific studies suggest that economic openness is significant if the percentage exceeds 40%.

Regarding Libya and trade openness, the Central Bank of Libya's annual report shows an increase in foreign trade levels before 2011. However, the decrease in oil prices in the international market and the decline in export levels, impacted by reduced local oil production in 2014, led to a downturn in foreign trade. The following Tables 5-6 illustrate the openness of trade to Libya's GDP by comparing two different decades (in million USD): 2004-2008 (when Libya was no longer under the economic blockade by the United States) and 2019-2022 (after the Libyan revolution and civil war).

Table 5. The ratio of the foreign trade to Libya's GDP (foreign trade coefficient)

Period	Export	Import	Total Foreign Trade	GDP	External exposure
2005	31,148	7953,5	39,101,5	66450,7	58.8%
2006	36,336,3	7934,7	4,4271	80729,9	54.8%
2007	40,972,1	8501,4	49,473,5	89260,3	55.4%
2008	54,732,4	11195,2	65,927,6	105728,3	62.4%
Total	The average of the period				58%

Source: Own Calculation based on Central Bank of Libya Data(CBL).

Table 6. The ratio of the international trade to Libya's GDP (foreign trade coefficient)

Period	Export	Import	Total Foreign trade	GDP	External exposure
2019	29,521.6	15,541.4	45,063.0	74,415.0	60.6%
2020	9,462.5	12,405.9	21,868.4	50,310.0	43.5
2021	32,903.9	16,711.3	49,615.2	43,800.0	113.3
2022	39,117.7	19,982.4	19,135.3	55,000.0	107.5
Total	The average of the period				82%

Source: Own Calculation based on Central Bank of Libya Data (CBL).

Despite recent fluctuations in international trade due to security and political instability, as well as the global impact of COVID-19 on world trade, Libya experienced a notable increase in foreign trade between 2019 and 2022. During this period, the production and export of oil increased, resulting in an average foreign trade percentage of 82%, compared to 58% in the previous decade. This represents a significant difference of 24% between the two periods.

Figure 8. The Libyan economic exposure degree for the period (2005-2008 and 2019-2022)

Source: Own calculation based on data from (CBL).

From the above Figures 8, it can be observed that during the first period tested, Libya's economic exposure to world economics increased by 62% in 2008, following declines in 2006 and 2007 at 54% and 55%, respectively. In the second period, there was a significant decrease in 2020 during the global pandemic crisis, dropping to 44%. Conversely, in 2021 and 2022, there was a dramatic increase, reaching nearly 108% and 113%. Regarding the importance of global trade on the national economy, these statistics indicate that Libya's economic stability and its impact on world trade have increased significantly in recent years, according to the Central Bank of Libya reports (2019-2022).

As illustrated in Figure below 9, crude oil and its derivatives make up over 90% of Libya's total exports to different regions, with less than 10% comprising non-oil products such as precious metals, gold, and ordinary metals. The highest percentage of exports goes to EU countries, approximately 63%, as they are industrial nations heavily dependent on crude oil. Asian nations follow with 20%, while Central, North, and South American countries receive 6%. Other EU and Arab states account for the remaining 5%.

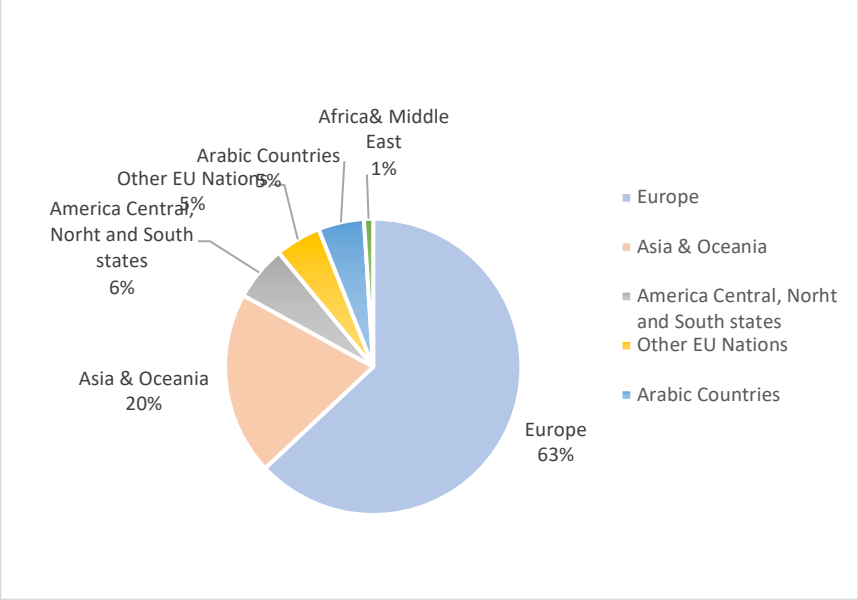


Figure 9. The target destinations of Libyan exports from oil and non-oil products

Source: Own elaboration based on CBL annual data (2019-2020).

Libya struggles with a lack of diversification in its export products, primarily due to weaknesses in domestic production structures and the need for development in the manufacturing sector. Relying on a single major export product, such as oil, increases the country's vulnerability to potential economic risks from global economic shocks. Diversifying the export base is essential to reduce this risk and promote long-term economic stability.

Table 7. Libyan oil and non-oil exports for 4 years (2019-2022) Billion USD

Years	Oil Exports	Other Exports	Total Country Exports
2019	27,661.4	1,624.50	29,285.9
2020	7,267.5	2,195.00	9,462.5
2021	31,551.6	1,352.30	32,903.9
2022	37,657.7	1,460.00	39,117.7

Source: Own calculation.

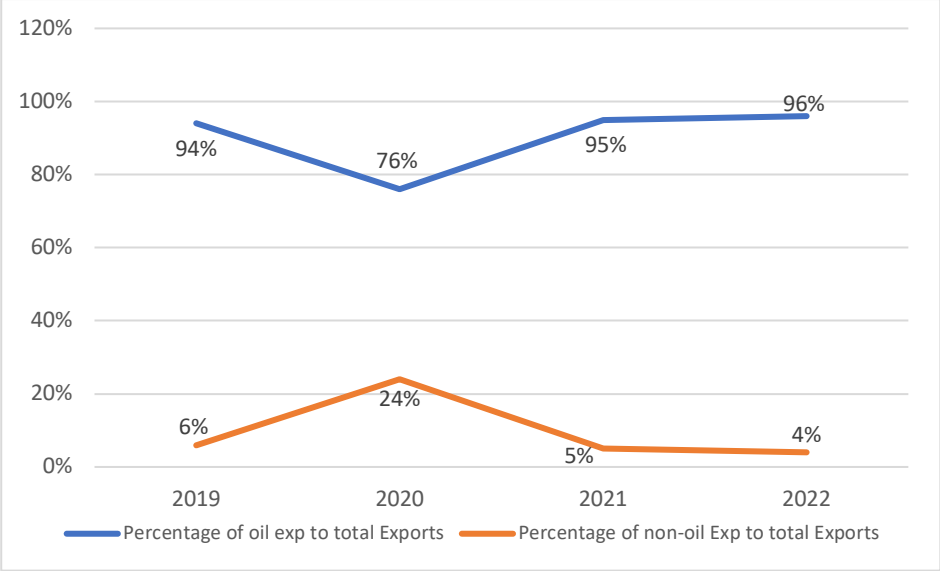


Figure 10. The percentage of total Libya exports of oil and non-oil products

Source: Own calculation based on CBL data (2019-2022).

As highlighted in Table 7 and Figure 10, the export of non-oil products from Libya did not exceed 6% of the total exports during 2019-2022. Except for 2020, the contribution of other exports (non-oil products) increased by 24%. This significant increase is attributed to the decline in the country's oil production and exports due to various internal and global issues. Furthermore, the total exports to the Arabic and African regions remain relatively low compared to other regions for several reasons. Firstly, most of Libya's exports consist of petroleum, and many of the states in these regions are also oil producers or have lower oil requirements than highly advanced manufacturing economies. Secondly, there is a lack of trade infrastructure, such as shipping and transportation, between Libya and these two regions. The absence of transparent and integrated policies has diminished interest in trade exchange between Arabic countries, further compounded by ongoing political and economic conflicts (Mohammad & Hussein, 2012).

Regarding imports, the majority of the Libyan local market's needs for consumer goods, machinery, and raw materials required by businesses for production processes are met through imports from various countries, accounting for over 85% of the total domestic market needs. The geographic location and trade agreements between nations play a crucial role in facilitating and encouraging governments and individual traders to increase the level of trade. In the EU and Asian markets, Libyan imports represented 35% of the total in recent years, particularly in 2021 and 2022, amounting to approximately 5.1 and 8.0 billion US dollars, respectively.

3.3. Key economic sectors comprising the Libyan economy

The economy of Libya consists of several sectors through which the state invests and generates revenue. However, Libya's primary source of revenue is the oil sector, which accounts for approximately 90% of the country's total income. Other sectors, such as energy, telecommunications, tourism, and agriculture, contribute around 10% of the state's income. The lack of investment and development in these sectors and an overemphasis on the oil sector have diminished their contributions.

The most important sectors of the economy in Libya are:

- cruide oil sector,
- energy sector,
- telecommunication sector,
- agriculture sector,
- tourism sector.

Below, the sectors mentioned above will be characterized with particular attention to their significance in the Libyan economy.

Cruide oil and gas sector

Libya has granted privileges to various foreign companies from countries such as the United States, France, and Italy. Companies like Shell, Esso, and Mobil Oil began exploring petroleum in Libya during the mid-20th century. The American Esso company was the first to discover oil in Zaltan City in 1959, followed by Mobil Oil in 1960. During the initial exploration period, companies faced challenges due to complex land conditions and the difficulties in transporting water and machinery required for oil extraction. However, once oil was discovered and ready for export, Libya established its first oil pipeline in 1961, which was approximately 196 km long and facilitated the transfer of production from the leading oil well to the port.

Libyan oil is considered high quality, and the short distance of most oil stations from the sea further enhances its value. Libya has constructed several ports for shipping oil abroad. The Brega port, the oldest port established during the oil discovery period, was where the first oil shipment to the global market originated in 1961. Oil exploration continues, with more than 16 fields discovered and operated by domestic and foreign companies. In 2023, the average daily oil production was approximately 1,200 barrels, compared to less than 1 million barrels per day in 2022.

Libya is listed as the tenth largest holder of world oil reserves, with a share of 2.8% globally in 2019, when the total world oil reserves reached 1.73 trillion barrels. Libya is also the largest holder of oil reserves in Africa, with reserves reaching around 48.4 billion barrels, as shown in Figure 11. This amount has increased over the years, with reserves recorded at 44.2 billion barrels in 2010, 29.5 billion in 2000, and 23 billion in 1990 (Bernard Looney, 2020).

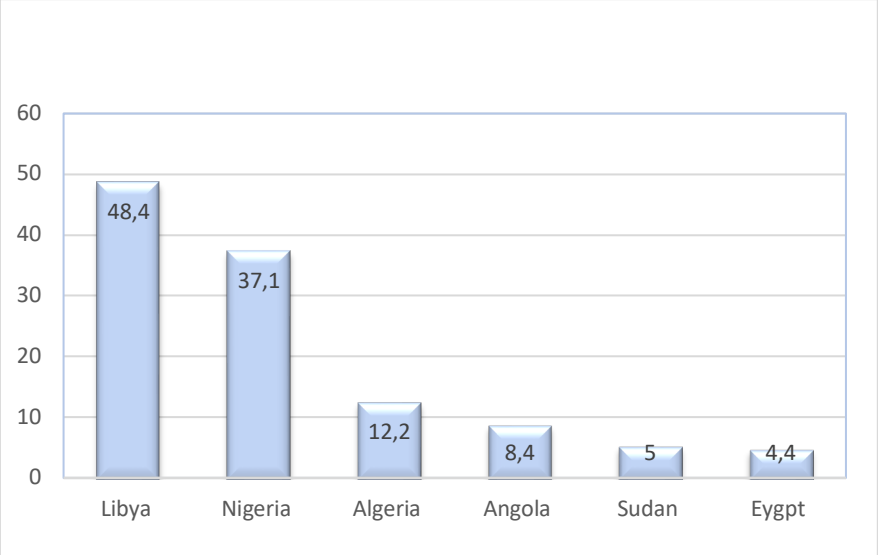


Figure 11. The Africa proven of oil reserve holder barrels in billion in (2019)

Source: Own elaboration based on the Statistical Review of World Energy 2020.

Libya possesses numerous oil and gas fields located across the country. Since the discovery of oil, several key oil and gas fields have significantly contributed to the nation's economic growth, infrastructure development, and technological progress. These fields include *the Bouri* field, *El Sharara* field, *Elephant* field, *Waha* field, *Sarir* field, *Zelten* oil field, and *CN 186* field. These fields are considered the largest and oldest in Libya, shaping the country's

energy landscape and propelling Libya to become one of the leading nations in the global oil industry. Figure 12 below provides an overview of the oil industry in Libya.

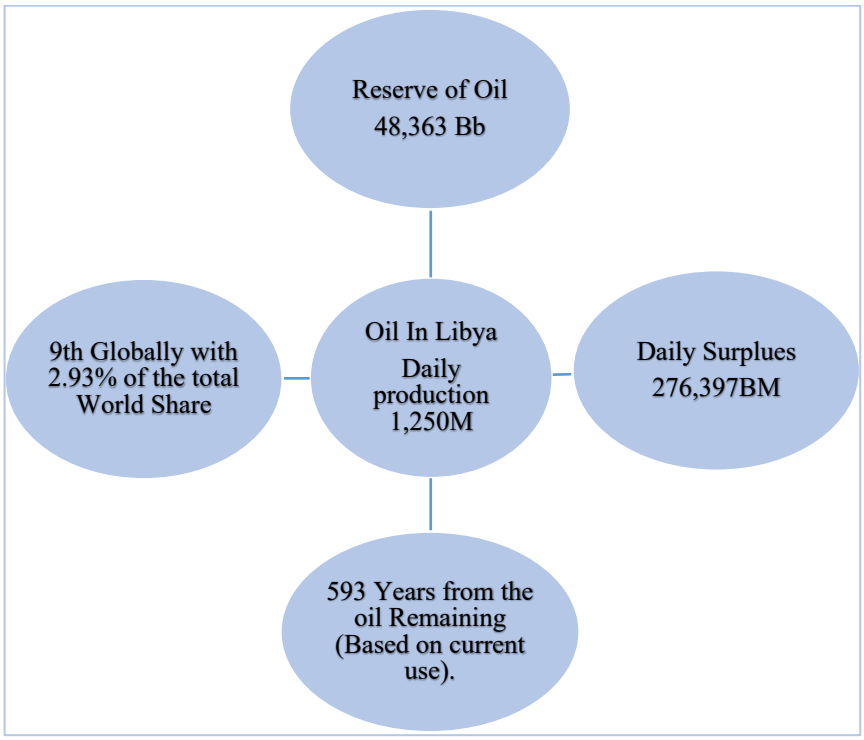


Figure 12. An overview of Libya's Oil industry for the year (2022)

Source: Own elaboration based on information from Worldometers.info (2022).

There are over 16 oil and gas fields in Libya, operated by both domestic and foreign oil companies. The fields mentioned above are the primary source of Libya's income, which is utilized to finance public services, infrastructure development projects, and social welfare programs. The presence of these oil fields has led to an increased inflow of international foreign companies that bring capital, technology, and practical and scientific expertise, thereby enhancing the efficiency and productivity of the oil sector.

Furthermore, numerous national and foreign companies have been involved in the exploration and production of oil and gas in Libya since 1954. Moreover, there are different companies such as Eni and TotalEnergies that contributed to Libya’s energy security through several initiatives. For example, both companies are committed to developing of infrastructure and renewable energy systems in addition to the emissions reduction for instance Eni company supporting Libya’s transition to cleaner sources by concentrate on reducing emission through gas re-injection techniques. as depicted in Figure 13 below which illustrates companies investing in oil and gas sector in Libya.

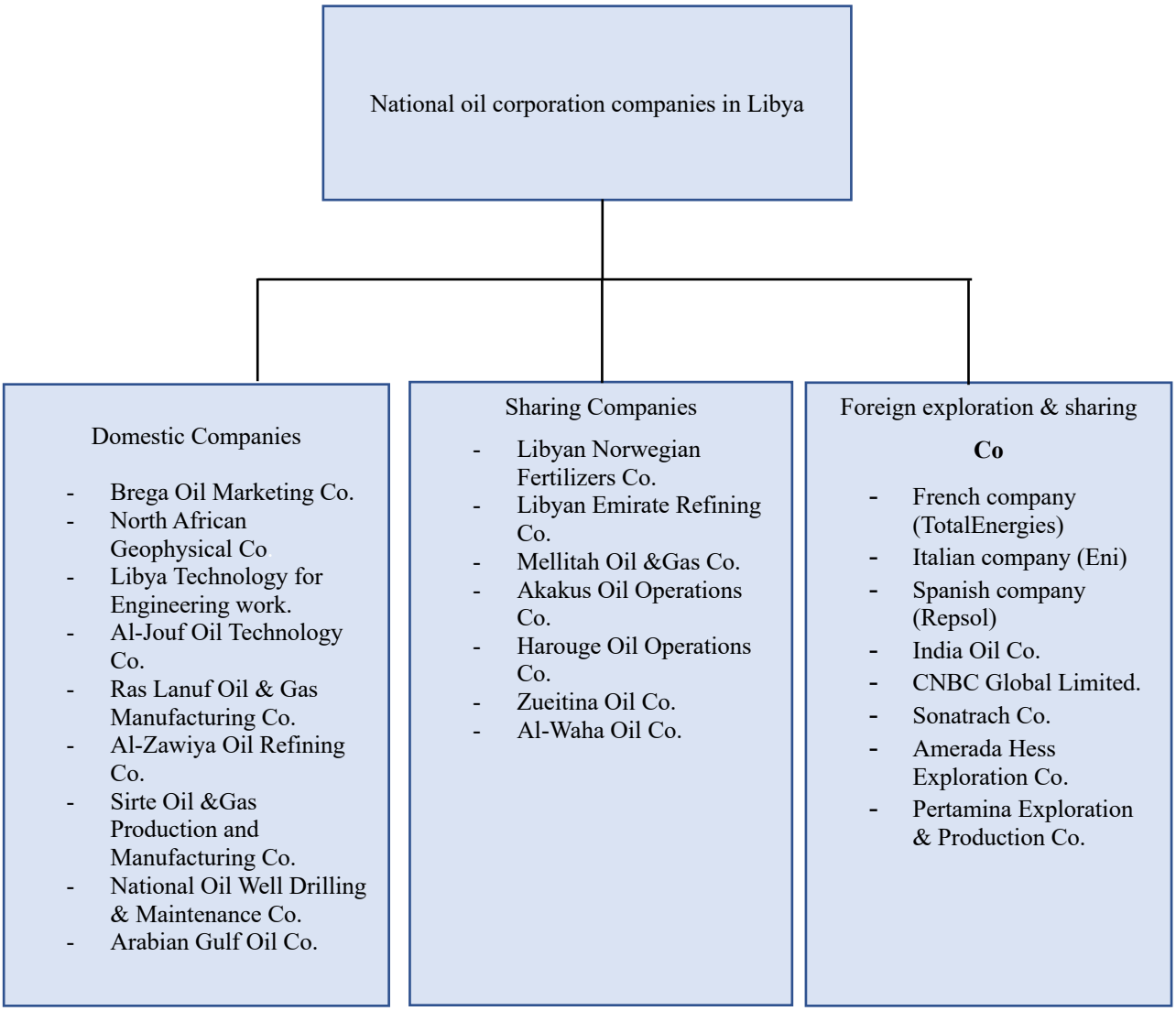


Figure 13. The foreign and local oil and gas companies operating in Libya (2022)

Source: Own elaboration based on (Mahmoud, 2022).

In the following part of the dissertation, the oil and gas ports in Libya will be characterized, according to information from the United Nations World Food Programme (2011):

- Brega Port,
- Sidra Oil Port,
- Al Hariga Port,
- Zuwaytinah Port,
- Mellita Oil Port,

Brega Port, also known as Marsa al Brega, was established in October 1961. It is one of the country's largest petrochemical centers and is located near the highway connecting

Libya's two largest cities, Tripoli and Benghazi. Operated by a Libyan port company, Brega Port has an annual capacity of approximately 4,000,000 tons.

Sidra Oil Port was established in 1962, Sidra Oil Port is one of the major oil ports, situated around 180 km from Sirte city. The main activity at this port is the handling of crude oil, with the capacity to accommodate oil tankers that can load up to two million barrels of crude oil. The port receives 280,000 barrels per day and exports approximately eight million barrels monthly to the global market.

Al Hariga Port opened in 1966, and the first oil shipment was exported on January 10, 1967. Located in the southern basin of Tobruk, the port's primary activity is oil shipment. It can receive two crude tankers and one oil tanker factory.

Ras Lanuf Industrial and Commercial Port is about 180 km east of Sirte. This port handles both oil and general merchandise. Its maximum capacity is around 280,000 tons, with the largest ship draft being approximately 12.5 meters.

Zuwaytinah Port has an oil production capacity of about 100,000 barrels per day. Located in Agdabia city, approximately 200 km from Benghazi, Libya's second-largest city, the port saw its first crude oil shipment on February 28, 1968, and its first gas export on January 29, 1972.

Mellita Oil Port is located about 50 km from Tripoli, the capital city of Libya. The port services include shipping liquefied gas (such as butane and propane), crude oil, and oil condensates. The estimated capacity of this port is 307,500 metric tons. Mellita Oil Port has five berths, with depths ranging from 13 to 30 meters.

The increase in the number of oil ports has encouraged foreign and local oil companies to ship petroleum production to the international market. The national oil company regularly develops this sector to prevent any issues that could disrupt oil production from the oil fields to the tanks that ship the oil globally. Figure 15 below represents the oil and gas pipeline map in Libya.

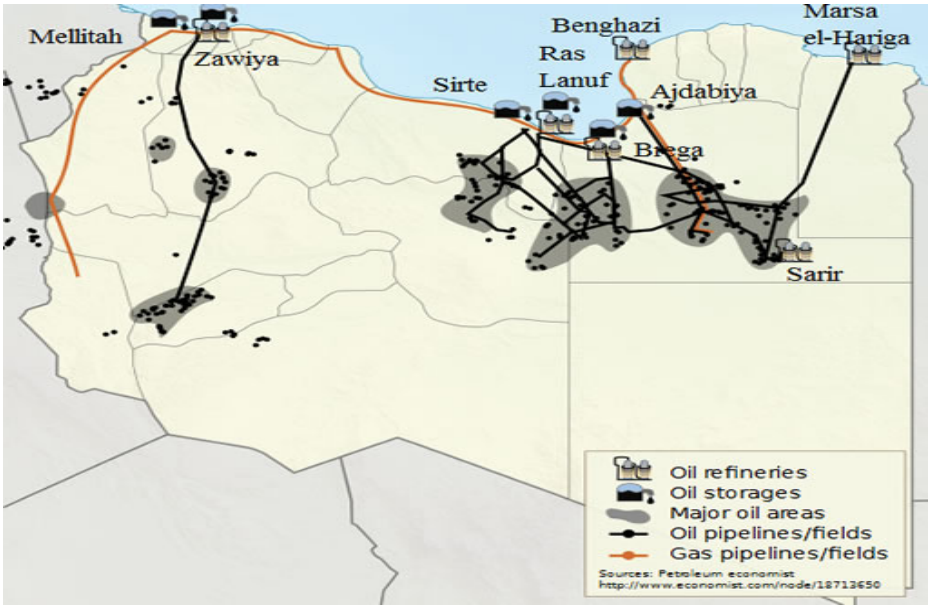


Figure 14. oil and gas fields map in Libya

Source: wikipedia.org/wiki/File:Libya_location_map-oil

Over the past decade, since 2010, oil and gas production in Libya has been significantly affected by the civil war, especially in 2015 and 2020, when oil fields were closed for approximately nine months by Libyan protestors. Production in 2020 decreased by about 280,839,930 barrels compared to 2019, as shown in Table 8, according to the Libyan Audit Bureau Report 2020. The income from petroleum reached approximately USD 23 billion in 2019. However, revenue in 2020 was reduced to USD 5 billion following the resumption of oil production at the beginning of the fourth quarter.

Table 8. The production of crude oil and Gas during the period from (2016 to 2021)

Production/year	2016	2017	2018	2019	2020	2021	Unite of measurement
Crude Oil	137	320	404	423	142	440	Million Barrels
Condensed Gas	20	20	19	25	16	56	Million Barrels
Gas	775	865	934	979	773	2,551	Million Cubic feet
Total	932	1205	1357	1427	931	498,6	-

Source: Own elaboration based on Audit Bureau Report 2020.

The sudden closure of oil and gas fields led to several negative outcomes. It prevented the National Oil Corporation from reaching its production target for the year and damaged pipelines and equipment used in oil production. The closure of gas fields also reduced the gas supply used to generate power in electricity stations, leading to power cuts in most Libyan

cities. Gas production in 2020 decreased by approximately 205,817 million cubic feet compared to 2019, according to the Libyan Audit Bureau (2018-2020).

Additionally, the Libyan Central Bank's 2018 annual report indicated that the total deficit between the estimated and actual production amount of crude oil reached approximately USD 164 billion from 2010-2018. Table 9 below illustrates the difference between the estimated and actual amount of crude oil.

Table 9. The deficit of the oil production during the period (2010-2018)

Year	Estimated Barrels/Million	Actual Barrels/Million	Different/Deficit. Production/Million	Average price by barrels USD	Deficit in USD
2010	638	614	(24)	79.5	(1,944)
2011	668	175	(492)	111.3	(54,802)
2012	536	529	(7)	111.3	(812)
2013	657	362	(294)	108.6	(31,988)
2014	529	175	(354)	99	(35,050)
2015	536	146	(389)	52.4	(20,426)
2016	365	137	(227)	43.6	(9,914)
2017	403	320	(82)	54.3	(4,479)
2018	471	404	(67)	71	(4,799)
Total	4,806	2,866	-	-	(USD 164 billion)

Source: Own elaboration

The discontinuation or fluctuation in oil and gas production over the past decade has had significant current and future impacts. For instance, it has caused a substantial deficit in the country's general budget and led to breaches of supply agreement contracts between Libya and international companies. A sudden halt in petroleum production may also result in a shortage of oil and gas for daily use by citizens and businesses. Given that oil is the state's primary income source, a significant decrease in production could lead to the collapse of development projects and a rise in the country's unemployment rate. Moreover, the high costs of government budgets are exacerbated by the expenses required to maintain and repair damages. Therefore, it is crucial for governments and policymakers to implement effective strategies to reduce reliance on the oil sector as the main economic income source. Emphasizing the development of other sectors is vital for the nation's long-term economic stability and growth.

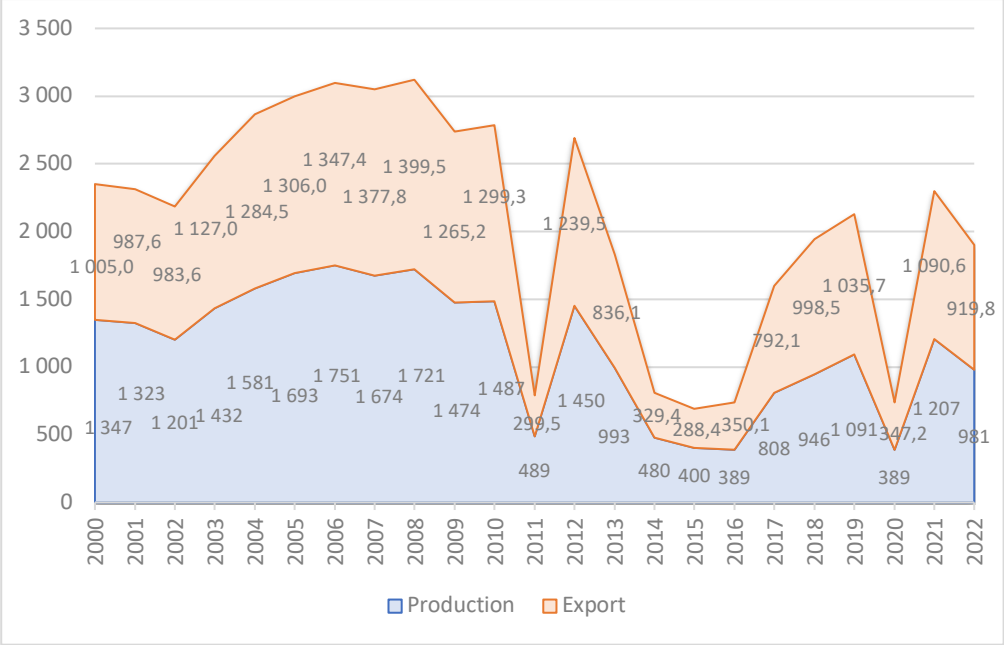


Figure 15. The Libyan production and export of crude oil for the period (2000-2022) barrels in million

Source: Own elaboration based on the OPEC annual data statistic bulletin report (OSB, 2022).

The above Chart 15 illustrates the movement of crude oil production and export per million barrels over a span of 22 years in Libya. The most challenging period for the economy occurred in 2011. According to the Central Bank of Libya, the government managed to export only around 138.9 million barrels of crude oil for the entire year. However, oil exports improved in 2012, reaching 468.5 million barrels. Before the Libyan revolution, oil production from 2003 to 2010 increased gradually, with the highest recorded production and export in 2006 (produced 1,751 million barrels and exported 1,347.4 million barrels). Nevertheless, in 2011, oil fields were closed, and foreign companies left the country due to the Libyan civil war (Libya Central Bank Report, 2012, p. 56).

Libya faced several challenges over the last two decades, including oil production reductions and subsequent state revenue decreases. In 2022, oil production and exports declined compared to 2021. The daily average oil production was 1.21 million barrels, which decreased to 1.08 million barrels per day. One of the main reasons for this reduction was the postponement of the national election due to political and security instability in the country. Additionally, protestors from The Petroleum Facilities Guard blocked export terminals, leading to delays and poor maintenance of oil tanks during this period (The World Bank Group, 2022, p. 7). Moreover, the price of crude oil in Libya benefited from the extensive margin recorded by Brent oil, with the average global oil market price peaking at USD 111.09 per barrel in

2012. Crude oil prices were USD 101.42, USD 79.46, and USD 61.44 in 2011, 2010, and 2009, respectively.

Political conflicts in certain Arab countries, such as Libya, Tunisia, Egypt, and Syria, have negatively impacted the investment climate and affected short- and medium-term debt. According to the World Credit Rating Agencies, the net flow of foreign direct investment (FDI) declined to USD 20.2 billion in 2011. Still, it recovered in 2012, increasing by around 40% to USD 28.2 billion (annual report by Central Bank of Libya, 2012, p. 35).

Numerous studies have examined the export-led growth and its impact on the nation's GDP. They have found that increased investment leads to higher exports and positively impacts economic growth in the short term (Srbinoski, 2023). Another researcher indicated that an increase in imports and exports positively affects economic growth, with an increase in export units leading to approximately 0.50 units increase in GDP (Umutoni, 2021). Therefore, Libya plans to increase oil production to 3 million barrels per day to boost export levels, which would increase state revenue and address various economic issues, such as bridging the gap between revenue and expenditure in the general budget, developing infrastructure and roads, and attracting foreign direct investment in the future.

Energy sector

The recent environmental changes have become a serious global issue, prompting many countries and industrial firms to support environmental protection and reshape their strategies toward generating energy, such as power and water (Baranowski, 2016). The world's population has increased significantly, peaking at more than 8 billion people in 2024, compared to around 6 billion in 2000. It is expected to reach 10 billion people by 2050, according to the World Population Growth Rate Report (2022). Consequently, this will lead to an increased utilization of electricity and water. Therefore, governments and policymakers need to develop other energy sources that are not harmful to the environment.

The company responsible for supplying electricity in Libya is called the General Electric Company of Libya (GECOL), established in 1984 under Law No. 17. According to its annual report, the demand and consumption of electricity and water have grown in recent years. For instance, the maximum load doubled from 2,934 MW in 2001 to 5,759 MW in 2010. GECOL is a fully public company that is financially supported by the government. The total support amount transferred by the government to GECOL for its operations, including wages, maintenance, development, and other expenses, exceeded 7 billion LYD. The requested amount by GECOL for its operations over ten years was approximately 12 billion LYD, with

2 billion LYD allocated for three years (2017-2019). The income generated by GECOL during the financial year is deposited back into the state's public treasury. Table 10 below shows the amounts requested by GECOL according to its operational plan and yearly budget in millions, as well as the amount provided by the government over ten years.

Table 10. The government's financial support during the period (2009-2021). Million LYD

The Financial Year	The Amount Requested by GECOL	The Actual received Amount from the State	The Difference Between Actual and Requested
2009	890	490	400
2010	682	400	282
2011	860	363	496
2012	1,110	1,087	23
2013	1,523	900	623
2014	2,256	800	1,456
2015	1,380	852	527
2016	1,471	780	691
2017	1,411	780	631
2018	1,218	820	623
Total	2442,37	6186,08	4297,46

Source: Own elaboration.

Despite the significant financial support from the government, the General Electricity Company of Libya (GECOL) cannot provide the required amount of power to all commercial and individual users across the country. Furthermore, the government anticipates that the amount of fuel and gas needed to produce energy will increase to 3 million barrels by the end of 2030 if alternative resources are not found. According to data from the Libyan National Oil Company, daily local natural gas consumption surpassed 1 billion cubic feet, totalling 1,172.5 million cubic feet. The highest consumption was by GECOL, at 1,007.9 million cubic feet, an increase from 897 cubic feet in 2023. The second highest consumption was by the national oil company. As shown in Figure 16, the amount of natural gas used declined by about 50%, from 103 to 50.57 cubic feet, between 2023 and 2024. Additionally, there was a reduction of approximately 60% in natural gas usage by the Iron and Steel factories in 2024 compared to 2023.

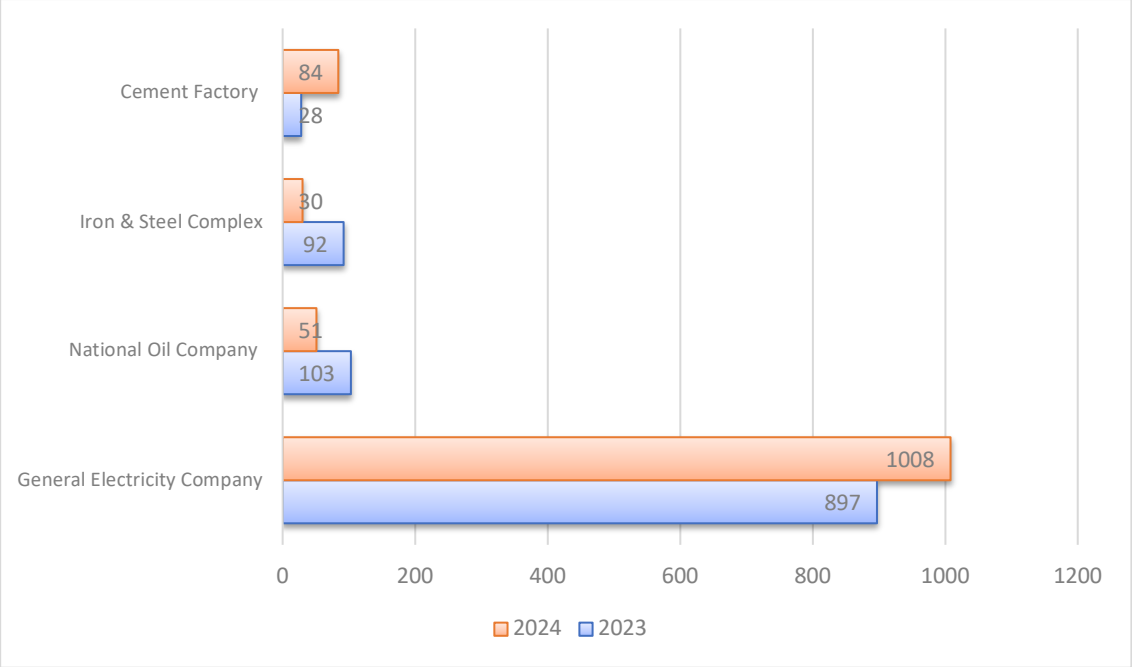


Figure 16. The local consumption of gas by some sectors in Libya, for example, in two recent years (2023-2024)

Source: Own elaboration based on data from Nation Oil Company Libya (NOCL).

Libya strives to reduce its dependence on conventional fuels used for power generation by transitioning to environmentally friendly energy sources such as wind energy and solar panel projects. Libya's strategic location in North Africa makes these alternative resources well-suited for generating electricity and water. To this end, the state established a new agency responsible for renewable energy under Law No. 426 in 2007 (LABR, 2018). Although the project was expected to be implemented and operational around ten years ago, several factors have caused delays in the installation of project equipment:

- lack of administrative stability within the entity responsible for the project's operation. Despite the project's need for alternative financial resources to cover its expenses, the government provided the primary financial support;
- delays and a lack of strategic planning related to the development of renewable energies;
- discontinued training and development programs for the project from 2015 to 2018 due to insufficient government funding;
- inadequate reconsideration of Investment Encouragement Law No. 9 concerning investment in renewable energy;
- slow response from policymakers in issuing precise technical controls and conditions for suppliers and companies working in the renewable energy sector;

- the project's accumulated debt has reached around 827 million LYD since its establishment in 2007. This includes rental costs for the project's buildings (administrative and residential for employees) and overdue payments for services provided by the contracted cleaning company, representing around 37% of the total debt;
- no additional new contracts have been signed for the project since 2014.

The following Table 11 illustrates the executive position on the renewable energy projects related to the controlled agency.

Table 11. The contract's cost was based on the exchange rate of 1 LYD to 1.7 EUR

Year	Name of Project	The Contract Value (LYD)	The Executor Value	Achievement Rate
2008	Supply and Installation of 8 wind data measurement stations in east Libya	497	497	100%
2008	Supply and Installation of 8 wind data measurement stations in the south of Libya	492	492	100%
2008	Exanimating the impact of connecting wind farms to the general electricity grid	459	459	100%
2009	Implementation of wind stations in Derna and Maslata cities with a capacity of over 60 MW.	179,808	91,130- 2,710	67%-6%
2013	Supply spare parts of the solar cell systems for electricity projects in remote areas	315	315	100%
2013	Supply charging tables for the solar cell systems.	353	353	100%
2013	Supply systems for producing heat water using solar energy (1).	774	0	0%
2013	Supply system of producing heat water by the solar energy (2)	805	0	0%
2013	Examinate geotechnical works of the solar panel project for the hon city.	96	96	100%
2013	Examinate the topographical works of the solar panel project in hon city.	80	80	100%
2013	Providing some study and consulting services to the solar panel project in different areas such as, (hon, Sabha and Ghat).	513	158	30%
2018	Build a fence around materials storage in Maslata City.	133	112	84%
Total		184,331	99,168	54%

Source: Own elaboration.

From above information it can be observed that over a period of 10 years, the agencies were able to complete only around 54% of the total planned projects, indicating low performance in achieving their strategic targets. Most previous contracts were also signed with the Libyan Holding Electricity Company, a subsidiary of the General Electric Company of Libya (GECOL). Consequently, subcontracting with supply companies may have led to increased contract values. Moreover, due to security instability in the country over the past decade, storage facilities for equipment and materials related to renewable energy projects have been subject to theft in various areas.

To conclude, energy transitions occur when a country shifts its economic activities from traditional fuels and harmful technologies to cleaner and environmentally friendly renewable energy and technologies that produce less carbon emissions. There are three steps to avoiding or reducing the impact of high carbon toxin energy:

- avoid overuse of energy,
- apply renewable resources,
- ensure efficient use of fossil fuels.

Investing in renewable energy can create new opportunities for developing nations to promote various economic sectors and achieve a higher standard of living.

Telecommunication sector

Many years of research on the impact of telecommunications on economic development have shown that this sector drives economic growth (Ding, 2006; Zahra, 2008). Using OLS regression models, variables such as teledensity, employment rate, investment in the telecommunications industry, GDP per capita, and revenue contribution as a percentage of GDP were examined. This indicates a strong relationship between telecommunication infrastructure and economic growth (Hossine, 2016).

The telecommunication sector plays a crucial role in driving economic growth globally. Modern telecommunications are integral to day-to-day business operations and bring investors closer together. Therefore, advancements in telecommunication technology have become an important source of employment and economic growth (Jessurun, 2023). Information and communication technology is a significant factor in nations' global wealth (Smith, 2023). In the theory of economic growth that highlights the "division of labour and expansion of the market," it is argued that telecommunication technology has expanded global trade and improved communication methods between business parties such as sellers and buyers. As improvements in transportation systems during the Industrial Revolution removed market

restrictions, advancements in communication systems have increased opportunities for countries to reach international markets by shortening the distance between investors without the need for physical visits. This progression leads to economies of scale, freedom, and competition, positively impacting economic growth.

Under Law No. 16, the General Post and Telecommunication Company was established in Libya in 1984. The goals of this company include promoting, operating, and maintaining communication systems domestically and internationally, connecting Libya with other countries through appropriate telecommunication methods, providing audio and video programs, and managing various postal and financial postal services. To meet the need for qualified workers, the General Telecommunication Company has invested in employee training and education. The government has established DVB-RCS&VSAT, a wireless communication network, to develop communication technology and provide high-quality communication systems to the Civil Aviation Authority, the oil and gas sector, and the general public. Over the last two decades, various companies have started operating in the state to expand the telecommunications system as shown below in Table 12.

Table 12. The telecommunication companies in Libya and date of establishment

Year	Company
1984	General post and telecommunications company
1997	Libya telecommunications and technology company
1997	Al-Madar Al-Jadeed company for phone services
2004	Libyana mobile telephone company
2006	Al-jeel technology company
2006	Information technology company

Source: Own elaboration.

In 2004, Libya Telecommunication and Technology signed a contract with ZTE Corporation to establish a new mobile company called Libyana. ZTE, one of the largest Chinese companies, was established in 1985 and specializes in telecommunications, technology, innovation, enterprise, and mobile services across the Asia Pacific, the Americas, Africa, and Europe. Initially, Libyana's services were limited to Tripoli and Benghazi. However, in 2005, due to the company's success in providing its services and attracting many customers, Libya Telecommunication and Technology reached a new agreement with ZTE to

expand the network to cover other parts of the country. This expansion increased the capacity to more than one million subscribers. Due to the high demand for mobile services, a few months later, Libya Telecommunication and Technology signed another contract with Huawei, costing around USD 4 million, to further expand the network. As a result, the number of subscribers exceeded 2.5 million, and in 2008, the number peaked at 6.2 million subscribers, representing about 116% of the country's total population. In addition, the internet network began operating in Libya in 2005, with a target of granting around 10,000 subscriptions in the first year. By 2006, the number of internet users had increased to 200,000. The rapid development of communication technology in Libya resulted in high profits for operator companies and convenient communication methods for society, contributing to the country's economic growth.

The holding company, wholly owned by the state of Libya, was established in 2005 by the Prime Minister, who made the decision under Law No. 63 to become the parent company of all communication companies in Libya. In 2007, the company's basic system was amended under Law No. 83 according to an extraordinary general assembly meeting on June 18, 2013. The number of companies working in the communications field expected to be transferred to the holding company is eight, including the General Company for Posts and Telecommunications, Al-Madar Company, Libya Telecom & Technology, Libya International Communications (LITC), Hatfi Libya Company, the New Generation Company, and Libyana Mobile Phone. The main goals of the holding company are investment, construction, and building, as well as providing maintenance and operating services for all its subsidiary branches in the country. The capital of the company is 640 million LYD. In 2021, the profits of the Libyan Post, Telecommunications & Information Technology Company (LPTIC) exceeded 3 billion LYD, with a rate of return of 529% from the total capital invested in the company. LPTIC's investments, both domestic and international, span several countries.

Table 13. Libyan holding company of communications investment abroad, in million USD

Company	Country	Date of investment	Capital invested	The market value to 30/06/2016	The contribution rate
Thuraya	The UAE	1997	25	10	%3.82
Etlin	Italy	2008	21,180	16	%14.85
E-Lane IMS	Canada	2008	96,189	24	%56.8
Inmarsat	United States	2000	0,349,079	1.5	%0.03
Arabsat	Saudi Arabia	1978	18,400	137	%11
WLOCC	Mauritius	2009	1	15	%9
Rascom	Cote d'lvoire	2004	7,400	3	%8

Source: Own elaboration.

Table 13 shows that most of the holding company's investment shares are less than 20% of the foreign companies' equity. However, investment in IMS, a Canadian company, exceeds 50% of the equity, granting the holding company controlling interest and the ability to form the board of directors of the Eileen company an accroding to Libya Audit Bureau Report(2017, P.877). As of the end of 2015, the Libya Post, Telecommunication, and Information Technology Company (LPTIC) had invested 1.656 billion LYD in various domestic projects, including infrastructure, engineering, and telecommunications.

Moreover, an according to the board of Ministry of Communication, and Informatics Libya (2023) Al-Madar Al-Jadeed was established in 1996 and began operations in 1997 with a capital of 10 million LYD. It is a subsidiary of LPTIC and is recognized as the first mobile phone company in Libya. The company was renamed in 2007; its previous name was Al-Madar Mobile. Between 2011 and 2014, the company achieved high profits. In 2011, it recorded a profit of 87,920,189 LYD, with a rate of return on capital of around 879.2%. In the following year, 2012, profits significantly increased to approximately 258,367,071 LYD, with a rate of return on capital of 2,583.6%. In 2014, the company's profits reached 152,804,178 LYD, with a rate of return of 1,528%. The revenue generated by the company at the end of the financial year is transferred through the holding public company to the state treasury according to Libya Audit Buearu Report (2014, 499).

The Libyan International Telecommunication Company (LITCC), established in 2008, provides and manages international communication services for all companies affiliated with the telecommunications sector (LPTIT) holding companies in Libya.

The revenue generated from the telecommunications sector in Libya, encompassing mobile, fixed, and international lines, is detailed in Table 14 of the annual reports by The Libyan Audit Bureau.

Table 14. The telecommunications company's revenue for the last 12 years in million LYD

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenue /Million LYD	577	474	696	410	160	214	405	214	234	400	197	529

Sources: Own elaboration based on data from Libya Audit Bureau data (LAB).

The telecommunication organization reported that the revenue generated by the telecommunications sector in 2021 was 397 million LYD. However, the state's Ministry of Finance received only 197 million LYD, resulting in a discrepancy of 199 million LYD. According to Article 63 of the Regulation of Accounts, the proceeds of revenue generated by all state departments or ministries must be transferred to the Central Bank of Libya or the Ministry of Treasury on a daily basis, on Libya Audit Bureau Report (2021, P423-225).

Agriculture sector

The agriculture sector is crucial for economic growth, especially in developing countries. It can positively impact rural areas by increasing incomes, providing job opportunities, and reducing poverty (ROZA, 2007). Today, the high performance of the agriculture sector, which can generate substantial revenue, has become a significant factor in the economic growth of many developing nations. The benefits of promoting the agriculture sector extend to both rural and urban areas. Providing jobs or increasing worker wages can result in higher household savings and spending, supply the local market with necessary products, and boost exports. The inflow of money from the agriculture sector can be invested in or developed in other sectors of the economy (Pingali, 2004).

In Libya, agriculture is considered one of the most important economic factors after the oil sector, as it is the primary food source. Investment in this sector reached approximately 20% of the total project investment in Libya. The development goals in agriculture include creating suitable environmental conditions, such as providing agricultural loans and establishing agricultural associations. These measures enable farmers to access necessary resources at government-supported prices, encouraging investment in livestock, plant and animal production, forestry, and fishery. The employment rate in the agriculture sector reached 7.5% of the total national employment rate. Before 2011, the agriculture sector represented about 8.2% of the nation's Gross National Income (GNI); however, its percentage contribution to GDP has decreased in recent years. Table 15 below illustrates the changes over different periods.

Table 15. The agriculture sector's contribution to the gross domestic product GDP in million

Year	2008	2010	2012	2014	2016	2018
Agriculture	613.9	724.7	744.8	2,469.2	3,057.1	3,720.9
% Agriculture from GDP	6.795	8.294	7.401	0.034	0.044	0.036
Total Gross Domestic Products GDP	90,344.6	87,375.0	100,627.3	73,000.8	69,396.1	104,673.9

Source: Own elaboration.

From the above information, it can be observed that agriculture's contribution to the country's total GDP declined from 7.4% to 0.034% between 2012 and 2014, respectively. Libya has an area of approximately 2 million km², with arable land comprising only 2.07% of the total area. One significant development project that the state invested in was the establishment of the Great Man-Made River under Law No. 10 in 1983. This project is one of the largest and most important initiatives, as it transports vast amounts of groundwater reserves from the country's south to coastal areas for urban, agricultural, and industrial use. The project successfully transfers around 6.4 million cubic meters of potable water per day using concrete pipes with diameters of up to 4 meters. Below is a snapshot/Figure 17 of the Great Man-Made River project map.

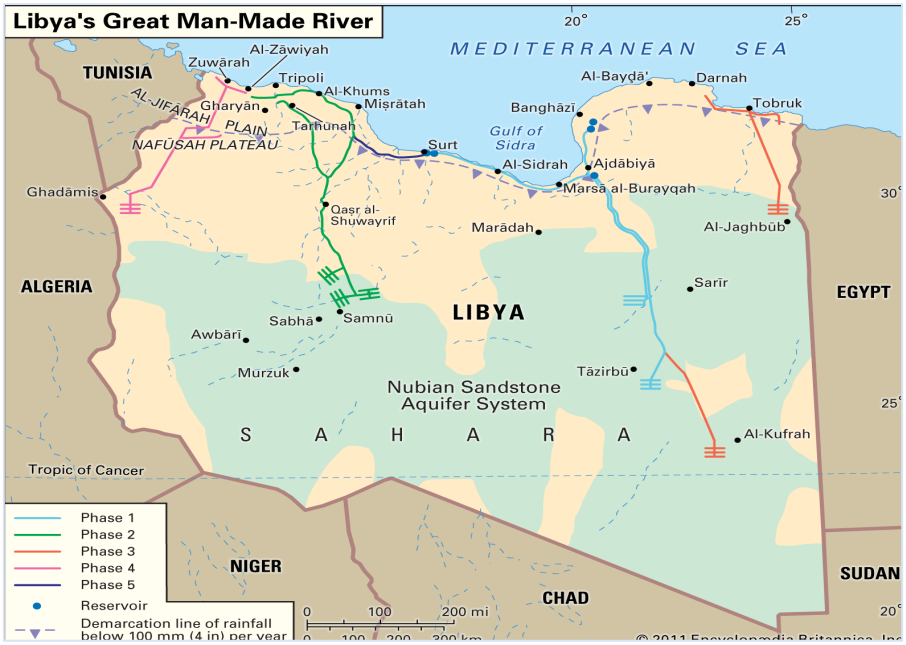


Figure 17. Libya's great man-made river map

Source: Website, Britannica.

The implementation of the project has cost the state over 12 billion LYD, involving the installation of six central systems and 1,300 underground wells. The total water storage capacity now exceeds 54,900 million cubic meters across five main storage stations located in various regions of the country. This type of investment has a long-term positive impact on economic growth and society by providing fresh water to all cities throughout the nation that experience water shortages and for urban and agricultural use. According to the Food and Agriculture Organization (FAO), investments in agriculture include cereal crops such as wheat (Table 16) and barley (Table 17).

Table 16. The total Area (hectares) and the production of wheat in Libya period (2000-2020)

Year/Crop	Year	Area Harvested	Production/Tones	Yied/100g/ha
Wheat	2000	180,000	85,000	7,784
	2005	204080	100,000	7,576
	2010	186,500	102,000	7,772
	2015	167,839	85,000	7,662
	2020	138,081	70,000	7,681

Source: Own elaboration based on data from (FAO) 2024.

Table 17. The total area (Hectares) and production from the barley in Libya period (2000-2020)

Year/Crop	Year	Area Harvested	Production/Tones	Yield/100g/ha
Barley	2000	160,594	125,000	4,722
	2005	165,000	125,000	4,900
	2010	170,148	132,239	5,469
	2015	208,819	160,000	5,064
	2020	169,240	130,000	5,069

Source: Own elaboration based on data from (FAO) 2024.

Even though the state has invested a substantial amount of money in developing the agricultural sector and producing domestic needs from crops, vegetables, legumes, and fruit trees such as olives, almonds, apples, grapes, and citrus trees, it has managed to cover only around 30% of the country's needs. The required level of self-sufficiency in these products, especially crucial ones like wheat and barley, has yet to be achieved. Before 2011, the state imported 70% of its goods from abroad and provided these products to households at a low price. Recently, the government attempted to bridge the gap by granting credits to individual traders to import goods from abroad; however, prices increased due to high inflation.

Several important factors contribute to the reduced impact of the agricultural sector on Libya's gross domestic product (GDP). These factors include changes in climate and lack of rainfall, shortages of skilled labour in the agricultural sector, poor governance and inefficiency in agricultural services, and the spread of agricultural pests.

The government and policymakers in Libya must consider various strategies. These include supporting the engagement of farmers, both men and women, and other key players in the food supply chain, promoting the participation of individuals with high qualifications and

relevant experience in the agricultural sector, and increasing private sector investment in agriculture, both financially and administratively. This is crucial for controlling and promoting agriculture globally due to its positive impact on economic growth.

Tourism sector

The tourism sector is recognized as a critical driver of economic recovery and growth. The increased inflow of tourists to the host country leads to a higher demand for goods and services, which positively impacts infrastructure development and contributes to domestic economic activities (Novelli, 2023). There are many benefits to developing the tourism sector, such as increased demand for local currency, a more significant inflow of foreign currency into the host economy, and the creation of job opportunities. Globally, 27 million new jobs were recorded in 2023 (Council, 2023), leading to buoyant economies of scale. Therefore, nations with high tourist destinations exhibit substantial economic and robust economic activities.

According to data from the Tourism World Organization (TWO), in 2022, tourism contributed 4.0% of the global GDP. Regionally, Europe recorded the highest contribution to GDP at 4.0%, followed by the Middle East at 3.7%, Africa at 3.2%, and the Americas and Asia at 2.5%-1.35%. TWO stated that the tourism sector's contribution to GDP increased in 2022 after a significant decline during the COVID-19 pandemic, which saw a drop to 2.6% in 2020. This sector is still recovering from the negative impact of the pandemic, with a contribution of 9.1% to the total global GDP in 2023.

Libya possesses attractive tourism resources, such as its geographical location, a long coastline of approximately 2,000 km on the Mediterranean Sea, and favorable weather conditions. Additionally, this sector's archaeological monuments in the desert and mountains are an attractive option for foreign investors. Libya has contracted tourism investment projects worth USD 3.858 billion, which will be implemented soon. Over 150 tourist spots are available for investment along the coastline, and around 75 tourist projects, including hotels, resorts, and villages, are planned, costing over 500 million LYD. Tourist investment constitutes 40% of the total investment in the country. According to statistics, more than 10,000 job opportunities will be available. The number of foreign visitors increased before 2011, with 140,000 visitors in 2007, rising to approximately 180,000. This occurred after several government amendments to investment laws and regulations to promote this sector.

According to the Libya Tourism Authority report (2023), investment in the tourism sector is open to both domestic and foreign investors. While the state seeks to develop and benefit from this sector by providing a competitive tourist environment, the current

infrastructure is insufficient to host millions of visitors annually. Therefore, more investment is required to build new restaurants, hotels, and hospitals and to improve public transportation and communication systems, as these facilities are crucial for travelers, making the nation a more attractive destination.

Below are some tourism statistics and indicators illustrating various data about the tourism sector in Libya for the last period.

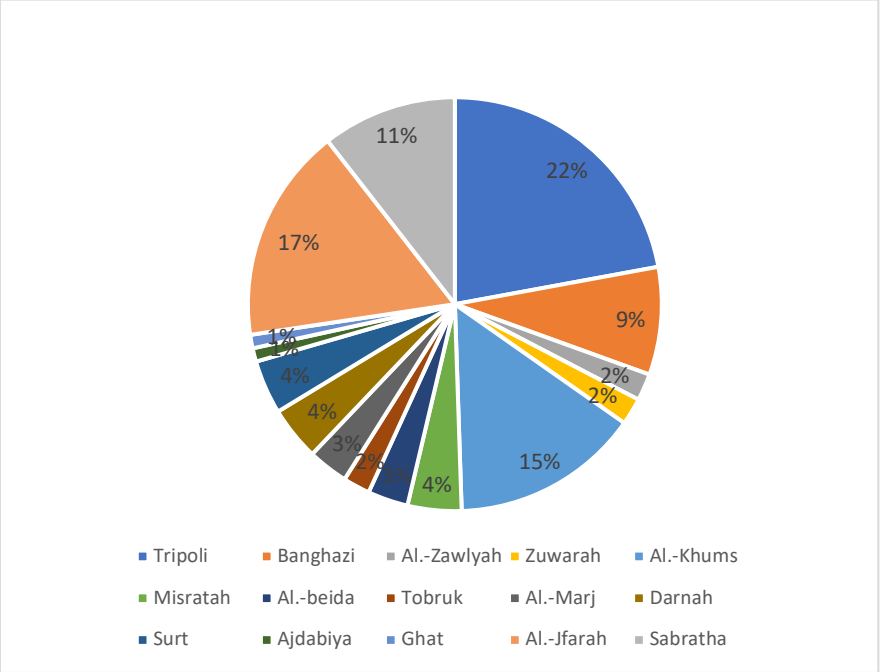


Figure 18: Mapped the famous tourist cities in Libya

Source: Own elaboration based on the tourist authority of Libya (TAL 2023) access; https://tidc.com.ly/احصائيات-ومؤشرات-سياحية

Figure 18 illustrates 95 tourist sites spread across approximately 15 cities in the country, attracting thousands of local and foreign visitors each year. These areas encompass the nation's various historical, cultural, religious, and civilizational heritage, making Libya a competitive destination in the region. Additionally, five historical sites in Libya are listed as World Heritage by UNESCO. The country also boasts a vast Sahara Desert with many prehistoric monuments, such as inscriptions and rock drawings. One of the main factors negatively impacting the inflow of tourists to Libya is the limitation in the capacity of the tourism sector to accommodate a large number of travelers.

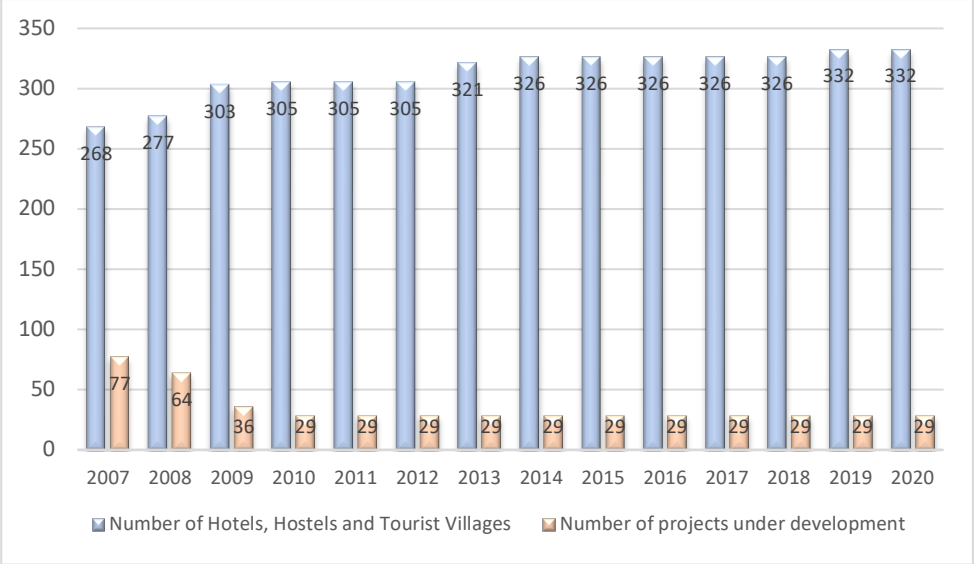


Figure 19. The residential facilities available and projects under development for the period of (2007-2020).

Source: tidc Website: General Authority Of Tourism (2023).

Figure 19 depicts the available and under-construction residential facilities in Libya. Over approximately ten years, 29 new projects were initiated. The interruption in constructing new hotels, hostels, and tourist villages was due to the civil wars that commenced in 2011 and concluded in 2019. Although the security instability negatively impacted the influx of visitors during the war period, Libya is anticipated to become an attractive region in the future owing to its financial and natural resources, which are essential for promoting the tourism sector. Many nations, such as France, Poland, Croatia, and Vietnam, have experienced wars in the past but have transformed their war-torn histories into opportunities for tourism. These countries now attract tourists worldwide to explore their beautiful landscapes, rich cultures, and historical cities.

Figure 20 below illustrates the number of visitors from various countries, including Italy, France, Germany, Spain, Belgium, and the United States, who travelled to Libya between 2004 and 2020, as well as their spending in US dollars. The highest number of tourists visited the country in 2006, with 125,000 people generating USD 30 million in foreign currency. Due to the civil war, no recorded visits or foreign currency inflows occurred between 2011 and 2019. However, in 2020, tourists began returning to Libya, contributing over USD 40 million in foreign currency.

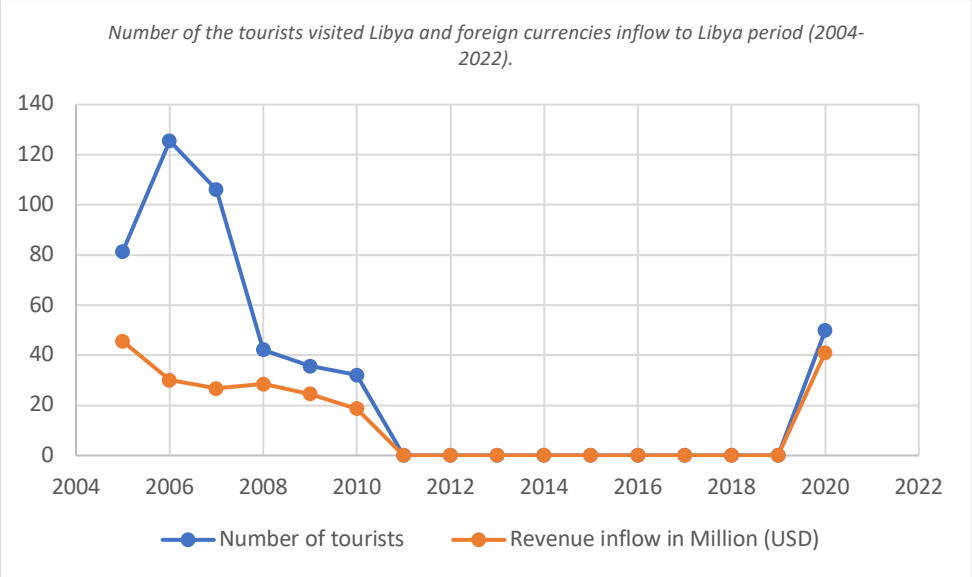


Figure 20. The number of visitors and revenue inflow to Libya period (2004-2022)

Source: Own elaboration based on tidc Website general authority of tourism (2023) access link; https://tidc.com.ly/احصائيات-ومؤشرات-سياحية

When comparing Libya to other regional countries such as Morocco, Egypt, Tunisia, and Algeria, the number of tourist arrivals was 25 million, 24 million, 17 million, and 5 million, respectively, from 2018 to 2019. Egypt did not record any visitors during the pandemic; however, the other mentioned countries experienced a decrease in the number of visitors in 2020: Morocco received fewer than 3 million visitors, Tunisia had 2 million visitors, and Algeria had fewer than 1 million visitors. Consequently, Libya's contribution to the gross domestic product (GDP) through tourism is considered significantly lower than the regional average, an according to the Statista World Travel, Tourism and Hospitality Report (2018-2022).

To conclude, from the above analytical data and information it is obvious that the most important sector in Libya remains the cruide oil and gas industry, which plays a crucial role in the economy, both in terms of state revenues and employment. Other sectors, such as the gas and manufacturing industries, also play a significant role, but their importance is still smaller compared to cruide oil. More attention required from government by investing in other sectors such as energy, telecommunication, tourism and agriculture, which can contributed to economic development of the country, reduce reliance on oil sector and create more opportunities to attract foreign direct investment to Libya.

3.4. The role of foreign direct investment in economic development

Foreign direct investment is considered a crucial factor in revitalizing a country's economy. Local and foreign investment objectives are to develop and utilize available economic resources more effectively and efficiently, achieving higher social and economic growth rates. This can raise production levels and competitiveness, creating an environment conducive to local and foreign investments. New investment projects in various industries, such as goods production, services, infrastructure projects, and tourism, can expand existing capacities, create job opportunities, and reduce unemployment rates. Training opportunities for technical cadres can also contribute to increasing economic and social growth rates.

Libya has made considerable efforts to encourage direct foreign investments, particularly after the International Economic Embargoes in 2003. The government has followed the strategies of other developing countries, opening the door to attract foreign investments. For example, in 2007, the government, under the supervision of the Libyan Civil Aviation Authority (CAA), initiated a significant project to build one of the world's largest modern airports in Tripoli. The project aimed to expand the airport's capacity from 2 million passengers per year to 20 million, with an estimated investment of USD 2.1 billion, fully financed by the CAA. This project aimed to increase revenue, promote local products globally, and connect European and African countries, facilitating free trade and making Libya a critical trade hub.

Another noteworthy project is the green investment in building a solar power station. Libya's Sahara Desert, one of the world's largest deserts, is a significant portion of the country. Establishing a solar power station would enable Libya to depend on green energy instead of gas for electricity, covering domestic needs and exporting the surplus to other nations. Libya is rich in natural resources, such as oil, gas, iron, silica, limestone, and phosphate, and has a strategic location in North Africa. Many international companies specialize in exploiting these resources for global markets.

One issue facing FDI inflows to Libya is that most foreign investors believe the only profitable investment in the country is in the oil and gas sector, which has already reached optimal demand levels. As a result, there is no need to promote further investment in this sector, as foreign companies are already eager to secure contracts. Despite Libya's efforts to promote investment opportunities in other fields, such as manufacturing, agriculture, tourism, and maritime resources, there is still a lack of awareness among foreign investors about the benefits of these opportunities. This can be addressed by improving communication between the Libyan

government and the International Board of Foreign Investments and presenting the investment environment in Libya to clarify the advantages, facilities, and flexible investment laws.

Organizations such as the Libyan Investment Authority (LIA), the Central Bank of Libya, and the World Bank have indicated that Libya's economy relies heavily on petroleum revenue, which accounts for more than 95% of total export earnings and around 60% of GDP growth. Attracting direct foreign investments to Libya can diversify its economic base, benefiting from foreign companies' expertise in management, operations, advanced technology, and investment in national resources.

Chapter summary

The Libyan economy predominantly relies on the oil and gas industries, which account for approximately 90 per cent of state revenue, more than 95 per cent of exports, and about 62 per cent of the country's GDP. Other sectors, such as telecommunications, energy, agriculture, and tourism, collectively contribute less than 8 per cent of GDP over 2004-2022. Libyan economic growth is projected to reach 7.9 per cent in 2024 and 6.2 per cent in 2025. These projections assume stable oil and gas production and prices in the future.

Foreign trade contributions to GDP averaged 58 per cent during 2005-2008 and increased to 82 per cent during 2019-2022, indicating a high level of openness to the global market. Additionally, the Libyan economy's strength in exports can be measured by the average propensity to export (total exports to GDP), which rose from 47 per cent during 2004-2008 to 51 per cent during 2019-2022. The average propensity to import (imported merchandise to GDP) also increased from 10 per cent in 2004-2008 to 30 per cent in 2019-2022. This increase suggests that the national economy has become more dependent on external resources rather than on local production to meet the country's needs for goods. This trend has negatively impacted the nation's economy.

Despite these challenges, Libya has significant potential to become a key destination for investment and an industrial and commercial hub. The country can diversify its economy and reduce dependence on oil as the primary source of state revenue, leveraging its substantial financial resources and strategic geographic location near European, African, and Arab markets. Increased focus on investment and development in other sectors and the exploitation of local raw materials is necessary. Government and policymakers should devise and implement strategies and amendments to enhance the economic components that drive the Libyan economy.

CHAPTER 4
FOREIGN DIRECT INVESTMENT IN LIBYA

4.1. Development, role, and importance of foreign direct investment in Libya

Libya's interest in foreign direct investment began in the 1950s when the government issued Article No. 25 in 1955, promoting investment in oil and gas exploration and production. After a few years, when oil was discovered in Libya, the state issued Law No. 37 of 1968 concerning foreign capital investment as a strategic development plan to establish investment projects contributing to economic growth. The discovery of oil and gas in Libya significantly improved the standard of living and the national economy, transforming Libya from an underdeveloped economy to one with substantial revenue from petroleum exports. This financial boon allowed Libya to enhance its economy and integrate with the global economy, aiming to increase foreign investment inflow to support economic, social, and cultural development.

During the period of oil discovery, Libya experienced important political changes, such as the 1969 revolution led by Muammar Gaddafi, who attempted to implement socialist ideas. These policies negatively impacted the economy by dominating all economic activities and closing the door to foreign and local investors. This strategy forced the government to invest significant capital in economic development plans across various fields, such as service, industry, and tourism infrastructure, under public sector control. In the late 1970s, Libya transitioned from a market-based economy to a socialist economy through the nationalization of foreign trade and public sector control over investments. Recognizing the importance of foreign investment, the government issued new investment laws, including Law No. 5 of 1997 and its amendments, to attract foreign investments in sectors such as healthcare, tourism, public transport infrastructure, and telecommunications. The amended By-law No. 138 of 2004 outlined investment objectives such as transferring advanced technology and improving national production and technical expertise. Figure 21 below shows the FDI inflows and outflows in Libya during the last three decades.

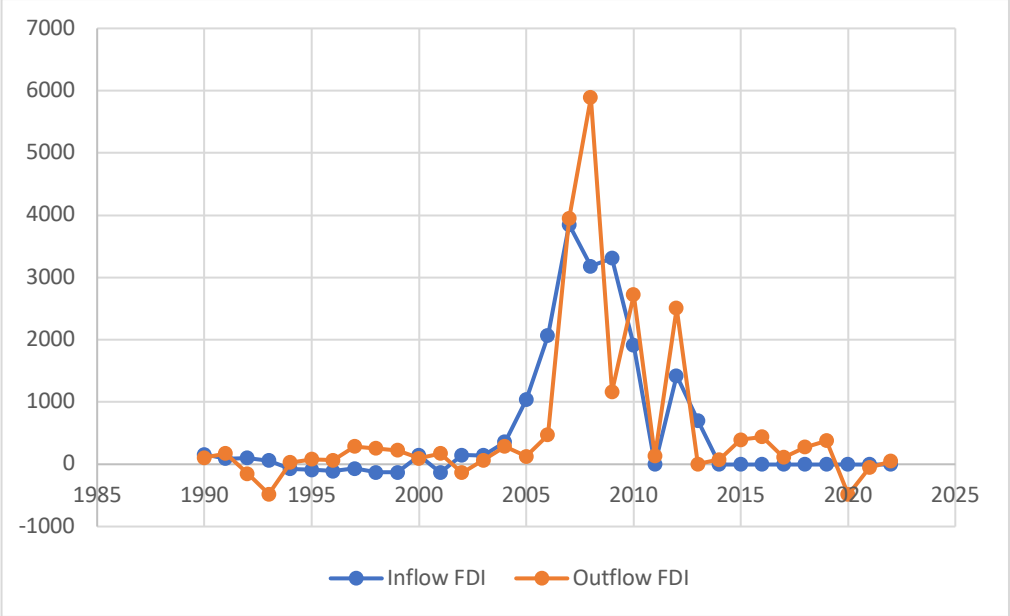


Figure 21. FDI inflow and outflow in Libya period 1990-2022

Source: Own elaboration based on data from UNCTAD (2022).

From the data above, it can be observed that the periods of political and economic instability from 1992-1999 and from 2003-2010 when sanctions imposed by the United Nations on Libya were lifted, had a significant impact on FDI inflows. Conversely, the periods of conflicts and civil war particularly from 2014 2021 have adversely affected FDI. Notably, FDI fluctuated during these periods; for instance, Libya received a sustainable amount of FDI, reaching approximately USD 3.85 billion in 2007, a significant increase from USD 143 million in 2003. FDI outflows in 2007 recorded USD 3.94 billion.

Following the revolution of February 17, 2011, when the country recorded 0 USD FDI, there was a recovery in FDI, with USD 1.425 billion recorded in 2012. Outward FDI in that particular year was USD 2.50 billion. Moreover, FDI outflows from Libya continued to increase, while inflows remained at the lowest level. This underscores the importance of investment climate in attracting foreign investments to host country. Libya still lags behind other North African countries. For example, in 2022, Egypt recorded the highest FDI inflows, amounting to approximately USD 40.9 billion whereas FDI inflows to Libya were USD 4.19 billion. Furthermore, Libya's outward FDI dropped significantly from USD 2.7 billion in 2010 to USD 250 million in 2022. This dramatic decline in FDI outward is attributed to the political the country has faced over the last decade. More information about FDI in Libya is available in the next chapter (5).

Creating a suitable investment climate is crucial for attracting foreign investors. Many nations compete to offer favorable conditions, facilities, incentives, and guarantees to attract FDI, which contributes to the development process. Economic factors such as tax rates, interest rates, exchange rates, labor force, inflation rate, investment laws, and economic policies significantly impact the investment climate. Additionally, political and social stability, financial systems, legislative frameworks, administrative and governmental services, and the absence of corruption play vital roles in shaping the investment climate. Libya's strategic geographical location, with common borders with African countries and proximity to European coasts, offers advantages in terms of economic resources and market access. The availability of services, infrastructure, and incentives further enhances the attractiveness of the investment climate.

Foreign direct investment plays a vital role in achieving economic growth, addressing issues such as unemployment, improving national products, bridging the technological gap, and diversifying the economy, which is important for Libya to invest in sectors apart from the oil industry (Abobaker & Krzysztof, 2022). Libya has implemented various strategies to attract FDI, including amending investment laws, issuing new legislation, and improving infrastructure facilities like roads, airports, and telecommunications. The primary legal framework concerning FDI in Libya is Investment Law No. 9 of 2010, issued one year before the 17th February revolution in 2011, which aimed to remove many restrictions on foreign investment and provide more facilities and incentives to encourage the private sector (Al budery Shariha, 2022). FDI is crucial for Libya's economic recovery and growth, positively contributing to GDP growth (Hamoudi et al., 2017; Abdulhakim A.A., 2016). Therefore, FDI is necessary to achieve sustainable economic development. Moreover, inflows of FDI can help stabilize the Libyan economy by boosting international partnerships and promoting infrastructure. The aims behind local and foreign investment in many developing countries are to exploit economic resources more effectively and efficiently, achieve higher economic and social growth, and increase the level of production and competitiveness within a legislative framework. The government of Libya needs to take key measures to attract FDI, such as implementing clear laws to protect intellectual property, encourage competition, facilitate trade and investment, and ensure investor confidence. Creating a favorable investment climate by enhancing transparency and reducing bureaucratic hurdles is essential. Importantly, political stability that guarantees the safety and security of investments is crucial. The involvement of

FDI is required in the Libyan economy to support diversification, reduce reliance on oil revenue as the main resource for the state, create jobs, and transfer modern technology.

4.2. Factors influencing the investment climate in Libya

The main factors of the investment climate in Libya are the political climate, economic climate, and social and cultural climate.

Political climate refers to the prevailing attitudes, beliefs, and conditions related to politics within a particular society or country at a given time. Several factors affect the suitability of the political climate for investment in a country. A lack of political stability leads to a decrease in savings rates and increased corruption in the economy, causing a reduction in investment rates. Consequently, investors lose confidence in the government's stability, and foreign investors decide to leave the country and move to destinations with no or less political conflict (Sami, 1988, p. 63). In the past ten years, political instability in North African countries has impacted the inflow of Foreign Direct Investment (FDI) and led to the migration of capital, negatively affecting economic growth in these nations. Additionally, during the Second World War, the Nazi invasion of Western Europe and the Soviet Union caused significant fragmentation in the balance of payments of Western European and Latin American countries, resulting in military coups and revolutions and creating political and economic instability. The factors that impact the political climate include the political systems of the country (democratic or dictatorial), the stance of internal parties regarding participation in foreign investment towards the development of the country's economic plan, the current and future financial and economic stability of the receiving economy, policy management and the level of corruption in the host country, and the level of political and security stability. The political climate is considered an important factor that can impact the investment environment and attract long-term foreign investment that positively contributes to the country's economy. The political conflict in the last decade in Libya has negatively impacted the local market demand and limited consumer purchasing power.

The economic climate consists of various factors that might affect investors and project activities. For example, a country's Gross Domestic Product (GDP) refers to the total value of goods and services produced during a particular period, such as the gross economy. GDP growth indicates good economic health and the availability of natural resources within the host country. Other important factors include the availability of trained and skilled labourers, clarity

of investment laws and reduced restrictions imposed on invested capital, rights and facilities for foreign investors to transfer capital, production, and profits abroad, the availability and performance of stock exchange markets, as this factor reflects investor confidence in the economy, and the level of predictability regarding the future stability of price policies and inflation rates in the nation. These factors can affect businesses due to their impact on affordability and the level of goods and services produced in the economy. Additionally, the availability of low-wage, highly skilled labor is crucial. Economic climates can depend on industries, countries, and regions and can be influenced by a range of global and domestic factors, such as world events, government policies, technological progress, and market conditions.

The social and cultural climate is represented by various factors that significantly impact the project's activity, its integration, and the level of cooperation required. The social and cultural climate can be indicated by the population growth rate and its participation in the economic development process, public awareness of the government's efforts and strategy toward implementing development plans, the quality of social infrastructure, such as healthcare, education, and transportation, which can mainly affect the investment climate. High-quality infrastructure can increase the inflow of foreign investments by improving business productivity and efficiency. Social stability, including social harmony, political stability, and the absence of social conflicts, can create a favourable investment climate. A stable society provides a secure environment for businesses to operate and encourages investment. Cultural differences are represented by four cultural dimensions as defined by economist Hofstede: the Power Distance Index (PDI), which measures how much lower-ranking members of organizations and institutions, like families, accept and expect unequal distribution of power; Individualism (IDV) and collectivism, which stand on opposite ends, with individualistic societies having loose connections between people, where everyone takes care of themselves and their immediate family, and collectivist societies deeply integrated into strong groups, like extended families, that provide protection and support in exchange for unquestioning loyalty; Masculinity (MAS) and femininity, which refer to how gender roles are distributed in a society, with men's values varying widely, from being super assertive and competitive to being modest and caring; and the Uncertainty Avoidance Index (UAI), which measures how comfortable or uncomfortable a society is with uncertainty and ambiguity, reflecting the extent to which a culture trains its members to handle unstructured situations (Geert Hofstede, 2011).

4.3. Libya compared to other countries in the region

Before analyzing foreign investments in Libya, it is important to consider investments in the MENA (Middle East and North Africa) region. This region holds over half of the world's oil reserves and approximately 40% of its natural gas reserves. However, the MENA region has experienced ongoing military and political conflicts for many years, such as the fall of Gaddafi's regime in Libya.

The MENA region's economy is primarily driven by oil and natural gas extraction and export, with the most dominant companies operating in the petrochemical and energy sectors. The underdeveloped capital market is one significant barrier to foreign direct investment inflows. Many MENA countries rely heavily on exports of raw materials, agricultural goods, and low-value-added products, while their imports consist mostly of high-value-added goods. As a result, they have not traditionally been seen as attractive investment destinations.

Recently, MENA governments have implemented several key reforms to improve the investment climate. These include easing market entry through revised laws and legislation to simplify procedures for foreign companies and reduce bureaucratic hurdles. Additionally, they have promoted competition by removing restrictions on foreign investment, particularly in the services sector, to boost competition and productivity. Lastly, there has been an emphasis on sustainable growth, with implemented investment policies supporting sustainable development goals, focusing on ethical business practices and local investment (Angel Gurria,2021).

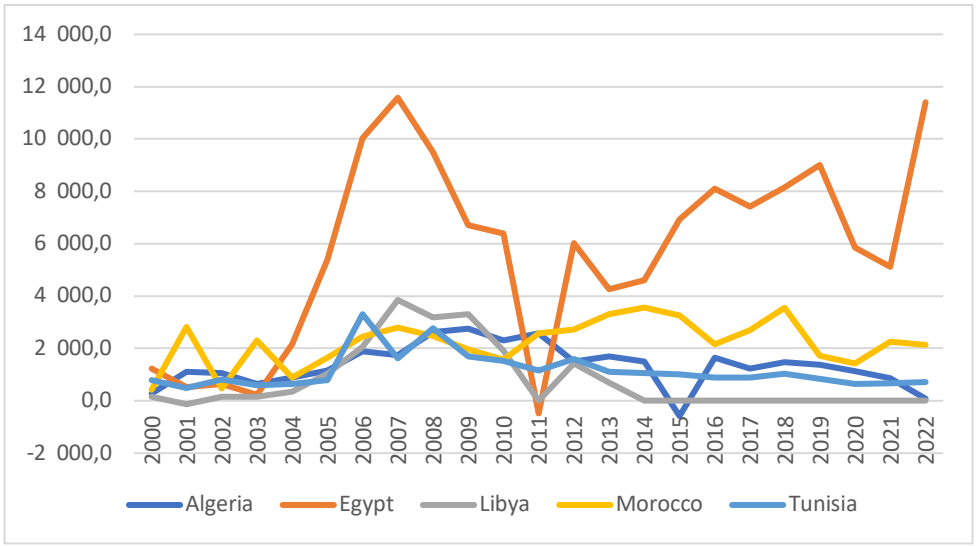


Figure 22. FDI inflows to countries region, Algeria, Egypt, Libya, Morocco and Tunisia period (2000-2022)

Source: Own elaboration based on UNCTAD for the period (2000-2022) in million USD.

Figure 22 illustrates the fluctuations in foreign direct investment inflows to Libya over the past two decades, influenced mainly by political and economic instability. The conflict that began in 2011, following the ousting of Muammar Gaddafi, significantly impacted Libya's investment climate. Unlike neighbouring countries such as Tunisia, Algeria, Morocco, and Egypt, Libya has consistently recorded lower FDI inflows.

According to the World Investment Report (2022), FDI inflows across the region have varied significantly. Egypt recorded the highest inflows, reaching USD 1.2 billion in 2000 and tripling to USD 6.7 billion in 2009. Despite experiencing a revolution in the last decade, Egypt's FDI remained relatively resilient, peaking at USD 9 billion in 2019 before declining to USD 5.8 billion in 2020 due to the COVID-19 pandemic. Libya's FDI inflows were USD 0.141 billion in 2000, rising to USD 3.3 billion in 2009. However, the civil war over the past decade severely impacted investments, causing FDI to plunge from negative USD 0.377 billion to negative USD 0.482 billion.

Morocco had the third-highest FDI inflows among the mentioned countries, with steady growth from USD 0.422 billion in 2000 to USD 1.95 billion in 2009. Inflows remained strong at USD 1.72 billion in 2019 and USD 1.42 billion in 2020. Tunisia's FDI inflows followed a similar pattern, increasing from USD 0.779 billion in 2000 to USD 1.99 billion in 2009. However, both Tunisia and Libya have faced significant political and economic challenges since 2010, leading to a decline in FDI, which fell to USD 0.845 billion in Tunisia and USD 0.652 billion in Libya between 2019 and 2020.

Sectoral Distribution of FDI in the Region

In Libya, FDI has primarily been directed toward construction, infrastructure, tourism, telecommunications, and energy, although these inflows remain modest compared to the dominant oil and gas sector.

In contrast, Egypt, Morocco, and Tunisia have successfully diversified their FDI across multiple industries, including:

- manufacturing (automotive parts, electronics, machinery, clothing, and textiles),
- tourism and hospitality, attracting millions of visitors annually,
- financial services, with substantial investments in banking, insurance, and capital markets,
- infrastructure and energy, benefiting from international investment in power generation and renewable energy projects.

Despite having fewer natural resources than Libya, these countries have positioned themselves as attractive investment destinations due to strategic geographic locations, access to raw materials, investment-friendly policies, and government efforts to diversify their economies. The data suggests that political instability and global economic challenges, including the COVID-19 pandemic, have negatively impacted FDI inflows across the MENA region. However, countries focused on economic diversification and policy reforms have remained more attractive to investors, positioning themselves for long-term growth.

4.4. Bilateral investment treaties and foreign capital inflow in Libya

According to the investment agreements between Libya and other countries, the objective is to enhance economic collaboration by providing favorable conditions for investors from each country to invest in the other's territory. Both parties acknowledge that promoting and safeguarding investments under these agreements will increase capital flow and significantly contribute to the advancement of mutually beneficial trade and economic, scientific, and technical cooperation. Table 18 below presents Libya's agreements with other countries worldwide since 1990.

Table 18. The agreements between Libya and foreign countries

NO	Countries/Parties	Status	Date and year of signature	Effective date
1	China - Libya	Signed	04/08/2010	
2	Congo - Libya	Signed	30/06/2010	
3	United Kingdom - Libya	Signed	23/12/2009	
4	Libya - Turkey	In force	25/11/2009	22/04/2011
5	Libya - Singapore	In force	08/04/2009	22/12/2011
6	Indonesia - Libya	Signed	04/04/2009	
7	Libya - Slovakia	Signed	20/02/2009	
8	Libya - Russian Federation	In force	17/04/2008	15/10/2010
9	Libya – Sp\ain	In force	17/12/2007	01/08/2009

10	Kenya - Libya	Signed	05/06/2007	
11	India - Libya	In force	26/05/2007	23/03/2009
12	Iran, Islamic Republic of - Libya	In force	27/12/2006	05/05/2010
13	Libya - San Marino	Signed	10/12/2006	
14	Korea, Republic of - Libya	In force	21/09/2006	28/03/2007
15	Libya - Tunisia	In force	19/02/2005	22/05/2006
16	Germany - Libya	In force	15/10/2004	14/07/2010
17	Cyprus - Libya	In force	30/06/2004	12/02/2005
18	Libya - Qatar	Signed	28/04/2004	
19	France - Libya	In force	19/04/2004	29/01/2006
20	Libya - Serbia BIT (2004)	In force	18/02/2004	29/10/2005
21	BLEU (Belgium-Luxembourg Economic Union) - Libya	In force	15/02/2004	08/12/2007
22	Ethiopia - Libya	In force	27/01/2004	25/06/2004
23	Libya - Switzerland	In force	08/12/2003	28/04/2004
24	Libya - Malta	In force	24/10/2003	22/07/2006
25	Libya - Portugal	In force	14/06/2003	19/06/2005
26	Croatia - Libya	In force	20/12/2002	21/06/2006
27	Austria - Libya	In force	18/06/2002	01/01/2004
28	Libya - South Africa	Signed	14/06/2002	
29	Algeria - Libya	Signed	06/08/2001	
30	Libya - Ukraine	In force	23/01/2001	23/04/2003
31	Italy - Libya	In force	13/12/2000	20/10/2004
32	Libya - Morocco	In force	02/11/2000	20/10/2001
33	Belarus - Libya	In force	01/11/2000	23/02/2002
34	Bulgaria - Libya	In force	19/11/1999	19/01/2004
35	Gambia - Libya	Signed	26/07/1995	

36	Libya - Syrian Arab Republic	In force	08/02/1993	07/10/1995
37	Egypt - Libya	In force	03/12/1990	04/07/1991

Source: Own elaboration based on investment policy hub in UNATED (2023); https://investmentpolicy.unctad.org/international-investment-agreements/countries/119/libya (data of access: 11.03.2025).

The purpose of these agreements is to facilitate the movement of capital between Libya and the signatory nations. Additionally, individual investors from both parties would benefit from the agreement. These investors enjoy certain exceptions in terms of setting up and operating their businesses in Libya, such as visa provisions, renewal of business-related documents, and tax reductions for transferring machinery and other assets, including cars and furniture.

It is evident that, following the end of the trade restriction period in 2003, Libya embarked on a new phase of economic growth. This growth was characterized by the development of multiple sectors and the amendment of investment laws and regulations to attract foreign capital. Libya sought to benefit from the experiences of many developing nations over the past few decades.

4.5. Investment laws, incentives, exemptions, and guarantees under law No. 9 (2010)

The investment law in Libya, aimed at encouraging local and foreign investors to establish and operate their projects, was first issued in 1997 as Law No. 5. This law was subsequently amended by Law No. 7 in 2003 and most recently by Law No. 9 in 2010, as detailed in Table 19 below.

In 1997, Libya made a significant and groundbreaking decision by enacting Law No. 5. This law was a substantial step forward, demonstrating Libya's commitment to encouraging foreign investment. It opened new opportunities for international investors to engage with Libya's growing economy. The law's drafters meticulously ensured fairness and transparency for all parties involved, encompassing all regulations in a comprehensive plan with 29 sections. This plan aimed to provide guidance and protection to both local and foreign investors, ensuring a transparent system that treated everyone equitably.

Over the years, Libya continued to refine its investment regulations. In 2003, Law No. 7 was introduced to amend specific sections of Law No. 5, particularly the second, third, and thirteenth parts. These amendments were designed to address emerging challenges and keep pace with the evolving market dynamics. The changes aimed to enhance the investment

environment in Libya, ensuring the protection of national interests while making the country more attractive to foreign investors. The government's objective was to create jobs, stimulate economic growth, and facilitate knowledge exchange.

The government sought to position Libya as a stable and modern nation capable of competing globally. Consequently, Libya continued to amend its laws to align with the global economy, striving to maintain a welcoming environment for international investors to explore opportunities within the country. Table 19 below elaborates on Investment Law No. 9 of 2010.

Table 19. The investment law number (9) for 2010 in Libya

Investment /Article NO	Description
Article (1) The definitions	▪ this provides information and definitions regarding the sources needed to establish an investment project, including the state, field, department, law and executive regulations, foreign and local capital, and privatization.
Article (2) The scope of the law	▪ this law applies to both local and foreign capital, as well as joint ventures interested in establishing and operating within the Libyan state.
Article (3) The aims of the law	▪ the primary aim of this law is to encourage domestic and foreign investment in Libya, fostering an environment conducive to investment and contributing to social and economic growth. ▪ providing job opportunities to local workers and training them in using advanced technology transferred through foreign investments. ▪ participating in the development of domestic products that meet global market standards. ▪ increasing economic diversification and leveraging the natural resources available in Libya.
Article (4-5) The objectives and responsibility of these laws	▪ this organizes the inflow of domestic and foreign capital into the country. It covers aspects such as the exchange of local and foreign currencies based on the legal banking policy in Libya, participation in providing the necessary equipment and materials, the percentage of profits generated by the company, and intellectual property rights such as trademarks and patents. It also includes the issuance of licenses for the project. This law can be implemented by a specialized administrative body.
Article (6) The duties of enforcement law	▪ formulate policies and strategies to establish investment in the country by encouraging local and foreign capital. ▪ organize and plan investments and privatization and illustrate available opportunities in various fields/sectors. ▪ examine investment legislation and regularly update it to align with the international market, attracting FDI and maintaining a competitive position relative to other regional countries. ▪ contribute to gathering necessary information and conducting feasibility studies on projects and fields that can promote economic growth in Libya. ▪ implement a "Single Window" service to ensure that all requirements for project investment, such as licensing, approvals, and management services, proceed smoothly and efficiently within a short period. ▪ apply appropriate policies that lead to increased foreign direct investment inflows into the country.

Article (7) Conditions and requirements need to be met to invest in the state	▪ facilitate the transfer of knowledge, technical expertise, and modern technologies as part of the investment project. ▪ exploit local raw materials effectively. ▪ contribute to the development of less-developed areas. ▪ create or develop goods for export to external markets. ▪ 30% of the workers in the project are local, with the state determining the terms and conditions of employment. ▪ the investment benefits both people and leads to the country's economic growth.
Article (8-9) The investment areas and the License.	▪ investment applies to all fields related to production and services. Any areas not applicable under this law will be determined by the authority responsible for investment in the state. ▪ the establishment, development, or acquisition of investment projects can be authorized by the Prime Minister based on a request from the relevant sector or department where the investment is being conducted.
Article (10) The features and Exemptions	▪ projects are exempt from all taxes and customs fees on all equipment and machinery needed to implement the investment project. However, this exemption does not include fees imposed on port and storage services. ▪ there is a five-year exemption for all tangible assets the project uses from taxes and management fees. ▪ goods produced for export abroad are exempt from production tax and customs fees on exporting. ▪ there is a five-year exemption from income tax and consumption tax on operating materials and supply services charges, starting from the date the project commences. ▪ capital imported for investment purposes is exempt from any fees. ▪ investors have the right to carry forward the losses incurred by their investment project for up to five years from the date of granting the project a license to practice the activity. ▪ all taxes and fees due on returns from shares and stocks resulting from the distribution of project investment profits, as well as profits resulting from mergers, sales, divisions, or changes in legal form, shall be exempted for a period of five years from the date of granting the operating licenses. Profits resulting from the reinvestment of the activities of the investment project are also exempted. ▪ special exceptions are provided to project investments that contribute to achieving food security, spatial development, and using environmentally friendly technology that produces less energy and water.
Article (11) The machinery and equipment disposal	▪ investor(s) are obligated to settle all requirements, such as paying all customs duties and taxes imposed, before selling or disposing of any tangible assets imported and used during the investment project, as determined by the administrative board.
Article (12) The investor's right	▪ investor(s) have the right to open accounts for the project in both local and foreign currency. ▪ investor(s) have the right to obtain loans from banks and financial institutions to finance the project when needed. ▪ investors have the right to hire foreign workers when there is a lack of local workers. ▪ the state provides a five-year residency for foreign employees, which can be extended, and grants visas that allow multiple entries and exits from Libya. ▪ investors have the right to transfer the annual net income distributed and returns generated during the financial year. ▪ the repatriation of foreign capital abroad is allowed in the same form as transferred to the country after the expiration of six months from its receipt date if the investor encounters difficulties or exceptional circumstances that hinder reinvestment.

	▪ in case of selling or closing down the project after the five-year investment period, investors have the right to re-export the invested capital.
Article (13-30) In-legal work Breaking the law	▪ general information or the factors that determine the state's right to withdraw the license and take over control of the investment project. This includes the settlement of disputes and guarantees of the investment.

Source**:** Own elaboration based on: privatization and investment board, https://pib.investinlibya.ly/wp/about-us/ (data of access: 11.03.2025).

The most common goal for foreign investors when considering cross-border investments is to find a destination that offers an attractive and competitive market. Foreign companies seek to generate high profits or extend their business to achieve global recognition. The key features that make a nation attractive to investors include the purchasing power of the local market in the host economy and the flexibility of investment laws.

The above-issued investment laws clearly show that Libya's government and policymakers are striving to create a suitable and attractive investment environment for foreign investors. This is achieved by providing various exemptions and facilities and clearly outlining the requirements and policies for conducting business in Libya. Additionally, the government aims to ensure that foreign investors and the host economy mutually benefit from any investment activities in the country.

4.6. The absorptive capacity of the Libyan economy: its concept and determinants

Absorptive capacity is essential for a country's economy to grow through foreign investments. Economic growth depends on the amount of money invested, influenced by financial capacity from both local and foreign sources. A country's ability to handle these investments without adverse effects is called absorptive capacity, a crucial factor in managing foreign investments (Nagwa & Saleh, 2013). Many factors affect absorptive capacity, both economic and non-economic. To attract more foreign investments, decision-makers must study and understand absorptive capacity and its impact on Libya's economy. This understanding will help create favourable policies for encouraging more foreign investments.

The concept of absorptive capacity became linked to the process of economic development in developing countries after World War II. It refers to the ability of these countries to absorb and use productively the capital and assistance provided by developed countries to achieve sustainable growth and economic development (Berger, 1982). This

involves the transfer of new ideas from advanced economies to less developed ones. The concept gained prominence following the rise in oil prices and the inability of oil-exporting countries to absorb financial surpluses into productive investments within their economies.

Many economists have defined absorptive capacity from different perspectives and goals. However, the majority believe that absorptive capacity is linked to any type of investment that leads to the inflow of money into a country. Therefore, absorptive capacity relates to the internal financial sources a country has, or to foreign direct investment. John H. (1965) indicated that absorptive capacity refers to the amount of capital that can be used effectively and efficiently to create an increase in net returns on national income. Absorptive capacity is limited and fixed in the short term due to the stability of other production factors, but it becomes greater in the long term.

Absorptive capacity is represented by the knowledge and the total investment opportunities that can be successfully exploited to create innovation in the economy over a certain period (Jimenez et al., 2012). Various factors determine absorptive capacity, both economic and non-economic, including:

- economic growth,
- market size,
- economic resources,
- financial resources,
- investment policy.

A country's economic growth level is considered the most important determinant of absorptive capacity because it reflects economic efficiency. High economic growth rates make a country an attractive destination for investors, leading to an inflow of foreign capital from different parts of the world and motivating reinvestment of profits generated during the financial year. There is a strong correlation between economic growth rates and absorptive capacity. An increase in economic growth rates means that the country's national income is rising, resulting in higher income levels, which positively impact the domestic market's future expansion. This leads to increased profits and higher rates of return on investments, which attract foreign direct investment and enhance the economy's ability to absorb more investments.

The strength and weakness of the local market can determine a country's economic absorption capacity. The expansion of the domestic market is linked to the purchasing power level across the economy, which can be influenced by population size. In countries with high populations, such as Egypt (over 100 million) and Algeria (about 45 million), the demand for goods and services is more significant compared to countries with smaller populations, such as

Libya (which had not even reached 7 million by 2023). Therefore, a state with a large internal market is more suitable for foreign investors. Conversely, a small local market means a low rate of return on capital, resulting in decreased motivation for investment, lower economic growth rates, reduced purchasing power, and, subsequently, decreased demand in the local market. One factor that can affect the inflow of foreign direct investment is the limited size of the internal market or the country's absorptive capacity.

The most important economic resources related to absorptive capacity (AC) are financial and human capital, crucial determinants of AC in the national economy. The human factor refers to qualified individuals with highly required technical skills who can quickly learn to work with any new system and advanced technology, positively contributing to the economy (Naijela Janaina, 2021, pp. 140, 142, 143). Therefore, availability is represented not only quantitatively but also qualitatively, as well as the potential for development through educational institutions and appropriate training centers. Consequently, the lack of quantitative and qualitative human capital reduces the economy's absorptive capacity, negatively affecting the volume of production, quality, and productivity of projects. This, in turn, can negatively impact the inflow of foreign direct investment.

The availability of financial resources can help a country increase its absorptive capacity, as these resources are necessary for investing in research and development, upgrading facilities with advanced technology, and developing infrastructure. A country with abundant financial and other material resources in sectors such as agriculture, mining, or maritime wealth can be attractive for investment. Wealthy nations can attract intelligent individuals by providing facilities such as large universities, research institutions, and an environment conducive to innovation and knowledge absorption. Conversely, a shortage of financial resources can negatively impact the level of investment inflow, resulting in decreased economic growth and limiting the country's absorptive capacity. Abundant advanced financial and human factors increase a country's opportunities to achieve and implement targeted investments. The outcome of numerous investments would generate increased profit rates, subsequently enhancing the state's and national economy's capacity to absorb more productive investments.

Another crucial factor is investment policy, which encompasses a set of rules, regulations, guidelines, and practices issued by a government or company to govern and facilitate local and foreign investment activities across the economy within particular sectors. These policies are designed to create a favourable and attractive environment for investment,

promote economic growth, and protect the interests and rights of existing and potential investors.

Investment policies depend on the nature of the prevailing economic system, requiring stable legal frameworks and economic conditions, such as tax policies, customs tariffs, foreign exchange, and interest rates. Therefore, stable investment policies characterized by low inflation rates lead to high rates of return on investments and, subsequently, high growth rates in output, contributing to the economy's absorptive capacity.

In recent years, countries worldwide have opened up to foreign direct investment (FDI) by reducing barriers and implementing policies to attract multinational companies. Common strategies to promote FDI include tax breaks, import duty exemptions, and direct subsidies. Over 100 countries have granted special tax concessions to foreign companies that establish operations within their borders, usually excluding local firms in similar industries (Abdalla et al., 2014).

Regarding Libya's investment policy, we can note that from the aforementioned Investment Law No. 9 of 2010, as well as the legislation and incentives issued and amended in the last decade, the country has made efforts to encourage investment and consider the interests of investors. Although the country has faced many political and economic challenges since the revolution, we can predict that Libya will have a bright future in terms of FDI inflow, the development of various sectors, and economic growth rates. The country does not lack financial resources due to its vast natural resources, such as oil, gas, and gold.

As for the non-economic factors of absorptive capacity, political stability is crucial. Political stability in the host country leads to an increase in and encouragement of local and foreign investments. Additionally, good relations with neighboring countries facilitate trade with these regions, representing another market for the country's economy. Improving political relations expands the market and increases absorptive capacity. Over the last two decades, Libya's relationships with Arab, African, and EU nations have been positive.

Before the revolution, Libya was considered one of the most politically stable countries in North Africa. Despite the conflicts that arose between 2011 and 2020, the government is currently making significant efforts to amend and reform agreements with advanced economies to improve the political and trade sectors, aiming to develop various economic fields. Libyan society welcomes foreigners from different nationalities, cultures, and backgrounds. Therefore, Libya's social and political conditions provide an environment conducive to investment compared to other countries in the region.

The development of the public administration system is necessary for any country as it represents the capability of the administrative team to manage public services and provide them in high-quality ways. A weak public administration indicates low efficiency of human expertise and the lack of an integrated and effective system to enhance these experiences. This would lead to decreased speed and ease of establishing businesses and protecting investors, impacting the inflow of foreign investments to the host country. Additionally, it leads to a decline in the efficiency of government institutions and economic organizations, their backwardness, and their failure to keep updated with development requirements. The possibility of expanding investments is linked to the availability of an administrative apparatus and organizational capabilities capable of planning, executing, and following up on these investments (Christopher, 2008).

Morris Cooke and Cleveland, early public administration writers who focused on the principles and practices of public administration in government organizations rather than the private sector, had a broad perspective on efficiency. They viewed efficiency as a means of promoting public responsiveness to citizen demands in a democracy. However, some interpretations suggest they considered efficiency to be a secondary value rather than a primary one. Alternatively, one could argue that Cooke and Cleveland saw efficiency as a fundamental value underpinning and supporting the broader values of government activity.

Khurshid (2013), who investigated the effectiveness of training in developing public administration in Bangladesh, indicated that the primary objective of development administration is to ensure the efficient and effective delivery of public services. It recognizes that administrative officers' behaviour can significantly impact these services' quality and outcomes. Therefore, it emphasizes the importance of professionalism, integrity, and a customer-centric mindset among public servants.

It can be concluded that the absorptive capacity of the Libyan state is not large compared to other countries and regions. However, there are vast possibilities that could be raised. Libya is rich in natural resources and has significant financial capacity achieved through oil revenues. There are also many other opportunities, such as the expansion of industries and services. Libya has great facilities and prospects that can attract investments in various fields such as tourism, agriculture, production, and energy.

For the Libyan economy to achieve high economic growth rates and reach global markets, the country requires more administrative development. This can be done in several ways, such as increasing educational efficacy and bringing in outsourcing expertise in administration. Additionally, re-adjusting and organizing the administrative mechanism and

imposing strict controls can ensure efficient public administration that positively impacts Libya's absorptive capacity. In terms of attracting foreign direct investment, a professional leader with high-quality management and administration is needed to make the right decisions, such as determining which sector is more required or could benefit society and the economy. This would make the inflow of investment smooth and effective.

For any state to attract more foreign direct investment, it must have a variety of motivations. At this point, the researcher will address one of the central questions posed in this study: To what extent is the Libyan economy capable and prepared to attract foreign investment?

- Libya is preparing for elections after around 12 years of political conflict since the revolution in 2011, which will be under the supervision of the United Nations (UN). This ensures that the upcoming elected political party's priority is to create security and economic stability in the country, earning the admiration of many countries worldwide.
- Libya is implementing a set of reform policies to enhance the role of the private sector in managing the national economy. The private sector promotes competition in the market and has more successful strategies for achieving profitable and growth goals.
- Libya has a stable and independent legal framework represented by the Investment Law Act No. 5 of 1997, which provides a vast structure and facilities for investment in Libya. This law will be explained in more detail in the next chapter of this study.
- Libya is making enormous efforts to adopt a flexible and bureaucratic administrative framework.
- The state of Libya has issued and amended many laws and legislation related to investment, incentives, and ways to encourage investment.

To sum up, Libya, to enhance its absorption capacity, needs to address the key barriers, which include insufficient infrastructure, limited private sector engagement, as well as the low of a conducive business environment. Additionally, to improve transparency and investor confidence, the government and policymakers must strengthen institutional frameworks, formalize data-sharing mechanisms for foreign direct investment statistics, and align with global standards, which will be important strategies and methods that create a favorable investment climate and position Libya as a leading competitor in the region.

4.7. Foreign investment opportunities in Libyan economic development

According to the Euro-Libyan Trade Center Report (2022), establishing the National Unity Government in Libya in 2021, which facilitated the end of the civil war and political division

among parties, has positively impacted economic and security stability. As a result, the country is gradually re-engaging with the global market after more than four decades of economic isolation.

In 2021, Libya experienced a 31.37% increase in GDP, in contrast to a deficit of approximately 64.1% in 2020. This improvement was driven by the revival of hydrocarbon production and rising prices. Previously, economic growth had been influenced by several initiatives aimed at encouraging both local and foreign investment in economic, productive, and tourism projects. Notably, Libya's GDP growth improved significantly following the lifting of economic sanctions in 2003 and the increase in global oil prices. GDP growth was approximately 13.02% in 2003 and 11.78% in 2005, compared to just 0.097% in 2002. The highest recorded growth rate was 137.175%, following a significant decline of over 50% during the Libyan revolution in 2011, according to World Bank data on Libyan economic growth (2000-2022). Several opportunities in Libya's economy can attract foreign investors, as illustrated in the Table 20.

Table 20. Foreign investment opportunities in Libya's economy

Sectors	Investment opportunities
The industrial investment sector This sector is crucial for achieving social and economic benefits, such as meeting local market needs and increasing exports. These improvements lead to the diversification of income sources and reduce Libya's dependency on oil.	• investment in oil and gas derivatives industry, • the assembling of equipment Machinery Investment, • the assembling of manufacture car investment, • iron and scrap industry investment, • cenent and building material industry, • investment in the electrical wiring industry, • investment in the recycling of glasses and plastic and papers, • investment in tire industry, • investment in fish processing and caning, • investment in production of drinks and food industry.
Agriculture investment Eventhogh, Libya has invested a large amount of money to develop the agriculture sector about 20% of the total project in the country to reduce imports. However, this sector represent before 2011 only less than 8% of the GDP and this contribution decline to less than 0.034 in recent years.	• olive oil production for example (Modernizing facilities and expanding markets), • growing grains and crops, • planting oil and palm trees, • growing varieties of Fruits and Vegetable such as,watermelone, dates, tomatoes, potatoes, onion etc, • investment in production of feeds, • poultry and livestock establishment breeding centres, • investment of production of drugs to protect crops, • investment in marine wealth such as, fishing and marketing.
Tourism sector Around 2000km of coastline, moderate weather condition and historical building in	• investment in hospitality such as, building hotels, restaurants and tourist villages. • investment in providing tourist centre transportation such as, buses, cars and boats.

Libya make the investment in this sector more attractive for local and foreign investment. this field is crucial in terms of economic development and according to the data provided in previous chapter has contributed to countries region for example, Tunisia, Egypt, and Morocco.	• investment in travel agency and providing facilities to travellers. • develop the colleges and institutions of tourists. • investment in communication such as, internets, telecommunication. • investment in culture festivals and events as well as build amusement parks. • investment in providing insurance and health care to tourists.

Source: Own elaboration.

The aforementioned three sectors and investment opportunities available to foreign investors and domestic businesses will contribute positively to economic growth. For example, they will facilitate the exploration of additional natural resources, increase production and services within the economy, transfer advanced technology, and reduce the unemployment rate.

4.8. Recommendations for attracting foreign direct investment to Libya

Considering the Law of Investment No. 5 of 1997 and its last amendment in 2010, the government needs to regularly update investment laws to align with the global market. In the last decade, the world has faced several challenges that have impacted the global economy, such as the COVID-19 pandemic in 2020 and the Russia-Ukraine war that began in 2022. Consequently, many countries have attempted to reform their agreements and relationships to achieve economic goals that contribute to state economic and social development. Below are some potential methods suggested by researchers that could be useful to increase investment in Libya:

- political stability,
- economic reformation,
- investment in education and training,
- strong legal frameworks,
- public-private partnerships.

Political stability is a key factor in attracting foreign direct investment. Foreign investors tend to prefer investing their capital in countries that enjoy political and economic stability. In the case of Libya, the government needs to provide a suitable investment environment to create a predictable business climate, thereby giving foreign investors the confidence to invest in the country.

Economic reformation is also critical. Libya needs to reform its economic policies in line with international business standards to become an attractive destination compared to other economies in the region that seek to increase foreign capital inflow and benefit from investment outcomes. This includes opening business channels with advanced economies, reducing dependence on oil, simplifying regulations, improving infrastructure, and increasing the capital limit invested by foreigners, which was around 5 million US dollars in 2010. Additionally, the government should explore the possibility of establishing special economic zones where investors worldwide can obtain lower taxes, simplified regulations, and other benefits and incentives.

Investing in education and training is vital for the country's development. Libya's education system is built on a strong foundation. However, the quality of education in recent years, especially after the revolution in 2011 and the political division, has declined. The government must encourage investment in this sector, as higher education and training systems represent the availability of highly skilled and trained individuals who run state institutions. This can also attract foreign capital seeking a highly qualified workforce to succeed.

The availability of strong legal frameworks protects project investment owners, both local and foreign. The government must ensure that interested investors who establish their businesses in the country can access a fair and transparent legal system. For instance, Law No. 9 of 2010, Article 21, indicates that in any case issued against a project investment, the owners have the right to appeal within 30 days of receiving information about the case. Moreover, Article 23 states that the government cannot forcibly take over or expropriate any project investment from the owners except by law or judicial ruling issued against the business. This can be in exchange for fair compensation calculated based on the project's market value at the time the action is taken, and the compensation amount can be transferred within no more than one year.

Lastly, public-private partnerships should be encouraged. The investment law in Libya should be more flexible, allowing international private companies to participate in developing public sectors. Private firm operators often apply different strategies to ensure long-term goals, either by maximizing profits or creating the best quality of services to become successful. Most highly skilled and educated individuals tend to work in private organizations due to high salaries and other benefit packages not available in public firms.

Overall, the government and policymakers are responsible for creating the best and most convenient methods and strategies to encourage investments in the state. This includes supporting local investors and improving factors impacting investment inflow, such as

inflation, interest, exchange rates, and the labour force. These factors could negatively impact the increase of foreign direct investment (FDI) inflow to the country.

Chapter summary

Looking back at the economic development of Libya, it is evident that oil revenues have been the primary source for the Libyan economy and the most critical driver in economic and social development processes since the country's foundation in late 1959. In the past two decades, Libya has considered foreign direct investment (FDI) as a key factor in reducing its reliance on oil as the main source of income, opening its doors to foreign capital, and supporting domestic investment. The state's strategy has been to improve legislation and laws related to investment, encouraging both local and foreign capital inflow to reach a scale that aligns with the economic potential and aspirations of the Libyan economy in the present and future.

Beyond investment laws, exemptions, guarantees, and incentives issued by the state, Libya boasts substantial financial resources derived from the export of oil and gas. These resources can be advantageous in providing the facilities that foreign investors expect. Additionally, Libya is rich in natural resources such as gold, iron, diamonds, and other important materials used by manufacturing countries to produce goods. Since 2003, when global restrictions were lifted, Libya has endeavored to implement various projects related to infrastructure, such as roads, airports, ports, and communication networks, which are crucial for attracting investment.

CHAPTER 5
FOREIGN DIRECT INVESTMENT IN LIBYA: TRENDS AND DEVELOPMENTS 1990–2022

5.1. Foreign direct investment flow in Libya for the period 1990-2022

Over the past three decades, foreign direct investment (FDI) has grown significantly and become an important capital source (Loots & Kabundi, 2012). Globally, nations have implemented policies to achieve robust economic growth driven by FDI inflows. Libya aims to progress its economy by diversifying its industrial output and reducing its reliance on oil and gas (Laker, 2024). The country benefits from its geographic location, linking major producer and consumer economies, and its abundant natural resources, which attract foreign investors (Elakder, 2023).

Additionally, Libya's government recognizes that modern economic growth is closely tied to advanced technology and knowledge development, which can be facilitated through FDI. Multinational Corporations (MCNs) from African-to-African countries have invested approximately USD 1,190.4 million and created 2,544 job opportunities in Libya from 2003-2017 (Asiedu, 2020). FDI positively impacts the GDP of the host economy (Zavery, 2022). Increased FDI can lead to higher exports, resulting in GDP growth (Abdulhakim, 2016). A high GDP, in turn, improves the quality of life for Libyan citizens (Hamoudi et al., 2017).

Research data indicates a positive relationship between FDI inflow and GDP growth in Libya during the period 2000-2015. The contribution of FDI to Libya's GDP over the last three decades is evident from the data presented in Figure 23 below. In 1990, Libya recorded an FDI inflow of USD 159 million. However, two years later, Libya came under sanctions imposed by the United Nations Security Council due to international political issues. These sanctions continued for about nine years until their suspension in 1999. The sanction period resulted in significant financial losses, estimated at around USD 33.6 billion, impacting various economic sectors such as energy, industry, healthcare, transportation, agriculture, and livestock.

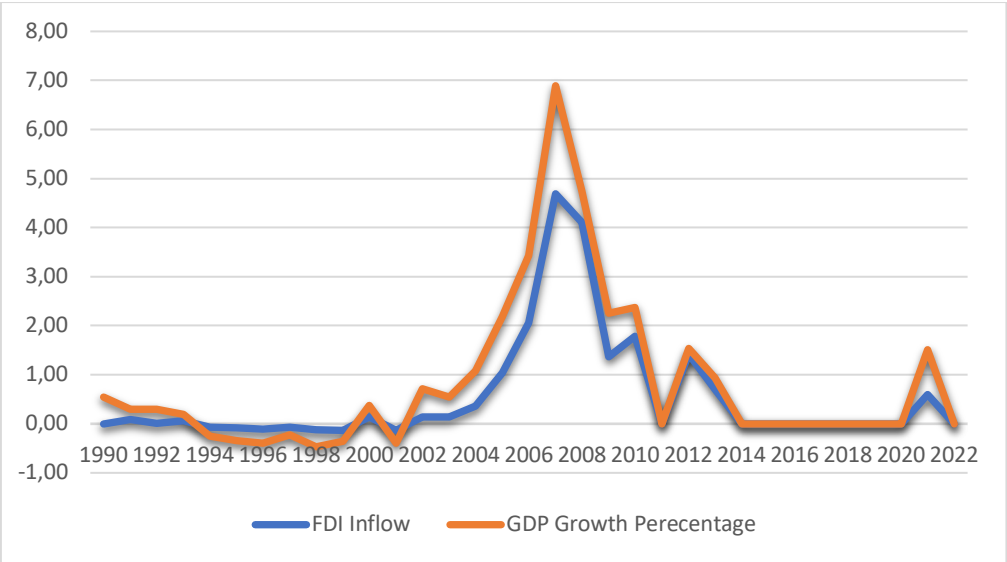


Figure 23. The FDI inflow and GDP growth in Libya for the period (1990-2022) in billion USD

Source: Own elaboration based on data from (UNCTAD -2022).

In addition, the Libyan economy and trade sector have been negatively impacted by factors such as the freezing of Libyan funds abroad for many years and a ban on international banks providing financial facilities to local state banks, estimated to have cost about 3 billion USD before the embargo. Consequently, for the state to open its usual credit lines, the Libyan government has had to cover additional costs of USD 0.600 billion each year (Afrigatenews, 2020). The FDI trend in Libya recorded its first positive amount of USD 0.141 billion at the beginning of the 2000s, reaching its highest levels of 3.85 and USD 3.31 billion in 2007 and 2009, respectively. However, the Libyan revolution and the resulting security situation forced all foreign companies to depart from the nation in 2011, leading to an FDI inflow of zero.

In 2012, Libya recorded a positive FDI inflow of USD 1.43 billion, although this amount slightly decreased to USD 0.702 billion in 2013. Since 2013, no significant FDI inflows have been recorded due to ongoing political instability and civil war. In 2021, the state received around USD 0.600 billion from FDI inflows.

Regarding FDI outflows, Libya is considered a transitional economy seeking to develop its sectors and promote its economy. As a result, the government encourages inward FDI rather than investing abroad. However, Libya does have international investments managed by the Libyan Investment Authority (LIA), established in 2006 and owned by the government. The main goal of LIA is to invest surplus funds generated from the oil sector. LIA adheres to the Santiago Principles, which promote good governance, transparency, and prudent investment

practices. These principles include around 24 guidelines issued by the International Forum of Sovereign Wealth Funds (IFSWF) (Adam Dixon, 2023).

The Libyan Investment Authority (LIA) invests in various countries worldwide. According to the LIA annual report of 2022, the portfolio's market value reached USD 35.080 billion and the portfolio return recorded at the end of the year was USD 0.505 billion. LIA owns six companies and portfolios; the fair values of these entities, fully owned by the Libyan government, totalled approximately USD 28.34 billion, according to Deloitte's 2022 evaluation. Figure 24 provides a detailed breakdown of these values.

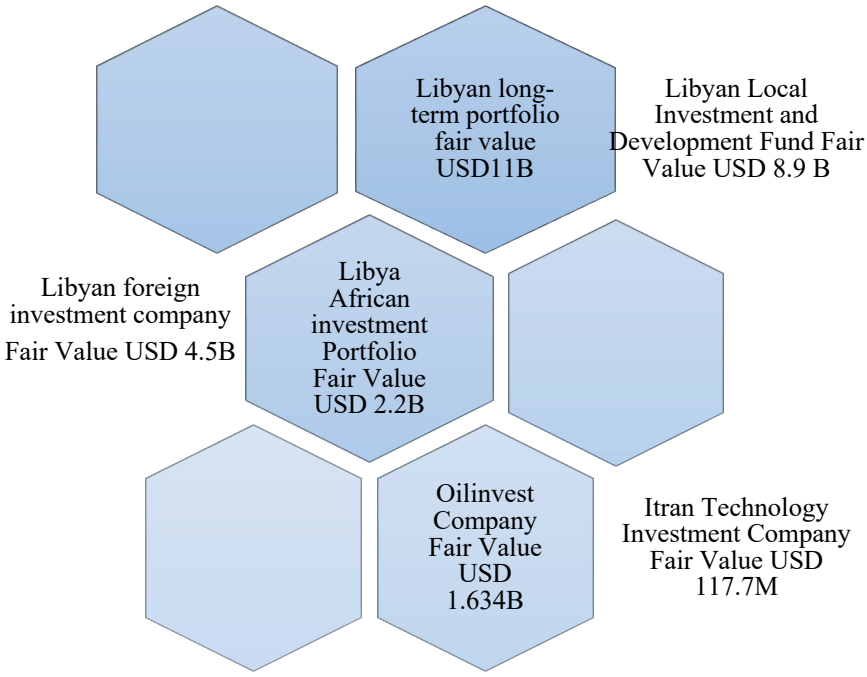


Figure 24. Libyan abroad investments run by the Libya investment authority (LIA) in (2022)

Source: Own elaboration based on Libya Investment Authority (LIA) Report (2022). Access; https://lia.ly/mahupam/2023/10/LIAs-Annual-Report-2022-1.pdf

According to the latest evaluation, the total value of assets managed by the Libyan Investment Authority (LIA) increased from USD 67 billion in 2012 to USD 68.4 billion (LIA, 2019, p. 3-4). LIA employs several strategies to diversify its portfolio, achieve high income, ensure sustainable growth, and reduce investment risk. Below is a brief introduction to the portfolios and companies managed by the LIA:

Long-term Portfolio Investment: Established in 1991, this portfolio, fully owned by LIA, invests in several sectors across different regions globally, with a capital of USD 11 billion. The portfolio consists of USD 9.64 billion in financial investments, including bonds (USD 4.99 billion), stocks (USD 2.76 billion), and certificates of deposit (USD 1.87 billion).

Mutual funds constitute 17.12%, real estate and hospitality 4%, financial services 2.14%, industries 1.45%, and oil and gas 0.03%. Geographically, the portfolio is distributed as follows: Asia 50.99%, the EU 37.21%, Africa 11.08%, and the USA 0.72%.

Libyan Local Investment and Development Fund: Holding an 83.3% ownership amounting to USD 8.9 billion, this fund contributes to various sectors in Libya, including real estate, industrial, tourism, agriculture, and finance, promoting the private sector and positively impacting economic growth.

Libyan Foreign Investment Company (LFIC): Established in 1981 with a total assets value of USD 4.5 billion in 2022, the majority of LFIC's investments are in Arab countries (57.8%), European countries (26.48%) and Asia (15.72%). LFIC invests directly in businesses (FDI). Sector-wise investments are as follows: real estate 76.75%, financial services 8.85%, financial instruments 8.49%, industries 5.23%, oil and gas 0.39%, transportation 0.28%, and technologies and media 0.01%.

Libyan Africa Investment Portfolio (LAIP): Founded in 2006 and owned by LIA, LAIP comprises five companies, including LAICO in real estate, Libyan Oil Joint Company in oil and gas, LAPTECH in information and communication technology (ICT) established in 2010 with USD 10 million capital, MF Capital in financial services, and Mauritius Oil Company. The total capital in 2022 was USD 2.166 billion. Investment distribution by sector: oil and gas 42%, financial instruments 37.85%, real estate and hospitality 17.80%, financial services 1.92%, and technology and communication 0.43%. Geographically, the investment is concentrated in Africa (55.92%), followed by Europe (38.70%), Asia (4.27%), and the USA (1.11%).

Oilinvest Company: Specializing in oil refining, processing, and marketing, this portfolio wholly owns seven companies located in Italy, Spain, Cyprus, the Netherlands, and Switzerland, among others. The total capital of this portfolio reached USD 1.634 billion in 2022, focusing 78.80% on the oil and gas sector and 21.20% on real estate.

Altran Technology Company: Fully owned by LIA, established in 2009, and headquartered in Malta, the market portfolio value reached USD 0.118 million in 2022. LIA also owns 16.25% of SAYACORP USD 0.0975 billion, located in Manama, Bahrain, with a total company capital of USD 0.600 billion. Additionally, LIA holds a 25% ownership in the Libyan Fertilizer Company (LIFECO), amounting to USD 112.5 million out of a total capital of USD 0.450 billion. LIFECO operates in petrochemical industries and is located in the Braga industrial complex (Libya). Libya also participates in the Islamic Corporation for Investment

Insurance and Export Credit, providing investment and export coverage for businesses across member nations (U.S. Department of State Report, 2020).

According to UNCTAD data, Libya's highest outflow of FDI occurred during periods of increased trade openness, reaching USD 5.89 billion, USD 3.93 billion, and USD 2.72 billion in 2007, 2008, and 2010, respectively. A lack of liquidity in Libyan banks, particularly in foreign currency, contributed to the decline in FDI outflows, with negative amounts recorded in 2014, 2017, and 2019 at -USD 0.078 billion, -USD 0.295 billion, and -USD 0.269 billion, respectively (World Bank Group Data, 2022).

In general, net FDI investment represents the difference between total FDI net inflow, comprising the value of foreign direct investments by non-local investors plus reinvested earnings and intra-business loans, net of repatriation of capital and repayment of loans, and FDI net outflow, which includes the amount of outward direct investments by domestic investors. Negative FDI flow occurs when total FDI inflow is less than the outward value, which can happen due to various reasons such as the withdrawal of investments, relocation of investments internationally, or the return of capital due to unfavourable investment conditions abroad (Eurostat, 2018).

5.2. Foreign direct investment flows to African countries 1990-2022

In the early 1990s, the period of internationalization of economic activities and the weakness of African nations' economies encouraged these countries to adopt global-oriented development approaches. By the mid-1990s, particularly in the latter half of the decade, several countries in the region experienced economic improvements due to changes in the regulatory framework (Dupasquier & Osakwe, 2006).

International trade significantly impacts the global economy through mechanisms that stimulate growth, foster innovation, and create job opportunities. It also allows nations to participate in the global economy, supporting FDI activities (Shiferaw, 2014). One study demonstrated that trade between China and Sub-Saharan nations leads to the transfer of advanced technology, which can enhance the productivity of domestic manufacturing companies (Elu & Price, 2010). Foreign capital in the form of direct investments contributes to improving the technological position of recipient countries (Umiński, 2000). Michałowski and Gostomski (2018) highlighted China's investment expansion in Africa.

Multinational corporations (MNCs) from Africa invest in other African countries, with South Africa being a significant source of FDI. South Africa has financed 420 projects and

created 54,311 job opportunities across 40 African nations in 25 different sectors, with real estate receiving the highest portion at 20% of the total investment (Elizabeth, 2021).

The political landscape and business climate are critical factors for foreign investors when considering FDI inflow to the African region. These investors view the target destination's attractiveness for business (Cheadle, 2016). Several factors can impact FDI inflows to African areas, including corruption, poor infrastructure, transportation, telecommunication, energy supply, and a lack of proficient workers, all leading to high transaction costs (Osakwe, 2005). Natural resources are of significant interest to most foreign investors operating in the African region (Abdulghader Ali, 2014).

According to a recent report by the United Nations Conference on Trade and Development (UNCTAD, 2022), FDI towards African states fell by more than 45%, recording USD 80 billion in 2021. Egypt experienced the most significant increase in FDI, particularly in mergers and acquisitions in North Africa, with a recorded amount exceeding USD 10 billion and an increase in new greenfield investments of about 160 projects. Meanwhile, Central Africa saw a slight decrease from USD 7 billion in 2021 to USD 6 billion in 2022. East Africa recorded a modest growth of 3%, from nearly USD 8 billion in 2021 to USD 9 billion in 2022. Recently, South Africa experienced a significant decline, from approximately USD 40 billion in 2021 to less than USD 10 billion in 2022. Figure 25 below provides more information and data regarding inward FDI to African areas.

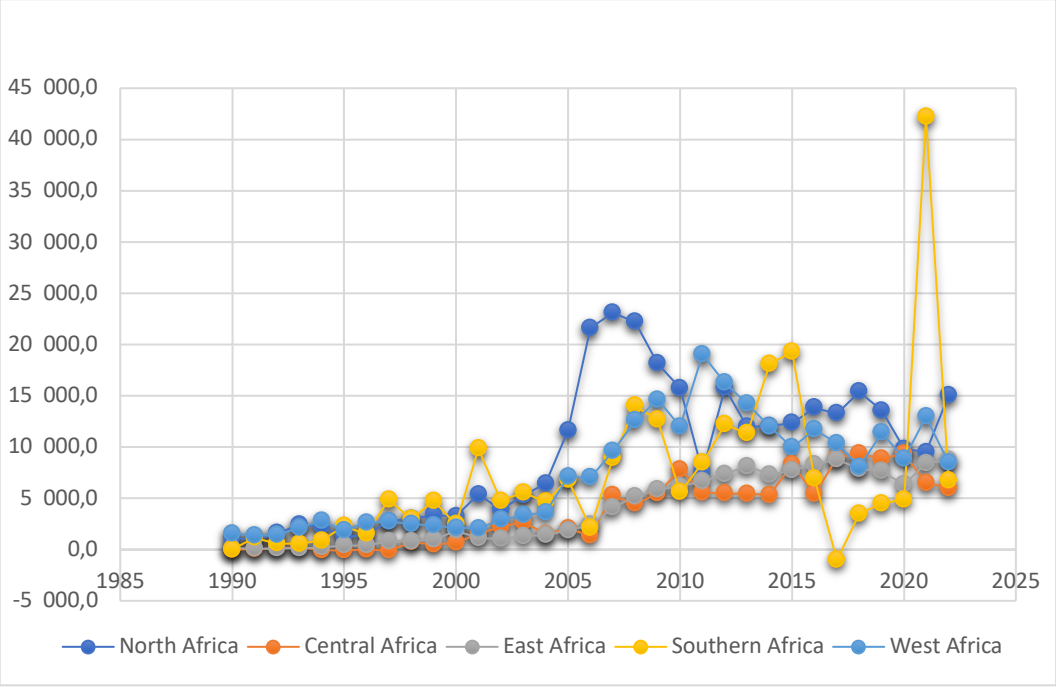


Figure 25. Foreign direct investment flows into African regions for the period (1990-2022)

Source: Own elaboration, Based on data from (UNCTAD,2022) access; https://unctad.org/news/investment-flows-africa-dropped-45-billion-2022#

Three leading nations in North Africa—Egypt, Tunisia, and Morocco—have benefited significantly from changes in their economic policies by reducing regulatory restrictions and investment rules to attract foreign direct investment (FDI). These countries have succeeded in increasing FDI inflow, thus driving economic growth. For instance, Tunisia shifted towards trade liberalization during the mid-1980s. As a result, FDI income in Tunisia rose from USD 0.126 billion in 1991 to over USD 0.250 billion in 1995. Further improvements by policymakers and the government to attract foreign investors led to a notable increase in FDI, reaching around USD 1.5 billion in 2009.

Similarly, Morocco has experienced economic growth due to FDI inflow. Morocco's FDI represented less than 0.70% of the total GDP during the 1980s but increased to 2.15% in the 1990s. At the beginning of the 1990s, Egypt implemented various economic reforms and established a modern financial system. Egypt's attractive business environment has drawn substantial foreign capital from around the world. By the mid-1990s, Egypt recorded a high growth rate in FDI inflow, receiving over USD 3.5 billion (Omri Anis et al., 2015). In conclusion, trade liberalization and the application of a master approach have significantly advanced the economic goals of the three aforementioned North African nations.

Regarding FDI outflow from the African region, emerging market countries represent a relatively small portion compared to advanced economies, accounting for around 30% of the world's total shares, with the African region contributing 4% of this percentage (UNCTAD, 2023). However, there has been an increase in FDI outflow from developing nations. In 2012, FDI outflow stock was about USD 481 billion. The top ten countries with the highest FDI outflow in 2022 were as follows: the U.S. (USD 426.25 billion), Germany (USD 178.87 billion), Japan (USD 175.40 billion), the United Kingdom (USD 158.93 billion), China (USD 149.69 billion), the Netherlands (USD 125.89 billion), Australia (USD 123.36 billion), France (USD 118.76 billion), Hong Kong (USD 106.86 billion), and Canada (USD 83.11 billion) (Samidha Nayak, 2022). The African region recorded an FDI outflow of only USD 5.817 billion in the same year.

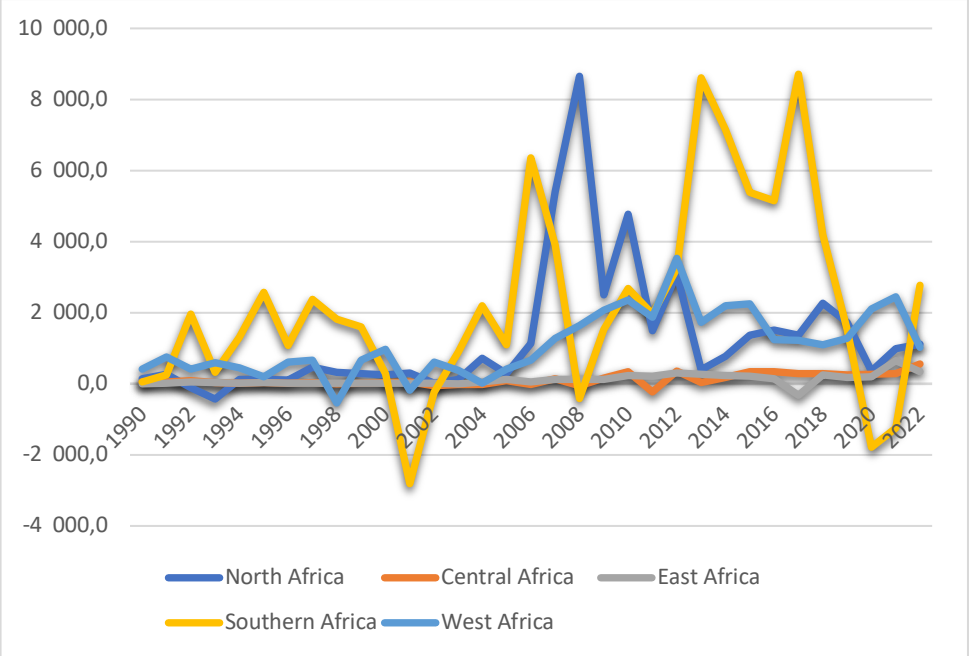


Figure 26. Foreign direct investment flows out of African regions for the period (1990-2022)

Source: Own elaboration, based on data from (UNCTAD,2022) access; https://unctad.org/news/investment-flows-africa-dropped-45-billion-2022#

Figure 26 above shows that the outward FDI from Africa is low compared to the global outflow percentage. While most emerging economic nations possess resources that could encourage investors to invest abroad and enter global markets, they face a shortage of capital necessary for operations outside Africa. As a result, developing and transitioning economies tend to adopt the inflow of FDI and aim to attract foreign investments to benefit from the expertise of experienced investors in operating businesses and achieving economies of scale. The trends of outward FDI from Africa's four regions are as follows:

South Africa is the primary source of FDI outflows within Africa. This nation is considered the second-largest source of FDI in the African region and its principal recipient (UNITED, 2013). In 2019, the country's leading economy invested cross-border (Christof Baron, 2019). Although South Africa received a low income from outward FDI at the beginning of the 1990s— USD 0.0574 billion compared to West Africa's USD 0.412 billion and North Africa's USD 0.135 billion —it has since risen to be one of the top four listed African regions. Negative amounts were recorded in 2001 (USD -0.281 billion) and 2002 (USD -0.243 billion), with an additional negative impact of USD -0.409 billion in 2008 due to the global financial crisis. Notably, South Africa's outflow FDI, mainly invested in mining, trade, and healthcare products, amounted to approximately USD 14 billion in 2012 (World Bank). The COVID-19 pandemic resulted in negative outward FDI values of USD -1.793 billion and USD -0.241

billion in 2020 and 2021, respectively. However, a recovery was observed in 2022, with outward FDI reaching USD 2.779 billion, accounting for 47% of the total FDI outflow from the African region, which exceeded USD 5 billion.

North Africa has recorded the second-highest outflow of FDI over the past three decades (1990-2022). Morocco and Egypt were the major economies investing abroad in 2019, with outward FDI values of USD 1 billion and 0.7 billion, respectively. In 1990, North Africa accounted for 20% of Africa's total outward FDI, amounting to USD 0.135 billion out of USD 0.658 billion. The region experienced negative FDI values in 1992 and 1993 (USD -0.109 billion and -0.429 billion, respectively). A significant increase in FDI outflow was recorded from 2006, reaching 1.1344 billion USD and eventually USD 8.6538 billion. The Arab Spring, which began in Tunisia in 2010, directly and significantly impacted the region's FDI outflows, while the Middle East experienced indirect effects (Hraiba et al., 2019). The COVID-19 pandemic also led to a significant decrease in outward FDI, from USD 1.7273 billion in 2019 to USD 0.356 billion in 2020. Nonetheless, a recovery was observed in 2022, with outward FDI increasing to USD 1.108 billion. The COVID-19 pandemic caused a negative impact on outward FDI from African nations, resulting in economic disturbances, challenges, and new opportunities for FDI inflow (Doytch, 2022).

Nigeria, the largest economy in West Africa, boasts the highest GDP rate on the African continent (Africa Development Bank Group, 2023). Nigeria maintains strong trade links with advanced economies such as the United States, United Kingdom, China, and France, enabling the country to develop various sectors, including oil and gas, food processing, telecommunications, and professional services (Bamituni Abamu, 2022). Nigeria's FDI flows reached approximately USD 2 billion in 2022, while Senegal and Ghana recorded USD 2.6 billion and USD 1.5 billion, respectively (UNITED, 2023). West Africa had the highest FDI outflow in the 1990s, and over the last decade, it has seen a significant increase in FDI outward. There was no recorded impact on the region during the COVID-19 pandemic; however, a 45% decline was noted in 2022.

In recent years, FDI outflows from Central Africa have fluctuated. In 2020, African countries recorded a dramatic decrease in FDI outflows by two-thirds to USD 1.6 billion, compared to USD 4.9 billion in 2019. Togo, Ghana, and Morocco were at the top of the list (UNATED, 2021). The first three years of the 1990s saw an increase in outward FDI, from USD 0.051 billion in 1990 to USD 0.0796 billion in 1993. However, a significant decline was noted in 2008 (USD -0.054 billion). Central Africa recorded the most substantial negative outward FDI amount in 2011 (USD -0.230 billion). Recovery was observed in 2012, with FDI

outflows reaching USD 0.356 billion. During the COVID-19 pandemic, no significant impact was recorded on FDI outflows from Central Africa, with values of USD 0.262 billion, USD 0.289 billion, and USD 0.558 billion in 2020, 2021, and 2022, respectively.

5.3. Cross-border mergers and acquisitions (M&A) and greenfield investments

Foreign direct investment flows worldwide vary based on businesses' goals and purposes. The two most common methods are greenfield investment, where new businesses are established across borders to expand company activities in foreign markets, and mergers and acquisitions (M&A), also known as brownfield investment, where one company purchases the ownership or assets of another company abroad. In a merger, two companies agree to combine their businesses into a new entity, which can increase market shares and reduce production costs. Additionally, there is an opportunity to operate in new markets, minimize competition between companies, and increase profits (Bc. Luis E. Marequez Balderas, 2019).

The number of mergers and acquisitions has increased significantly over the last decade, with approximately 500,000 deals occurring since 2010, according to the community (M&A). Some of the largest deals between 2017-2023 include the USD 80 billion merger in 2017 between Linde AG, a German chemical company founded in 1879, and Praxair, an American company founded in 1907, which aimed to reduce competition in Canada (Poltz, 2017). Another significant merger was between CVS Health and Aetna, worth USD 70 billion, with the goal of combining health insurance and pharmacy services (Ramsey, 2017). A deal worth around USD 90 billion between Energy Transfer Equity and Energy Transfer Partners aimed to simplify the structure and improve the new firm's capital cost (Equity, 2018). Additionally, Unilever PLC's acquisition of Unilever N.V. aimed to simplify the legal structure and become more flexible in strategy, reaching over USD 80 billion. The largest merger in Australia was between BHP Group Limited and BHP Group PLC, aiming to grow and become a significant player in the mining market (Community, 2022).

The most successful and largest merger and acquisition deal, exceeding USD 200 billion, occurred when the German-owned Mannesmann was acquired by the British-based Vodafone in 1999, establishing Vodafone as the world's largest mobile company (Vodafone Acquisition of Mannesmann; Management for Professionals, 2019).

According to the UNATED report (2023), global greenfield investments have significantly increased over the last decade. In 2003, there were 9,493 projects worth USD

771.15 billion across various sectors such as agriculture, forestry and fishing, manufacturing, extractive industries, and energy and gas supply. During the financial crisis in 2009, greenfield investments decreased by 14,828 projects, amounting to USD 953.063 billion, compared to 17,241 projects in 2008 with USD1,296 trillion of capital flow. The flow of greenfield investment recovered after the global economic crisis until the COVID-19 pandemic in 2020, which negatively affected business flows worldwide. In 2020, there were 19,782 projects worth USD 908.19 billion and 13,394 projects worth USD 603.93 billion in 2022. From 2003 to 2022, the services sector received the most significant investment with 152,600 projects worth USD 7.858 billion, followed by manufacturing with 142,155 projects worth USD 7.372 billion, and information and communication with 52,746 projects worth USD 1.274 billion.

In the brownfield investment/M&A global flow, developed economies have a significant share of the world's FDI flows, recording more than 80% of the total global flows with USD 737.45 billion and USD 706.57 billion in 2021 and 2022, respectively. Meanwhile, developing economies accounted for only 15% of the world's GDP. In 2020, the top two target economies for M&A activities were the United States (24%) and the UK (13%), followed by the Netherlands, Germany, Japan, Canada, Switzerland, Australia, France, and China (Bob Carroll, 2021).

The main difference between greenfield and brownfield (M&A) investment lies in the source of the assets used by the company. Greenfield investments involve using the investor's resources and incorporating locally acquired assets. At the same time, mergers and acquisitions utilize the local firm's assets and merge them with the investor's resources, such as managerial capabilities (Abamu, 2022).

5.4. FDI inward and outward of developed and developing economies 1990-2022

Developed and developing economies represent two distinct levels of economic scale. Developed economies are characterized by stable economies, high income, and high GDP per capita, which correspond to a high standard of living with low poverty and unemployment rates (Kapsos, 2013). Advanced nations are sources of modern technological innovation and have sophisticated financial systems (Ullah et al., 2023). These countries boast high-quality facilities across various sectors, including healthcare, education (Sahay, 2001), infrastructure, and telecommunications. They are located in regions such as the European Union, Asia, and North America.

Conversely, emerging economies face market volatility driven by various factors, including supply-demand shocks in domestic markets and economic and political uncertainty (Arroyo Marioli et al., 2024). These nations also contend with low per capita income and substandard healthcare and education quality (Abdulqadir Khamees, 2023). According to the World Data Report (2019), the standard of living in developing countries is generally below average. This category includes 152 nations with a combined population of approximately 6.87 billion, spread across regions such as Europe, Africa, East and South-East Asia, Latin America, the Caribbean, and Oceania.

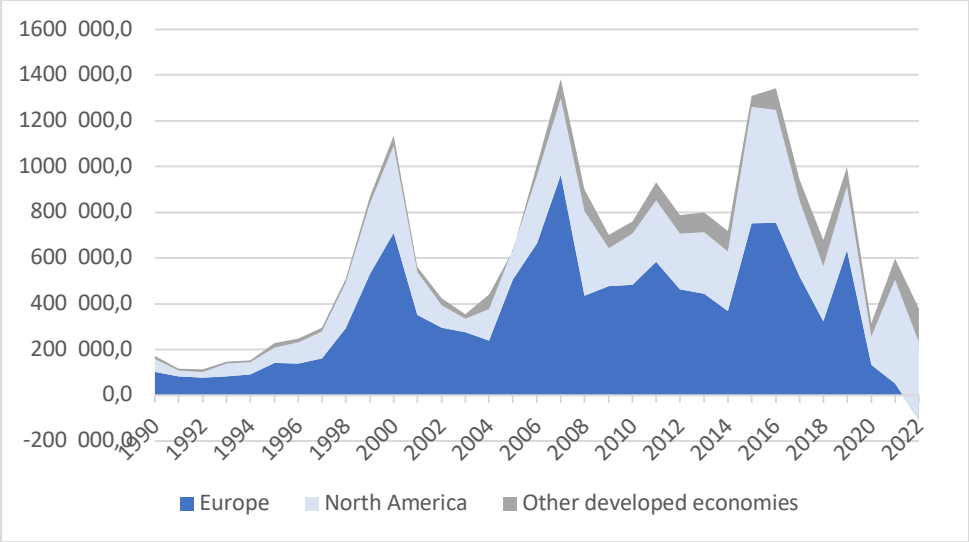


Figure 27. FDI flow into developed states as regions for the period (1990-2022)

Source: Own elaboration, Based on data from (UNCTAD, 2022).

Figure 27 above highlights the regions in detail, showcasing the nations with the highest share of foreign direct investment (FDI) inflows, beginning with the European region. The highest FDI inflow was recorded in the United Kingdom (UK) at USD 2,037.114 billion before its exit from the EU. Germany received USD 1,143.735 billion from 1990 to 2022. Ireland recorded around USD 846.957 billion during the study period. Spain peaked at USD 836.56 billion, and France at USD 816.175 billion. The Netherlands, Belgium, and Italy received approximately USD 801.972 billion, USD 652.77 billion, and USD 452.81 billion, respectively. Russia and the UK also saw substantial FDI inflows, amounting to USD 592.818 billion.

North America, notably the United States and Canada, recorded significant FDI inflows over the past decades. The USA received around USD 6.103 trillion, and Canada USD 1.092 trillion. According to the United Nations Conference on Trade and Development (UNCTAD, 2000), in 1999, both countries were major destinations and sources for substantial FDI inflows

and outflows. The United States recorded around USD 276 billion from mergers and acquisitions (M&A). In terms of outflow, the UK was the highest, with almost USD 200 billion.

Economic growth, high technology, proper infrastructure, and robust financial systems have made nations with advanced economies both recipients and sources of substantial FDI over the decades. European countries such as the UK, Germany, and France have recorded significant increases in FDI inflows from 1990 to 2022, supported by building solid economic systems after the Cold War, with most FDI inflows coming from the United States and North America.

According to the UNCTAD Investment Report (2022), global foreign direct investment flows improved compared to the pandemic years of 2020, reaching about USD 1.6 trillion. Due to favourable financing conditions and infrastructure stimulus, cross-border deals and international project finance were robust. However, improvement in greenfield investments in the industrial sector remains weak, particularly in developing nations. The report indicated that recovery in global investment flows was evident before the onset of the war, peaking at USD 1.58 trillion in 2021 compared to the pandemic year 2020, which saw an increase of more than 60%. However, the advancement in foreign direct investment was short-lived, as the conflicts in Eastern Europe, Ukraine, and Russia significantly impacted the global investment environment.

The repercussions of wars can affect not only the immediate region but also have global security and economic implications. For instance, high inflation and a dramatic increase in food and energy prices without swift responses from governments, policymakers, and companies can negatively impact the cost of living, particularly for families with limited income.

Regarding investment policy changes in 2021, the number of investment policy measures adopted decreased by 28% from 2020 as the urgency related to the pandemic subsided. However, stricter investment regulations continued, with 42% of measures less favourable to investment, the highest on record. The number of merger and acquisition (M&A) deals over USD 50 million withdrawn due to regulatory or political concerns remained stable at 14 deals but increased in value to over USD 47 billion.

Developed nations expanded their investment screening criteria for national security, encompassing 36 countries responsible for 63% of global FDI inflows and 70% of stock. Conversely, developing states focused on measures to promote and facilitate investment, reflecting the vital role of FDI in their economic recovery strategies (World Investment Report, 2022, p.14).

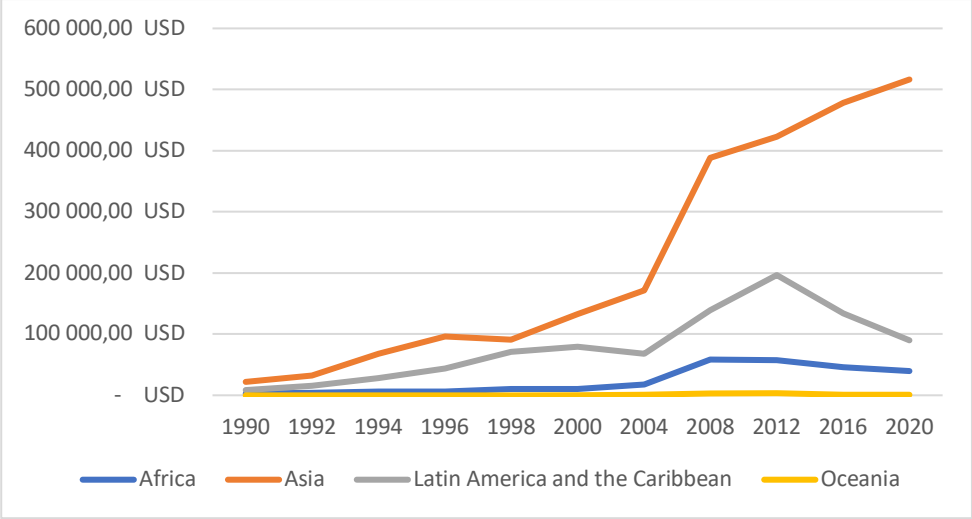


Figure 28. FDI flows into emerging economies regions for the period (1990-2022)

Source: Own elaboration Based on data from (UNCTAD, 2022).

Figure 28 shows that foreign direct investment (FDI) flows to developing nations have increased significantly since 1990 across most regions. This increase has positively contributed to economic growth by transferring advanced technology, training locals, accumulating capital, and decreasing unemployment by providing job opportunities. Several sectors, such as telecommunications and transportation, have been developed in emerging countries, driven by increased economic interdependence globally (Al-Kasasbeh et al., 2022).

An auditor/Economist stated that the accumulation of capital stock, increase in labour output, and technological advancement are considered the main factors leading to positive contributions in long-run economic growth. This has been validated both hypothetically and analytically. The auditor argues that according to the "diminishing return" law, the increase in output received from adding one extra unit of labour or capital will eventually decline. To achieve long-run economic growth, technological progress is crucial. Thus, adding more capital or labour to get extra output becomes less effective, and technological advancements are anticipated (Chien, 2015).

Moreover, the experience gained from foreign investment and considering crises such as the financial crisis in 2008, the COVID-19 pandemic, and the Russia-Ukraine war in 2022 led to the establishment of the Global Crisis Response Group (GCRG) on Food, Energy, and Finance by the UN. The GCRG aims to assist decision-makers in overcoming difficulties during crises. Its primary goals are to control the global inflation rate and manage the cost of living by reasonably directing food, energy, and finance prices.

In the early years, FDI was considered a key factor for achieving economic growth in African countries due to advantages such as capital formation and knowledge transfer from advanced nations. Policymakers and governments have worked together to provide a suitable business environment by promoting infrastructure and competitive social services for international companies to establish or acquire local businesses (Adelakun & Ogujiuba, 2023). For the host nation to benefit from FDI and positively impact the economy, it must have the minimum capability to receive these benefits. Research shows that the technology gap between foreign and domestic firms should not be lower than 0.690. Reaching the appropriate FDI threshold is important but not highly required for economic development (Asafo-Agyei & Kodongo, 2022).

Despite efforts by Sub-Saharan African (SSA) countries to increase foreign capital inflows, SSA has recorded a low benefits percentage from FDI, less than 3% of the total world share inflow. Many SSA nations established export processing areas and free trade zones to attract FDI between 1970-1990 (IDEUE, 2019). The main FDI inflows to SSA were from the United Kingdom and the United States. France, India, and China have recently become important investors, with inflows increasing dramatically from USD 0.144 billion in 2009 to USD 0.410 billion in 2017. The main goals of foreign investment were mining and searching for natural resources, alongside investments in manufacturing, construction, and finance.

According to UNCTAD data, FDI inflow experienced a slight increase from 1990-1997 and a significant increase from 2001-2009. There was a fluctuation between 2010 and 2019, with a decrease of about 5% from 2009, which was 12% of the total developing countries' FDI inflow. It recorded a stable overall inflow of 8% of emerging market economies between 2012 and 2015. The COVID-19 pandemic in 2020 caused FDI inflows to Sub-Saharan Africa to fall by more than 10% compared to 2019. However, some regions, such as Central Africa, saw an increase from USD 8.9 billion in 2019 to USD 9.2 billion in 2020, and Nigeria in West Africa saw an increase from USD 2.3 billion to USD 2.4 billion in 2020 (Tamara, 2021).

The significant increase in FDI inflows over the past three decades has encouraged developing countries to open their doors to FDI. They have provided attractive business environments, high-quality infrastructure, and various incentives to foreign companies to set up projects in emerging markets, aiming for social and economic development.

Another form of FDI, called "capital flight," occurs when there is a large-scale exit of financial assets and capital outward from a state due to factors such as uncertainty in government policies (Hermes & Lensink, 2001). Political stability can positively impact government practice and increase the stock market (Lua, 2024). From another perspective, FDI

outflow occurs when domestic companies or individual investors seek higher returns, access to new markets, or risk diversification by investing in multiple states (Eryigit & Shafaq, 2021). Investment in this type may take different forms, such as acquisitions, mergers, or greenfield investments, as discussed in Chapter 1.

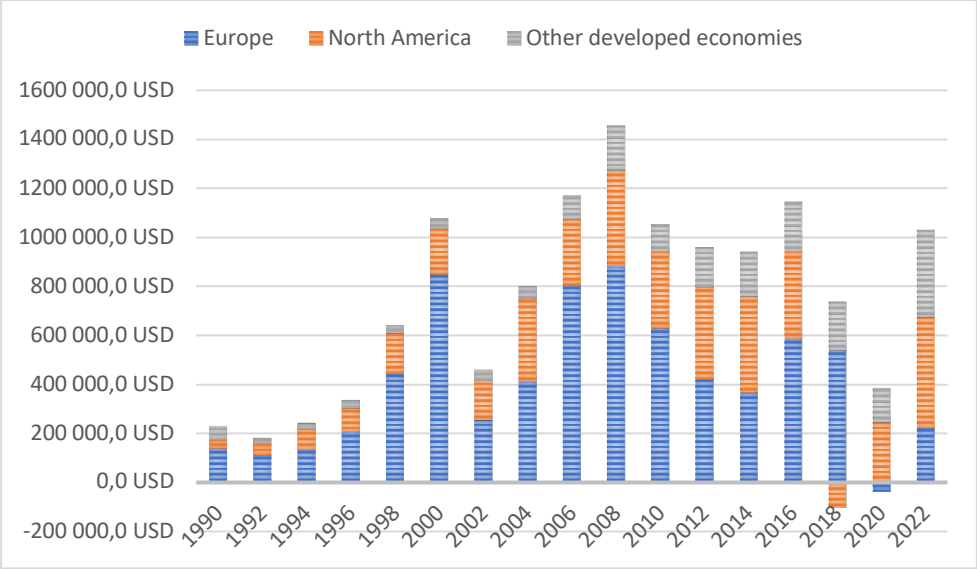


Figure 29. FDI outflow from advanced economies for the period (1990-2022) in billion USD

Source: Own elaboration Based on Data from (UNCTAD, 2022).

Figure 29 demonstrates that the highest portion of gross foreign direct investment (FDI) outflows among the three regions—Europe, North Africa, and other developed countries worldwide—was recorded in the European region. From 1990 to 2022, Europe saw an outflow of approximately USD 15.398 trillion.

The outflow of FDI in Europe experienced various levels, with a significant fall in 2020, reaching a negative USD 38.461 billion. This decline in FDI outflow was due to the COVID-19 pandemic. FDI fell by more than 70% in advanced economies in the first two quarters of 2020 compared to 2019. Conversely, developing countries experienced a less severe decline in FDI, with a reduction of less than 20% during the same period.

Moreover, there were weaknesses in the global dynamic of FDI flows in the last decade. Instability in global FDI flows was evident during 2020. Between 2011 and 2015 and 2018, there was a decline in foreign investment, although some recoveries occurred. For example, in 2019, there was a slight increase related to large deals in developed countries involving mergers and acquisitions (M&A) (Adarov & Hunya, 2020). Multinational enterprises (MNEs) play a crucial role in the global economy by participating in foreign investment and global trade, relocating advanced knowledge, technologies, and significant capital to less developed economies. MNEs in Europe increased by more than 12%, with notable reinvested earnings

from German MNEs. A significant amount of direct investment and MNEs were located in the Netherlands. In 2018, France and Switzerland recorded a significant outflow of over 60%, which decreased by more than 80% in 2019, according to the Global Investment Trend and Prospects report about FDI and the COVID-19 crisis (2022).

In North America, the coronavirus has reached almost all countries, affecting rich, medium, and poor economies. This virus is considered one of the worst crises in recent history, severely affecting economic and social aspects, described as "devastating" by the World Health Organization (WHO), Food and Agriculture Organization (FAO), International Labour Organization (ILO), and Fund for Agriculture Development (FAD) (Moosa & Merza, 2022).

MNE investment reached around USD 200 billion in America and Canada. In the USA, FDI was negative in 2018 by more than USD 90 billion, primarily due to repatriated funds by companies following tax reforms. However, the situation improved the following year, especially in reinvested earnings. Canada saw an increase in outflow by almost 55%. Japan recorded a significant MNE outflow, reaching more than 56%, amounting to USD 227 billion. Japan also increased MNE investment by about 100% in EU countries and North America.

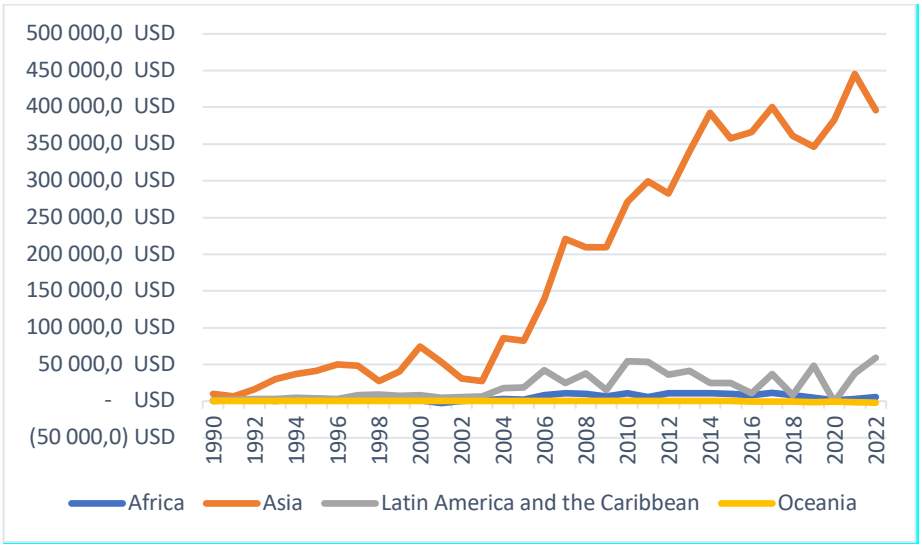


Figure 30. FDI outflows from developing countries regions for the period (1990-2022) in billion USD

Source: Own elaboration, Based on Date from (UNCTAD, 2022).

The main participants in world FDI outflows are advanced economies. These nations receive more income from foreign direct investment (FDI) outflows than inflows. The increase in FDI outflows exceeded the decline recorded during the global financial crisis. In contrast, emerging countries are recognized as beneficiaries rather than contributors. China and Russia are listed as the highest investors among developing nations.

Taking into account the previous context of FDI inflows, it is evident from Figure 30 that the Asian region ranks highest among FDI outflow regions. The region saw a slight increase at the beginning of the 1990s, followed by a dramatic rise from 2000 onwards. Despite fluctuations during the first ten years of the study period (1990-2022), the Asian region accounted for around 80% of overall FDI outflows since 1990. FDI outflows peaked at USD 74.169 billion in 2000, up from USD 9.995 billion in 1990. In the second half of the 2000s, particularly in 2007, outward FDI jumped to USD 220.949 billion. This amount doubled in 2017, reaching more than USD 400.10 billion. Although there was a slight decrease during the COVID-19 pandemic, recovery was evident in 2021.

Latin America and the Caribbean are the second regions with the highest percentage of FDI outflows. In 1990, outward FDI amounted to USD 1.364 billion, about 25% of the total developing countries' FDI outflows, which recorded USD 11,974.8 million. This was higher than the FDI inward percentage recorded for Latin America and the Caribbean in 1990, which was around 15%. The highest amount of FDI outflows was recorded in 2022, reaching USD 59.023 billion. There were increases in 2010 and 2011, with USD 54.708 billion and USD 53.4467 billion, respectively. According to data from UNCTAD reports, the trend of outward FDI in these regions has been low, with slight increases.

In the African region, there has been modest growth in outward FDI. South Africa has recently been recognized as the second most important investor in African nations, accounting for a significant portion of FDI outflows from Africa, which reached over USD 13 billion in 2012, according to the World Bank report (2014). The four developing nations that FDI flows to Africa are Malaysia, India, China, and Brazil. Researchers argue that there is a correlation between FDI and education/healthcare. FDI contributes to improving these two main factors, and high-quality education and healthcare can attract foreign investors to developing states. The trend of outward FDI in 1990 started at USD 0.658 billion and doubled in two years, particularly in 1992, reaching USD 2,385.0 million. Although there has been an FDI outflow in the last three decades, it has not been stable. The highest rate was 14%, recorded in 1991, out of the overall emerging market economy. The highest amount received from FDI outflows in Africa was USD 11.272 billion in 2017, followed by USD 11.032 billion in 2013. The lowest percentage was recorded in 2020 during the COVID-19 pandemic at 0.30%.

Based on the information provided, it is evident that emerging market nations have prioritized foreign direct investment (FDI) inflows over outflows. This trend can be attributed to the significant deficiencies in resources such as capital, advanced knowledge, and

technology, which are crucial for enhancing the quality of the domestic market and fostering economic growth.

Chapter summary

The comprehensive data and information reviewed across various global regions indicate a significant positive shift in foreign direct investment (FDI) flows over the past few decades. This trend has increasingly attracted the interest of many developing nations seeking to capitalize on FDI. Advanced economies, serving as the primary sources of FDI outflows, focus on outward investment, viewing it as essential for the economic transition of recipient nations.

During the study period, several economic challenges were observed, notably the financial crisis of 2008, which led to a 16% decline in global FDI flows. This decline continued into 2009, with FDI inflows dropping by approximately 40% (Saleh, 2023). Factors contributing to this decline included fund restrictions, which limited the capacity of international corporations to invest across borders, and a general slowdown in the global economy. The correlation between FDI flows and economic growth resulted in reduced profits for multinational corporations (MNCs), increasing investment risks. Consequently, many businesses shifted to safer assets, such as government bonds, rather than high-risk investments (Poulsen & Hufbauer, 2011).

Moreover, there have been significant sectoral shifts in FDI over the past decades. The focus has moved from manufacturing to services, with greenfield investment projects in services rising from 66% to over 80% between 2004 and 2023. This shift has negatively impacted developing economies that rely heavily on manufacturing sectors (Deborah, 2024). According to an annual report by UNCTAD, the FDI manufacturing sector experienced stagnation over the past two decades, with an additional decline of -12% annual growth recorded during the COVID-19 pandemic.

The International Monetary Fund (IMF) report (2010) highlighted that Libya, despite being affected by the global financial crisis of 2008, managed to overcome its challenges due to the commitments of FDI in the oil sector. The Libyan Investment Authority (LIA) leveraged the country's substantial foreign reserves and minimal exposure to the international financial system to weather the crisis. This resilience was further aided by limited trade ties outside the oil sector. The financial crisis also underscored underlying structural economic issues in Libya, such as the private sector's stagnation under government control. In 2012, Libya was ranked 140th out of 144 nations globally in financial sector development (Mohsin & Mezran, 2013).

Before the financial crisis (2000-2010), Libya and other oil-producing nations in the Middle East were performing well. Libya's real GDP grew at an average annual rate of 4.5%, while the real non-oil GDP grew at approximately 6.3% annually. Inflation remained below 3% but surged to 15.9% in 2011, leading to the interruption of numerous investment projects (Mohsin & Mezran, 2013). The LIA holds a significant portion of Libya's internal and external investments, estimated at USD 68.4 billion in recent years. LIA's investments account for over 83% of the USD 8 billion allocated to local projects aimed at diversifying revenue sources beyond the oil sector.

In conclusion, given Libya's substantial financial and natural resources, there are significant opportunities for the government and policymakers to invest in the private sector and implement critical reforms in investment laws, the education system, banking, and financial systems. Furthermore, enhancing infrastructure can play a pivotal role in shaping Libya's economic future, yielding long-term benefits for the economy and society.

CHAPTER 6
IMPACT OF FDI ON THE ECONOMIC DEVELOPMENT OF LIBYA - RESEARCH OBJECTIVES AND METHODOLOGY

6.1. Research methodology, data specification and collection

A quantitative research methodology was employed to fulfil these objectives, using time-series data collect from United Nations Trade and Development (UNCTAD) for Libya over the last three decades (1990-2021). By employing a multiple linear regression model using the Autoregressive Distributed Lag (ARDL) technique established by Pesaran in 2001. This technique was applied to examine the stationarity, cointegration, and causality relationships in the short and long run among the variables used in the study.

The primary objective of this empirical chapter is to examine the impact of Foreign Direct Investment (FDI) on the economic development of Libya. This study spans 31 years, from 1990 to 2021, and aims to analyze the data collected during this period to determine whether FDI has contributed to economic growth in Libya. The study takes into account the political challenges and issues faced by Libya during this time, such as the international economic embargoes imposed on the country for about ten years, which were lifted in 2003, the Libyan revolution, and the ongoing unstable security and political situation since 2011. These factors have posed barriers for many multinational companies operating in Libya, particularly in the oil sector and other industries such as infrastructure development.

To achieve reliable statistical results and elucidate the contribution of FDI to Libya's economic growth, the study will first assess the influence of factors such as the exchange rate, inflation rate, per capita GDP, oil and gas exports, and labour force on FDI. These variables, related to the country's monetary policy, will be evaluated to determine whether they have been attractive to foreign investors compared to other nations in North Africa. Subsequently, the research will focus on determining the impact of FDI on Libya's economic growth.

Several variables identified by economists and previous research as important factors influencing FDI inflows will be used in this study. These variables include the inflation rate, exchange rate, per capita GDP, oil exports, and trade openness. In the first case, these variables will serve as independent variables, with FDI as the dependent variable. The empirical results will indicate the type and level of relationship between the independent and dependent variables.

In the second case, the variables will include GDP (the dependent variable), FDI, labour force, and oil and gas exports (independent variables). The study period from 1990 to 2021 will utilize secondary data gathered from various sources such as the Central Bank of Libya, TradingEconomics.com, the World Bank, World Development Indicators, UNCTAD, Macrotrends, World Population, World Statistical Reports, OPEC reports, and numerous publications by economists.

6.2. Explanation of variables

This section provides several recommendations and conclusions based on the findings from testing panel data for the period 1990-2021, collected from various sources such as the Libyan Central Bank (LCB), United Nations on Trade and Development (UNCTAD), Statista World (SW), and the Libyan Audit Bureau annual report (LAB). The Autoregressive Distributed Lag (ARDL) model was applied to this study. In addition to a brief introduction about the factors used to test the hypothesis are as follows:

- trade openness,
- inflation rate,
- Exchange rate,
- per capita GDP,
- labor force,
- foreign direct investment (FDI),
- oil and gas exports.

Various auditors have suggested several definitions related to trade openness. For example, the openness concept refers to the effect of exports on total income (Ibrahim et al., 2020). It is calculated as the combined import and export volume ratio to Gross National Product (GNP). This study suggests that openness is measured by the ratio between the sum of a country's exports and imports and its Gross Domestic Product (GDP) during the financial year.

In recent years, the causality relationship between trade openness and FDI inflow has intrigued many researchers both theoretically and empirically. For instance, a comparative study of Asian countries (India, Iran, and Pakistan) investigated the impact of trade openness on FDI inflow by testing data collected from 1972-2012, applying fixed effects and Pooled OLS. The findings illustrated that a higher level of trade openness significantly positively affects FDI inflow (Qamar, uz Z. et al., 2018). They found a significant relationship between

trade openness (OT) and FDI in the short and long run, indicating that trade openness involves removing government restrictions to allow multinational companies to establish businesses in the host country and benefit from its advantages.

A study of Turkey's trade openness decisions on January 24, 1980, and their impact on increasing the flow of multinational companies to the state applied the unit root test with the augmented Dickey-Fuller (ADF) test and panel data (1986-2010). The paper examined the correlation between trade openness and FDI and the influence of key macroeconomic factors on FDI. The study concluded that the state's policies towards open trade after 1980 encouraged foreign direct investment in Turkey (Selahattin & Kutay, 2015).

Most researchers and economists define inflation as a sustained or continuous rise in the general price level of goods and services over time in an economy or as a sustained or continuous decrease in the value of money (Labonte, 2011). In other words, the purchasing power of a specific currency drops.

Several studies have been conducted to understand the impact of the inflation rate on FDI flows in various countries. For instance, research investigating why mineral-resource-rich developing countries (LLDCs) in Central Asia are less attractive for foreign investment compared to other nations found that increased returns on capital, trade openness, and advanced infrastructure encourage FDI in the LLDCs. The study also found a positive correlation between a low level of corruption and FDI. An important finding indicated that no country with a high inflation rate, higher corporate tax rate, and political disruption would negatively impact FDI. Instead, there is a positive relationship between these factors and FDI inflow. The auditor suggested that poor decision-making frameworks in LLDCs encourage foreign investors to exploit this disadvantage (Ulzii-Ochir, 2019).

Another study examined the determinants of net FDI inflow to the Middle East and North Africa (MENA) region using static and dynamic data analysis for about 23 nations over 22 years starting in 1995. The study showed a significant impact of macroeconomic determinants (GDP growth rate, inflation rate, openness, and public expenditure) on FDI inflow in the 23 MENA countries covered (Abonazel & Shalaby, 2020).

The exchange rate encompasses all movements and changes that influence the depreciation or valuation of a country's currency (Martins, 2015). An exchange rate indicates the price of one currency relative to another (Canto & Wiese, 2018). Therefore, the exchange rate factor can be defined as the value of one country's currency that can be purchased or exchanged with another country's currency.

Previous studies have investigated the impact of the exchange rate on FDI inflow, such as Tan et al. (2021), which provided empirical evidence of a strong relationship between FDI inflow and exchange rates. Maqsood Ahmad et al. (2020) examined the contribution of remittances, employment rates, and exchange rates to Pakistan's economic growth from 1972 to 2019. The study found a long-run co-integration from the exchange rate to FDI and employment. A reduction in the real exchange rate of a nation might result in an increase in FDI inflow due to its influence on comparative wealth among countries (Froot & Stein, 1991). The auditor stated that depreciation in a country's exchange rate encourages foreign companies to turn to internal rather than external finance, as it becomes relatively more straightforward and less costly for their investment. Therefore, a decline in a country's currency value leads to an increase in the wealth of foreign companies, attracting more foreign businesses to the host country.

Moreover, the findings of this study indicate no correlation between the exchange rate and FDI in both the short and long term. Libya's local currency has been strong against the US dollar over the last three decades. However, in 2021, the Central Bank of Libya issued a law changing the exchange rate of the Libyan dinar (LYD) against the USD. The old rate was 1.39 LYD per USD in 2020. The new rate, effective immediately, changed to 4.51 LYD per USD. This decision was made in response to high inflation and a lack of liquidity in the country, which had become evident in recent years due to political and economic instability. Consequently, imposing a tax on selling foreign currency at the Central Bank of Libya "reduces the value of the local currency," potentially encouraging foreign investors to establish their businesses in Libya in the near future.

Defined as an economic metric representing a country's economic output allocated per individual, per capita GDP is calculated by dividing the total GDP by the population. This provides insight into individual contributions to economic production and living standards; therefore, the formula is "GDP/Population = GDP per capita" (Christopher & Douhlas, 2023). Previous studies have explored the significance of the per capita GDP factor, highlighting its importance in understanding a country's economic growth, productivity, debt and wealth value, and market investment dynamics. For example, a study investigating India's causality correlation between per capita GDP and FDI using panel data from 1970-2019 applied two types of Granger causality models. The results showed a positive relationship between FDI and GDP per capita in the long run, although not in the short run. The auditor suggested that India could improve by creating favourable investment conditions, such as promoting infrastructure development and domestic entrepreneurship and ensuring a steady macroeconomic framework

to enhance FDI's contribution to economic growth. The researcher also recommended that the government and policymakers encourage FDI to sustain long-term GDP per capita growth (Nadar, 2021). Test data indicates no causality relationship between Libya's per capita GDP and FDI variables. However, a study by Rayhan (2014) found a statistically significant relationship between foreign direct investment and per capita GDP in Bangladesh, covering the period from 1975 to 2012.

According to the International Labour Organization (ILO, 2016), the labour force includes all employed individuals and those unemployed but actively seeking a job. This highlights its importance in assessing the labour supply for production. The labour force participation rate measures the labour force, encompassing all employed individuals and those seeking employment. Economic growth refers to the rise in a country's gross domestic product (GDP) or per capita income, influenced by an increase in economic output from goods and services over a period of time (Oyedepo, 2024). Improving labour force participation is crucial for both advanced and developing economies (Eludire, 2023). Eludire's research investigates the contribution or impact of labour force participation in sectors such as industry, agriculture, and services on the economic growth of developed and developing countries. Her findings, based on testing panel data for 100 nations worldwide from 1970-2019, show that the labour force positively impacts the general economy of both developed and developing countries.

According to the United Nations Development Programme (2021), Libya's labour force is predominantly dominated by the public sector, employing around 75% of the workforce due to low private sector development and high reliance on state jobs. Libya's labour force, estimated at around 2.4 million people (2023), is crucial to the country's growth. However, recent political and economic conflicts have presented several challenges to the labour force. Youth unemployment reached over 50%, making Libya one of the nations with the highest youth unemployment rates globally (REACH, 2022). Therefore, promoting the private sector and encouraging foreign and domestic investment are essential for fostering sustainable economic growth in the country, as they can lead to increased job opportunities for young people and diversify employment opportunities.

Foreign direct investment (FDI) refers to investments made by a company or individual from one country into a company located in another country. FDI typically involves acquiring a controlling stake in a foreign company or establishing a new business venture in a foreign country. FDI has several impacts on the host country's economy, such as increasing capital supply and improving local companies' productivity.

Several studies have investigated FDI's impact on the oil and gas sector. Most researchers have identified significant effects, such as Dutch disease and technological issues. The term "Dutch disease" originated from the crisis in the Dutch economy during the 1960s when natural gas was discovered in the North Sea. This discovery increased the country's wealth but negatively affected other sectors like manufacturing and farming (Brincikova, 2016). Dutch disease is an economic phenomenon resulting from increased revenue from one particular sector, such as natural resources, which leads to decreased attention to other sectors, including manufacturing and agriculture. This issue often affects countries highly dependent on one sector, such as the oil and gas industry (Nejati & Bahmani, 2020).

Dutch disease creates several negative effects on a country's economy. For example, the discovery of larger natural resource reserves leads to an inflow of foreign currency, causing currency appreciation. As a result, local product prices become less attractive for export (Brincikova, 2016). An article published in the last decade (2010) examined Dutch disease and its structural implications for oil-producing countries from 1977 to 2004. The researcher found evidence supporting the existence of Dutch disease in response to oil price shocks. Additionally, oil market windfall disruptions significantly impact the manufacturing sector, with increased accessibility to capital markets for foreign investment. Higher capital intensity in manufacturing sectors leads to diminished effects from windfall shocks (Ismail, 2010).

In Libya, foreign capital in the oil and gas sector is a key priority and an essential factor for economic development (Moussa, 2009). Libya's economy substantially depends on oil and gas sector revenue, representing about 97% of the country's exports, over 90% of the state's fiscal income, and around 68% of the gross domestic product (GDP).

According to a study by Nejati and Bahmani (2020), increased production and employment in the oil and gas (OIG) sector negatively impacted the tradable sector. Based on information from UNCTAD (2018), Iran became an attractive destination for FDI, particularly in the oil and gas sectors, after the lifting of sanctions in 2015. FDI to Iran increased by USD 5 billion, approximately 50%, as foreign investors found the country's OIG reserves more desirable. However, this influx of FDI can lead to negative and positive outcomes, such as Dutch disease or productivity spillovers. The research indicated that FDI might lead to Dutch disease in a country's economy if not managed productively. If FDI in Iran leads to increased productivity, Dutch disease will be minimized or eliminated, resulting in increased output in other sectors and a decrease in the consumer price index.

Local companies' capacity to integrate new technologies is crucial in promoting technology spillover and reducing Dutch disease. The auditor suggested that the government

should invest revenue from the OIG sector into developing other sectors, such as infrastructure, tourism, education, etc. This investment can increase the opportunity to attract more FDI, contributing to the nation's development and economic growth in the non-oil sectors.

6.3. Analytical model

The study reviews econometric models and empirical results regarding the relationship between FDI inflows and Libya's economic growth (GDP). Considering the influence of factors such as per capita GDP, oil exports, exchange rate, inflation rate, and trade openness, the researcher tested the collected data using the EViews system from 1990-2021. The Autoregressive Distributed Lag (ARDL) model was selected for its advantages over Johansen's cointegration method. The ARDL model was created in 2001 by the auditor Pesaran.

There are several advantages that the ARDL model offers in econometric analysis:

- the ARDL strategy can be used with time series data containing a mixture of stationary and non-stationary variables, unlike Johansen's method, which requires all variables to be stationary,
- the ARDL model is more flexible, allowing for different lags for each variable, capturing dynamic relationships more effectively,
- the ARDL model can be applied to small sample sizes, whereas Johansen's method requires a larger sample size for reliable results,
- the ARDL model produces intuitive results that are easier to interpret, with the coefficients of lagged variables representing short-run relationships and the error correction term representing long-run relationships,
- the ARDL approach can test for cointegration even with structural breaks in the data, whereas Johansen's method assumes no structural breaks,

A set of measures and statistical tests were used to process the data, including:

- descriptive Statistical Tests: These describe variables in terms of homogeneity and locations using measures such as mean, correlation coefficient, skewness, and kurtosis,
- inferential Statistical Tests: The following tests were used to verify hypotheses:
    - multiple regression analysis,
    - coefficient of determination (R^2),
    - breusch-godfrey test (LM),
    - autoregressive conditional heteroskedasticity (ARCH),
    - multicollinearity (VIF),

- jarque-bera test,
- co-integration Approach (bound test).

Multiple Regression Analysis is used to determine the degree of the effect of multiple independent variables on the dependent variable using the ARDL model. It also tests the main hypotheses by considering all variables simultaneously.

Coefficient of Determination R2 examines the level of independent variables' impact on the dependent variable. It measures how well the regression model fits the observed data, with a value of 0 indicating no explanatory power and a value of 1 indicating that the model explains all the variability in the dependent variable.

Breusch-Godfrey Test (LM) is applied to examine autocorrelation in the model. Autocorrelation can lead to biased estimates of regression coefficients, lower precision in the estimates, and incorrect statistical inference.

Autoregressive Conditional Heteroskedasticity (ARCH) Test checks for heteroskedasticity in the residuals, which refers to a situation where the variance of the residuals is not constant across all values of the independent variables.

The multicollinearity problem (VIF) test means the Variance Inflation Factors (VIFs) measure the extent to which a predictor variable in a statistical model is affected by multicollinearity, a phenomenon where two or more predictor variables are highly correlated.

Jarque-Bera Test is used to check for normality in the residuals, essential for making valid inferences from the regression analysis. The null hypothesis of the test is that the data is usually distributed. If the p-value associated with the test is less than a pre-specified significance level of 0.05, the null hypothesis is rejected, indicating that the data does not follow a normal distribution.

The co-integration approach (The Bound test), which was established by Pesaran, Shin, and Smith in their 2001 paper, is used to find if there is co-integration (a long-term equilibrium relationship) between variables.

6.4. Hypothesis of the study

The study's primary hypothesis (H0) is that foreign direct investment plays an important role in Libya’s economic development. Furthermore, two supporting hypotheses have been formulated in the dissertation:

H1: There is a positive relationship between natural resources (crude oil and gas) and the attraction of foreign direct investment to Libya, with the significance of this factor being the greatest among all the variables studied.
H2: There is a positive relationship between the influence of FDI on GDP, and this factor is the most significant among all the variables studied.

To verify Hypothesis 1, and the impact FDI inflows to Libya the following factors was examined: the export of crude oil and gas, inflation, GDP per capita, trade openness, and exchange rate. To verify Hypothesis 2, the volume of the labour force, crude oil and gas exports, and FDI were analysed to demonstrate their contribution to Libya's economic growth.

To examine the impact of the independent variables on FDI, the following equation is presented:

$$\boldsymbol{FDI = \beta 0 + \beta 1 OT + \beta 2 PCGDP + \beta 3 OGE + \beta 4 INF + \beta 5 EXR + \varepsilon}$$

Where:

- FDI is the dependent variable,
- OT is trade openness,
- PCGDP is per capita GDP,
- OGE is oil and gas exports,
- INF is the inflation rate,
- EXR is the exchange rate of the local currency against USD,
- β0 is the intercept term,
- β1 - β5 are the coefficients for each of the independent variables, and
- ϵ is the error term.

To ensure that the ARDL model appropriately fits the data collected for the period 1990-2021, the following steps are undertaken:

First, to examine the hypotheses applied in this study, it is necessary to determine whether the ARDL model best fits the data collected from 1990 to 2021. This can be investigated through the following steps:

Statistical indicators analysis

Investigate statistical indicators for the variables to determine whether there is skewness, kurtosis, or symmetry in the data. This helps identify their centers of concentration, which will be taken into consideration during estimation.

Variables are organized as follows:

- Dependent Variable: Foreign Direct Investment (FDI)
- Independent Variables:
  - Inflation Rate (INF),
  - Exchange Rate (EXR) of the local currency (Libyan Dinar - LYD) to foreign currency (US Dollar - USD),
  - Oil and Gas Exports (O&GE),
  - Per Capita GDP (PC-GDP),
  - Openness Trade (OT).

To achieve this, the indicators listed in the table will be identified.

Table 21. Descriptive statistics

	Mean	Maximum	Minimum	Skewness	Kurtosis	Observations
FDI	8.801	56.580	-12.240	1.426	4.424	32
INF	23.181	265.800	-9.860	3.302	13.618	32
EXR	1.069	4.510	0.280	2.673	13.514	32
O&GE	39.081	66.700	18.500	0.264	1.699	32
PC-GDP	3.285	102.530	-41.390	1.267	6.148	32
OT	71.463	107.620	34.800	0.108	1.628	32

Source: Own calculations based on data collected from UNCTAD (2022).

According to the information in Table 21, the dependent variable, net inflow of FDI, had a minimum value of -12.240 in 2016. This decline in FDI can be attributed to the unstable economic and security situation in 2015 and 2016, stemming from the Libyan revolution in 2011. The maximum value of FDI occurred in 2007, reaching 56.580. During this period, Libya initiated its new project known as “Libya Alpha,” attracting many foreign companies to establish their businesses in the country. The mean value of FDI is 8.801, which is closer to the minimum value. This is indicated by the Pearson coefficient (Skewness = 1.426), which was positive and close to zero, illustrating that the FDI distribution is skewed to the right. The kurtosis coefficient (4.424) was more significant than 3, indicating a platykurtic distribution. Consequently, the FDI variable may suffer from residual estimation problems due to the non-

independence of the residuals from the normal distribution and the non-constancy of their variance.

The independent variable, Inflation (INF), had its lowest value of -9.860 in 2002, and its highest value of 265.800 occurred in 2005. The arithmetic mean was 23.181, indicating a tendency towards smaller values. This is confirmed by the Pearson skewness coefficient (3.302), which was positive and far from zero. It indicates that the inflation curve is positively skewed, causing its values to cluster towards the smaller values. The kurtosis coefficient value (13.618) was also greater than 3, indicating a platykurtic distribution. Therefore, the inflation variable may cause some standard prediction problems.

The independent variable, Exchange Rate (LYD), had its lowest value of 0.280 from 1990-1992, and its highest value of 4.510 occurred in 2021. This increase in the exchange rate was due to legislation issued by the Libyan Central Bank. The arithmetic mean was 1.069, indicating a tendency towards smaller values. This is confirmed by the Pearson skewness coefficient (2.673), which was positive and far from zero. It indicates that the exchange rate curve is positively skewed, causing its values to cluster towards the smaller values. The kurtosis coefficient value (13.514) was also greater than 3, indicating a platykurtic distribution.

Therefore, the exchange rate variable may cause some standard prediction problems. The independent variable, Oil and Gas Exports (O&GE), had a minimum value of 18.500 in 1998 and a maximum value of 66.700 in 2006, with an arithmetic mean of 39.081. This value is almost in the middle between the minimum and maximum values, but it leans slightly towards the minimum values. This is confirmed by the positive skewness coefficient (0.264), indicating a positive skewness that causes the values to cluster towards the minimum values. Additionally, the kurtosis coefficient (1.699) was less than 2, indicating a platykurtic distribution.

The independent variable, Per Capita GDP, had a minimum value of -41.390 in 2002 and a maximum value of 102.530 in 2012, with an arithmetic mean of 3.285. This value tends towards the minimum values, as confirmed by the positive skewness coefficient (1.267), indicating a positive skewness that causes the values to cluster towards the minimum values. Additionally, the kurtosis coefficient (6.148) was greater than 3, indicating a leptokurtic distribution. Therefore, the per capita GDP variable may cause some standard prediction problems.

The independent variable, Openness Trade (OT), had a minimum value of 34.800 in 1999 and a maximum value of 107.620 in 2009, with an arithmetic mean of 71.463. This value

tends towards the minimum values, as confirmed by the positive skewness coefficient (0.108), indicating a positive skewness that causes the values to cluster towards the minimum values.

The kurtosis coefficient (1.628) was less than 2, indicating a platykurtic distribution. Therefore, the openness trade variable may cause some standard prediction problems.

To determine the appropriate number of lag periods for all variables, the Akaike Information Criterion (AIC) test was used. The outcomes are shown in Table 22.

Table 22. The result of appropriate of determinate the leg periods

VAR Lag Order Selection Criteria
Endogenous variables: FDI_GDP INFLATION LYD OIL_GAZ PE_CAPITA TRADE
Exogenous variables: C
Date: 03/04/23 Time: 08:25
Sample: 1990 2021
Included observations: 30

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-689.0647	NA	5.36e+12	46.33764	46.61788	46.42729
1	-615.4953	112.8063*	4.62e+11*	43.83302*	45.79470*	44.46058*
2	-580.2507	39.94390	6.66e+11	43.88338	47.52649	45.04884

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Source: Own calculations based on data collected from UNCTAD (2022).

The Augmented Dickey-Fuller (ADF) method is a statistical test used to determine whether a time series is stationary. Stationarity refers to the property of a time series where its statistical properties, such as the mean, variance, and autocorrelation, do not change over time. The ADF test is an extension of the earlier Dickey-Fuller test and is used to check for the presence of a unit root in a time series. A unit root refers to a situation where a time series has a root of 1 in its autoregressive equation, indicating that it is not stationary. The ADF method is based on the null hypothesis $(H_0 : \beta = 0)$ which states that the time series of a variable is

non-stationary (a unit root), versus the alternative hypothesis $(H_1 : \beta < 1)$ which indicates that the time series of a variable is stationary. Table 23 illustrates the obtained result.

Table 23. The result from ADF model units root

Variables		Level			First deference		
		ADF statistics	p-value	decision	ADF statistics	p-value	decision
FDI	Constant	-1.077548	0.7114	Non-stationary	-3.024678	0.0443	stationary
	& Constant Trend	-0.943828	0.9372	Non-stationary	-8.538249	0.0000	stationary
	Non	-1.036844	0.2633	Non-stationary	-3.083821	0.0033	stationary
Inflation	Constant	-4.211030	0.0026	stationary	-	-	-
	& Constant Trend	-4.127559	0.0148	stationary	-	-	-
	Non	-3.653878	0.0007	stationary	-	-	-
Exchange Rate (LYD-USD)	Constant	0.684247	0.9898	Non-stationary	-1.383781	0.5768	Non-stationary
	& Constant Trend	-1.554053	0.7879	Non-stationary	-1.224085	0.8870	Non-stationary
	Non	1.518631	0.9652	Non-stationary	-4.380910	0.0001	stationary
Oil & Gas exports	Constant	-1.689901	0.4263	Non-stationary	-5.908530	0.0000	stationary
	& Constant Trend	-1.602174	0.7689	Non-stationary	-5.996030	0.0002	stationary
	Non	-0.895966	0.3201	Non-stationary	-6.023409	0.0000	stationary
Per capita-GDP	Constant	-6.273673	0.0000	stationary	-	-	-
	& Constant Trend	-6.167613	0.0001	stationary	-	-	-
	Non	-6.282245	0.0000	stationary	-	-	-
Openness Trade	Constant	-1.772215	0.3867	Non-stationary	-4.783692	0.0006	stationary
	& Constant Trend	-1.992258	0.5826	Non-stationary	-4.700804	0.0038	stationary

	Non	-0.343346	0.5531	Non-stationary	-4.858383	0.0000	stationary

Source: Own calculations based on data collected from UNCTAD (2022).

Based on the information provided, the observed significance level (p-value) for inflation and GDP per capita variables is less than the significance levels of 1%, 5%, and 10% for all cases (constant only, constant and trend, and non-constant and trend). Therefore, the time series for these variables are stationary at the level.

In contrast, the variables of FDI, exchange rate, oil and gas exports, and openness trade exhibit observed significance levels (p-values) more significant than the specified significance levels (1%, 5%, and 10%) in all cases (constant only, constant and trend, or non-constant and trend). This indicates that the time series for these variables are non-stationary. Consequently, they were tested at the first difference, where the observed significance levels (p-values) were less than the specified significance levels (1%, 5%, and 10%). The first order also includes the time series for variables such as FDI, exchange rate, oil and gas exports, per capita GDP, and openness to trade.

Based on the results of the previous three steps, the variables comprise a mixture of stationary at the level and stationary at the first difference. Therefore, the appropriate method for determining the causal relationship is the ARDL model, as it effectively determines the relationship between variables regardless of whether they are stationary at the level, first difference, or a combination of both.

To determine the type and level of the causality relationship between variables (per capita GDP, inflation rate, exchange rate, openness trade, oil and gas exports, and foreign direct investment (FDI)), the following eight steps of the ARDL model will be used: plot of variables distribution.

Plot of variables distribution

Graphs for the variables applied in the first main hypothesis, as shown below, will be created to determine their distribution shape and identify any significant structural changes that may affect the model. These changes will be addressed during the estimation process. The distributional form is as follows:

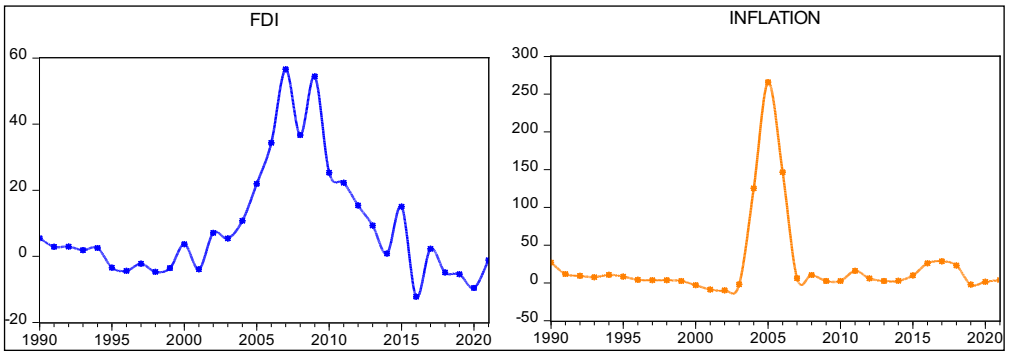


Figure 31. Variable distribution between (FDI and inflation)

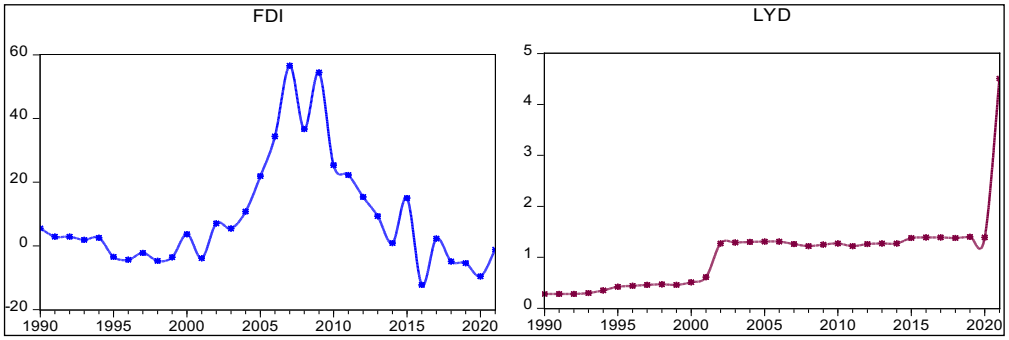


Figure 32. Variable distribution between (FDI and LYD)

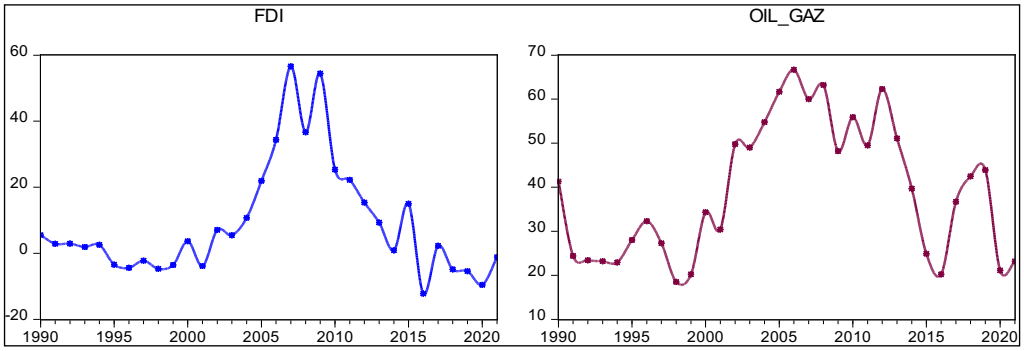


Figure 33. Variable distribution between (FDI and Oil and Gaz)

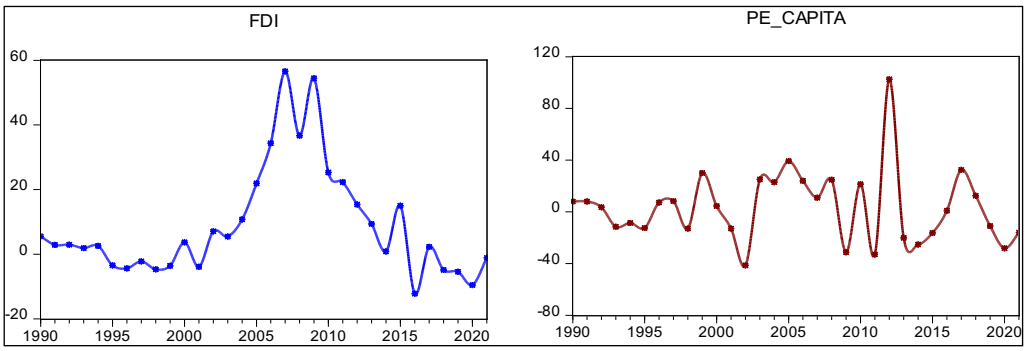


Figure 34. Variable distribution between (FDI and GDP pe-capital)

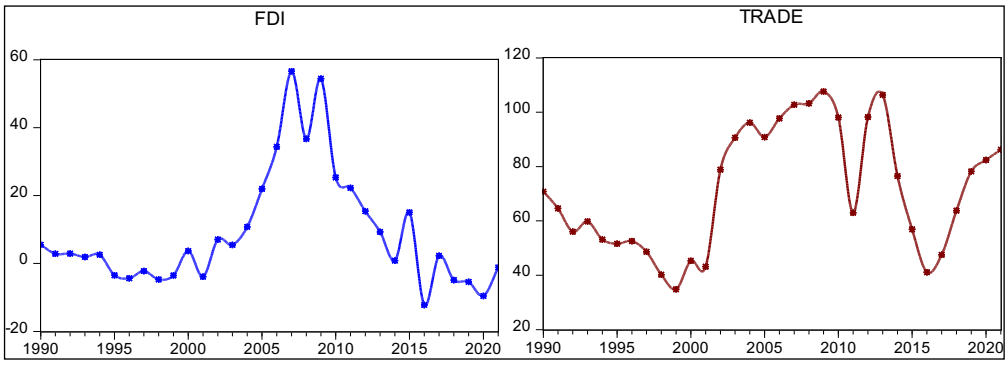


Figure 35. Variable distribution between (FDI and trade)

Source: Own elaboration based on data collected from UNCTAD (2022)

Figures 31-35 show that Foreign Direct Investment (FDI) experienced significant structural changes in 2007, 2009, and 2015. These changes were addressed during estimation to avoid their negative impact when testing the long- and short-term relationships between the dependent variable (FDI) and the independent variables: Inflation Rate (INF), Exchange Rate of the Libyan Dinar (LYD) to the US Dollar, Export of Oil and Gas (O&GE), Per Capita GDP, and Openness Trade. This was achieved by introducing the 2007, 2015, and 2019 variables.

The noticeable increase in FDI inflows during these years can be attributed to several factors. In 2007, Libya initiated extensive projects under the name "Libyan Alghad," aimed at developing various sectors, including transportation (e.g., building one of the largest airports in North Africa and starting the long road connecting Tunisia, Libya, and Egypt as part of a plan to link all North African countries), purchasing new planes, and constructing new hotels to boost the tourism sector.

The year 2015 marked a period of economic recovery in Libya following the revolution of 2011 and the subsequent civil war. During this time, Libya experienced a degree of economic and political stability, encouraging many foreign companies to return and continue their projects. However, this recovery was short-lived, as the civil war resumed in 2016, leading to the destruction of Tripoli's largest airport, known as "Libyan International Tripoli Airport." This resulted in a decline in FDI inflows until 2019, when the first government was selected by all Libyan political parties and citizens, paving the way for local and foreign investments in various sectors. Therefore, it can be concluded that political stability is the main factor influencing the inflow of FDI to the host country.

The time series (ARDL) model

Estimating time series data through an Autoregressive Distributed Lag (ARDL) model involves modelling the relationship between a dependent variable and one or more independent

variables lagged over time. ARDL models are commonly used to analyze time series data, as they can capture both the short-run and long-run effects of independent variables on the dependent variable. The results were presented in Table 24.

Table 24. The result of estimation of the ARDL effect model

Dependent Variable: FDI_GDP
Method: ARDL
Date: 02/27/23 Time: 10:18
Sample (adjusted): 1991 2021
Included observations: 31 after adjustments
Maximum dependent lags: 1 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (1 lag, automatic): INFLATION LYD OIL_GAZ PE_CAPITA TRADE
Fixed regressors: DAMMY2007 DAMMY2009 DAMMY2015 C
Number of models evaluated: 32
Selected Model: ARDL(1, 1, 1, 0, 0, 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
FDI (-1)	0.289205	0.107666	2.686133	0.0151
INF	0.002951	0.027554	0.107084	0.9159
INF (-1)	0.045146	0.024818	1.819079	0.0856
EXR	3.958515	1.863329	2.124431	0.0477
EXR (-1)	-12.61416	3.592110	-3.511629	0.0025
O&GE	0.556589	0.141094	3.944804	0.0009
PC-GDP	0.018992	0.042645	0.445335	0.6614
OT	-0.106665	0.106053	-1.005769	0.3279
OT (-1)	0.149378	0.102803	1.453053	0.1634
DAMMY2007	29.02917	6.119176	4.743967	0.0002
DAMMY2009	38.33795	5.823849	6.582923	0.0000
DAMMY2015	20.97444	5.250359	3.994858	0.0008
C	-14.72400	4.707952	-3.127475	0.0058
R-squared	0.954079	Mean dependent var		8.907484
Adjusted R-squared	0.923466	S.D. dependent var		17.33890
S.E. of regression	4.796780	Akaike info criterion		6.268861
Sum squared resid	414.1638	Schwarz criterion		6.870211
Log likelihood	-84.16735	Hannan-Quinn criter.		6.464886
F-statistic	31.16507	Durbin-Watson stat		2.452566
Prob(F-statistic)	0.000000			

*Note: P-values and any subsequent tests do not account for the model selection.

Source: Own calculation based on data collected from UNCTAD (2022).

The observed significance level (p-value = 0.00000) for the model was smaller than the significance level of 5%, indicating that the model as a whole is significant. Similarly, the variables (INF, EXR) in the first difference and the variable (O&GE) at the level, as well as the fixed constant (C), were statistically significant. However, the variables (PC-GDP and OT) were not statistically significant. Additionally, the R-squared value of 0.954079 indicates that the variables (O&GE, INF, EXR) were able to explain 95% of the variations in FDI during the period of the study (1990-2021), while the remaining 5% was attributed to other external factors, including random errors. Furthermore, the adjusted determination coefficient (Adjusted R-squared = 0.923466) indicates the robust estimated model.

The ARDL technique and standard problems

After confirming the significance of the model used, it is essential to investigate whether the estimated model includes any standard problems. Therefore, the following four steps need to be undertaken:

- Autocorrelation problem,
- The heteroskedasticity test (ARCH),
- Jarque-bera (normal distribution) test,
- Multicollinearity Problem (VIF) Test.

The Breusch-Godfrey Serial Correlation LM Test is used to check for the presence or absence of autocorrelation problems among the residuals. The Breusch-Godfrey test checks whether the residuals of a regression model exhibit significant autocorrelation at various lags. The null hypothesis states no autocorrelation, while the alternative hypothesis indicates significant autocorrelation in the residuals. If the test statistic is significant, the null hypothesis should be rejected, indicating evidence of autocorrelation in the residuals. The outcomes are presented below.

Table 25. Serial correlation LM test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.978893	Prob. F(2,16)	0.3971
Obs*R-squared	3.379668	Prob. Chi-Square(2)	0.1846

Source: Own calculations based on data collected from UNCTAD (2022).

From Table 25, it can be observed that the p-value (0.3971) is greater than the significance level. Therefore, the null hypothesis is not rejected, indicating that the residuals are not autocorrelated.

The ARCH test is designed to detect heteroskedasticity by examining the pattern of residuals over time. It assumes that the variance of the residuals is a function of both the past values of the residuals and the past values of the squared residuals. By analyzing these patterns, the test can determine whether there is evidence of heteroskedasticity and how to address it in statistical analysis. The results of the tested data are shown in Table 26.

Table 26. ARCH test

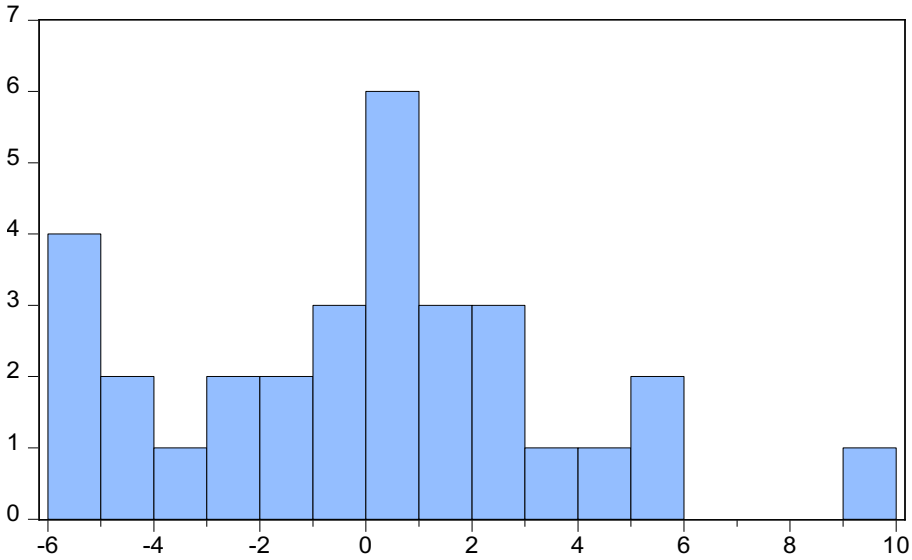
Heteroskedasticity Test: ARCH			
F-statistic	0.552888	Prob. F(1,28)	0.4633
Obs*R-squared	0.580909	Prob. Chi-Square(1)	0.4460

Source: Own calculations based on data collected from UNCTAD (2022).

It can be easily noticed that the p-value (0.4633) is greater than the significance level, indicating the acceptance of the null hypothesis that the residuals are homogeneous and do not have a heteroscedasticity issue.

The Jarque-Bera test is applied to determine if the data used is symmetric (skewness = 0) and has a normal peak (kurtosis = 3). If the calculated test statistic is higher than a critical value, it indicates that the data is not normally distributed.

Table 27. The normal distribution test of the residual of the model



Series: Residuals	
Sample 1991 2021	
Observations 31	
Mean	6.54e-15
Median	-7.11e-15
Maximum	9.208117
Minimum	-5.848747
Std. Dev.	3.715570
Skewness	0.294381
Kurtosis	2.787440
Jarque-Bera	0.506105
Probability	0.776427

Source: Own calculations based on data collected from UNCTAD (2022).

Table 27 shows that the p-value of the Jarque-Bera test was more significant than the significance level. Therefore, the null hypothesis is accepted, indicating that the residuals follow a normal distribution.

This method is applied to ensure that there is no multicollinearity between the independent variables such as the inflation rate, per capita GDP, exchange rate, oil exports, and openness trade. A high VIF value indicates that a predictor variable is highly correlated with other predictor variables and may contribute redundant information to the model. Generally, a VIF value greater than 5 or 10 is considered high and may indicate a problem with multicollinearity. The outcomes of testing the data are shown in Table 28.

Table 28. Variance inflation factors (VIF)

Variance Inflation Factors Date: 03/08/23 Time: 15:32 Sample: 1990 2021 Included observations: 31		
	Coefficient	Centered
Variable	Variance	VIF
FDI (-1)	0.011592	4.498089
INF	0.000759	3.121788
INF (-1)	0.000616	2.522714
EXR	3.471996	2.679646

EXR (-1)	12.90325	3.463513
O&GE	0.019908	6.270598
PC-GDP	0.001819	1.893771
OT	0.011247	7.875084
OT(-1)	0.010568	7.296596
DAMMY2007	37.44431	1.574874
DAMMY2009	33.91722	1.426528
DAMMY2015	27.56627	1.159412
C	22.16482	NA

Source: Own calculations based on data collected from UNCTAD (2022).

The VIF values for all variables were less than 10, indicating no multicollinearity issue among the variables used. Therefore, the estimated model is robust and does not exhibit any of the four main standard problems.

The co-integration approach (Bound Test)

The Bound Test, established by Pesaran, Shin, and Smith in their 2001 paper titled "Bounds Testing Approaches to the Analysis of Level Relationships," determines whether co-integration (a long-term equilibrium relationship) exists between variables. This method is applied in this study, and the results was presented in Table 29.

Table 29. The results of cointegration testing of the bounds model

Test Statistic	Value	k.
F-statistic	14.53642	5
value Bounds		
Signif	I(0)	I(1)
10%	2.08	3
5%	2.39	3.38
1%	3.06	4.15

Source: Own calculations based on data collected from UNCTAD (2022).

It can be noticed that the computed value for the F-test (F-statistic = 14.53642) is greater than the upper limit values of the F-test table, considering the sample size and degrees of freedom at the significance levels of 1%, 5%, and 10%. This indicates the presence of a co-integration between the variables.

The short-term relationship between the dependent and independent variables is estimated and presented in Table 30.

Table 30. The short-run relationship result

ARDL Error Correction Regression
Dependent Variable: D(FDI)
Selected Model: ARDL(1, 1, 1, 0, 0, 1)
Case 2: Restricted Constant and No Trend
Date: 03/08/23 Time: 14:30
Sample: 1990 2021
Included observations: 31

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INF)	0.002951	0.018434	0.160064	0.8746
D(EXR)	3.958515	1.323207	2.991607	0.0078
D(OT)	-0.106665	0.059757	-1.784971	0.0911
DAMMY2007	29.02917	4.901067	5.923031	0.0000
DAMMY2009	38.33795	4.549240	8.427331	0.0000
DAMMY2015	20.97444	4.300890	4.876767	0.0001
CointEq(-1)*	-0.710795	0.061024	-11.64788	0.0000

Source: Own calculations based on data collected from UNCTAD (2022).

Looking at the results in the table above, it can be noticed that the error correction coefficient was -0.710795, which is strongly significant. This indicates the presence of a long-term equilibrium relationship between the variables under study in the short term. Based on the error correction coefficient, we find that approximately 71% of the short-term deviation in the foreign direct investment (FDI) value in the previous period (t-1) can be corrected in the current period (t) to restore long-term equilibrium in the event of any shocks in the explanatory variables.

Estimating the long-run relationship was presented in Table 29.

Table 31. The result of the long-run relationship of the model

Levels Equation Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF	0.067666	0.039394	1.717662	0.1030
EXR	-12.17740	3.894728	-3.126638	0.0058
O&GE	0.783051	0.174653	4.483474	0.0003
PC-GDP	0.026719	0.058496	0.456758	0.6533
OT	0.060092	0.116998	0.513617	0.6138
C	-20.71483	4.878958	-4.245749	0.0005
EC = FDI - (0.0677*INFLATION -12.1774*LYD + 0.7831*OIL_GAZ +0.0267*PE_CAPITA + 0.0601*TRADE -20.7148)				

Source: Own calculations based on data collected from UNCTAD (2022).

As shown in Table 31, the independent variables (Oil and gas and Exchange Rate) were significant at the 1% level. Therefore, we reject the null hypothesis and accept the alternative hypothesis, which states that there is a long-term equilibrium relationship between foreign direct investment (FDI) and (O&GE, EXR). For instance, if the growth rate of oil and gas exports increases by 1%, the FDI inflow will increase by 0.783051%. Moreover, a decrease in the exchange rate by 1% will lead to an increase in the FDI growth rate by 12.17740%.

The stability test

This test, also known as the structure change test, investigates the stability of the coefficients of the equation, illustrating the existence of structural changes in the correlation (Najeh & Walid, 2019). The (CUSUM) and (CUSUMQ) methods are applied to verify that the data used in this research are free from other interrupted structural changes. Practically, the variables in the long- and short-run relationships during the time adopted in estimating the obtained modified model are tested. The results were presented in Figures 36-37.

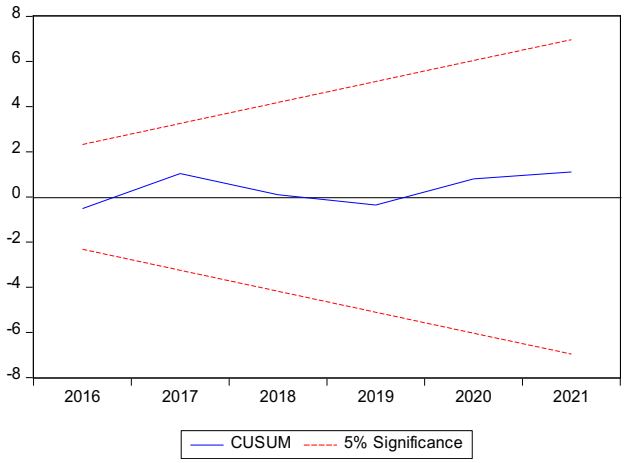


Figure 36. Cumulative sum of residuals test (CUSUM)
Source: Own elaboration based on data collected from UNCTAD (2022).

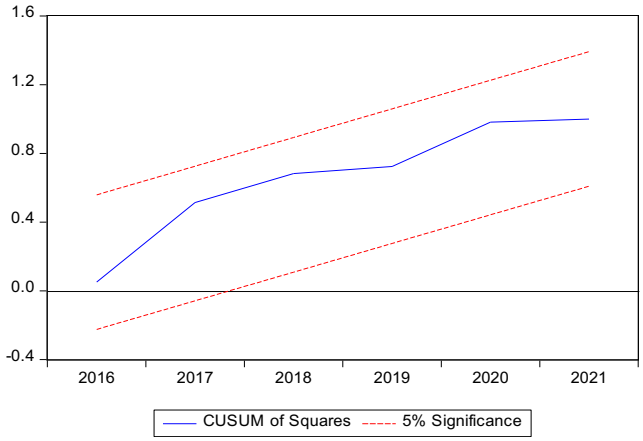


Figure 37. Cumulative sum of squares test for consecutive remainders (SUSUMQ)
Source: Own elaboration based on data collected from UNCTAD (2022).

It can be observed that the graphical representation of the test falls within the critical limits. This indicates the structural stability of the estimated coefficients using the error correction form of the autoregressive distributed lag model, according to the Cumulative Sum of Residuals (CUSUM) test and the Standardized Cumulative Sum of Squares of Residuals (CUSUMQ) test.

The Ramsey RESET test

The Ramsey RESET test is a statistical test used to determine if a linear regression model is misspecified, meaning that the model does not adequately capture the true relationship between the independent variables and the dependent variable. The test is named after the economist Frank P. Ramsey, who introduced it in a 1928 paper.

The Ramsey RESET test method was used to ensure that some variables were not neglected in the estimated model, thereby limiting the level of their impact. The results are shown in Table 32.

Table 32. The result of the Ramsey RESET test

Ramsey RESET Test Equation: EQ0_FDI Specification: FDI_GDP FDI_GDP(-1) INFLATION INFLATION(-1) LYD LYD(-1) OIL_GAZ PE_CAPITA TRADE TRADE(-1) DAMMY2007 DAMMY2009 DAMMY2015 C Omitted Variables: Powers of fitted values from 2 to 4			
	Value	**df**	**Probability**
F-statistic	2.701259	(3, 15)	0.0828

Source: Own calculations based on data collected from UNCTAD (2022).

The p-value of the F-test was greater than $(\alpha = 0.05)$. Therefore, the null hypothesis is accepted, indicating that the model is correct and does not contain any ignored variables. Through the results of the previous eight stages, it can be concluded that there is a long-term causal relationship between the independent variables (exchange rate EXR, oil and gas exports) and the dependent variable (foreign direct investment (FDI)). This relationship can be estimated using the following predictive formula:

$$\begin{aligned} \hat{FDI} = {} & 0.28920474581 * FDI\,(-1) + 0.00295062190026 * INFLATION + 0.0451459466556 \\ & * INFLATION\,(-1) + 3.95851531866 * EXCHANGE\ RATE - 12.614156585 \\ & * EXHANGE\ RATE\,(-1) + 0.556589238265 * OIL\_GAZ + 0.0189915242323 \\ & * PE\_CAPITA\ GPD \\ & - 0.106664969502 * OPENNESS\ TRADE + 0.149378057845 * OPENNESS\ TRADE\,(-1) \\ & + 29.0291701136 * DAMMY2007 + 38.3379512199 * DAMMY2009 + 20.974437979 * DAMMY2015 \\ & - 14.7240026517 \quad (6) \end{aligned}$$

To illustrate the relationship between the actual dependent variable (FDI) and the estimated dependent variable (FDI-HAT), represented by the blue slope and the red line respectively, refer to Figure 38.

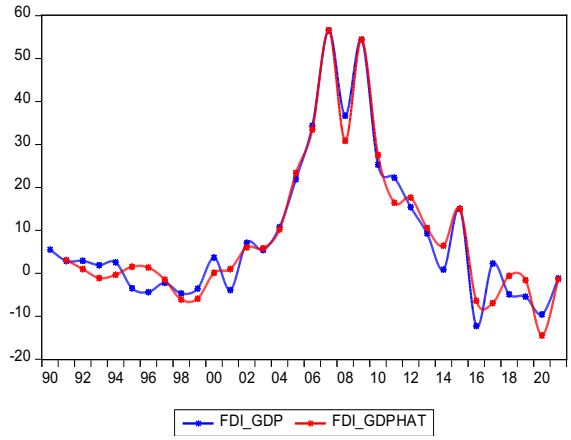


Figure 38. The relationship between actual and estimated dependent variable FDI
Source: Own elaboration based on data from UNCTAD (2022).

It can be clearly observed that the estimated variable for FDI has become more stable compared to the actual FDI, confirming the robustness of the estimated model used.

The estimated (future) relationship

The main objective of the hypothesis is to predict foreign direct investment (FDI) based on the independent variables: inflation rate, exchange rate, per capita GDP, openness trade, and oil and gas exports. The study covers the period from 1990 to 2021, and some values of the independent variables were projected for the next eight years (2022-2029). The expected results for FDI are presented in Table 33.

Table 33. The future relationship between dependent and independent variables from (2022-2029)

Year	FDIF rate	Inflation rate	Exchange rate	Oil_Gas export rate	Per_capita GDP rate	Openness trade rate
2022	-35.38	4.5	4.52	24	-14	70.22
2023	-47.65	6	4.53	24.5	-12	72.45
2024	-51.07	6.5	4.55	25	-10	77.54
2025	-51.14	8	4.6	25.6	-7	79.48
2026	-50.74	9	4.62	27	-5	81.4
2027	-50.42	9.5	4.7	27.4	-3	85.68
2028	-50.31	15	4.8	27.8	1	88.9
2029	-38.09	20	7.9	29	3	91.48

Source: Own calculations based on data collected data from UNCTAD (2022).

.

Therefore, the future movement of the variables is founded. For example, an increase in the independent variables is followed by an increase in FDI.

The following predictive Figure 39 illustrates that the prediction is under control:

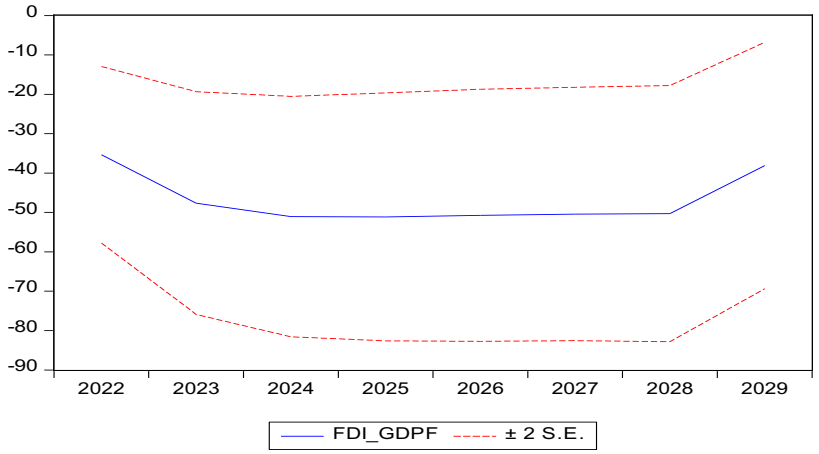


Figure 39. FDI future (FDIF) result from (2022-2029)

Source: Own elaboration based on data from UNCTAD (2022).

Statistical evidence supporting the first auxiliary hypothesis

The first supported hypothesis aims to determine the macroeconomic factors that impact the inflow of FDI to Libya, such as the exchange rate, inflation, trade openness, oil and gas export, and GDP per capita in Libya for the period 1990-2021. The Autoregressive Distributed Lag (ARDL) model was used. Based on the findings from the first three steps, it was indicated that the variables were a mixture of stationary at the level and stationary at the first difference. For example, the first step involves studying certain variables to determine whether the data is skewed (lopsided), has high or low peaks (kurtosis), or is symmetrical (evenly distributed). These measurements provide insights into the shape and distribution of the data.

Using the Akaike Information Criterion (AIC) test in the Vector Autoregression (VAR) model, the second step determined the number of lag periods for all variables. The result was lag (1) and AIC (43.83302). The third step involves investigating the presence of a unit root in a time series using the Augmented Dickey-Fuller (ADF) test. This method determines whether a time series is stationary or not. Variables such as per capita GDP and inflation were found to be stationary at the level, as their p-values were less than the significance levels of 1%, 5%, and 10%. For inflation, the p-values were constant (0.0026), constant and trend (0.0148), and non-constant and trend (0.0007). For per capita GDP, the p-values were constant (0.000), constant and trend (0.0001), and non-constant and trend (0.0000). For the rest of the variables, such as openness trade, exchange rate, FDI, and oil and gas export, the time series were non-

stationary at the level because the observed significance levels (p-values) were greater than 1%, 5%, and 10%. The p-values were as follows:
Openness Trade: constant (0.3867), constant and trend (0.5826), non-constant and trend (0.5531) Exchange Rate: constant (0.9898), constant and trend (0.7879), non-constant and trend (0.9652) FDI: constant (0.7114), constant and trend (0.9372), non-constant and trend (0.2633) O&GE: constant (0.4263), constant and trend (0.7689), non-constant and trend (0.3201).

However, when these variables were tested at the first difference, they were found to be stationary: Openness Trade: constant (0.0006), constant and trend (0.0038), non-constant and trend (0.0000) Exchange Rate: constant (0.5768), constant and trend (0.8870) non-stationary, non-constant and trend (0.0001) stationary FDI: constant (0.0443), constant and trend (0.0000), non-constant and trend (0.0033) O&GE: constant (0.0000), constant and trend (0.0002), non-constant and trend (0.0000).

The findings show that the residuals are not autocorrelated, as the F-statistic (0.3971) is greater than the value obtained using the Breusch-Godfrey Serial Correlation LM test. The Heteroskedasticity Test (ARCH) result indicates that the residuals are homogeneous and free from heteroskedasticity issues (p-value = 0.4633). The typical distribution test outcomes indicate that the p-value (0.776427) is more significant than 0.05, and the residuals follow a normal distribution in their changes. Using the Variance Inflation Factors (VIF) method, all variable figures are lower than 10, indicating no multicollinearity issue. The Bounds model was applied, and the F-test (F-statistic = 14.53642) is higher than the value level of the F-test (1%, 5%, 10%). The variables such as FDI, openness trade, exchange rate, per capita GDP, and oil and gas export are co-integrated, indicating the presence of a long-term equilibrium relationship. There is a positive relationship between the independent variables (inflation, oil and gas exports, the local currency exchange rate against USD) and the dependent variable (FDI) in the short run. However, no short-run relationship between openness trade and GDP per capita was found. The error correction coefficient was -0.710795, indicating that approximately 71% of the short-term deviation of FDI in the previous period (t-1) can be corrected in the current period (t) to re-establish long-term equilibrium in case of any shocks to the variables.

The alternative hypothesis of research is that there is a positive relationship between natural resources (crude oil and gas) and the attraction of foreign direct investment to Libya was accepted, indicating a positive causal relationship between oil and gas exports, exchange rate, and FDI in the long run. Therefore, the null hypothesis was rejected. An increase in oil

and gas export revenue by 1% would lead to an increase in FDI inflow by 0.783051 times. A decrease in the exchange rate of the local currency against USD by 1% would lead to an increase in FDI inflow by 12.17740 times. No long-run relationship was found for per capita GDP, inflation, and openness trade with foreign direct investment. The Ramsey RESET test revealed that the functional form of the employed model is favourable. The future direction of the dependent variable (FDI) movement until 2029 is expected to show an increase in the independent variables (inflation rate, exchange rate, per capita GDP, openness to trade, and oil and gas), followed by an increase in FDI.

In conclusion, examining the first hypothesis using the ARDL model revealed that the independent variables (oil and gas exports and exchange rate) were the main influential factors on FDI out of all five factors applied. These variables showed a significant positive impact in both the short and long run. An increase in oil and gas exports led to an increase in foreign direct investment, contributing to economic growth in Libya. Additionally, when revenue from oil exports increases, it helps invest in developing non-oil sectors such as infrastructure, telecommunication, tourism, and agriculture. It funds domestic investments, making the country a favourable destination for foreign direct investment. Furthermore, the inflation rate does not have a long-term effect on FDI but shows a short-run positive insignificant impact on FDI flows into Libya. Inflation in Libya is temporary and caused by political conflict and economic instability. Since 2011, there has been significant fluctuation in the local currency (LYD) against foreign currencies. The findings align with the study by Khamis, Mohd, and Muhammad (2015), which found that inflation does not affect FDI inflow in the United Arab Emirates due to inflation being under the threshold level. However, the findings contradict the study by Kunofiwa (2018), which found that inflation positively impacts FDI inflow in southern Africa. High inflation can benefit foreign investors by purchasing assets like properties, lands, and local companies at lower costs and gaining market control with minimal foreign currency expenditure.

The second auxiliary hypothesis

This part of the chapter examines the causality relationship between the independent variables (oil and gas export, labour force, foreign direct investment) and the dependent variable (gross domestic product, GDP). The aim is to determine the impact of these variables. For example, oil and gas exports generate impressive revenue for oil-rich nations, improving trade openness and positively contributing to GDP. A proficient labour force elevates economic output by

increasing efficiency and innovation. Improved employment rates and labour quality lead to more outstanding economic contributions. Foreign direct investment strengthens economic stability by diversifying income sources beyond domestic production. FDI leads to industrial development, job creation, technology transfer, and capital flows. Therefore, the second hypothesis investigates these factors' contribution level to Libya's GDP.

The second supported hypothesis (H2) is that there is a positive relationship between the influence of FDI on GDP, and this factor is the most significant among all the variables studied. To verify Hypothesis 2, the volume of the labour force, crude oil and gas exports, and FDI were analysed to demonstrate their contribution to Libya's economic growth.

To examine the impact of the independent variables outlined in the above second hypothesis on the dependent variable GDP, the following equation is presented:

$$\boldsymbol{GDP = \beta 0 + \beta 1 LF + \beta 2 FDI + \beta 3 OGE}$$

Where GDP is the dependent variable, OGE is oil and gas exports, FDI is foreign direct investment, LF is labour force, β0 is the intercept term, β1 – β3 are the coefficients for each of the independent variables, and ε is the error term.

Following the strategy applied in testing the first hypothesis, three steps must be undertaken before testing the second main hypothesis to choose the best model fit using the collected data for the period 1990-2021:

The first step is to investigate some statistical indicators for the variables to determine whether the data has skewness, kurtosis, or symmetry. The indicators can be found in Table 34.

Table 34. Descriptive statistics

Variables	Mean	Maximum	Minimum	Skewness	Kurtosis	Observations
GDP	47.82313	92.54	20.48	0.597168	2.202627	32
FDI	549.9625	3850	-611	1.601608	4.620067	32
LF	1803.197	2279.86	1178.115	-0.44995	1.892624	32

O&GE	2846.234	47720	5.612	3.666391	14.9681	32

Source: Own calculations based on data collected from UNCTAD (2022).

The dependent variable is the Gross Domestic Product (GDP). The lowest value was 20.48 in 2002, whereas the highest value appeared in 2012, reaching 92.54. The mean was 47.82313, which is closer to the lower values, as confirmed by Pearson's coefficient of skewness (0.597168), indicating that the GDP curve is skewed to the right. The volatility coefficient of kurtosis (2.202627) lies between 2 and 3, indicating moderate kurtosis. Therefore, the foreign direct investment (FDI) variable may suffer from residual variance issues.

The independent variable FDI had its lowest value of -611 in 2016, and its highest value of 3850 occurred in 2007. The arithmetic mean is 549.9625 and tends towards smaller values, as confirmed by Pearson's coefficient of skewness (1.601608), which is positive and far from zero. This indicates that the FDI curve experiences positive skewness, causing its values to cluster towards smaller values. The kurtosis coefficient value (4.620067) is greater than 3, indicating that the curve is more platykurtic than average. Therefore, the independent variable FDI may result in standard issues when included in the prediction process.

The independent variable labour force (LB) had its lowest value of 1178.115 in 1990, and its highest value of 2279.86 occurred in 2021. The mean is 1803.197, heading towards larger values, as confirmed by Pearson's skewness coefficient of -0.44995, indicating that the LB curve suffers from negative skewness, causing its values to cluster towards larger values. The kurtosis coefficient value (1.892624) is less than 2, indicating a platykurtic distribution, suggesting that the LB variable may cause some standard problems in the prediction process.
The independent variable oil and gas export (O&GE) had a minimum value of 5.612 in 1998 and a maximum value of 47,720 in 2007, with an arithmetic mean of 2846.234, tending towards smaller values. This is supported by Pearson's skewness coefficient (3.666391), which is positive and not close to zero, indicating that the O&GE curve experiences positive skewness, causing its values to cluster towards smaller values. Additionally, the kurtosis coefficient value (14.9681) is greater than 3, indicating a platykurtic distribution.

To determine the applicable number of lag periods for all variables, the Schwarz Criterion (SC) test was applied. The results are shown in Table 35.

Table 35. The result of the leg period

VAR Lag Order Selection Criteria
Endogenous variables: GDP FDI LAB CRU
Exogenous variables: C
Date: 03/08/23 Time: 16:21
Sample: 1990 2021
Included observations: 30

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-894.5942	NA	1.22e+21	59.90628	60.09310	59.96604
1	-800.3959	156.9970	6.74e+18	54.69306	55.62719*	54.99190
2	-776.1197	33.98675*	4.13e+18*	54.14131*	55.82275	54.67922*

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Source: Own calculations based on data collected from UNCTAD (2022).

The Augmented Dickey-Fuller (ADF) test is used to verify the stability of the time series, ensuring that its variances and means remain constant over time to avoid spurious regression. This method is based on the null hypothesis that the time series of a given variable is non-stationary (i.e., has a unit root), while the alternative hypothesis is that the time series is stationary. By applying the EViews software, the obtained results are shown in Table 36.

Table 36. The result of the unit root model

Variables		Level			First deference		
		ADF statistics	p-value	decision	ADF statistics	p-value	decision
GDP	Constant	-2.186558	0.2149	Non-stationary	-7.140077	0.0000	stationary
	Constant Trend &	-2.663721	0.2572	Non-stationary	-7.084437	0.0000	stationary
	Non	-0.639432	0.4321	Non-stationary	-7.258241	0.0000	stationary
FDI	Constant	-1.430472	0.5546	Non-stationary	-5.566607	0.0001	stationary

	Constant Trend &	-1.318322	0.8644	Non-stationary	-5.585282	0.0004	stationary
	Non	-1.373491	0.1540	Non-stationary	-5.659702	0.0000	stationary
LF	Constant	-1.163708	0.6766	Non-stationary	-3.749708	0.0084	stationary
	Constant Trend &	-2.243858	0.4498	Non-stationary	-3.763441	0.0337	stationary
	Non	1.627686	0.9718	Non-stationary	-2.383802	0.0189	stationary
O&GE	Constant	-2.424813	0.1437	Non-stationary	-13.56563	0.0000	stationary
	Constant Trend &	-2.360781	0.3910	Non-stationary	-13.34695	0.0000	stationary
	Non	-2.235064	0.0267	stationary	-13.80575	0.0000	stationary

Source: Own calculations based on data collected from UNCTAD (2022).

As noticed in the table above, the significance level (p-value) for all variables (Gross Domestic Product (GDP), Foreign Direct Investment (FDI), labour force (LF), and oil and gas export (O&GE))—whether in the case of a constant only, a constant and trend, or neither constant nor trend—is greater than the significance levels of 1%, 5%, and 10%. This illustrates that the time series of the mentioned variables are non-stationary at the level. Therefore, they were tested at the first difference, where the significance level (p-value) was less than the specified significance levels of 1%, 5%, and 10%. Consequently, the time series of the variables (GDP, FDI, LF, O&GE) are integrated in the first order.

Based on the results of the previous three steps, the empirical results indicated that the variables were a mixture of stationary at the level and stationary at the first difference. Therefore, the appropriate method for determining the causal relationship is the Autoregressive Distributed Lag (ARDL) model. This method is capable of estimating the relationship between variables, whether they are stationary at the level, first difference, or a mixture of both.

After determining the level of stability and selecting the appropriate method, the next step is to build an initial perception of the direction and strength of this relationship. For this, the Pearson correlation coefficient was used, as shown in the results:

Table 37. The correlation coefficient matrix

		GDP	FDI	LAB	CRU
GDP		1	0.536	0.697	0.201

Source: Own calculations based on data collected from UNCTAD (2022).

As demonstrated in Table 37, there is an insignificant negative correlation between the dependent variable, Gross Domestic Product (GDP), and the independent variable, oil and gas export (O&GE). Conversely, a strong positive correlation exists between the GDP and the independent variables, foreign direct investment (FDI) and labour force (LB). Despite the observed correlations, they do not provide sufficient evidence for an actual causal relationship, as these correlations may be spurious. Consequently, a more accurate method, such as the standard regression model, should be applied to ensure causality between the variables. This process involves eight stages:

The plot of variable distributions

The dependent and independent variables are represented in a graph to understand their dispersion type and identify any significant structural changes that may affect the model and need to be addressed during the estimation. The scatter plot is shown in Figure 40.

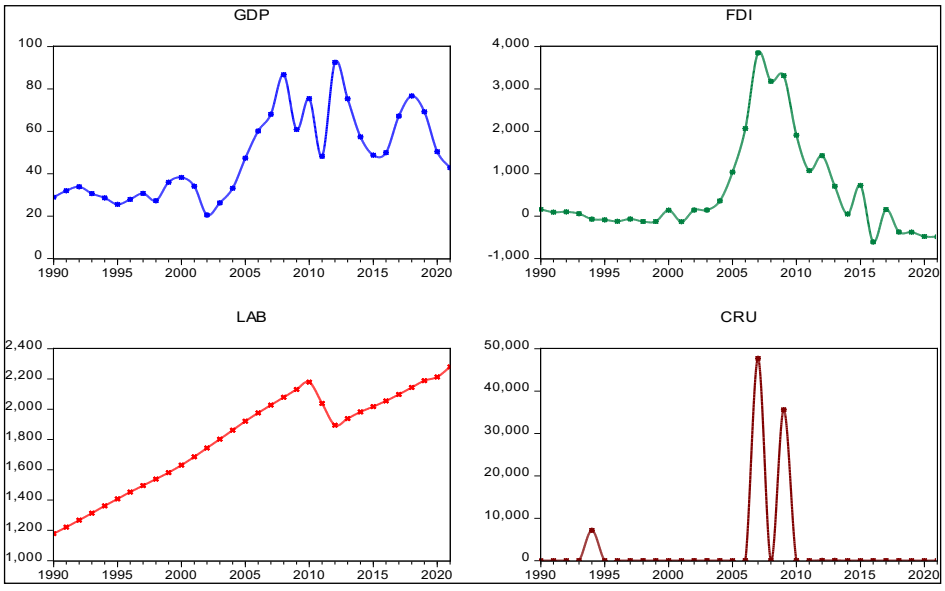


Figure 40: the scatter plot figure for GDP, FDI, LAB and CRU
Source: Own elaboration based on data collected from UNCTAD (2022).

It can be observed that the GDP variable experienced significant structural changes in the years 2011, 2012, and 2018. However, these changes were addressed during the estimation

process to mitigate their negative impact on long- and short-term relationships by introducing dummy variables for the aforementioned years.

The times series (ARDL) model

The time series was assessed using the Autoregressive Distributed Lag (ARDL) model, with the results presented in Table 38.

Table 38. ARDL model estimated the impact of (FDI, LF and O&GE) on (GDP)

Dependent Variable: GDP
Method: ARDL
Date: 03/08/23 Time: 16:23
Sample (adjusted): 1991 2021
Included observations: 31 after adjustments
Maximum dependent lags: 1 (Automatic selection)
Model selection method: Schwarz criterion (SIC)
Dynamic regressors (1 lag, automatic): CRU LAB FDI
Fixed regressors: DAMMY2011 DAMMY2012 DAMMY2018 C
Number of models evaluated: 8
Selected Model: ARDL(1, 0, 0, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	0.508744	0.107293	4.741646	0.0001
CRU	-0.000542	0.000189	-2.860508	0.0088
LAB	0.012141	0.006569	1.848211	0.0775
FDI	0.008004	0.001830	4.374065	0.0002
DAMMY2011	-21.29490	8.225891	-2.588765	0.0164
DAMMY2012	35.85827	8.058182	4.449921	0.0002
DAMMY2018	21.70925	8.248771	2.631816	0.0149
C	-2.196497	9.253975	-0.237357	0.8145
R-squared	0.888342	Mean dependent var		48.43355
Adjusted R-squared	0.854360	S.D. dependent var		20.08834
S.E. of regression	7.666280	Akaike info criterion		7.129176
Sum squared resid	1351.752	Schwarz criterion		7.499237
Log likelihood	-102.5022	Hannan-Quinn criter.		7.249807
F-statistic	26.14101	Durbin-Watson stat		1.874985
Prob(F-statistic)	0.000000			

*Note: P-values and subsequent tests do not account for model selection.

Source: Own calculations based on data collected from UNCTAD (2022).

The level of significance observed (p-value=0.00000) for the model is smaller than the significance level of 5%, indicating that the model is significant. Furthermore, the independent variables (LB, O&GE, and FDI) are statistically significant. The R-squared value of 0.888342 suggests that the independent variables (labour force, oil and gas export, and foreign direct investment FDI) explain 0.89 of the variations in the dependent variable (gross domestic product GDP) during the study period (1990-2021). The remaining 0.11 is attributed to other factors, including random error. Additionally, the adjusted determination coefficient (adjusted R-squared=0.854360) confirms that the estimated model is favourable.

The ARDL technique and standard problems

Ensuring that the model does not include any standard problems is essential at this stage. This involves the following four steps:

- Autocorrelation problem,
- The heteroskedasticity test ARCH
- Jarque-bera test (normal distribution) test,
- Multicollinearity Problem (VIF) Test.

The Breusch-Godfrey Serial Correlation LM Test was used to verify the presence of autocorrelation between the residuals. The result is presented in Table 39.

Table 39. The autocorrelation problem test result

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.238335	Prob. F(2,21)	0.7900
Obs*R-squared	0.688038	Prob. Chi-Square(2)	0.7089

Source: Own calculations based on data collected from UNCTAD (2022).

It is clear that the p-value=(0.7900) which is greater than $(\alpha = 0.05)$, it can be indicated that the null hypothesis is accepted, as the residuals are not autocorrelated. This method is used to ensure the existence of heteroskedasticity in the residuals.

Table 40. the result of the model used

Heteroskedasticity Test: ARCH			
F-statistic	0.213878	Prob. F(1,28)	0.6473

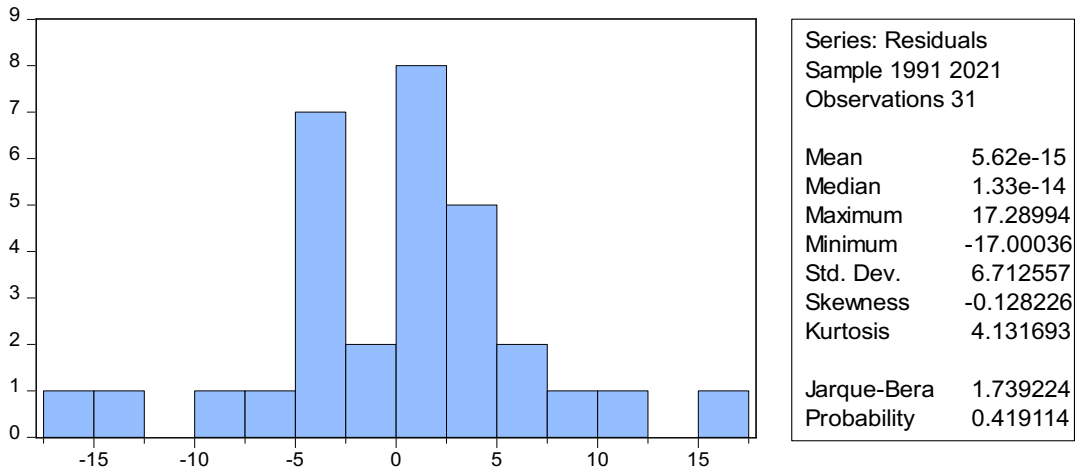
Obs*R-squared	0.227417	Prob. Chi-Square(1)	0.6334

Source: Own calculations based on data collected from UNCTAD (2022).

As observed in Table 40, the p-value (0.6473) is greater than $(\alpha = 0.05)$ which leads to the acceptance of the null hypothesis. This indicates that the residuals are homogeneous and do not suffer from heteroscedasticity issues.

The Jarque-Bera test (the normal distribution) is applied to check whether the residuals follow a normal distribution in their changes:

Table 41. Test of the model for the normal distribution of the residual



Source: Own elaboration based on data collected from UNCTAD (2022).

As illustrated in Table 41, the p-value of the Jarque-Bera test is greater than the significance level, thereby supporting the null hypothesis, which states that the residuals follow a normal distribution in their changes.

The multicollinearity problem (VIF) test or as known the variance inflation factors (VIF) test was used to verify no multicollinearity issue between the independent variables, such as labour force, foreign direct investment, and oil and gas export. The results are presented in Table 42.

Table 42.The variance inflation factors (VIF) test result

Variance Inflation Factors
Date: 03/08/23 Time: 20:23
Sample: 1990 2021
Included observations: 31

	Coefficient	Centered
Variable	Variance	VIF
GDP(-1)	0.011512	2.438610
CRU	3.59E-08	2.031396
LAB	4.32E-05	2.185341
FDI	3.35E-06	2.319019
DAMMY2011	67.66529	1.114182
DAMMY2012	64.93429	1.069213
DAMMY2018	68.04223	1.120389
C	85.63605	NA

Source: Own calculations Test of the model for the normal distribution of the residual.

Based on the results obtained from the Variance Inflation Factors (VIF) test, which were all less than 10, we can confirm that there is no multicollinearity problem among the independent variables (LF, FDI, and O&GE). To conclude, after evaluating the model through the previous four steps, it can be stated that the estimated model does not exhibit any of the aforementioned standard problems.

The co-integration approach (Bound Test)

Using the Bound test, the next step is determining the long-term equilibrium (co-integration) between the variables.

Table 43. The result of the cointegration model test of Bounds

Test Statistic	Value	k.
F-statistic	7.475615	3
Value Bounds		
Signif	I(0)	I(1)
10%	2.37	3.2
5%	2.79	3.67
1%	3.65	4.66

Source: Own calculations variance inflation factors.

As observed in Table 43, the calculated value for the F-statistic (7.475615) is greater than the upper-tabled values for the F-test across the significance levels of 1%, 5%, and 10%,

based on the sample size and degrees of freedom. This indicates the presence of cointegration between the variables.

As the cointegration between variables is supported according to the Bounds test, we can now determine the short-run relationship presented in Table 44.

Table 44. The result of testing the short-run relationship between variables

ARDL Error Correction Regression
Dependent Variable: D(GDP)
Selected Model: ARDL(1, 0, 0, 0)
Case 2: Restricted Constant and No Trend
Date: 03/08/23 Time: 20:28
Sample: 1990 2021
Included observations: 31

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DAMMY2011	-21.29490	7.131781	-2.985916	0.0066
DAMMY2012	35.85827	7.191387	4.986281	0.0000
DAMMY2018	21.70925	7.311020	2.969387	0.0069
CointEq(-1)*	-0.491256	0.074162	-6.624093	0.0000

Source: Own calculations based on data collected from UNCTAD (2022).

Table 42 shows that the error correction term has a value of -0.491256, which is highly significant. This confirms that there is a long-run equilibrium relationship between the variables under study in the short run. Additionally, based on the error correction term value, we find that approximately 49% of the short-term disturbances in the previous period's (t-1) gross domestic product (GDP) value can be corrected in the current period (t) to restore long-term equilibrium in the event of any changes or shocks in the explanatory variables.

The estimation of the long-run relationship between the variables was presented in Table 45. The results of the model test for the long-run relationship are as follows:

Table 45. Long run relationship between variables

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.

O&GE	-0.001103	0.000477	-2.310193	0.0302
LAB	0.024714	0.010571	2.337801	0.0285
FDI	0.016292	0.004823	3.378245	0.0026
C	-4.471189	18.53194	-0.241269	0.8115
EC = GDP - (-0.0011*CRU + 0.0247*LAB + 0.0163*FDI -4.4712)				

Source: Own calculations based on data collected from UNCTAD (2022).

It be noticed that the independent variables (Oil and Gas Export O&GE, Labour Force LB, and Foreign Direct Investment FDI) were significant at the 5% level. Therefore, we reject the null hypothesis and accept the alternative hypothesis, which states that there is a long-term equilibrium relationship between the dependent variable, Gross Domestic Product (GDP), and the independent variables (Oil and Gas Export O&GE, Labor Force LB, and Foreign Direct Investment FDI). Specifically, an increase in the labour force by one person leads to an increase in GDP by 0.024714 units of measurement. Similarly, an increase in FDI by one US dollar results in a rise in GDP by 0.016292 units. Conversely, a decrease in O&GE by one dollar corresponds to an increase in GDP by 0.001103 dollars.

The stability test

The CUSUM and SUSUMQ methods were used to ensure that the collected data in this study does not exhibit any other structural changes, particularly concerning the parameters of the long-run and short-run relationships during the estimation period. The outcome is presented below:

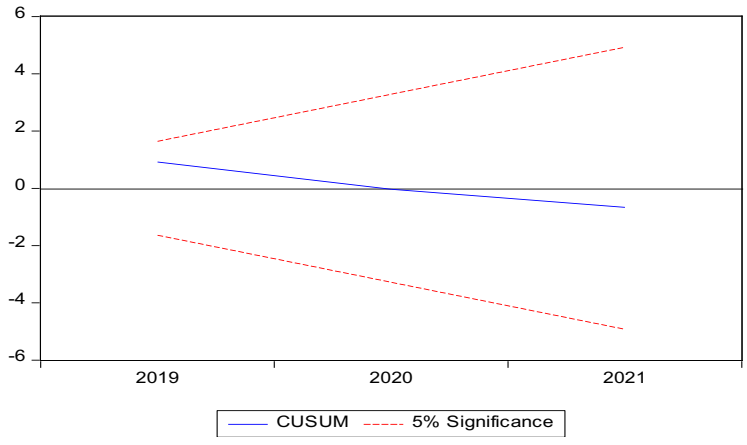


Figure 41. Cumulative sum test (CUSUM)

Source: Own elaboration based on data collected from UNCTAD (2022).

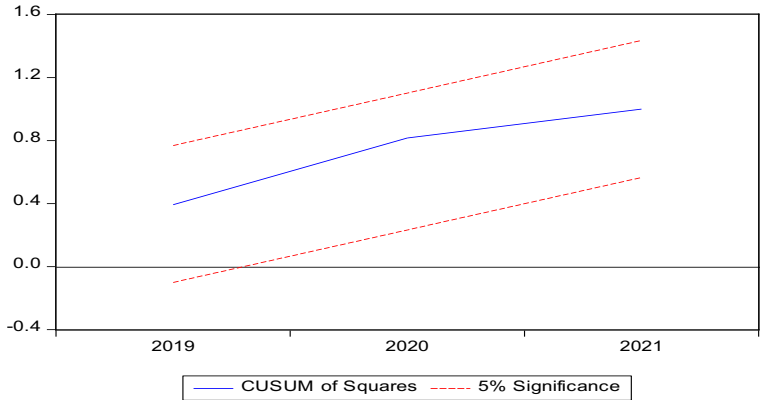


Figure 42. Cumulative sum of squares test (SUSUMQ)

Source: Own elaboration based on data collected from UNCTAD (2022).

As illustrated in Figures 41 and 42, the graphical representation of the test falls within the critical bounds, indicating the structural stability of the estimated coefficients using the error correction formula for the autoregressive model of distributed time gaps. This conclusion is based on the cumulative sum residual test (CUSUM) and the sum of squares of consecutive residuals test (SUSUMQ).

The Ramsey RESET Test

The Ramsey RESET Test was used to verify that the estimated model has not neglected any variables which would limit the level of their impact. The results are presented in Table 46.

Table 46. The result of the Ramsey RESET test

Ramsey RESET Test Equation: EQ_OK Specification: GDP GDP(-1) CRU LAB FDI DAMMY2011 DAMMY2012 DAMMY2018 C Omitted Variables: Squares of fitted values			
	Value	df	Probability
t-statistic	0.209399	22	0.8361
F-statistic	0.043848	(1, 22)	0.8361

Source: Own calculations based on data collected from UNCTAD (2022).

The p-value of the F-test was more significant than the significance level; therefore, it confirms the acceptance of the null hypothesis, which states that the model is correct and does not include any omitted variables.

Based on the empirical results of the eight previous stages, it can be concluded that there is a long-term causality relationship between oil and gas export (O&GE), the labour force (LB), foreign direct investment (FDI), and gross domestic product (GDP). The following formula can predict this relationship:

$$\widehat{GDP} = 0.508744420389 * GDP_{(-1)} - 0.000541756218448 * CRU + 0.0121407178979 * LAB + 0.00800376040839 * FDI - 21.2949015546 * DAMMY2011 + 35.8582719999 * DAMMY2012 + 21.7092451455 * DAMMY2018 - 2.19649666743_{(4)}$$

In order to find the relationship between the real dependent variable, GDP, the blue trend, and the estimated dependent variable(GDP), the ready trend. They were represented graphically, as below:

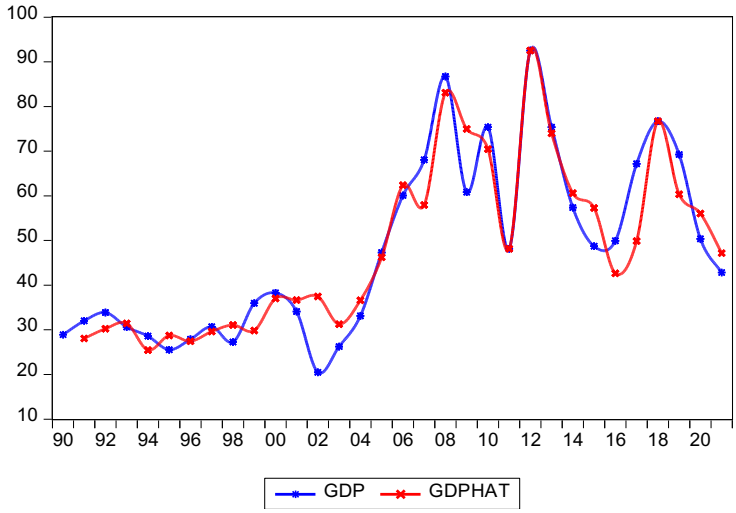


Figure 43. The relationship between the actual and estimated dependent variable
Source: Own elaboration based on data collected from UNCTAD (2022).

As observed in Figure 43, the estimated gross domestic product (represented by the red line) has become more stable than the actual GDP (represented by the blue slope), confirming the estimated model's strength.

The estimated (future) relationship

Since the primary goal of the second hypothesis of the study is to predict the gross domestic product (GDP) based on independent variables (foreign direct investment FDI, labour force LF, and oil and gas export O&GE), specific values of the independent variables were imposed over the next eight years until 2029. The expected GDP outcomes are as follows:

Table 47. The future relationship between dependent and independent variables from (2022-2029)

Year	GDPF-Million, USD	FDI-Million, USD	LF-person	O&GE-Billion USD
2022	43.45	-491	2290.7	30.45
2023	43.85	-493	2298.4	34.8
2024	44.11	-496	2305.4	40.5
2025	44.25	-500	2310	60.4
2026	44.34	-505	2314.5	68.9
2027	44.38	-510	2318.4	79.6
2028	44.46	-513	2325.4	90.6
2029	44.74	-520	2350.4	100.5

Source: Own calculations based on data collected from UNCTAD (2022).

As shown in Table 47, an increase in the independent variables indeed follows an increase in the dependent variable, GDPF. The following predictive Figure 44 demonstrates that the expectation remains under control:

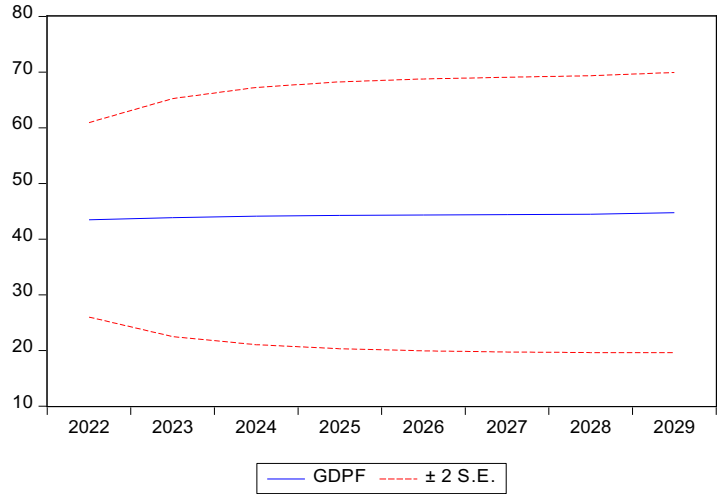


Figure 44. Gross domestic product future (GDPF) result from 2022 to 2029
Source: Own elaboration based on data collected from UNCTAD (2022).

Statistical evidence supporting the second auxiliary hypothesis

The aim of the second supported hypothesis to investigate the nexus relationship between foreign direct investment, labour force, oil and gas exports, and gross domestic product in Libya for the period 1990-2021, the Autoregressive Distributed Lag (ARDL) model was employed. Based on the findings, after going through the first three steps, it was indicated that the variables were a mixture of stationary at the level and stationary at the first difference. For example, the first step involved studying certain variables to determine whether the data is

skewed (lopsided), has high or low peaks (kurtosis) or is symmetrical (evenly distributed). These measurements provide insights into the shape and distribution of the data.

The outcomes of the process investigation revealed that the VAR Lag Order Selection Criterion (SC) test indicated a lag of 1 and SC of 55.62719. The unit root test showed that the variables (Gross Domestic Product GDP, Foreign Direct Investment FDI, Labor Force LF, and Oil and Gas Export O&GE) were non-stationary at the level, as these variables were greater than the significance level of 1%, 5%, and 10%. Therefore, these variables were tested at the first difference and became stationary. The results demonstrated that GDP, FDI, LF, and O&GE exhibited constant, constant and trend, and none of the constant and trend values at 0.0000, 0.0001, 0.0004, and 0.0000, respectively.

The correlation coefficient matrix indicated that variables LF and FDI were significant and positively correlated with GDP, while O&GE had a negative correlation with the dependent variable GDP. Evaluating the time series using the ARDL method, the model was found to be significant with a P-value of 0.0000, less than 5%. The adjusted R-squared value of 0.854360 confirmed that the estimated model is favourable, with the independent variables (labour force, O&GE, and FDI) explaining 89% of the variations in the dependent variable GDP during the study period 1990-2021, leaving 11% due to external effects. The autocorrelation problem examination showed a p-value of 0.7900, higher than 5%, indicating the absence of autocorrelation in the residuals and supporting the null hypothesis. The Heteroskedasticity Test results demonstrated that the residuals were homogeneous, with a p-value of 0.6473, greater than 5%, confirming the null hypothesis. The standard distribution method supported the null hypothesis, indicating that the residuals were satisfactory. The VIF method multicollinearity test indicated no problem among the LF, FDI, and O&GE variables.

The Cointegration Bounds method confirmed cointegration between the variables, with the F-statistic being significant at 7.475615, which was greater than 1%, 5%, and 10%. The short-run relationship revealed a positive connection between the independent variables (foreign direct investment, labour force) and the dependent variable (GDP). In contrast, oil and gas exports as a "crude" independent variable negatively correlated with GDP.

The error correction coefficient was -0.491256, indicating that approximately 49% of the short-term deviation of GDP for the previous period (t-1) could be corrected in the present time (t) to re-establish long-term equilibrium in the event of any shocks to the variables. The long-run relationship using the ARDL model confirmed the alternative hypothesis, stating a causality relationship between, foreign direct investment and labour force, oil and gas exports and gross domestic product GDP in the long run, thereby rejecting the null hypothesis and

accepting the alternative hypothesis is that there is a positive relationship between the influence of FDI on GDP, and this factor is the most significant among all the variables studied. The findings indicated a positive relationship between foreign direct investment, labour force and GDP in the long run. For example, an increase in the labour force by one unit would lead to an increase in GDP by 0.024714 times, while an increase in FDI by one unit would result in an increase in GDP by 0.016292 times. Conversely, a decrease in oil and gas exports by one unit would decrease the cost of oil production, leading to an increase in GDP by 0.001103 times. Therefor, the

The Ramsey RESET Test indicated that the model was favourable, with a significant p-value higher than 5%, supporting the null hypothesis. Future direction estimation of the dependent and independent variables suggested that increases in LF, FDI, and O&GE would cause an increase in GDPF.

Numerous previous studies have investigated and confirmed the positive contribution of FDI to economic growth in Libya. For instance, Abdulhakim A.A. (2016) examined FDI-led export (FLE) and export-led growth (ELG), finding a long-term relationship between FDI and GDP growth, increased oil exports, and economic growth in Libya. An increase in FDI by one unit led to a 0.131 times increase in the growth rate, and a one-unit increase in FDI caused a 0.226 times increase in oil exports. Muhamed & Daud (2022) found that FDI inflows positively affected economic growth in Libya and highlighted the positive correlation between financial development and FDI in Libya's economy despite institutional quality having no significant impact on FDI inflow. Mustafa et al. (2017) statistically confirmed the positive relationship between FDI and growth rate in Libya, with a 1% increase in FDI leading to a 0.215% increase in GDP.

The research also found that oil and gas exports (O&GE) negatively impacted GDP in the short and long run. For example, a one-unit decrease in O&GE led to a rise in GDP by 0.001103 times. This reverse relationship is attributed to the government's reliance on exporting crude oil without benefiting from internal oil refining. The findings are supported by Hussain, M. (2017) and Udoh, M. (2014), both of whom used the ARDL model and obtained similar results, showing a positive impact of FDI inflow on economic growth and a negative impact of oil exports on GDP in Nigeria.

In Libya, the oil industry is the most prominent area attracting FDI, primarily targeting sectors such as oil refining and petrochemicals. The state of Libya heavily depends on foreign companies in the oil and gas field. The Libyan government has recently planned to increase crude oil production to three million barrels per day, about three times the current production

level, to address economic issues such as reducing the budget deficit and providing more funds for development projects and long-term economic growth. Given the positive correlation between O&GE and FDI, increasing oil and gas exports will likely lead to higher FDI inflows into Libya. To achieve economic growth, the government must increase oil and gas production, enhance exports, and leverage the positive contributions of foreign direct investment.

Chapter summary

This part presents the practical part of the study, focusing on the employed model, the variables that were examined and their explanation, and the statistical outcome that obtained during testing the data collected from UNCTAD for Libya covering the period 1990-2021. The statistical analysis was conducted by applying the selected Autoregressive Distributed Lag (ARDL) model, which was adopted due to its effective ability to address the research questions by investigating the types and level of relationships between key variables. Furthermore, the decision to use this model is based on the statistical results obtained from three strategies. First, the skewness, kurtosis, and symmetry levels in the data were determined. Second, the Akaike Information Criterion (AIC) test was used to identify the lag period numbers for the variables. Lastly, the Augmented Dickey-Fuller (ADF) test was employed to ascertain whether the time series data were stationary or non-stationary. The statistical results indicate that the variables used were a mixture of stationary at the level and stationary at the first difference. Therefore, ARDL was deemed the best-fit method to provide a clear explanation of the research hypotheses.

Moreover, the hypothesis of the study was organized by applying one main hypothesis H0: Foreign direct investment plays an important role in Libya's economic development. According to the tested data indicated that this hypothesis was accepted. FDI has contributed positively to Libya's economic development. FDI has played a crucial role in supporting the country in terms of exploration, productions, development, and as well as exporting crude oil and gas to global markets.

Furthermore, two supporting hypotheses have been formulated in the dissertation:
H1: There is a positive relationship between natural resources (crude oil and gas) and the attraction of foreign direct investment to Libya, with the significance of this factor being the greatest among all the variables studied. This hypothesis was accepted. The empirical outcomes illustrate that a 1% increase in oil and gas exports leads to a 0.783051 times increase in FDI.

Other macroeconomics that have been examined show that the exchange rate shows a positive correlation with the GDP of the country. Inflation has a positive an insignificant relationship with the GDP. Trade openness and GDP per capita did not impact FDI flows into Libya in both periods in the short and long run. The majority of foreign direct investment flows into Libya, investing in the oil and gas sector. This sector has been the primary target for foreign investors since the oil was discovered in Libya during the 1950s, and due to the fact that Libya's rich oil resources. However, other non-oil sectors, such as infrastructure, energy, telecommunication, tourism, and agriculture sector, have received less FDI.

According to the second supported hypothesis, H2: There is a positive relationship between the influence of FDI on GDP, and this factor is the most significant among all the variables studied. This hypothesis was accepted, based on the empirical result obtained. Shows that a one-unit increase in FDI results in a 0.016292 times increase in GDP. As for the other factors texted in this hypothesis illustrated that labour force positively impacted on GDP. However, export of crude oil and gas negatively influence on the Libya's GDP.

To conclude, the ARDL model has successfully demonstrated clear statistics result by providing the types and the level of the relationship along the variables used in this study. These achievement can provide critical insight to assist the government and policymakers in formulating right decision, strategies and creating a favorable investment climate to attract FDI to Libya.

CHAPTER 7
CONCLUSIONS AND RECOMMENDATIONS

7.1. Conclusion

Based on the reviewed literature and previous research, the majority have confirmed the positive contribution of Foreign Direct Investment to economic growth and development in developing countries. For example, FDI leads to job creation, technology transfer, increased international trade integration, heightened productivity and competition, and improved infrastructure development. However, several factors may affect FDI flow levels to the destination country, including the availability of natural resources, political and security stability, inflation levels, trade openness, GDP per capita, and exchange rates.

Most previous research on Libya has focused on the impact of FDI on economic growth, the effect of oil and gas on FDI inflows, and the influence of macroeconomic factors on FDI inflows separately. However, this study covers both aspects. The first aspect examines macroeconomic factors and their impacts on FDI flows into Libya. The second aspect investigates the impact of FDI, including labour force (LF) and oil and gas exports (O&GE), on economic growth.

Libya's interest in attracting FDI began in the 1950s with the issuance of Law No. 25 in 1955 to encourage foreign investors in the oil and gas sector. Notably, in 1959, a foreign company discovered oil in Libya, which positively contributed to Libya's economy. A few years later, the government issued Law No. 37 at the end of the 1960s regarding foreign capital investment as a key strategy to achieve economic and social benefits. Since then, the country's economy has primarily relied on the oil industry, which constitutes more than 90% of its exports. Reliance on oil production as the primary source of state income can have a negative impact on the economy in the future, potentially resulting from global economic shocks that lead to decreases in oil prices or demand.

In recent decades, most advanced economies have attempted to shift to renewable energy sources and reduce dependence on fossil fuels. Therefore, aside from the current political instability caused by conflicts between political parties, which hopefully will end soon, there are numerous investment opportunities in various sectors such as industry, agriculture, tourism, and sustainable renewable energy. Libya's advantageous geographical

location and favorable weather conditions make it an important trade destination between two major markets, Europe and Africa.

The main objectives of this study concern the impact of FDI on economic growth in Libya, based on data collected primarily from UNCTAD for the period 1990-2021. The ARDL technique has satisfactorily explained the impact levels of the variables in both the short and long run. For example, the first auxiliary hypothesis: There is a positive relationship between natural resources (crude oil and gas) and the attraction of foreign direct investment to Libya, with the significance of this factor being the greatest among all the variables studied. This hypothesis was accepted. The statistical results illustrate that a 1% increase in oil and gas exports leads to a 0.783051 times increase in FDI. As for the exchange rate, a 1% decline results in a 12.17740 times increase in FDI. The other variables, such as inflation, showed a short-run positive relationship with FDI inflows in Libya but were not significant. Trade openness and GDP per capita did not impact FDI flows into Libya in the short or long run..

Therefore, the hypothesis that natural resource particularly crude oil and gas export levels positively lead to an increase in FDI in Libya has been achieved. In addition to, one from other examined variables shows a positive correlation is that the exchange rate of the Libyan local currency influences FDI in Libya. Overall, causality relationships were found between oil and gas exports, the exchange rate of the local currency against the USD, and FDI. However, causality relationships were not found for other factors such as inflation, trade openness, and GDP per capita.

In the second auxiliary hypothesis: There is a positive relationship between the influence of FDI on GDP, and this factor is the most significant among all the variables studied. This hypothesis was accepted. Two out of three examind variables shows positive relationships such as, FDI, LF, on GDP in Libya in both the short and long run. However, the other variable the O&GE (crude) shows is that there is a negative relationship on GDP in both the short and long run. The statistical results illustrate that there is a positive relationship between FDI and GDP in Libya. According to the tested data, this hypothesis was accepted. An increase in FDI flows into Libya by one unit leads to an increase in GDP by 0.016292 times. Similarly, to LF which shows a positive relationship on GDP in Libya. An increase in the labour force by one unit contributes positively to an increase in GDP by 0.024714 times. This result achieves the study's main objective, confirming that FDI leads to positive economic growth in Libya and answers the question posed in the introduction: What is the impact of FDI on economic growth in Libya? The positive relationship found in this research supports previous studies that FDI contributes to GDP growth, decreases unemployment rates, and facilitates technology transfer

and infrastructure development. However, some previous studies argue that the impact of FDI has been insignificant or negative during specific periods affected by transitions.

Moreover, the finding that there is a positive correlation between oil and gas exports and GDP in Libya was rejected. The statistical result shows that a decline in crude oil and gas exports per unit leads to GDP growth of 0.001103 times. The negative relationship between crude oil and gas exports and GDP is due to the lack of domestic crude oil processing and reliance solely on exporting oil in its extracted form. According to the Central Bank of Libya, the annual cost of reprocessing crude oil abroad and importing it back for domestic use is around LYD 40 billion, which the government covers. Additionally, the ARDL model used in this research predicted the future relationship between the variables in both auxiliary hypotheses for about eight years until 2029. The statistical outcomes provide a clear picture to help policymakers identify areas needing improvement in the country's monetary policy strategy to attract more FDI.

Drawing from the statistical results derived from the two tested auxiliary hypotheses, it can be asserted that the main hypothesis positing Foreign direct investment plays an important role in Libya’s economic development has been substantiated. The findings revealed a positive correlation between FDI and economic growth in Libya. Since earlier in the 1950s, foreign direct investment has participated in exploration, development, and marketing in Libya’s oil industries, which has become an important source of income for the state and positively contributed to the country’s economy. For example, Libya, from the oil revenue, managed to develop infrastructure, improve public services such as, education, hospitals, and energy, and evolute the telecommunication sector. However, in recent decades, Libya has experienced political instability that has negatively impacted the flow of FDI into the country. Moreover, the political and security instabilities has considered as one of the main barriers to attracting foreign investment to Libya, based on this addressed one of the questions posed in the introduction: What are the barriers to the inflow of FDI to Libya? The data indicated that in 2011, no FDI inflows were recorded. However, during the period of noticeable economic and political stability beginning in 2000, following the lifting of United Nations sanctions on Libya, the highest FDI inflows were observed, particularly in 2007 and 2009, amounting to USD 3.8 billion and USD 3.3 billion, respectively. Political instability not only adversely affected FDI inflows to Libya's but also had a detrimental impact on the overall economy, leading to high inflation, lower GDP per capita, reduced export and import levels, and diminished domestic investment.

Currently, within the group of MENA countries, the Middle East is at the center of investors' attention. The combination of economic growth, strategic government reforms, and emerging market opportunities has attracted many foreign investors from around the globe to invest in this region. Since the 2000s, FDI to MENA countries has provided substantial capital and positively contributed to national development projects in various sectors such as real estate, services, and oil and gas, with a significant portion allocated to renewable energy. Most FDI flows to MENA countries take the form of greenfield investments, where a parent company establishes a subsidiary cross-border and starts operations from scratch. Greenfield investments represent about 80% of foreign direct investment inflows to the MENA region, leading to job creation and economic growth.

The financial crisis in 2008 and the Arab Spring, which began in Tunisia in 2010 and resulted in the downfall of many Arab leaders in recent years, have negatively impacted FDI in the MENA region. For example, the net inflows of foreign direct investment in 2019 reached around USD 57.8 billion compared to USD 126.5 billion in 2007. Moreover, economic structure differences between oil-producing and non-oil-producing countries in the MENA region significantly affect their ability to attract foreign direct investment. Non-oil-rich states focus more on attracting greenfield investments, while oil-rich countries leverage their vast domestic oil resources to create national capital rather than relying on external sources.

Libya's economic development largely relies on its natural resources, particularly oil and gas. This sector is considered the engine of Libya’s economy, representing around 95% of state revenue and over 90% of export earnings. The oil and gas sector contributes approximately 60% of Libya’s GDP, employing only about 15% of the labour force. However, it significantly indirectly impacts job creation in linked industries and services. Revenue generated from oil and gas has positively contributed to infrastructure development in the country, such as education, healthcare, and transportation systems, which are provided almost for free to all Libyan citizens. The natural resources "oil and gas" have attracted substantial foreign investment, fostering strategic partnerships with international firms in this sector. Libya possesses around 48 billion barrels of oil reserves, making it the largest holder in the region and the ninth largest globally.

On the other hand, high dependence on the oil industry has negative impacts on Libya's economy, such as a lack of diversification by focusing solely on revenue from oil and gas and neglecting private sectors that employ less than 20% of the national labour force. Reliance on this sector makes the country’s economy highly sensitive to global market fluctuations due to the volatility of oil prices. For example, Libya experienced rapid economic growth in 2012 due

to a global increase in oil and gas prices. However, the economy was negatively impacted by subsequent decreases in oil prices, leading to contractions in Libya's GDP. Additionally, instabilities in oil and gas production result in declines in revenue from this sector, making it challenging for the government to cover employees' salaries, which account for around 50% of oil revenue.

Libya has faced two significant political challenges. The first was the sanctions imposed by the United Nations from 1992 to 1999, during which the country lost around USD 33.6 billion. The second challenge began in 2011 with the February 17th revolution, resulting in estimated economic losses of around USD 600 billion.

Moreover, the legal frameworks and legislation of investment in Libya require modernization. Addressing the question formulated in the introduction of this research, "Have the current laws of investment facilitated the flow of FDI to Libya in recent years?" it is evident that the latest investment laws, such as Law No. 10 of 2010, Law No. 7 of 2003, and Law No. 5 of 1997, have significantly increased FDI inflows to Libya in recent decades. Currently, the government is working on improving Libya's political, security, and economic situations and legal frameworks to align with investors' motives. In the future, Libya is poised to become an attractive destination for both foreign and local investments. The availability of natural resources, favorable weather conditions, and strategic location make Libya a competitive player in the region.

To conclude, addressing the question posed at the beginning of the study, "How capable and willing is the Libyan economy to attract foreign investments?" Libya is currently undergoing a significant transformation period following prolonged conflict. Since the current government was elected in 2021, political tensions have decreased. Libya's abundant oil and gas resources present tremendous opportunities to create an attractive investment climate, implement development projects suspended since 2011, and increase investment in other sectors that encourage FDI inflows. Libya is considered an attractive emerging market, offering substantial expansion opportunities in non-oil sectors, including renewable energy, agriculture, tourism, industries, and fisheries, all of which have significant potential. Moreover, Libya aims to establish Special Economic Zones (SEZs) to present itself as an attractive and favourable destination in the region through incentives such as tax breaks and transparent, more straightforward regulatory frameworks to attract foreign investors globally. The government and policymakers should work to issue new investment laws that appeal to investors worldwide, positively leading to economic growth and development.

7.2. Recommendations and suggestions

Libya's foreign direct investment laws have been amended over the last two decades, particularly after the "socialism mechanism" adopted by the previous government from 1970-1997. Although the latest Law No. 9 of 2010 encourages FDI, further modifications are needed concerning ownership rights, profit transfer, and business discontinuation or disposal. Additionally, it is crucial to introduce and clarify investment legislation and laws locally and internationally, ensuring that current and potential investors are aware of all requirements and duties. The government and policymakers should work on providing a more flexible method for obtaining business licenses and documenting residency services within appropriate, attractive periods. Furthermore, foreign businesses should receive benefits equal to domestic firms in government contracts and procurement processes, promoting fairness for all participants.

In 2023, the current Libyan government is working to improve and increase open trade channels with various countries. To achieve this, the government should focus on attracting companies with successful operations in sectors that positively impact economic growth, such as telecommunications, manufacturing, agriculture, and tourism. Additionally, to provide an attractive and suitable investment climate and protect the rights of both domestic and foreign investors, government institutions must adhere to the exceptions and facilities for investment provided by the state, avoiding bribery and financial corruption. The government should encourage investors to reinvest some of their profits and start businesses that export goods from the country by granting more exemptions.

According to the Central Bank of Libya's revenue and expenditure statement for 2023, revenue was LYD 125.9 billion, and expenditures were LYD 125.7 billion, with the salaries section accounting for LYD 60 billion or 50% of total expenditures. This indicates that Libyan citizens rely more on the public than the private sector. The government should encourage and support local individuals in training and education within private sector institutions. Additionally, there is a need to establish a robust banking system to help foreign companies transfer money in and out of the country quickly and securely. Libya has great potential to become an important business and tourism hub due to its attractive location, linking two major continents, Europe and Africa. Furthermore, Libya has six main commercial seaports (four in the western part and two in the eastern part) and two smaller ports (Derna and Al-Braiga). The country also boasts 12 commercial airports located in different Cities. Developing these sectors

and providing high-quality safety and services can attract many foreign investors interested in international shipping.

In recent years, financial and administrative corruption in Libya has increased due to the absence of state authority, which has resulted from political conflict. This corruption negatively impacts the country's global image and reduces its attractiveness as a destination for foreign businesses in the region. Therefore, the Libyan government must implement policies such as strengthening anti-corruption institutions, promoting transparency and accountability, applying comprehensive legal reforms, and increasing public awareness to encourage citizens to fight corruption.

Libya can also encourage foreign investors to increase investment in agriculture and benefit from their expertise. According to world data, Libya covers an area of about 1,759,550 km^2 with 1,770 km of coastline along the Mediterranean Sea. However, less than 5% of its arable land has been utilized so far. The government should reconsider these features, including the vast capacity of the Great Man-Made River and the establishment of desalination plants to harness seawater. Utilizing more arable land for large agricultural projects can positively lead to economic growth. One of the research objectives was to investigate the impact of crude oil and gas exports on Libya's GDP. Future research could explore the potential benefits of establishing domestic crude oil refining projects and their impact on economic growth and development.

References

Abamu, B. E. (2022). Impact of FDI on the Nigerian economy: Negative, positive, or mixed effects? (PhD dissertation). Gdansk University of Economics. Link; https://bip.ug.edu.pl/sites/default/files/postepowania_naukowe/113832/praca/rozprawa_doktorska_bamituni_abamu.pdf

Abdulhakim, A. A., & T. Z. (2016, May 30). The effects of foreign direct investment on economic growth in Libya: A causality analysis. Open Science Journal (OSJ), 1(2). https://osjournal.org/ojs/index.php/OSJ/article/download/62/22

Abdulqadir, K. (2023). The role of foreign direct investment in economic development of developing countries. *Krakowskie Studia Małopolskie*, 2023(1), 94.

Abobaker, E., & Krzysztof, J. (2022). The role of foreign direct investment in economic and social development in Libya. *Journal of Contemporary Issues in Business and Government*, 28(4). https://doi.org/10.47750/cibg.2022.28.04.188

AbdulHamid Al.-Q. (1969). Financing economic development in undevelopment countries. .Book, Alexandria University.(120). .1969 .عبد الحميد القاضي. تمويل التنمية الاقتصادية في الدول غير النامية 120ص. Link; https://books.google.ps/books?id=pG6DQgAACAAJ&hl=ar&source=gbs_navlinks_s

Adams, S. (2007). The impact of privatization on economic growth and income inequality in developing countries. *Doctoral dissertation, Old Dominion University*. https://digitalcommons.odu.edu/publicservice_etds/17

Adams, S. (2007). *The impact of privatization on economic growth and income inequality in developing countries* (PhD dissertation). Old Dominion University. https://digitalcommons.odu.edu/publicservice_etds/17

Adams, S. (2009). Can foreign direct investment help to promote growth in Africa? *African Journal of Business Management, 3*(5), 178–183.

Adarov, A., & Hunya, G. (2020). Foreign investments hit by COVID-19 pandemic: FDI in Central, East, and Southeast Europe. *The Vienna Institute for International Economic Studies*. https://wiiw.ac.at/foreign-investments-hit-by-covid-19-pandemic-fdi-in-central-east-and-southeast-europe-dlp-5540.pdf

Adelakun, J., & Ogujiuba, K. (2023). A comparative analysis of the determinants of foreign direct investment: The case of top ten recipients of foreign direct investment in Africa. *Economies*, 11(10), 244. https://doi.org/10.3390/economies11100244

African Development Bank Group. (2024). *North Africa-Libya economic outlook*. https://www.afdb.org/en/countries/north-africa/libya/libya-economic-outlook

Afrigatenews.NET. (2020, March). Online website. https://www.afrigatenews.net/

Al-Kasasbeh, O., Alzgoul, A., & Alghraibeh, K. (2022). The global FDI inflow and outflow in emerging countries post-COVID-19 era. *PubMed Central (PMC)*. https://doi.org/10.1186/s43093-022-00167-z

Al-Yazouri, A. A. (2019). *Scientific publishing and distribution house*. ISBN: 9957126601.
Angel, G. (2021). *Middle East and North Africa investment policy perspectives*. OECD Publishing. https://doi.org/10.1787/6d84ee94-en

Asiedu, E. (2020, June 26). Intra-African foreign direct investment (FDI) and employment: A case study. *Working Paper, African Development Bank Group*.

Asif, M., Khan, K. B., Anser, M. K., Nassani, A. A., Abro, M. M. Q., & Zaman, K. (2020). Dynamic interaction between financial development and natural resources: Evaluating the 'Resource curse' hypothesis. *Resources Policy*, 65, 101566. https://doi.org/10.1016/j.resourpol.2019.101566

Authority of the Man-made River. (2024). *Water quality control department*. https://gmra.com.ly/index.php/en

Banga, R. (2003, November). Impact of government policies and investment agreements on FDI inflows. *ECONSTOR Working Paper*, 116. https://www.econstor.eu/bitstream/10419/189636/1/icrier-wp116.pdf

Baranowski, H. (2017). The energy industry's future. *PGE Polska Grupa Energetyczna*. https://raportzintegrowany2017.gkpge.pl/docs/download/Mngmnt_Board_consolidated_report_PGE_CG_2017.pdf

Bénétrix, A., Pallan, H., & Panizza, U. (2023, April). The elusive link between FDI and economic growth. *Policy Research Working Paper*, 10422. https://doi.org/10.1596/1813-9450-10422

Bénétrix, A., Pallan, H., & Panizza, U. (2023). The elusive link between FDI and economic growth. *Policy Research Working Paper No. 10422*. World Bank. https://doi.org/10.1596/1813-9450-10422

Berger, F. (1982). The concept of absorptive capacity: Origins, content, and practical relevance. *Intereconomics*, 17(3), 133–137. https://doi.org/10.1007/BF02927883

Beri, G. N. P. (2020, December 9). The impact of the investment climate on foreign direct investment in Africa. *African Review of Economics and Finance, 12*(2), 1–20.

Binh, D. T. T. (2009). *Investment behavior by foreign firms in transition economies: Case study of Vietnam* (Doctoral dissertation). University of Trento, Italy. https://core.ac.uk/reader/35316640

Boubakri, N., Cosset, J.-C., Debab, N., & Valéry, P. (2009). The dynamics of foreign direct investment and privatization: An empirical analysis. *Management International*, 13(2), 81–92. https://doi.org/10.7202/029781ar

Boubakri, N., Cosset, J.-C., Debab, N., & Valéry, P. (2009). The dynamics of foreign direct investment and privatization: An empirical analysis. *Management International, 13*(2), 81–92. https://doi.org/10.7202/029781ar

Bozidar, R., Svetlana, I., & Ivan, M. (2016). The financial analysis of foreign direct investment on economic growth of developing countries. *Economics of Agriculture*, 63(2), 649–663.
BP Statistical Review of World Energy. (2020). *69th edition, world oil reserve*. https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2020-full-report.pdf

Calimanu, S. (2021, March 3). Benefits and advantages of foreign direct investment. *ResearchFDI*. https://researchfdi.com/resources/articles/benefits-fdi-foreign-direct-investment/

Canto, V. A., & Wiese, A. (2018). Economic disturbances and equilibrium in an integrated global economy. In *Protectionism, Devaluation, and the Terms of Trade*. https://doi.org/10.1016/B978-0-12-813993-6.00014-3

Central Bank of Libya. (2019-2022). *Annual report*. Research and Statistics Department. https://cbl.gov.ly/micifaf/2023/05/1-م-2022-2019-تقرير-التجارة-الخارجية-لليبيا.pdf
Central Bank of Libya. (2019–2022). *Annual report: Research and statistics department, foreign trade of Libya*. https://cbl.gov.ly/micifaf/2023/05/-2022-2019-تقرير-التجارة-الخارجية-لليبيا-1-م.pdf

Central Bank of Libya. (2019). *Economic publication, research and statistics department*. https://cbl.gov.ly/micifaf/2023/05/1-م-2022-2019-تقرير-التجارة-الخارجية-لليبيا.pdf
Creig, M. (2022). The largest M&A deals. *DealMakers Africa*. https://www.ghostmail.co.za/dealmakers-africa-analysis-q1-2022/

Czernichowski, K. (2009). Bezpośrednie inwestycje zagraniczne w Afryce. *Working Papers Series, Polskie Centrum Studiów Afrykanistycznych (PCSA)*, 29-30, 136–157. https://pcsa.org.pl/wp-content/uploads/2017/11/PCSAWorkingPapersNo5_-_Bezposrednie_inwestycje_zagraniczne_w_Afryce_-_Konrad_Czernichowski.pdf

Dennisia, V. (2010). Foreign direct investment theories: An overview of the main FDI theories. *European Journal of Interdisciplinary Studies, 3*(1), 53–60.

Dillon, R. (2024, October 2). How to capitalize on foreign direct investment (FDI) growth trends for business attraction. *Camoin Associates*. https://camoinassociates.com/resources/how-to-capitalize-on-fdi-growth-trends-for-business-attraction/

Ding, L. (2006). The role of telecommunications infrastructure in regional economic growth in China. *ANZRSAI Conference Paper*. https://www.anzrsai.org/assets/Uploads/PublicationChapter/165-DingandHaynes.pdf

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review, 41*(2), 79–94. https://doi.org/10.2307/41165987

Dinkar N, Rahul N. Choudhury (2014). A selective review of foreign direct investment theories. Working paper. United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) working paper series No. 143, March, Bangkok P(12). https://www.unescap.org/sites/default/files/AWP%20No.%20143_0.pdf

Dunning, J. H. (1993). *Multinational enterprise and the global economy*. Addison-Wesley.

Dominic, E. (2022) Top 10 issues facing African oil and gas producing countries. An article in energy Digital website; https://energydigital.com/top10/top-10-issues-facing-african-oil-and-gas-producing-countries

Elakder, A. A. (2023, Summer). The effect of bureaucracy on the inflow of foreign direct investment: A comparative study of Libya and the United Arab Emirates. *Claremont Graduate University*. https://scholarship.claremont.edu/cgi/viewcontent.cgi?article=1606&context=cgu_etd

Elgamodi, K. H. A. (2017). *The motivational factors for foreign direct investment in tourism in Libya* (PhD thesis). University of Salford, UK. https://salford-repository.worktribe.com/OutputFile/1492825

Eller, M., Haiss, P., & Steiner, K. (2006). Foreign direct investment in the financial sector and economic growth in Central and Eastern Europe: The crucial role of the efficiency channel. *Emerging Markets Review, 7*(4), 309–329. https://doi.org/10.1016/j.ememar.2006.09.001

Eltis, W. (2000). Adam Smith's theory of economic growth. In *The classical theory of economic growth* (pp. 1-24). Palgrave Macmillan, London. https://doi.org/10.1007/978-0-230-59820-1_3

Elu, J. U., & Price, G. N. (2010). Does China transfer productivity-enhancing technology to Sub-Saharan Africa? Evidence from manufacturing firms. *African Development Review*, 22(s1), 587–598. https://doi.org/10.1111/j.1467-8268.2010.00260.x

Emako, E., Nuru, S., & Mesfin, M. (2022). The effect of foreign direct investment on economic growth in developing countries. *Journal of Economic Studies*, 14, 382–401. https://doi.org/10.1080/19186444.2022.2146967

Fatas, A., & Vasishtha, G. (2024). Fiscal policy volatility and growth in emerging markets and developing economies. *International Review of Economics & Finance*, 92, 758–777. https://doi.org/10.1016/j.iref.2024.01.041

Filogh, A. M. (2019). Libya fishing industry. *Journal of Fisheries and Aquatic Sciences, 5*(1), 16–26. https://dergipark.org.tr/tr/download/article-file/759862

Folkerts-Landau, D., Mathieson, D., Goldstein, M., Rojas-Suárez, L., Lizondo, J. S., & Lane, T. (1991). Determinants and systemic consequences of international capital flows. *International Monetary Fund*. https://doi.org/10.5089/9781557752055.084

Food and Agriculture Organization of the United Nations. (2023). *Annual information about Libya*. https://www.fao.org/faostat/en/#data/QCL

Frauke, U. (2009). *Sustainable energy for developing countries: Modeling transitions to renewable and clean energy in rapidly developing countries* (PhD thesis). University of Groningen. https://pure.rug.nl/ws/portalfiles/portal/2662376/thesis.pdf

Fasano, U. and Iqbal, Z. (2023) The GCC Countries: From Oil Dependence to Diversification. Publication in International Monetary Fund. https://www.imf.org/external/pubs/ft/med/2003/eng/fasano/#6

Galal, S. (2023). Employment to population ratio in Libya from 2000–2021. *Statista*. https://www.statista.com/statistics/1240241/employment-to-population-ratio-in-libya/

General Authority for Investment Promotion and Privatization Affairs. (2010). *Legislation and regulations*. https://pib.investinlibya.ly/wp/legislation-regulations/

General Authority of Tourism. (2023). *Tourism information & documentation center*. https://www.aljazeera.net/ebusiness/2007/3/27/ليبيا-تسعى-لتعزيز-قطاع-السياحة

General Electric Company. (2010). *Annual report*. https://www.gecol.ly/GAnnual_Report/ViewReport

Gentvilaite, R. (2010). *Determinants of FDI and its motive in Central and Eastern European Countries* (Bachelor's thesis). Lund University, School of Economics and Management.

Golejewska, A. (2001). Foreign direct investment and employment in a host country: The case of Polish manufacturing. *Economics of European Integration Department, University of Gdańsk, Poland*. https://journalse.com/pliki/pw/y5-2001_Golejewska.pdf

Gorter, C., & Nijkamp, P. (2001). Location theory. In N. J. Smelser & P. B. Baltes (Eds.), *International encyclopedia of the social & behavioural sciences* (pp. 9013-9019). Elsevier. https://doi.org/10.1016/B0-08-043076-7/02490-6

Gray, H. P. (1996). The eclectic paradigm: The next generation. *Transnational Corporations*, 5(2), 1-4. https://unctad.org/system/files/official-document/iteiitv5n2a4_en.pdf

Hamad, M. (2013). *An evaluation of tourism development as a diversification strategy in the United Arab Emirates* (PhD thesis). Nottingham University, UK. https://www.bl.uk/Home.do

Hansen, M. W., & Hoenen, A. K. (2016). Global oligopolistic competition and foreign direct investment. *Critical Perspectives on International Business*, 12(4), 7. https://doi.org/10.1108/cpoib-03-2014-0017

Haque, M. I. (2020). Do oil rents deter foreign direct investment? The case of Saudi Arabia. *International Journal of Energy Economics and Policy*, 11(1), 212–218. https://www.econjournals.com/index.php/ijeep/article/view/1035

Haque, M. I. (2020). Do oil rents deter foreign direct investment? The case of Saudi Arabia. *International Journal of Energy Economics and Policy, 11*(1), 212–218. https://www.econjournals.com/index.php/ijeep/article/view/1035

Hemzawi, B., & Umutoni, N. (2021). *The impact of exports and imports on economic growth: A case study of Rwanda (2006–2020)* (Master's thesis). University of Rwanda.

Hornberger, K., Battat, J., & Kusek, P. (2011, August). Attractive FDI: How much does investment climate matter? *Open Knowledge Repository (OKR)*. https://hdl.handle.net/10986/11060

Hossine, S. S. (2016). The role of telecommunication over the economic development of Bangladesh. *MPRA Paper No. 99764*. https://mpra.ub.uni-muenchen.de/99764/

Hunya, G. (2000, November). Recent FDI trends, policies, and challenges in South-East European countries. *WIIW Research Reports*, 273. https://wiiw.ac.at/recent-fdi-trends-policies-and-challenges-in-south-east-european-countries-dlp-197.pdf

Hymer, S. H., Dunning, J. H., & Buckley, P. J. (1993). Foreign direct investment and multinational corporation. In S. H. Hymer, J. H. Dunning, & P. J. Buckley (Eds.), *Chapter 2* (p. 124). https://www.fep.up.pt/docentes/fcastro/chapter%202.pdf

Ietto-Gillies, G. (2012). *Transnational corporation and international production: Concepts, theories and effects*. Edward Elgar Publishing. ISBN: 9781788117159

IMF. (2004). *Direct investment: 10 per cent threshold*. Seventeenth Meeting of the IMF Committee on Balance of Payments Statistics. https://www.imf.org/external/pubs/ft/bop/2004/04-31.pdf

International Monetary Fund (IMF). (2010). The Socialist People's Libyan Arab Jamahiriya: Article IV consultation, preliminary conclusions of the mission. https://www.imf.org/en/News/Articles/2015/09/28/04/52/mcs102810

Irpan, H., Saad, R., Shaari, A. H., Noor, A. H., & Ibrahim, N. (2016). The impact of foreign direct investment on the unemployment rate: The case of Malaysia. *Journal of Physics: Conference Series, 710*(1), 012028. https://doi.org/10.1088/1742-6596/710/1/012028

International Renewable Energy Agency (2022) IRENA for investment climate platform. Investment Forums in Middle East. P.(1) link; https://www.irena.org/Energy-Transition/Partnerships/CIP/Middle-East

Jega Ibrahim, M. (2008). Growth prospects of oil and gas abundant economies: The Nigerian experience (1970–2000). *Journal of Economic Studies*, 35(2), 170–190. https://doi.org/10.1108/01443580810870155

Jessurun, A. (2023). The role of telecommunication in driving global economic growth. *UNISOL International*. https://www.unisolinternational.com/role-of-telecommunications-in-driving-global-economic-growth/

Jeyadevi, C. (2021). Types of investment. *PSG College of Arts and Science*. https://www.researchgate.net/publication/373070419_TYPES_OF_INVESTMENT

Jouteen, T., & Norline, H. (2014). Does FDI affect GDP per capita growth in Sub-Saharan Africa? *Journal of Social and Behavioral Sciences, 156*, 1–10. https://www.diva-portal.org/smash/get/diva2:793967/FULLTEXT01.pdf

Jack, K. (2022)How much do we know about the development impacts of energy infrastructure?. Article in the world bank blogs. Frameworks session blogs. University of California, Santa Barbara and IGC. Link; Click here please
Kapsos, S. (2013, June). Employment and economic class in the developing world. *International Labour Office*, 6(2306-0875), 1.

Karim, M. A. (2013, April 24). The Libyan economy after the revolution: Still no clear vision. *Atlantic Council of the United States*. https://www.files.ethz.ch/isn/169054/libyan_economy_after_revolution_no_clear_vision.pdf

Khamis, H. A., Mohd, R., & Muhammad, A. (2015). The impact of inflation and GDP per capita on foreign direct investment: The case of the United Arab Emirates. *Investment Management and Financial Innovations, 12*(3-1), 132–141.

Khine, T. (2008, April). Foreign direct investment relations between Myanmar and ASEAN. *Institute of Developing Economies Discussion Paper No. 149*. https://www.ide.go.jp/english/Publish/Download/Dp/pdf/149.pdf

Kinda, T. (2010). Investment climate and FDI in developing countries: Firm-level evidence. *World Development*, 38(4), 498–513. https://doi.org/10.1016/j.worlddev.2009.12.001

Kinda, T. (2010). Investment climate and FDI in developing countries: Firm-level evidence. *World Development, 38*(4), 498–513. https://doi.org/10.1016/j.worlddev.2009.12.001

Krugman, P. (1993). First nature, second nature, and metropolitan location. *Journal of Regional Science*, 33(2), 129-144. https://doi.org/10.1111/j.1467-9787.1993.tb00217.x

Kumar, G. S., & Li, S. (2011, April 7). Porter responds to Libya criticism. *The Harvard Crimson*. https://www.thecrimson.com/article/2011/4/7/porter-libya-libyan-report/

Kunofiwa, T. (2018). Investigating the impact of inflation rate on foreign direct investment in Southern Africa. *Journal of Economics and Behavioral Studies, 10*(2), 1–10.

Kalotay, K. (2004). The Rise of Foreign Direct Investment in the Telecommunications Services of Developing Countries. The Journal of World Investment & Trade, 811–832. https://doi.org/10.1163/221190004X00056

Kathryn M. (2000) How Oil, Gas, and Mining Projects Can Contribute to Development. International Monetary Fund, Finance and development magazine. Volume 37, Number. 4.P(2)

Laker, C. (2024, June 30). The power of economic diversification in improving the quality of life in Libya. *United Nations Development Programme (UNDP)*.

Lall, S., & Siddharthan, N. S. (1982). The monopolistic advantages of multinationals: Lessons from foreign investment in the U.S. *The Economic Journal*, 92(367), 668. https://doi.org/10.2307/2232556

Lanza, V. (2012). The classical approach to capital accumulation. Classical theory of economic growth, Bachelor's program thesis in economics, (pp. 17-18). https://www.diva-portal.org/smash/get/diva2:562865/FULLTEXT01.pdf

Law No. 9 of Investment. (2010). *General Authority for Investment Promotion and Privatization Affairs*. https://pib.investinlibya.ly/wp/about-us/

Lee, H.-H. (2020). Effects of inward and outward greenfield FDI on the employment of domestic firms: The Korean experience. *Kangwon National University*. https://www.freit.org/WorkingPapers/Papers/ForeignInvestment/FREIT1487.pdf

Lizondo, J. S. (1991), Determinates and Systemic Consequences of International Capital Inflow Foreign Direct Investment. Theories based on imperfect market. Page (53). *https://doi.org/10.5089/9781557752055.084*

Libya Audit Bureau (LAB). (2018–2020). *Annual report*. https://www.audit.gov.ly/ar/reports/
Libyan Audit Bureau (LAB). (2017). *Libya posts and telecommunications company*. https://www.audit.gov.ly/ar/reports/

Libyan Central Bank. (2012). *Libya export from crude oil*. https://cbl.gov.ly/micifaf/2022/06/annual-report-2012.pdf

Libyan Central Bank. (n.d.). Official website. https://cbl.gov.ly/en/economic-bulletin/
Libyan Civil Aviation Authority (LCAA). (2010). *The pathway to the website*. https://www.airport-technology.com/projects/tripoliinternational/

Lipsey, R. E. (2002). Home and host country effects of FDI. *NBER Working Paper No. 9293*. http://www.nber.org/papers/w9293

Loots, E., & Kabundi, A. (2012). Foreign direct investment to Africa: Trends, dynamics, and challenges. *South African Journal of Economic and Management Sciences*, 15(2), 128–141. https://doi.org/10.4102/sajems.v15i2.148

Mageda, R. (2011). *An exploration of tourism development theory and potential educational responses in Eastern Libya* (PhD thesis). University of Derby, UK. https://www.bl.uk/OrderDetails.do?uin=uk.bl.ethos.543519

Mahmood, H., Alkhateeb, T. T. Y., & Furqan, M. (2020). Oil sector and CO2 emissions in Saudi Arabia: Asymmetry analysis. *Palgrave Communications*, 6(1), 88. https://doi.org/10.1057/s41599-020-0470-z

Mahmoud, A. S. (2022). *National Oil Well Drilling and Maintenance Company*. https://nwd.ly/شركات-المؤسسة-الوطنية-للنفط/

Maqsood, A., Ghulam, G., Afsheen, H. N., Rehman, A., & Sana. (2020). The impact of employment rate, exchange rate, and foreign direct investment on workers' remittances and economic growth. *Elementary Education Online, 19*(4), 4257–4265. https://ilkogretim-online.org/index.php/pub/article/view/5341

Maqsood, A., Ghulam, G., Afsheen, H., N. Ur Rehman, A., & Sana. (2020). The impact of employment rate, exchange rate, and foreign direct investment on worker's remittances and economic growth. *Elementary Education Online*, 19(4), 4257–4265. https://ilkogretim-online.org/index.php/pub/article/view/5341

Marandu, E. E., & Ditshweu, T. (2018). An overview of the key theories of foreign direct investment: The way forward. *Research Journal Society for Science and Education (SSE)*, 5(12), 30-39. https://journals.scholarpublishing.org/index.php/ASSRJ/article/view/5741/3470

Mohammad, A. G., & Hussein, A. F. (2012). Oil export and its relation to the trade openness of the Libyan economy with other countries. *Journal of Al-Quds Open University for Human and Social Studies, 4*(1), 247–260. https://journals.qou.edu/index.php/jrresstudy/article/view/1226

Moosa, I. A., & Merza, E. (2022). The effect of COVID-19 on foreign direct investment inflows: Stylised facts and some explanations. *Future Business Journal*, 8, 20. https://doi.org/10.1186/s43093-022-00129-5

Muhamed, O. H. A., & Daud, S. N. B. M. (2022). Impact and determinants of foreign direct investment on the Libyan economy. *International Journal of Trade and Global Markets*, 15(3), 276. https://doi.org/10.1504/IJTGM.2022.124058

Musa, R. (2023). Media landscapes: Journalist expert analyses of the state of media. *Libya Telecommunications*. https://medialandscapes.org/country/libya/telecommunications/company-profiles

Moss, T., and Kincer, J. (2023) How does energy impact economic growth? An overview of the evidence. Shaping Energy Transitions. Energy for growth hub. Link; Click here please

Micheal, M. (2022) Executive Summary Economic Letter Of East Africa and the Indian Ocean (EAIO) A Publication of The Regional Economic Department-Nairobi, Kenya. Link; Please click here

Nadar, A. (2021, March 27). Impact of FDI on GDP per capita in India using Granger causality. *Munich Personal RePEc Archive (MPRA)*, 106826. https://mpra.ub.uni-muenchen.de/106826/

Nadar, A. (2021). Impact of FDI on GDP per capita in India using Granger causality. *Munich Personal RePEc Archive (MPRA) Paper No. 106826*. https://mpra.ub.uni-muenchen.de/106826/

Najeh, B., & Walid, A. (2019). The impact of foreign direct investment on economic growth: Evidence from Tunisia. *International Journal of Business and Management Invention*, 4(3), 23-46. https://ideas.repec.org/a/seg/012016/v4y2019i3p23-46.html

Nashashibi, S. (1980). *Investing assets and developing Arabic financial markets*. Arab Foundation for Studies.

Nayak, D., & Choudhury, R. N. (2014). A selective review of foreign direct investment theories. *Working paper*. United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), ARTNeT, No. 143. https://www.econstor.eu/bitstream/10419/103862/1/782793517.pdf

Nayyar, R. (2014). Traditional and modern theories of FDI. Department of Commerce, Delhi University, India. *International Journal of Business and Management Invention*, 3(6), 23-26. www.ijbmi.org

Njuguna, A. E., & Nnadozie, E. (2022). Investment climate and foreign direct investment in Africa: The role of ease of doing business. *Journal of African Trade, 9*(1–2), 23–46. https://doi.org/10.1007/s44232-022-00003-x

Novelli, M. (2023). Destination always is an economic impact report. *Economist Impact*. https://impact.economist.com/perspectives/sites/default/files/ei_booking_destination_always.pdf

OECD. (2008). *OECD benchmark definition of foreign direct investment* (4th ed.). OECD Publishing. https://doi.org/10.1787/9789264045743-en

Okwu, A. T., Oseni, I. O., & Obiakor, R. T. (2020). Does foreign direct investment enhance economic growth? Evidence from 30 leading global economies. *Global Journal of Emerging Market Economies*, 12(2), 217–230. https://doi.org/10.1177/0974910120919042

Olookoyo, F. O. (2012). Foreign direct investment and economic growth: A case study of Nigeria. *BVIMSR's Journal of Management Research, 4*(1), 24–35.

Omri, A., & Sassi-Tmar, A. (2015). Linking FDI inflows to economic growth in North African countries. *Faculty of Economics and Management of Nabeul, University of Carthage, Tunisia*. https://mpra.ub.uni-muenchen.de/82611/

Organization of the Petroleum Exporting Countries (OPEC). (2022). The mentioned range price was recorded on 30/11/2022. https://www.opec.org/opec_web/en/data_graphs/40.htm

Pettinger, T. (2015, November 28). Investment – definition and explanation. *Economics Help*. https://www.economicshelp.org/macroeconomics/definitions/guide_investment/

Pierre, G., & Scarpetta, S. (2007). How labor market policies can combine workers' protection with job creation: A partial review of some key issues and policy options. *World Bank SP Discussion Paper No. 0716*. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/414391468340934539/how-labor-market-policies-can-combine-workers-protection-with-job-creation-a-partial-review-of-some-key-issues-and-policy-options

Pingali, R. S. (2004). Agriculture's contributions to economic and social development. *eJADE: Electronic Journal of Agriculture and Development Economics, 1*(1), 1–5.

Ploeg, S. P. (2010, November). Do natural resources attract FDI? Evidence from non-stationary sector-level data. *De Nederlandsche Bank NV*.

Polanco, R. (2020, January 7). How home country measures can promote foreign direct investment in poor economies. *Trade for Development News*. https://trade4devnews.enhancedif.org/en/op-ed/how-home-country-measures-can-promote-foreign-direct-investment-poor-economies

Porter, M. E. (1990, March-April). The competitive advantage of nations. *Harvard Business Review*. https://hbr.org/1990/03/the-competitive-advantage-of-nations

Porter, M. E. (1990, March–April). The competitive advantage of nations. *Harvard Business Review*. https://hbr.org/1990/03/the-competitive-advantage-of-nations

Ports and Transport Authority in Libya. (2011). *The number of ports in Libya*. https://www.google.com/url

Polat, B. (2018) The Influence of FDI on Energy Consumption in Developing and Developed Countries: A Dynamic Panel Data Approach. Journal of Yasar University, 2018, 13/49, 33-42. P.(2). Link; https://dergipark.org.tr/tr/download/article-file/427370

Raicevic, B., Ignjatijevic, S., & Milojevic, I. (2016). The financial analysis of foreign direct investment on economic growth of developing countries. *Economics of Agriculture, 63*(2), 649–663.

Ramadan, Z. (1988). *Mabadi' al-istithmar al-mali wa-al-haqiqi* [Principles of financial and real investment]. Dar Al-Awael. (Original work published 1988)

Ramigo, P. (2017). *Agricultural contribution to economic growth and development in rural Limpopo province* (Master's thesis). University of Stellenbosch, South Africa.

Raza, S., Shah, N., & Arif, I. (2019). The relationship between FDI and economic growth in the presence of good governance systems: Evidence from OECD countries. *Global Business Review, 22*(2), 1–15. https://doi.org/10.1177/0972150919833484

Razzakovich, R. (2019, May 28). On the research methodology of investment environment's attractiveness provision. *Religación*, 4(15), 210–218. https://www.redalyc.org/journal/6437/643770319031/html/

Razzakovich, R. (2019, May 28). On the research methodology of investment environment's attractiveness provision. *Religación, 4*(15), 210–218. https://www.redalyc.org/journal/6437/643770319031/html/

Roza, P., & Gerdien, W. M. (2007). The role of agriculture in economic development. *Stichting DLO, 2007*(978-90-8585-151-6), 4.

Rugman, A. M. (1980). Internationalization as a general theory of FDI. *Journal of International Business Studies*, 11(1), 365-379. https://www.jstor.org/stable/40438468

Rahman, M. M. (1996). Telecommunications and Economic Development. Wright State University. Master's Culminating Experience. P. (1) https://corescholar.libraries.wright.edu/econ_student/108

Richardson, D., and Jensen, M. (1998) Wireless weaves to lessen the gaps in rural telecommunication coverage in Africa. Book chapter. http://www.fao.org/docrep/x0295e/x0295e11.htm

Sabir, S., Rafique, A., & Abbas, K. (2019). Institutions and FDI: Evidence from developed and developing countries. *Financial Innovation*, 5(1), 8. https://doi.org/10.1186/s40854-019-0123-7

Sabir, S., Rafique, A., & Abbas, K. (2019). Institutions and FDI: Evidence from developed and developing countries. *Financial Innovation, 5*(1), 8. https://doi.org/10.1186/s40854-019-0123-7

Sahoo, P., & Dash, R. (2022). Does FDI have differential impact on export? Evidence from developing countries. *ScienceDirect Journal*. https://doi.org/10.1016/j.inteco.2022.10.002

Salvadori, H. D. (2003). Theory of economic growth: A classical perspective. University of Pisa, Edward Elgar Publishing, Cheltenham, UK. http://digamo.free.fr/salva03.pdf

Sami, A. (1988). *The Egyptian economy between reality and ambition*. The Egyptian Lebanese House.

Saxegaard, E. C. A. (2011, August 1). Economic policies and FDI inflows to emerging market economies. *IMF Working Paper*, 11/180. https://doi.org/10.5089/9781462306251.001

Sharabi, H. B. (1963). Libya's pattern of growth. *Current History, 44*(257), 41–45. http://www.jstor.org/stable/45310853

Siddiqui, K. (2018). David Ricardo's comparative advantage and developing countries: Myth and reality. *International Critical Thought*, 8(3), 4. https://pure.hud.ac.uk/ws/portalfiles/portal/14132571/David_Ricardo_s_Comparative_Trade_Theory.pdf

Smith, A. (2023). Theory of economic growth. *The Library of Economics and Liberty EconLib, 1*.

Srbinoski, B., Karadjova, V., & Aleksandar, T. (2023). Impact of export and investment on economic growth. *Jahorina Business Forum, 26*, 11–17. https://www.researchgate.net/publication/372079698

Statista. (2023). *Number of international tourist arrivals to North Africa (2018–2022)*. https://www.statista.com/statistics/1324740/number-of-international-tourist-arrivals-in-north-africa-by-country

Stern, N. (2003). *Investment climate: Lessons and challenges*. The Egyptian Centre for Economic Studies. https://personal.lse.ac.uk/sternn/097NHS.pdf

Stevens, P. (2018). The role of oil and gas in the economic development of the global economy. In T. Addison & A. Roe (Eds.), *Extractive industries* (1st ed., pp. 71–90). Oxford University Press. https://doi.org/10.1093/oso/9780198817369.003.0004

Sayed, M. A. (2016) The Impact of Oil Prices on the Economic Growth and Development in the MENA countries. Middle East Economic Association. MPRA. https://mpra.ub.uni-muenchen.de/89073/

Singh, J., and Kaur, K. (2023) Role of Telecommunications in Economic Growth: A Theoretical aspect. Sagacity: A Multidisciplinary Research Journal. ISSN 2583-7540- Vol. 2, No. 2. P. (19) Link; https://sagacitykcw.in/files/16.pdf

Sandeep B., and Surender, K. G. (2013) FDI'S IN INDIA- A STUDY OF TELECOMMUNICATION INDUSTRY. International Journal of Advanced Research in Management and Social Sciences. P. (198). ISSN 2278-6236

Tan, L., Xu, Y., & Gashaw, A. (2021). Influence of exchange rate on foreign direct investment inflows: An empirical analysis based on co-integration and Granger causality test. *Mathematical Problems in Engineering, 2021*, 1–12. https://doi.org/10.1155/2021/7280879

Timsina, N., & Pradhan, R. S. (2017). Effects of bank lending on economic growth in Nepal. *Journal of Advanced Academic Research, 3*(3), 53–75. https://doi.org/10.3126/jaar.v3i3.16810

Tuomi, K. (2011). The role of the investment climate and tax incentives in the foreign direct investment decision: Evidence from South Africa. *Journal of African Business*, 12(1), 133–147. https://doi.org/10.1080/15228916.2011.555279

Tuomi, K. (2011). The role of the investment climate and tax incentives in the foreign direct investment decision: Evidence from South Africa. *Journal of African Business, 12*(1), 133–147. https://doi.org/10.1080/15228916.2011.555279

UNCTAD. (2019). *UNCTAD handbook of statistics 2019*. United Nations Conference on Trade and Development. https://unctad.org/system/files/official-document/tdstat44_FS09_en.pdf

United Nations Conference on Trade and Development (UNCTAD). (2022). *World Investment Report 2022*. https://unctad.org/publication/world-investment-report-2022

United Nations Tourism. (2023). *Global and regional tourism performance*. https://www.unwto.org/tourism-data/global-and-regional-tourism-performance

United Nations Trade and Development (UNCTAD). (2023). *Investment policy hub: Bilateral investment treaties between Libya and foreign countries*. https://investmentpolicy.unctad.org/international-investment-agreements/countries/119/libya

Vlados, C. (2019). Porter's diamond approaches and the competitiveness web. *International Journal of Business Administration, 10*(5), 33–52. https://doi.org/10.5430/ijba.v10n5p33

Wakyereza, R. K. (2017). *The impact of foreign direct investment on economic growth, employment, and poverty reduction in Uganda* (Master's thesis). Victoria University, Australia.

Wamitu, S. N. (2016). Functional boundaries as a tacit knowledge sharing factor and its effect on public sector performance in Kenya. *Open Journal of Business and Management*, 4(2), 225-237. https://doi.org/10.4236/ojbm.2016.42024.

Wong, A., & Zhou, X. (2011). Development of financial market and economic growth: Review of Hong Kong, China, Japan, the United States, and the United Kingdom. *International Journal of Economics and Finance*, 3(2), 111. https://doi.org/10.5539/ijef.v3n2p111

Wong, A., & Zhou, X. (2011). Development of financial market and economic growth: Review of Hong Kong, China, Japan, the United States, and the United Kingdom. *International Journal of Economics and Finance, 3*(2), 111–120. https://doi.org/10.5539/ijef.v3n2p111

World Bank. (2022). *The rank of human capital index: Best countries invest in education and healthcare*. https://graphics.wsj.com/table/zumbrun_1010/

World Travel & Tourism Council. (2023). *Economic impact research: The contribution of the tourism sector to economic growth*.

Worldometer. (2022). *Past, present, and future population growth report*. https://www.worldometers.info/world-population/

Wuttapphan, N. (2017). Human capital theory: The theory of human resource development, implications, and future. *Life Sciences and Environment Journal, 18*(2), 240–253. https://ph01.tci-thaijo.org/index.php/psru/article/view/76477

Yavuz, S. (2013). *Essays on investment climate in developing countries* (Doctoral dissertation). Universidad Carlos III de Madrid. https://api.core.ac.uk/oai/oai:e-archivo.uc3m.es:10016/17954

Yousef, M. E. (2018). Agriculture development in Libya prior to 2011. *University of Tripoli*. https://www.researchgate.net/publication/327260879_altnmyt_alzrat_fy_lybya_qbl_2011

Zahra, Azim, & Mahmood. (2008). Telecommunication infrastructure development and economic growth: A panel data approach. *The Pakistan Development Review, 47*(4), 711–726.

Zaman, Q. U., Zhang, D., Ghulam, Y., Shah, Z., & Muhammad, I. (2018). Trade openness and FDI inflow: A case study of Asian countries. *European Scientific Journal, 14*(22), 1–12. https://doi.org/10.19044/esj.2018.v14n22p1

Zavery, N. (2022). *Impact of foreign direct investment on economic growth: Empirical evidence from Tanzania (1990–2020)* (Master's thesis). KDI School of Public Policy and Management.

Zun, B. (2017). *The impact of foreign direct investment on economic growth: Empirical evidence from Myanmar* (Master's thesis). KDI School of Public Policy and Management

List of Tables

List of Figures