

The Role of Economic Policy in Achieving Economic Diversification in Libya

emran Shaeban Al-Hadi Haroun¹, Ilhem GarGouri²

Abstract

This paper sought to estimate the study mainly aimed to analyze the role of economic policies implemented by Libya, and to measure the effectiveness of these economic policies in achieving economic diversification in Libya during the period (1990-2023). To test the effectiveness of economic policies in Libya, the study relied on the inductive approach (analytical tool and descriptive tool), and also relied on the standard approach, the autoregressive distributed lag model (ARDL). The study reached a set of results at the analytical level, the most important of which is that the main reason and the biggest challenge for not achieving economic diversification in Libya is the primary reliance on oil, which constitutes a single growth model.

Keywords: *Economic Policy, Economic Environment, Economic Diversification, Unilateral Economic.*

Introduction

The issue of transitioning from a rentier or single-use economy to a diversified and productive economy has received the attention of many economists and heads of state and governments in the past two decades and recently.

The importance of economic diversification lies in its ability to protect countries from crises and sharp economic fluctuations that may occur in the global economy, which is something that the rentier economy does not provide because it depends on a single resource, which is oil, which makes the rentier economy more vulnerable to external shocks such as changes in oil prices in global markets or the cessation of production or export for any internal or external reasons.

Hence, economic diversification is the key to achieving sustainable development to be able to confront external shocks and correct imbalances and economic problems in the economic structure of any country. Economic policies are the most important tools for achieving economic diversification, as they cover a wide range of measures used by governments to manage their economy.

The most important economic policies are the ability to achieve economic diversification in monetary and fiscal policies. The need to adopt economic diversification strategies has increased, especially in single economies that suffer from uncertainty and fear of future global economic and political crises at any time, which leads to severe structural imbalances, economic collapse, or long periods of economic recession (Nguyen, 2022, p7). Hence, the need for an approach to economic diversification strategies that provide sustainable growth (Fruman, 2017, p23).

In light of the above, it becomes clear that the economy in Libya is a single economy, as economic policies have relied mainly on oil revenues for a decade, which has made the Libyan economy vulnerable to many economic crises at many times, because it is linked to changes in global oil prices, as the Libyan economy recovered and economic growth and financial and external surpluses occurred with the rise in global oil prices and vice versa.

¹ Assistant Lecturer, Faculty of Economics and Political Science, University of Nalut, Department of Economics – Libya, Email: haronomran2@gmail.com

² Assistant Professor at the Higher Institute of Management in Bizerte, Tunisia, Specialization: Economics, Email: Ilhem.gargouri@isgb.ucar.tn

If we take a historical look at the nature of economic, political and social developments in Libya, we will find that since the discovery of oil and the beginning of its production in 1962 until former President Muammar Gaddafi assumed power in 1969, whose rule ended with the outbreak of the Libyan revolution in 2011, which led to the Libyan society witnessing a state of severe political division that led to the outbreak of civil war within Libyan society, and the extension of that struggle for power until mid-2024, which threatens the unity of Libyan lands.

Throughout that period, which extended for a decade until now, the Libyan economy is still dominated by the oil and natural gas sectors, which represent almost all of Libya's export revenues (The Heritage Foundation,2022, p.3).

The Libyan economy depended almost entirely on oil and gas exports throughout the study period (1990-2023), so when relative political stability occurred and financial and military institutions were reunified in 2021, this was reflected positively on the Libyan economy,as the gross domestic product grew by an estimated 123.2% of the gross domestic product in the same year as a result of the resumption of oil production and exports again after the blockade of oil fields imposed by military commander Khalifa Haftar in 2020,which was lifted in December of the same year and exported, which coincided with the recovery of global prices, which led to the current account moving from a deficit estimated at 2.35\$ billion in 2020 to a surplus estimated at 5.25\$ billion in 2021.

However, inflation remained high in the country, reaching 21.1% in 2021. Despite the Tripoli government implementing an active policy in trying to create new job opportunities, unemployment rates reached 20% (i.e. about half of young people and a quarter of women are still unemployed). Work, and the most important indicators of the Libyan economy during the period (2019-2025) can be summarized as shown in the following table: (Libya: Economic and Political Overview, 2022).

Table.No (1). The Most Important Indicators of the Libyan

Economy During the Period (2019-2025)

Main Indicators	2019	2020	2021	2022	2023	2024e	2025e
GDP (billions USD)	72,08	65,69	47,79	55,94	50,49	51,49e	54,36e
GDP (Annual growth rate of %)	-6	-58,30	153,5	1,30	-1,70	4,8e	5,3e
GDP (Constant Prices, Annual Change%)	-11,19	-29,45	28,33	-8,25	10,15	7,83e	6,94e
GDP per Capita (%)	-7,30	-58,80	150,4	0,20	-2,80	3,7e	4,2e
General Government Gross Debt (in % of GDP)	155	83	85,3	87,7	54,4	51,2e	55e
Inflation Rate (%)	2,2	1,4	2,9	4,50	2,40	3e	2,9e
Current Account (billions USD)	4,64	-4,79	5,68	12,4	7,06	9,83e	10,51e
Current Account (in % of GDP)	6,4	-9,4	13,3	20,6	23,55	20,3e	20,9e

Source: Prepared by the researcher based on the following sources:

World Bank Database and Statistics, available at: <https://data.worldbank.org>

IMF – World Economic Outlook Database, April 2024, at:

<https://fred.stlouisfed.org/series/lbyngdprchpt>

In this context, it is clear from the above that the Libyan economic policy operates under difficult circumstances, as it witnesses a state of uncertainty and fear of risks that grow from one decade to the next, which may lead to the disruption of the work of these policies, which constitutes an obstacle to achieving their goals. Accordingly, the Libyan economy suffers from dual risks, whether internal, such as ongoing internal divisions, or external, such as the turmoil of the international market or fluctuations in international oil prices or foreign interference in Libyan affairs.

Therefore, the option of economic diversification is an indispensable matter to ensure the achievement of sustainable development and confront external shocks.

Literature Review

Alshadli Ahmed Edwik in (2007), conducted a study to Oil dependency, economic diversification and development a case study of Libya, The inductive and analytical approach was used for statistics and data of the Libyan economy. The study that The Libyan economy relies heavily on increasing oil revenues, which may deteriorate with a future oil price decline. The Libyan economy performed as well as resource poor countries over the past few decades. which Libya relies heavily on oil receipts, the price of which tends to fluctuate widely in the international market. Also, the Libyan economy is dominated by hydrocarbons and the public sector.

Mohsin Khan and Karim Mezran in 2013, conducted a study to The Libyan Economy after the Revolution: Still No Clear Vision, the study using Analytical methodology. The study found that The Libyan economy collapsed in the wake of the popular uprising in February 2011 that led to the overthrow of the Muammar Qaddafi regime later that year. As the war raged, virtually all economic activity, especially oil production (the mainstay of the Libyan economy) witnessed a dramatic decline.

A study conducted by: Mohamed Ali Mohamed (2014) in Diversification Prospects for Sustainable Libyan Economic Growth, They used source dependence captures the extent to which a country's economy relies on resource rents. This study has focused on the efforts to date by Libya to diversify its economic base. The study found that to achieve its objective of sustainability, Libya will need to ensure natural resources continue to be managed efficiently into the future, This may require some policy adjustments.

Mishrif et. Al, 2018, conducted a study on the aimed to analyze the economic diversification strategies in the GCC countries. The study relied on the descriptive analytical and inferential approaches, by analyzing statistics, data and information for six Gulf countries. It concluded that diversification was successful in the energy sector through investment in upstream and downstream industries, as well as energy-intensive industries such as petrochemicals, aluminum and fertilizers, where the GCC countries have a comparative advantage. However, these countries have not yet expanded into non-hydrocarbon industries to build vibrant and diversified economies that can withstand the effects of oil price shocks. The continuation of the state-owned model and the dominance of the public sector are major challenges to diversification, and if the GCC countries want to implement successful diversification, they must support and increase the role of the private sector in economic development.

In 2020 Siham Matallah, conducted a study on the one hand, to test the impact of oil rents on economic growth and examine the main symptoms of the resource curse phenomenon in oil-abundant MENA countries, and on the other hand, to investigate the role of governance in avoiding the resource curse and turning oil rents into a tool for economic diversification in 11 MENA oil exporters (Algeria, Bahrain, Iran, Iraq, Kuwait, Libya, Oman, Qatar, Saudi Arabia, United Arab Emirates, and Yemen) over the period 1996-2018. The main findings indicate that diversification, good governance and oil rents lay the foundation for sustainable growth in MENA oil exporters.

Document the United Nations Economic and Social Commission for Western Asia (ESCWA) in 2021 "The role of the State in sustainable economic development and the strategic positioning of Libya in the global economy, It Document concluded that Libya through its ownership of oil resources and public

spending on various forms of economic activity. As a result, the public sector has played a major role in the process of economic development, while the private sector has only had a weak role.

In 2021 Addisu and et. Al, The study aimed to examine recent evidence and identify empirical patterns in economic diversification in resource-rich countries, in addition to providing a rich description of diversification patterns and their political associations in resource-rich economies through a sample of 42 countries. The study relied on the descriptive analytical approach to measure diversification using the growth of non-resource sectors (manufacturing and services) per capita in domestic and export markets, which is characterized by a clearer interpretation than competing measures. The study found a disconnect between relative diversification performance on the one hand and the development of competitive capabilities on the other hand, and it also remains necessary to diversify the economy in resource-rich countries, on the one hand there is a negative association between resource dependence and the growth of value added of services and exports.

Al-Jariw, 2022, conducted a study to the indicators of economic diversification in the Libyan economy in order to determine the requirements and alternative strategies for achieving it in the future. The study relied on the two approaches (standard and descriptive analytical), as it relied on the standard method in analyzing the relationship between growth and diversification, as well as the descriptive analytical method to track and analyze the indicators of economic diversification in the Libyan economy. The study concluded that there are Libyan development plans related to economic diversification, but they have not been embodied on the ground except in the narrowest limits.

In 2024, Saber Al-Mahdi Al-Wahsh conducted a study on 'The competitive advantage of geographical location and diversification of income sources in the Libyan economy, The research aimed to study the competitiveness of Libya's geographical location, to identify its possible role in diversifying sources of income. The research relied on descriptive analysis through four axes: the first is concerned with competitiveness, the second is concerned with economic diversification and its indicators, and the third is concerned with indicators of African countries landlocked on the southern borders of Libya. The fourth presents the possible role of geographical location in diversifying sources of income in the Libyan economy, and a set of results were reached, the most important of which are: that Libya's geographical location gives it a competitive advantage that enables it to diversify its sources of income; By establishing and activating free economic zones on its northern coast and southern borders, however, the achievement of these desired goals by these areas is weak as a result of the weak infrastructure represented by the dilapidated road network, the undeveloped banking system, and the weak communications network. Therefore, to activate the contribution of the geographical location in diversifying the sources of income in Libyan Economy The research recommended developing infrastructure projects and accelerating the establishment of free zones.

Corinne C Delechat, Giovanni Melina, Monique Newiak, and others in 2024, conducted a study on The significance and impact of broad-based and industrial policies on economic diversification in developing economies, used a literature reviews, case studies, and IMF analyses. The study found that Economic diversification entails shifting from traditional sectors, like agriculture and mining, to a variety of high-quality services and sectors, This transition is crucial for adapting to global market fluctuations and promoting sustainable growth and improved living standards.

Data and Methodology

The study relies on the standard approach when measuring the impact of economic policy in achieving economic diversification in Libya during the period (1990-2023), where economic policy represents the independent variable, and the dependent variable is economic diversification measured by three indicators: the percentage of contribution of non-oil economic sectors to the gross domestic product, the percentage of contribution of non-oil revenues to total revenues, and the percentage of contribution of non-oil exports to total exports.

After testing the stability of the time series, the current study used the autoregressive model with distributed lags, which is characterized by avoiding the problem of spurious regression, which arises due to the non-

stationarity of time series data. This model is also distinguished from others - such as the error correction model - in that it can be applied in the event of a difference in the degree of integration of the time series under study.

Study Objectives

The study mainly aimed to analyze the role of economic policies and measure the effectiveness of these economic policies in achieving economic diversification in Libya during the period (1990-2023).

Empirical Analysis

The study was interested in measuring the impact of each of the economic policy on achieving economic diversification in Libya during the period (1990-2023), according to standard models based on applied studies, using the autoregressive model with distributed lags (ARDL), and measuring this relationship using the (ARDL) model is done through four basic stages, which are: testing the stability of the study variables, and testing joint integration using the (Bounds test) methodology, as follows:

Stability Study of Time Series of The Variables Under Study

The inductive study of time series of the study variables aims to know the extent of the stagnation of the variables in the short term. To do this, we rely on the unit root test. Despite the multiplicity of unit root tests, the best and most widely used is the expanded Dickey-Fuller test (ADF). Using the statistical program (Eviews 10), the optimal lag periods and the results of the expanded Dickey-Fuller test (ADF) for the variables under study were reached, as shown in the following table:

Table No. (1) Optimal Lag Periods and The Expanded Dickey-Fuller Test

for the Variables Under Study

V	Level			First difference			Integration I(D)
	Statistical ADF		directionless and disconnected	Statistical Value ADF	Result		
X1 Lag=0	6.006151- (0.0001)		directionless and disconnected	--	--	--	I (0) 1:10%
X2 Lag=1	0.221612 - 0.5988	Un	directionless and disconnected	7.178778 - (0.0000)	Stable	directionless and disconnected	I (1) 1:10%
X3 Lag=1	3.393152- 0.9996	Un	directionless and disconnected	3.372252- 0.0731	Stable	directionless and disconnected	I (1) 10%
X4 Lag=1	1.026702- 0.2678	Un	directionless and disconnected	6.313376- (0.0001)		directionless and disconnected	I(1) 1:10%
X5 Lag=1	(0.1591)7	Un	directionless and disconnected	2.99 (0.0038)		directionless and disconnected	I(1) 1:10%
Y1 Lag=2	0.531686 - (0.4786)	Un	directionless and disconnected	2.909034 -0.0050		directionless and disconnected	I(1) 1:10%
Y2 Lag=2	1.824896 - 0.0653	Un	directionless and disconnected	7.200431- (0.0000)		directionless and disconnected	I(1) 1:10%

Y3 Lag=1	0.830067 - 0.3487	Un	directionless and disconnected	5.313030 (0.0000)		directionless and disconnected	I(1) 1:10%
---------------------	------------------------------	-----------	---	------------------------------	--	---	-----------------------

Source. Prepared by the researcher, using Eviews10.

According to the results shown in the previous table, the null hypothesis of unit roots in the time series of all variables used in the model at the original level of the time series was rejected for all variables except for variable X1.

When taking the first difference of the time series, it was found that all time series were stable at the level of (1: 10)% except for X3, in the absence of a categorical (fixed term) and a general trend, except for X3, X4. This means that it is possible to conduct a joint integration test in order to detect the existence of a static relationship in the long run between the study variables. %, and it is concluded from all of this that the variables are integrated of order (I)0 and (I)1 and there are no integrated variables of order two (I)2.

Therefore, the joint integration methodology can be applied using the (ARDL) model.

Joint integration test using the autoregressive model with distributed lag periods and the boundary testing methodology:

In the previous section, it was concluded that all variables included in the model are stationary and that they are integrated to the same degree, which means that it is necessary to conduct an integration test between them to examine the stability of the relationship between them in the long run. To verify the possibility of a joint integration relationship in the long run between the study variables - after ensuring the stationarity of the internal variables of the model - the boundary testing method is used) which requires choosing the optimal lag periods for the models used in the study, as shown in the following table:

Table (2). Determining the Optimal Number of Time Lag Periods

for the Standard Models Under Study

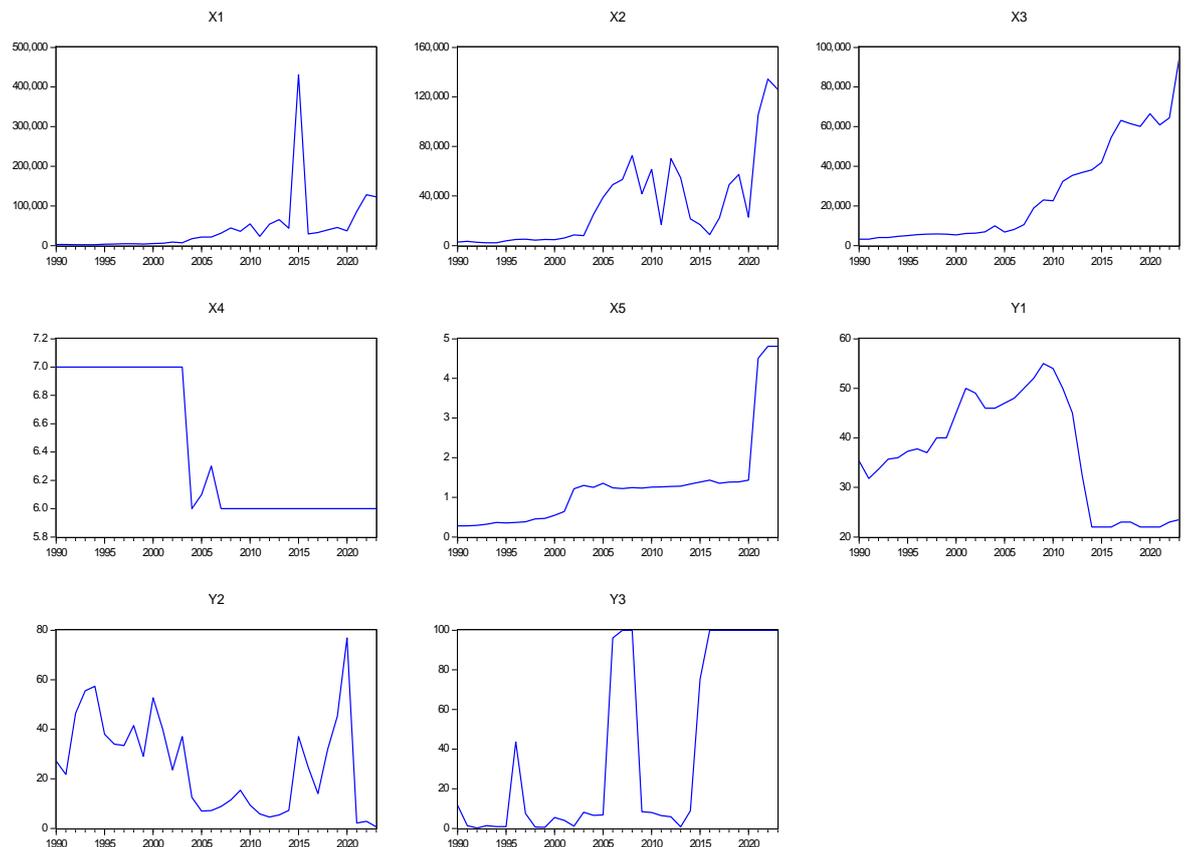
Model Nu	Model structur	Test results according to stand		Optima slowdown period
			Sc	
First	y1= f (x1, x2)	52.69376*	54.64188*	5
Secor	Y2= f (x1, x2)	55.80477*	57.59032*	5
Third	Y3= f (x1, x2)	56.83689*	58.74353*	5
Fourth	y1= f(x3, x4, x5)	23.32405*	27.28450*	5
Fifth	Y2= f(x3, x4, x5)	26.27228*	29.90199*	5
Sixth	Y3= f(x3, x4, x5)	27.71244*	31.67289*	5
Seven	Y1= f(x1, x2,X3,X4)	68.91531*	74.18868*	3
Eight	Y2= f(x1, x2,X3,X4)	74.00482*	78.15603*	3
Nintl	Y3= f(x1, x2,X3,X4)	73.30728*	78.58065*	3

Source. Prepared by the researcher, using Eviews10.

Looking at the previous table, it is clear that the lag degrees for all 9 models, which give the lowest values for the Akaike and Schwarz criteria, were limited to three lag degrees for each of the seventh, eighth and ninth models, and five lag degrees for the rest of the models. To determine the components of the ARDL

model, the time series of the variables under study were drawn, to identify their development over time, as shown in the following figure:

Figure No. (1). Development of Time Series of the Variables Under Study During the Period (1990-2023)



Source: Prepared by the researcher, using Eviews10.

Looking at the previous figure, it is clear that the variables under study do not take a clear trend over time, and therefore the components of the model structure can be determined by choosing Constant.

When choosing, the bounds test method is used to identify the extent of the existence of a long-term equilibrium relationship (the existence of joint integration) for the nine models mentioned above. The (F) statistic was calculated, and the (t) statistic was calculated through the bounds test, and the results were as shown in the tables included in the statistical appendix, as follows:

As for the first model, which shows the relationship between the indicators of fiscal policy and economic diversification measured by the indicator of the percentage of contribution of non-oil sectors to the gross domestic product, we find that the value of the calculated (F) statistic, amounting to (8.206611, is greater than all the values of the upper limit at a significance level of (10:1%), which means accepting the alternative hypothesis and rejecting the null hypothesis, meaning that there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023), while we find that the absolute value of the (t) statistic, amounting to about (0.535) is less than all upper bound values, and then we accept the null hypothesis, and we decide that the joint integration relationship of the first model is illogical. This is due to many reasons, including:

Continued dependence on oil: The oil sector still constitutes the largest part of the Libyan economy, which makes any efforts to diversify the economy ineffective in light of the heavy dependence on oil revenues.

Lack of political stability: Political and economic instability can hinder any efforts to implement effective fiscal policies, leading to weak economic diversification .

Corruption and weak governance: Corruption and mismanagement can drain financial resources, which hinders the ability to invest in non-oil sectors.

Lack of an integrated fiscal policy: The absence of a clear vision and an integrated strategy in fiscal policy can lead to a lack of coordination between the various economic sectors.

As for the second model, which shows the relationship between monetary policy indicators and economic diversification measured by the indicator of the percentage of contribution of non-oil sectors to GDP, we find that the calculated value of the (F) statistic, which is (5.010008), is greater than the upper limit values at a significance level of (10:2.5%), which means accepting the alternative hypothesis and rejecting the null hypothesis, i.e. there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023). We also find that the absolute value of the (t) statistic, which is about (4.283), is greater than The upper bound values are at a significance level of (2.5: 10%), and then we reject the null hypothesis, and decide that the cointegration relationship of the second model is logical.

As for the third model, which shows the relationship between economic policy indicators (financial and monetary together) and economic diversification measured by the indicator of the percentage of contribution of non-oil sectors to GDP, we find that the calculated value of the (F) statistic, which is (3.778704), is greater than the upper limit values at a significance level of (10%) only, which means accepting the alternative hypothesis and rejecting the null hypothesis, i.e. there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023), while we find that the absolute value of the (t) statistic, which is about (3.796), is less than all upper limit values, and thus we accept the null hypothesis, and we decide that the joint integration relationship of the third model is illogical. This is due to many reasons, including:

Weak coordination between policies: The lack of effective coordination between fiscal and monetary policy affects their ability to achieve economic diversification goals.

Unfavorable economic environment: Difficult economic conditions such as inflation and unemployment High levels affect the ability of fiscal and monetary policies to support economic diversification.

Lack of long-term strategies: The lack of clear and long-term strategies in fiscal and monetary policies can lead to ineffectiveness in supporting economic diversification.

As for the fourth model, which shows the relationship between fiscal policy indicators and economic diversification measured by the non-oil revenues to total public revenues ratio indicator, we find that the calculated (F) statistic value of (21.05295) is greater than all upper limit values at a significance level of (10:1%), which means accepting the alternative hypothesis and rejecting the null hypothesis, i.e. there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023). We also find that the absolute value of the (t) statistic of about (4.1491) is greater than all upper limits at a significance level of (1:10%), and thus we reject the null hypothesis, and we decide that the joint integration relationship of the fourth model is logical.

As for the fifth model, which shows the relationship between monetary policy indicators and economic diversification measured by the non-oil revenues to total public revenues ratio indicator, we find that the calculated (F) statistic value The value of (6.467332) is greater than all upper limit values at a significance level of (10:1%), which means accepting the alternative hypothesis and rejecting the null hypothesis, i.e. there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023), while we find that the absolute value of the (t) statistic, which is about (3.442), is less than all upper

limit values, and thus we accept the null hypothesis, and we decide that the joint integration relationship of the fifth model is illogical. This is due to many reasons, including:

Heavy dependence on oil: The Libyan economy is considered a rentier economy that depends mainly on the oil sector, which represents about 95% of exports and government revenues. This dependence limits the ability of monetary policy to influence economic diversification, as non-oil revenues remain weak compared to oil revenues.

Political instability, as Libya suffers from continuous political instability, which negatively affects the effectiveness of monetary policies. Political crises lead to economic volatility, making it difficult to achieve economic diversification goals.

The relationship between monetary policy and economic diversification in Libya is complex due to the heavy dependence on oil, political instability and weak economic infrastructure. Comprehensive strategies and structural reforms are required to achieve the required integration between these two elements.

As for the sixth model, which shows the relationship between economic policy indicators (financial and monetary together) and economic diversification measured by the indicator of the ratio of non-oil revenues to total public revenues, we find that the calculated value of the (F) statistic, which is (3.515700), is greater than the upper limit values at a significance level of (10%) only, which means accepting the alternative hypothesis and rejecting the null hypothesis, i.e. there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023), while we find that the absolute value of the (t) statistic, which is about (1.25), is less than all upper limit values, and thus we accept the null hypothesis, and we decide that the joint integration relationship of the sixth model is illogical. This is due to many reasons, including:

The Libyan economy is heavily dependent on oil revenues, making any efforts to diversify revenue sources ineffective. This dependence limits the impact of monetary and fiscal policies on non-oil sectors, as non-oil revenues remain weak.

The ongoing political crises affect the effectiveness of monetary and fiscal policies. Instability leads to significant economic fluctuations, making it difficult to achieve economic diversification goals.

Lack of coordination between policies, studies show that there is a lack of coordination between monetary and fiscal policies, which leads to failure to achieve the desired economic goals. This absence can lead to conflicting goals and policies.

As for the seventh model, which shows the relationship between fiscal policy indicators and economic diversification measured by the non-oil exports to total exports ratio, we find that the calculated (F) statistic value of (12.04025) is greater than all upper bound values at a significance level of (10:1%), which means accepting the alternative hypothesis and rejecting the null hypothesis, i.e. there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023). We also find that the absolute value of the (t) statistic of about (5.648349) is greater than all upper bounds at a significance level of (1:10%), and thus we reject the null hypothesis, and we decide that the joint integration relationship of the seventh model is logical.

As for the eighth model, which shows the relationship between monetary policy indicators and economic diversification measured by the non-oil exports to total exports ratio, we find that the calculated (F) statistic value of (4.598344), greater than the upper limit values at a significance level of (10:5%), which means accepting the alternative hypothesis and rejecting the null hypothesis, i.e. there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023), while we find that the absolute value of the (t) statistic, which is about (1.459878), is less than all the upper limit values, and thus we accept the null hypothesis, and we decide that the joint integration relationship of the eighth model is illogical. This is due to many reasons, which are:

Political instability: Libya suffers from recurring political crises, which negatively affects the effectiveness of monetary policies. Instability leads to economic fluctuations that make it difficult to achieve the goals of economic diversification and increase non-oil exports.

Weak economic infrastructure: Libya lacks a strong infrastructure that supports non-oil sectors. The majority of investments remain concentrated in the oil sector, which hinders the development of other industries and increases its exports.

As for the ninth model, which shows the relationship between economic policy indicators (financial and monetary together) and economic diversification measured by the non-oil exports to total exports ratio indicator, we find that the calculated (F) statistic value, which is (6.964763), is greater than the upper limit values at a significance level of (10:1%), which means accepting the alternative hypothesis and rejecting the null hypothesis, i.e. there is a long-term equilibrium relationship between the indicators of this model during the period (1990-2023), while we find that the absolute value of the (t) statistic, which is about (3.706309), is less than all upper limit values, and thus we accept the null hypothesis, and we decide that the joint integration relationship of the ninth model is illogical. This is due to many reasons, which are:

Lack of coordination between policies: There is a lack of coordination between monetary and fiscal policies, which leads to failure to achieve the desired economic goals. This absence can lead to conflict in goals and policies, which weakens the impact of monetary policy On boosting non-oil exports.

Impact of inflation and unemployment: High inflation and unemployment rates affect the ability of monetary policy to support non-oil sectors. Focusing on addressing these issues may consume resources and efforts that could be invested in boosting exports.

Absence of clear development strategies: There are no clear and integrated strategies aimed at diversifying the economy and increasing non-oil exports. Although there are recommendations on the need to diversify economic activities, these recommendations have not been translated into tangible actions.

In light of the above, to measure the impact of economic policy on achieving economic diversification in Libya during the period (1990-2023), the impact of economic policies will be used as measured by (fiscal policy indicators, monetary policy indicators, indicators of both fiscal and monetary policy together) - as an independent variable - and indicators of measuring economic diversification -as a dependent variable - and due to the difficulty of obtaining a comprehensive variable for each of fiscal policy, monetary policy, and economic diversification in Libya during the period (1990-2023), five independent indicators were relied upon, two indicators to express fiscal policy, which are:

Total public spending, symbolized by x_1), (Total public revenues, symbolized by x_2), and three indicators of monetary policy, which are: (Total monetary base, symbolized by x_3), (Interest rate on lending, symbolized by x_4), (Real exchange rate, symbolized by x_5) and three indicators to express economic diversification, which are:

The percentage of contribution of non-oil sectors to the gross domestic product, symbolized by y_1), (the percentage of non-oil revenues' contribution to total public revenues, symbolized by y_2), (the percentage of non-oil exports' contribution to total exports, symbolized by y_3).

Accordingly, we use the data shown in the following table, which is related to the development of fiscal policy indicators, monetary policy indicators, and economic diversification indicators in Libya during the period (1990-2023). The data were obtained from the Central Bank of Libya, the Arab Monetary Fund, and the World Bank's database and statistics, as follows:

Table No. (3). Indicators of the Development of Fiscal Policy, Monetary Policy, and Economic Diversification in Libya During the Period (1990-2023).

Year	Economic diversification indicators			Fiscal policy indicators		Monetary policy indicators		
	y1	y2	y3	x1	x2	x3	x4	x5
1990	35.3	27.16	11.610	2752	2736	3185.4	7	0.283
1991	31.8	21.76	1.415	2818.3	3415	3185.4	7	0.282
1992	33.7	46.42	0.149	2239.2	2553	4092.3	7	0.293
1993	35.7	55.57	1.388	2408.2	2314	3992.7	7	0.324
1994	36	57.36	0.893	2216.2	2188	4627.3	7	0.365
1995	37.3	38.00	0.854	3036.9	3684	4985.7	7	0.353
1996	37.8	34.06	43.652	3711.9	4980	5434.8	7	0.362
1997	37	33.47	7.484	4621.1	5037	5772.8	7	0.384
1998	40	41.57	0.668	4466	4366	5861.1	7	0.456
1999	40	29.09	0.564	4007	4857	5696.8	7	0.465
2000	45	52.75	5.529	5250.2	4662.2	5327.5	7	0.543
2001	50	39.94	4.070	5631.6	5998.8	6141.3	7	0.642
2002	49	23.60	1.115	8487	8574.1	6240.1	7	1.213
2003	46	37.12	8.113	6866.2	8040.2	6890.6	7	1.301
2004	46	12.54	6.626	17230	24977.2	9920.7	6	1.253
2005	47	7.01	6.855	21343	38943.3	6759	6.1	1.352
2006	48	7.18	96.045	21378	49061.5	8158.9	6.3	1.242
2007	50	8.86	99.994	30883	53366	10498.3	6	1.223
2008	52	11.44	99.993	44115.5	72741.2	18881.6	6	1.243
2009	55	15.41	8.332	35677.2	41785.6	23022.8	6	1.235
2010	54	9.41	8.007	54498.8	61503.1	22604.2	6	1.256
2011	50	5.85	6.399	23366.5	16813	32404.5	6	1.265
2012	45	4.56	5.835	53941.6	70132	35438.2	6	1.273
2013	32.5	5.46	0.839	65483.5	54764	36886.6	6	1.283
2014	22	7.27	8.834	43814.9	21543	38130.3	6	1.335
2015	22	37.08	75.151	431178.9	16843	41926.2	6	1.382
2016	22	24.64	99.937	29171.3	8845	54597.6	6	1.434
2017	23	14.01	99.979	32692	22338	63199.9	6	1.356
2018	23	31.88	99.977	39286	49144	61400.3	6	1.383
2019	22	45.27	99.978	45813	57365	60073.1	6	1.392
2020	22	76.86	99.995	37310	22818	66531.8	6	1.432
2021	22	2.13	99.934	85775	105700	60869.2	6	4.51
2022	23	2.86	99.942	127900	134400	64450.5	6	4.81
2023	23.5	0.63	99.940	122700	125911	94814.2	6	4.81

Source: Prepared by the researcher based on statistics and data from the Central Bank of Libya, the Arab Monetary Fund, and the World Bank's database and statistics, various years.

Based on the above, the researcher concluded that the economic policies implemented by the Libyan administration were ineffective by measuring the impact of the Libyan economic policy (monetary, financial) on achieving economic diversification, which was characterised by ineffectiveness.

Conclusion and Recommendations

Economic policies are one of the most important means that the state relies on to achieve a set of economic and social goals, as financial and political policies play an important role in achieving economic harmony through stabilizing price levels, exchange rates and interest rates, rationalizing public spending and developing revenues. If this harmony is achieved between financial and monetary policy, economic and social diversity and development will occur in all sectors of the state.

In this context, the researcher concluded that the economic policies followed by Libya during the study period focused largely on oil revenues and the monopoly of the public sector over all activities within the state's economic activity, and the shrinking role of the sector in the economic development process, which led to limited diversity in the Libyan economy.

The study aimed to measure the relationship between economic policies and economic diversification in Libya during the period (1990-2023). This was done using the standard approach - ARDL model, and it reached a set of results, which can be summarized as follows:

The results of the joint integration test (boundary test) confirmed, regarding the relationship between economic policies and economic diversification, measured by the index of the percentage of contribution of non-oil sectors to the gross domestic product in Libya during the period (1990-2023), the existence of a logical joint integration relationship for monetary policy and its relationship with economic diversification, and the existence of an illogical joint integration relationship for both fiscal policy and fiscal and monetary policy together and their relationship with economic diversification. This is due to many reasons, the most important of which are: continued dependence on oil, absence of political stability, corruption and weak governance, lack of an integrated fiscal policy, weak coordination between policies, unfavorable economic environment, and absence of long-term strategies.

The results of the joint integration test (boundary test) confirmed, regarding the relationship between economic policies and economic diversification, measured by the index of the percentage of contribution of non-oil revenues to total revenues in Libya during the period (1990-2023), the existence of a logical joint integration relationship for fiscal policy and its relationship to economic diversification, and the existence of an illogical joint integration relationship for both monetary policy and fiscal and monetary policy together and their relationship to economic diversification, due to many reasons, the most important of which are:

The heavy dependence on oil, the instability of the political situation, the weakness of the economic infrastructure, and the absence of coordination between policies).

the results of the joint integration test (boundary test) confirmed, regarding the relationship between economic policies and economic diversification, measured by the index of the percentage of contribution of non-oil exports to total exports in Libya during the period (1990-2023), the existence of a logical joint integration relationship for fiscal policy and its relationship to economic diversification, and the existence of an illogical joint integration relationship for both monetary policy and fiscal and monetary policy together and their relationship to economic diversification. This is due to many reasons, the most important of which are: political instability, weak economic infrastructure, lack of coordination between policies, and the impact of high inflation and unemployment.

Economic diversification requires working on developing a balanced approach to development, carrying out harmonious and integrated reforms, in addition to investing in human resources, institutions and infrastructure, and working to provide a good business climate.

The study offers some recommendations, which are given below:

- The Libyan government must coordinate between fiscal and monetary policies when developing economic plans in order to ensure the achievement of economic development and diversification in all economic fields and sectors.
- Creating a data network that includes all information about all economic and social sectors within Libya.
- Enacting laws and legislation to facilitate the introduction of modern technologies into the educational process.
- Interest in international marketing for all industrial fields in Libya.
- Carrying out horizontal and vertical expansion in the agricultural sector by relying on crops that do not need much water.

References

- A .A. Adwick and P. L. Ruddock (2007), Oil, Economic Development And Diversification In Libya, University of Tripoli, Libya.
- Ashraf Mishrif,Y. Al Balushi, (December 2018) , Introduction to Economic Diversification in the GCC Region, Gulf Research Centre , Cambridge Volume I, The Political Economy of the Middle .
- Addisu A Lashitew, Michael L Ross, Eric Werker (2021) ,What Drives Successful Economic Diversification in Resource-Rich Countries? , Journal Article, The World Bank Research Observer, Volume 36, Issue 2, August 2021, at: <https://academic.oup.com/wbro/article/36/2/164/5813434>
- Al-Jariu, Najla Ahmed Najib Al-Shaniti, (2022), Requirements and Strategies for Economic Diversification in the Libyan Economy during the Period (1970-2010), Master's Thesis, University of Zawiyah, Faculty of Economics, Libya.
- Arab Monetary Fund, <https://www.amf.org.ae/en/countries/state-libya>
- Central Bank of Libya, Economic Bulletin for several different years (2011-2014-2017-2020-2022-2023-2024), access date: 5/1/2024, available at: <https://cbl.gov.ly>.
- ESCWA :(2021),The role of the State in sustainable economic development and the strategic positioning of Libya in the global economy, the United Nations Economic and Social Commission for Western Asia , <https://www.unescwa.org/sites/default/files/inline-files/rights-based-socioeconomic-vision.pdf> .
- IMF (2024): Economic Diversification In Developing Countries: Lessons From Country Experiences With Broad-Based And Industrial Policies,Author: (Corinne C Delechat, Giovanni Melina, Monique Newiak, Chris Papageorgiou, Ke Wang, And Nikola Spatafora), IMF Departmental Papers,Volume 2024: Issue 006.
- IMF – World Economic Outlook Database, April 2024, at: <https://fred.stlouisfed.org/series/lbyngdprpcht>
- Mohsin Khan and Karim Mezran (2013), The Libyan Economy after the Revolution: Still No Clear Vision, the Atlantic Council's Rafik Hariri Center for the Middle East, April 24, 2013.
- Mohamed Ali Mohamed (2014) , Diversification Prospects for Sustainable Libyan Economic Growth, University of Huddersfield .
- Siham Matallah (2020),Economic Diversification and Governance Challenges in MENA Oil Exporters: A Comparative Study, ERF 26TH Annual Conference 2020, Economic Research Forum.
- Saber Al-Mahdi Al-Wahsh (2024), The competitive advantage of geographical location and diversification of income sources in the Libyan economy, Journal of North African Economics , Volume 20 , Issue 35.
- World Bank Database and Statistics, available at: <https://data.worldbank.org>