

**EFFECT OF CAPITAL EXPENDITURE ON SOCIO – ECONOMIC
DEVELOPMENT OF LIBYA FROM 1970 TO 2005**

**A master Thesis submitted to the College of Business Universiti Utara Malaysia
in partial fulfillment of the requirements for the degree of
Master of Economics**

**By
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ABSTRACT

The effects of government expenditure and its size have stimulated controversy in macro economics in recent time especially on a long run economic growth. Public expenditure policies respecting sound government finances are key to fostering growth and preserving macroeconomic stability because public expenditure supports growth via public services. Libyan government expenditure has been on the increase for some time now. The problem is how effective (in terms of stimulating economic growth) are the government expenditure and what are the causes of this increasing government expenditure.

This paper is based on an economic analysis of Libya's capital expenditure on socio economic development during the period 1970-2005. In addition, the research is aimed at finding the causes of the increase in Libya's government expenditure from 1970 to 2005 and what is going to be the impact of such increase on the economic growth.

The data is sourced from annual report of Central Bank of Libya from the period of 1970-2005. In addition, to estimate the effect of government expenditure on economic growth, the Error Correction and Granger Causality Model are estimated (for effect of economic growth on government expenditure as well). The findings indicate that no consistent evidence that changes in government spending has an impact on per capita real output growth. The flow of causality seems to be running in the other direction from output growth to government spending. Therefore, an important implication of the analysis for the conduct of public policy in Libya is that the government can face its deficit by shrinking its size and limiting its role in the economy.

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CHAPTER ONE

INTRODUCTION

1.0 The Libyan Economy

The Libyan economy is characterized by high degree of interdependence with the rest of the world, particularly in the field of trade exchange. As such, the country is heavily reliant on the exports of crude oil, as the main source of foreign exchange earnings (Wilkinson, 2002). However, like the typical oil-rich countries in the Middle East and North Africa (MENA) region, Libya has until recently relied heavily on oil exports. With widely fluctuating and generally declining oil prices and revenues in the last two decades, the country has since 1970s exerted notable efforts aimed at achieving economic diversification. These efforts have led to sustained investment in the non-oil sectors, especially in manufacturing, agriculture and other sectors of the economy (USA Department of Commerce, 1997).

However, the main objective of economic development plans in Libya is to diversify the local economy and to find other sources of income rather than oil to achieve such growth in non-oil sector, capital goods imports and raw materials may play a crucial role in the economic development process, as a means of sustaining the country's economic development plans. To be able to effectively estimate the effect of the expenditure of government there is need for the assessment of the relationship between import and economic growth and GDP and import.

Libya is one of the developing countries with large area and low density of population and large endowment of natural resources, oil and gas. It relies heavily on a single exportable

commodity, (i.e., crude oil), as the main source of foreign exchange earnings. Due to the developing nature of its economy, and the limited availability of other endogenous resources other (than oil and gas), the country relies heavily on the imports of intermediate inputs, as a means of sustaining the people standard living, providing for the various needs for the local market.

As a result of, the structural changes in the local economy, through the socioeconomic development plans. The share of manufacturing in GDP rose from 5 % in 1970 to around 15.1 % in 2005, while the share of agricultural sector increased consecutively from 6% in 1970 to 9% in 2005, and real GDP increased dramatically from \$4380 million in 1970 to \$44820 million in 2005. The value of imports increased consecutively and its ratio in GDP reached to a peak of 28.5% in 1975 and to around 18.5% in 1980. As a result of, the government imports restriction policy to reduce the negative impact of the U.N sanctions which imposed against Libya in the 1990s, and the freezing of Libya's assets abroad. The ratios of imports in GDP declined to 16.29%, 16.17% in the years 1990, 1995, 2000 respectively, increased to 16.11% in 2005. Whereas, the share of imported intermediate inputs registered high levels of total imports representing more than 65% during the period of the study.

Table 1.1: GDP, Imports, and the Structure of Imports (Libya, selected years)

YEAR	GDP	IMPORTS		STRUCTURAL OF IMPORT GOODS (%)		
	\$ million	Value	% GDP	Capital	Material	consumption
1970	4380	534.4	12.65	66.71	10.75	22.52
1975	12491	3534.1	28.30	74.52	8.35	17.12
1980	35880	6760.8	18.24	72.82	7.86	19.32
1985	24334	4493.4	18.46	68.43	5.63	25.12
1990	32807	5345	16.29	68.15	9.18	22.67
1995	29928	4839.8	16.17	63.28	10.88	25.21
2000	32450	6223	19.17	65.33	12.28	22.39
2005	44820	7224	16.11	67.19	15.23	17.58

Source: Calculated from Annual Reports of Central Bank of Libya, various issues; and from trends of Libyan Foreign Trade, 1970-1988, Authority of Information and Documentation, Tripoli, Libya

The value of imports increased significantly, due to the increases of local market requirements from various goods and services, and can be attributed to the ambitious development plans, and to the lack of capital goods produced in the local market. Thus, Table 2 indicates the evolution of exports and imports and balance of trade. (Libya, selected years).

Table1.2: GDP, Imports, and the Structure of Imports (Libya, selected years)

2357	554	+1803
6969	3534	+3417
23138	6800	+16338
12316	4698	+7618
12332	5336	+7896
9102	4882	+4220
14200	7700	+6500
16700	8400	+8300

Source: Calculated from, Ministry of Planning, General Administration of Socio- Economic Indicators for the years 1962-1996, and December 1997.

In consideration of the historical ties between Libya and the European countries, the EU has been considered as a traditional market for Libya's imports during the whole period of 1970-2005. Nonetheless, the percentage share of the value of these imports was 71.3 per cent in 1970, increasing to 71.9 per cent in 1983, dropping to 68.8 per cent in 1985 and then finally reaching to 69.9 per cent in 1986. In 1987, the percentage share of imports from the EU continued rising until it has reached 70.4 per cent before declining again to 63 per cent in 1988. It then accounted for 61.5 per cent, 57 per cent, 55 per cent and 57 per cent of total imports in the years 1990, 1995, 2000, and 2005 respectively (Central Bank of Libya, 2005).

1.1 Government Expenditure and Economic Growth

The relationship between government expenditure and economic growth has continued to generate series of debate among scholars. Government performs two functions: protection (or security) and provisions of certain public goods. Protection function consists of the creation of rule of law and enforcement of property rights. This helps to minimize risks of criminality, protect life and property, and the nation from external aggression. Under the provisions of public goods are defense, roads, education, health, and power, to mention few. Some scholars argue that increase in government expenditure on socio-economic and physical infrastructures encourages economic growth. For example, government expenditure on health and education raises the productivity of labour and increase the growth of national output. Similarly, expenditure on infrastructure such as roads, communications, power, etc, reduces production costs, increases private sector investment and profitability of firms, thus fostering economic growth.

Some scholars did not support the claim that increasing government expenditure promotes economic growth, instead they assert that higher government expenditure may slowdown overall performance of the economy. For instance, in an attempt to finance rising expenditure, government may increase taxes and/or borrowing. Higher income tax discourages individual from working for long hours or even searching for jobs. This in turn reduces income and aggregate demand.

Higher profit tax tends to increase production costs and reduce investment expenditure as well as profitability of firms. Moreover, if government increases borrowing (especially from the banks) in order to finance its expenditure; it will compete away the private sector, thus reducing private investment (Abu Nurudeen and Abdullah Usman, 2010). Furthermore, in a

bid to score cheap popularity and ensure that they continue to remain in power, politicians and governments officials sometimes increase expenditure and investment in unproductive projects or in goods that the private sector can produce more efficiently.

Workers offer their labor when they perceive that the benefits of work are better than the benefits of leisure. Policy makers must remember that businesses expand when they expect future profits and reductions in workers' take-home pay slows the growth in the total number of hours worked. Through excessive spending, the government negatively affects the long-run growth in the output of goods by reducing business profits and workers' take-home pay. As earlier highlighted, the government is increasing its take of resources from the private sector. This increase in expenditures is slowing the growth of the economy. Unless we stop the future expansion of government spending the problem will exacerbate.

To ensure well-functioning markets, government must spend resources to enforce contracts, provide national security, and protect against criminals. Increased government expenditures, above this minimal level, have a diminishing effect on the growth of the economy. At some level of spending, the impact of government expenditures on the production of goods and services is negative. Excessive government spending makes everybody poorer. However, it is important to ascertain where the government spends its tax dollars. Public investment on roads, ports, and bridges compliments private investment to improve economic productivity, though economic growth suffers when government diverts funds that could be more profitably used to hire workers or buy new machines.

1.2 Statement of the problem and Research question

The effects of government expenditure and its size have stimulated controversy in macro economics in recent time especially on a long run economic growth. As posited by Martin and Paul (2006), public expenditure policies respecting sound government finances, are key to fostering growth and preserving macroeconomic stability because public expenditure supports growth via public services. It has also been observed that if public expenditures are appropriately financed it guarantees the sustainability of fiscal accounts and it smoothen economic fluctuations. Government expenditures association with economic growth provides an open market for people.

Many researchers have pointed out that rise in the expenditure of government on social amenities and physical infrastructures improve the growth of the economy. It has been indicated that, expenditure of government enhances productivity and therefore rise in growth of output, while expenditure on infrastructure (such as roads, communications and utilities) is able to lower the cost of production thereby increasing the private sector investment and their profit with the positive effect of improving economic growth (Abdullah 2000, Al-yousif 2000, Ranjan and Sharma 2008)

The fact that Libyan government expenditure has been on the increase, for quite some time now, there is a tendency of its public sector showing trend of growth. The problem is how effective (in terms of stimulating economic growth) are the government expenditure and what are the causes of this increasing government expenditure Based on that, this research intends to answer, the following questions

- i) What are the causes of the increase in Libya's government expenditure from 1970 to 2005?

- ii) What is going to be the impact of such increase on the economic growth?

1.3 Objectives of the study

- i) to examine the causes of the increase in Libya's government expenditure from 1970 to 2005
- ii) to determine what is going to be the impact of such increase in expenditure on the economic growth

1.4 Research methods

The research method is based on the Qualitative content analysis. This is an approach to documents that emphasizes the role of the researcher in the construction of the meaning of and in texts. There is indeed an emphasis to allowing categories to emerge out of data and on recognizing the significance for understanding the meaning of the context in which the item being analyzed appeared (Bryman, 2004). In other words, it is a general approach to analyzing documents qualitatively.

The fact that the situation in Libya is not completely calmed at the time of this research, questionnaire administration and conduct of interview or observation is going to be a great difficulty. Again, the researcher thinks that the number of Libyans resident in Malaysia may not provide adequately the data needed for the research hence, the choice for qualitative content analysis methodology.

The analysis includes all the data that appear in the news papers, classified advertising and electronic sources that fall within the scope of the study. In addition, the Granger causality

test and Error Correlation Model are also used in the present paper. The Granger causality test is a statistical hypothesis test for determining whether the changes in one time series can be statistically causes the changes in another time series. An error correction model on the other hand is a dynamical system with the characteristics that the deviation of the current state from its long-run relationship will be fed into its short-run dynamics.

1.5 Significant of the study

The study provides a better understanding of the dynamic relation between government expenditure and economic growth. The findings help the comprehension of policy-relevant issues over a short-to medium term horizon. Disposing of a reliable measure of the structural relation between the non-cyclical component of government expenditure and potential output is key to obtain a benchmark against which to evaluate the stance of expenditure policy and then of overall fiscal policy. Judging whether expenditure policy is expansionary or contractionary requires some idea about how a neutral expenditure policy would look like (Alfonso, 2008). In other words, it is also going to be useful to policy makers to know the trend of growth of public spending and the behavior of the economy.

Estimating the long term relation between government expenditure and GDP also permits to formulate a benchmark for neutral expenditure policy grounded on empirical evidence. Useful information for policymaking is also provided by estimates of the speed at which government expenditure adjust to their long-term relation with GDP after a shock in economic activity.

In the African Union (AU) context, this information would be helpful, for instance, in formulating and assessing budgetary adjustment plans with a view to achieving medium term budgetary objectives or correcting deficits in their budgets.

For students and future researchers, this study will serve as a reference material the society and international investors alike, could use it as a guide in their decision making.

1.6 Scope of the study

The study examined the effect of government expenditure on the economic growth of Libya. The analysis is however limited to the results to the data gathered that are within the research topic discussed. The scope of the study is limited to analysis only and from the period covered by the study, i. e, 1970 to 2005.

1.7 Organization of the study

In order to realize the objectives of the study this research work is organized into five chapters. In chapter two, relevant literature to the study will be reviewed while the method used for the research is discussed in chapter three. Chapter four deals with the presentation of the analysis of the data, and chapter five gives the summary, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Government Expenditure

Griffin and McKinley (1992) assert that many developing countries' expenditure on the military and internal security represents a massive diversion of public resources to socially wasteful purposes. Considering just military expenditure, and ignoring expenditure on internal security, there appears to be a rough inverse association between the level of human capital development and the percentage of total income absorbed by the military.

For example, in 1989 the developing countries classified by United Nations Development Programme (UNDP) as "high human development" allocated 3.1 per cent of their gross domestic product to military expenditure. The "medium human development" countries excluding China allocated 4.5 per cent and the "low human development" countries excluding India allocated 4.8 per cent. There is thus a *prima facie* case for enquiring in every country contemplating adopting a human capital development strategy whether it would be possible to reduce the resources allocated to the army, navy, air force, intelligence services and secret police, paramilitary units, local police, etc., in order to increase outlays on more productive activities, like education.

Abu Nurudeen and Abdullah Usman (2010) revealed that in Nigeria, government expenditure has continued to rise due to the huge receipts from production and sales of crude oil, and the increased demand for public (utilities) goods like roads, communication, power, education and health.

Besides, there is increasing need to provide both internal and external security for the people and the nation. Available statistics show that total government expenditure (capital and recurrent) and its components have continued to rise in the last three decades. For instance, government total recurrent expenditure increased from ₦3, 819.20 million (₦ =Naira) in 1977 to ₦4, 805.20 million in 1980 and further to ₦36, 219.60 million in 1990. Recurrent expenditure was ₦461, 600.00 million and ₦1, 589,270.00 million in 2000 and 2007, respectively. In the same manner, composition of government recurrent expenditure shows that expenditure on defense, internal security, education, health, agriculture, construction, and transport and communication increased during the period under review. Moreover, government capital expenditure rose from ₦5, 004.60 million in 1977 to ₦10, 163.40 million in 1980 and further to ₦24, 048.60 million in 1990. The value of capital expenditure stood at ₦239, 450.90 million and ₦759, 323.00 million in 2000 and 2007, respectively. Furthermore, the various components of capital expenditure (that is, defense, agriculture, transport and communication, education and health) also show a rising trend between 1977 and 2007

Suleiman Abu Bader and Amer S. Abu Qarn (1998) argued that countries in the Middle East are rarely paid attention to in terms of relating government expenditure to public growth because they are characterized by large fiscal imbalances due to high expenditures and the vulnerability of government revenues to external shocks. Moreover, due to the long standing Israeli – Arab conflict, the military burden as proxied by the share of government spending devoted to military expenditures, stands very high by international standards.

In Egypt, International Food Policy Research Institute (IFPRI 2006) discloses that public health expenditures increased from \$0.87 billion (international dollars in 1995 prices) in 1980 to \$2.12 billion in 1998, representing average yearly growth of 5.07 percent. Despite the

fiscal austerity imposed by the structural reforms, health expenditures increased sharply during the 1990s, at an average rate of 8.42 percent per year. Nevertheless, health accounted for only 3.6 percent of total public expenditures in 1998; defense, by comparison, represented nearly 10 percent. A larger share of Egypt's health care is privately financed. In 2000, public health expenditures represented 1.75 percent of GDP, whereas the corresponding share for 15 private health expenditures was 2.05 percent (World Bank 2003). Thus, total health expenditure represents 3.80 percent of GDP.

Similarly, Shenggen et al (2006) posit that education expenditures grew at 6.57 percent per year from 1980 to 1998. However, public spending on education as a percentage of GDP is about 1 percent lower than averages for other low middle-income countries. During the early 1990s, increasing the supply of education was emphasized; between 1992 and 1996, the number of classrooms rose by 53 percent across Egypt, and by 1997 nearly all of Egypt's villages had access to primary schools (El Saharty, Richardson, and Chase 2005). Until the mid- 1990s, there was a significant and unchallenged gender bias in schooling and education in Egypt. In order to address this problem, and in an attempt to improve the overall quality of education, the Egyptian government initiated the Basic Education Enhancement Program. As a result, female literacy rose by 10 percent from 57 in 1992 and to 67 percent in 2002, and among the 15–24 year old age group illiteracy fell by 10 percent, from 28 percent in 1990 to 18 percent a decade later. While these figures still fall short of documented objectives, they are still considered a significant advancement in narrowing the gender gap in education (UNDP 2004).

2.1 The Trend of Public Expenditure Development in Libya from 1970 To 2009

World Bank (2006) reports that, the Economy of Libya is centrally planned. It depends primarily upon revenues from the petroleum sector, which contributes practically all export earnings and over half of GDP. These oil revenues and a small population have given Libya the highest nominal per capita GDP in Africa Since 2000; Libya has recorded favorable growth rates with an estimated 10.6% growth of GDP in 2010.

Macro-economic trend

Fantastic growth rates proved unsustainable in the face of global oil recession and international sanctions. Consequently the GDP per capita shrank by 42% in the 1980s. Successful diversification and integration into the international community helped current GDP per capita to cut further deterioration to just 3.2% in the 1990s. Mean wages were \$9.51 per man hour in 2009 (amounts to a compensation of \$1598 for 21 working days of 8 hours).

Oil sector

Mobbs (2002) clarifies that Libya is an organization of petroleum exporting country (OPEC) member and holds the largest proven oil reserves in Africa (followed by Nigeria and Algeria), 41.5 Gbbl ($6.60 \times 10^9 \text{ m}^3$) as of January 2007, up from 39.1 Gbbl ($6.22 \times 10^9 \text{ m}^3$) in 2006. About 80% of Libya's proven oil reserves are located in the Sirte Basin, which is responsible for 90% of the country's oil output. The state-owned National Oil Corporation (NOC) dominates Libya's oil industry, along with smaller subsidiaries, which combined account for around 50% of the country's oil output. Among NOC's subsidiaries, the largest oil producer is the Waha Oil Company (WOC), followed by the Agoco, Zueitina Oil Company (ZOC), and Sirte Oil Company (SOC). Oil resources, which account for approximately 95%

of export earnings, 75% of government receipts, and over 50% of GDP. Oil revenues constitute the principal foreign exchange source. Reflecting the heritage of the command economy, three quarters of employment is in the public sector, and private investment remains small at around 2% of GDP.

Falling world oil prices in the early 1980s and economic sanctions caused a serious decline in economic activity, eventually leading to slow private sector rehabilitation. At 2.6% per year on average, real GDP growth was modest and volatile during the 1990s. Libya's GDP grew in 2001 due to high oil prices, the end of a long cyclical drought, and increased foreign direct investment following the suspension of United Nation (UN) sanctions in 1999. Real GDP growth has been boosted by high oil revenues, reaching 4.6% in 2004 and 3.5% in 2005. Despite efforts to diversify the economy and encourage private sector participation, extensive controls of prices, credit, trade, and foreign exchange constrain growth. (Ahlbrandt, 2001)

In the words of Pilat (2000) though UN sanctions were suspended in 1999, foreign investment in the Libyan gas and oil sectors were severely curtailed due to the U.S. Iran and Libya Sanctions Act (ILSA), which caps the amount foreign companies can invest in Libya yearly at \$20 million (lowered from \$40 million in 2001). As of May 2006, the U.S. has removed Libya from its list of states that sponsor terrorism and has normalized ties and removed sanctions. This clears the road for U.S. oil companies to exploit Libyan oil and is expected to have a positive impact on the Libyan economy. The NOC hopes to raise oil production from 1.80 million oil barrel (bpd) in 2006 to 2 million bpd by 2008.

Foreign Direct investment (FDI) into the oil sector is likely, which is attractive due to its low cost of oil recovery, high oil quality, and proximity to European markets. Most Libyan oil is sold on a term basis, including to the country's Oil invest marketing network in Europe; to

companies like Abu Ghazaleh Intellectual property (Agip) , Österreichische Mineralölvewertung (OMV), Repsol Yacimientos Petrolíferos Fiscales (YPF), Tupras, Compania Espanola de Petroleos Sociedad Anonima (CEPSA) , and Total; and small volumes to Asian and South African companies.

Field Development and Exploration

In November 2005, Repsol YPF discovered a significant oil deposit of light, sweet crude in the Murzuq Basin. Industry experts believe the discovery to be one of the biggest made in Libya for several years. Repsol YPF is joined by a consortium of partners including OMV, Total and Norsk Hydro. Also located in Murzuq Basin is Eni's Elephant field. In October 1997, a consortium led by British company Lasmo, along with Eni and a group of five South Korean companies, announced that it had discovered large recoverable crude reserves 465 miles (748 km) south of Tripoli. Lasmo estimated field production would cost around \$1 per barrel. Elephant began production in February 2004.

WOC's Waha fields currently produce around 350,000 bbl/d (56,000 m³/d). In 2005, ConocoPhillips and co-ventures reached an agreement with NOC to return to its operations in Libya and extend the Waha concession 25 years. ConocoPhillips operates the Waha fields with a 16.33% share in the project. NOC has the largest share of the Waha concession, and additional partners include Marathon and Amerada Hess as contained in the Energy Information Administration (EIA, 2007)

Diversification

Pivot irrigation in Kufra, southeast Cyrenaica. Oil wealth has enabled Libya to pursue extravagant projects such as agriculture and the Great Manmade River in the Sahara Desert.

In 2007, mining and hydrocarbon industries accounted for well over 95 percent of the Libyan economy. Diversification of the economy into manufacturing industries remains a long-term issue.

Although agriculture is the second-largest sector in the economy, Libya depends on imports in most foods. Climatic conditions and poor soils severely limit farm output, and domestic food production meets only about 25% of demand. Domestic conditions limit output, while higher incomes and a growing population have caused food consumption to rise. Because of low rainfall levels in Libya, agricultural projects such as the Al Khufrah Oasis rely on underground water sources. Libya's primary agricultural water source remains the Great Manmade River (GMMR), but significant resources are being invested in desalinization research to meet growing demand. Libyan agricultural projects and policies are overseen by a General Inspector; there is no Ministry of Agriculture, *per se* as indicated in the Central Bank of Libya Publication (CBL, 2000)

Labor market

Libya posted a 3.3% rate of population growth during 1960-2003. In 2003, 86% of the population was urban, compared to 45% in 1970. Although no reliable estimates are available, unemployment is reportedly acute: over 50% of the population under the age of 20. Moreover, despite the bias of labor market regulations favoring Libyan workers, the mismatch of the educational system with market demand has produced a large pool of expatriate workers, with typically better-suited education and higher productivity.

However, because of shortages for manual labor, Libya has also attracted important numbers of less skilled immigrants. Expatriate workers represent an estimated fifth of the labor force. Although significant, the proportion of expatriate workers is still below oil producing

countries in the Persian Gulf. Foreign workers mainly come from the Maghreb, Egypt, Turkey, India, the Philippines, Thailand, Vietnam, Poland, Chad, Sudan, and Bosnia and Herzegovina (Rahuma, 1989) They tend to earn relatively high wages, taking either skilled or hard manual jobs. Census data for 2000 show the share of expatriates earning over Libyan Dinars LD 300 (US\$230) per month was 20%, compared to 12% for Libyan nationals. A campaign encouraging conversion of qualified civil servants to entrepreneurs, in the face of public sector over employment and declining productivity, does not seem to be producing the desired results thus far (Ahlbrandt, 2001) .

External trade and finance

Central bank of Libya (2000) reports that, the Government was in the process of preparing a financial sector reform program and legislation setting corporate governance standards for financial institutions makes progress towards better management and greater operational independence of public banks. However, Libyan public banks still lack management structures supported by skills in critical areas like credit, investment, risk management, and information and control systems. The new banking law reinforces the independence of the Central Bank of Libya (CBL) and offers a legal framework for regulating banking activities, even if some provisions call for improvement. Despite progress brought by the new banking Law that specifies and limits its duties and responsibilities, the CBL remains the owner of the public banks, with the associated potential conflict of interest between ownership and regulation.

Financial sector reform has also progressed with partial interest rate liberalization. Interest rates have been liberalized on deposits, while a lending rate ceiling has been set above the

discount rate. The Libyan Stock Exchange, established in 2007, is the first exchange of its kind in the country.

As of 13 March 2007, Libya Oil Holdings has had its €38m stake in Irish exploration firm Circle Oil frozen on foot of a European Union order that's been put in place to put pressure on the Gaddafi regime.

2.2 Factors Influencing Government Expenditure

According to Akrani (2011) Modern economies have all experienced tremendous growths in public expenditure. These increase are not without factors. There are a lot of factors that influence government expenditure these factors include:

- i) Government's aspiration to increase production: government increase public expenditure in order to increase community's productive capacity. Expenditure on education, health, communication, increases people's productivity at work and therefore their incomes. With rise in income savings also increase and this in turn has a beneficial effect on investment and capital formation.
- ii) To achieve equal distribution of income: The primary aim of the government is to maximize social benefit through public expenditure. The objective of maximum social welfare can be achieved only when the inequality of income is removed or minimized. Government expenditure is very useful to fulfill this goal. Government collects excess income of the rich through income tax and sales tax on luxuries. The funds thus mobilized are directed towards welfare programmes to promote the standard of poor and weaker section. Thus public expenditure helps to achieve the objective of equal distribution of income

iii) To attain economic stability: Economic instability takes the form of depression, recession and inflation. Public expenditure is used as a mechanism to control instability. The modern economist Keynes advocated public expenditure as a better device to raise effective demand & to get out of depression. Public expenditure is also useful in controlling inflation & deflation. Expansion of Public expenditure during deflation & reduction of public expenditure during inflation control money supply & bring price stability.

iv) For economic growth: Government expenditure has been very helpful in maintaining balanced economic growth. Government takes keen interest to allocate more resources for development of backward regions. Such efforts reduces regional inequality and promotes balanced economic growth

For political, social and cultural factors, how much a government can spend depends on its revenues and its ability to borrow from international and domestic sources. For many small developing countries, international aid also has become a significant source of government expenditures. In Libya, the relative importance of these factors changes over time. In particular, when a government introduces budget cuts under the aegis of macroeconomic reforms and adjustments, spending patterns are likely to be affected. (World Bank, 2006)

The following specification to model changes in effects of government expenditures:

$GE_{PGDP_t} = f(RGDP_t, AID_t, SAT_t, X_t)$ where GE_{PGDP_t} is government expenditure as a percentage of GDP and $RGDP_t$ is government revenue as a percentage of GDP. AID_t is total aid received by the country measured as a percentage of GDP.

2.3 Effects of Government Expenditure on Economic Growth

Many studies have analyzed how government expenditures contribute to economic growth (Barro 1990; Kelly 1997). However, they focused on the impact of total government expenditures and overall GDP growth. Very few studies attempted to link different types of government spending to growth, and even fewer attempted to analyze the impact of government spending at the sector level. However, in developing nations like some countries in east Africa like Somalia and Ethiopia, studies have analyzed the impact of composition of government spending on economic growth (Devarajan, Swaroop, and Zou 1996), but few have modeled the determination of composition. Understanding why certain countries spend more on one sector than others will help developing countries reallocate government resources to the most productive sector by focusing on major forces behind existing patterns. The composition of government spending is modeled in the following specification:

$$S_{i,t} = g (GEPGDP_t, GDPP_t, SAP_t, Z_{i,t})$$

Where $S_{i,t}$ is the share of i^{th} sector ⁷ in total government expenditure, $GEPGDP_t$ is government expenditure as a percentage of GDP, $GDPP_t$ is per capita GDP, and $Z_{i,t}$ comprises other factors that may affect government spending in the sector.

In Libya, Fan and Saurkar (2008) estimate a production function with national GDP as the dependent variable, and labor, capital investment, and various government expenditures as independent variables. Thus, $GDP_t = h (LABOR_t, K_t, KGE_{i,t}, SA_t, W_t)$ where GDP_t is GDP at year t , $LABOR_t$ and K_t are labor and private capital inputs at year t , and $KGE_{i,t}$ is capital stock constructed from current and past government spending in the i^{th} sector with $KAGEXP_t$ representing government stock in the agricultural sector, $KEDEXP_t$ representing the

education sector, $KHEXP_t$ representing the health sector, $KTCEXP_t$ representing the transportation and telecommunication sector, $KSSEXP_t$ representing the social security sector, and $KDEXP_t$ representing the defense sector.

2.4 Conclusion

Government spending patterns in developing countries have been changing dramatically over the last several decades. Classical economists and Austrian economists, on the other hand, believe that increased government spending exacerbates an economic contraction by shifting resources from the private sector, which they consider productive, to the public sector, which they consider unproductive. According to Austrian economists, the reason the Great Depression lasted as long as it did was because of significant government spending and government regulation of the economy. Nevertheless, public expenditure is needed for a number of reasons most important of them, is the sustenance of economic growth.

CHAPTER THREE

DATA AND METHOTOLOGY

3.0 Data

The data is sourced from annual report of Central Bank of Libya from the period of 1970-2005. Nonetheless, the percentage share of the value of these expenditures was 71.3 per cent in 1970, increasing to 71.9 per cent in 1983, dropping to 68.8 per cent in 1985 and then finally reaching to 69.9 per cent in 1986. In 1987, the percentage share from the EU continued rising until it has reached 70.4 per cent before declining again to 63 per cent in 1988. It then accounted for 61.5 per cent, 57 per cent, 55 per cent and 57 per cent in the years 1990, 1995, 2000, and 2005 respectively (Central Bank of Libya, 2005).

As pointed out by Dolado et al, (1999), most empirical econometric studies entailing time series can be interpreted as attempts to evaluate such relationships in a dynamic framework. Several time series studies demonstrated for instance t test value, DW statistics, R squared, and F test did not sustain their standard characteristics in the presence of non-stationary. However, regression analysis based on time series data assumes that the underlying time series are stationary. In that sense that means variance and covariance (at various lags) of the individual time series are time invariant. Although, as stated by Dutta et al, (1986), empirical fact that many macroeconomic time series are typically non-stationary. In addition, as presented by Dickey -Fuller, (1979, 1981) tests, most of macroeconomic time series has a unit root.

3.1 Methodology

Model Specification

Due to the importance of Government expenditure, in providing the local market by its needs of various goods, and Libya's strategy to diversify the sources of income, the goal here is to estimate Libya's government expenditure. The sensitivity of government expenditure **GEXP** to changes in:

- **GDPG** is of particular interest for its role to determine the value of imports,
- **RER** the exchange rate of the Libyan Dinar is an important factor, because will change government expenditure value over time when the exchange rate changes.
- **INF** = indicates the price inflation, and any change, lead to a change in the value of Government expenditure.

Accordingly, we will measure the effect of those explanatory variables on the real quantity of Government expenditure (dependent variable). Thus, we assume that our model takes the following form:

$$\text{GEXP}_t = (a_0 + a_1 \text{GDPG}_t + a_2 \text{LRER}_t + a_3 \text{LINF}_t + a_4 \text{DUM}_t + a_5 \text{ECM}_t + \varepsilon_t)$$

where:

GEXP is Libya's real quantity of Capital goods imports.

GDPG is the growth in gross domestic economy

RER is the real bilateral exchange rate of the Libyan Dinar against US\$.

INF is the consumer price index.

DUM is dummy variable to distinguish two different treatment groups (without U.N sanctions 1970-1991 & 2000-2005 =0; with U.N sanctions 1992-1999=1.

In addition, to estimate the effect of government expenditure on economic growth, the following model will be estimated as well:

$$LGDPG = a_0 + a_1 LGEXP + a_2 LRER + a_3 LINF + a_4 DUM + a_5 ECM + \varepsilon$$

where:

GDPG is the growth in gross domestic economy

GEXP is Libya's real quantity of government expenditure.

RER is the real bilateral exchange rate of the Libyan Dinar against US\$.

INF is the consumer price index.

DUM is dummy variable

All variables are in log in except of DUM and ECM _ ε is the error term.

Series of tests are going to be undertaken such as the stationary co integration tests, Johansen co integration test, granger causality test and error correlation test.

Stationarity and Co integration Tests

In order to test for the stationarity of the variables included in the models, the

Dickey-Fuller test of stationarity was applied to each variable to determine the stationarity of a variable by applying Dickey-Fuller unit root test.

Johansen co integration test

Johansen co integration test was applied to the model to be estimated. In order to determine if there is a linear combination between variables or not after removing unit roots, and attempts to compare the size of estimated Likelihood Ratio (LR), by calculating its critical value at 5% and 1%.

Granger Causality Test is to test for a causal relationship between two variables.
(Government expenditure and economic development)

$$GDP_t = f(GDP_{t-1}, EXP_t, EXP_{t-1}, EXP_{t-2})$$

$$EXP_t = f(EXP_{t-1}, GDP_t, GDP_{t-1}, GDP_{t-2})$$

For example the test for Granger causality works by first doing a regression of ΔY on lagged values of ΔY . (Here ΔY is the first difference of the variable Y — that is, Y minus its one-period-prior value. The regressions are performed in terms of ΔY rather than Y if Y is not stationary but ΔY is.) Once the set of significant lagged values for ΔY is found (via t-statistics or p-values), the regression is augmented with lagged levels of ΔX . Any particular lagged value of ΔX is retained in the regression if (1) it is significant according to a t-test, and (2) it and the other lagged values of ΔX jointly add explanatory power to the model according to an F-test. Then the null hypothesis of no Granger causality is retained if and only if no lagged values of ΔX have been retained in the regression. The researcher is often looking for a clear story, such as X Granger-causes Y but not the other way around. In practice, however, it may be found that neither variable Granger-causes the other, or that each of the two variables Granger-causes the other.

The Error Correction Model

This theorem states that if a set of variables is found to be co integrated of order 1, there exists a valid error-correction representation of the data. If two or more series are individually integrated (in the time series sense) but some linear combination of them has a lower order of integration, then the series are said to be co integrated. A common example is where the individual series are first-order integrated ($I(1)$) but some (co integrating) vector of coefficients exists to form a stationary linear combination of them. For instance, Government

expenditure and socio economic development. Testing the hypothesis that there is a statistically significant connection between the Government expenditure and socio economic development could now be done by testing for the existence of a co integrated combination of the two series. (If such a combination has a low order of integration - in particular if it is $I(0)$, this can signify an equilibrium relationship between the original series, which are said to be co integrated.

3.2 Conclusion:

All the series of tests are linked to one another and the synergy is for the researcher, to check for co integration among the variables to improve the degree of accuracy, to determine the direction of causality in order to improve the degree of goodness of fit of the model.

CHAPTER FOUR

ESTIMATION RESULTS: GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH

4.0 Introduction

This chapter provides a detailed evaluation of the effects of government expenditure on economic growth, and vice versa. The researcher intends to measure the relationship between the government expenditure and economic growth of Libya between 1970 to 2005.

4.1 Government Expenditure

Model Specification

Due to the importance of imports, in providing the local market by its needs of various goods, and Libya's strategy to diversify the sources of income, the goal here is to estimate Libya's intermediate imports. These countries remained the main sources of Libyan imports for more than two decades.

The sensitivity of Government expenditure **GEXP** to changes in:

- **GDPG** is of particular interest for its role to determine the value of imports,
- **RER** the exchange rate of the Libyan Dinar is an important factor, because will change capital good import value over time when the exchange rate changes.
- **INF** = indicates the price inflation, and any change, lead to a change in the value of imports.

Accordingly, we will measure the effect of those explanatory variables on the real quantity of intermediate inputs imports (dependent variable). Thus, we assume that our model takes the following form:

$$GEXP_t = (a_0 + a_1 GDPG_t + a_2 LRER_t + a_3 LINF_t + a_4 DUM_t + a_5 ECM_t + \epsilon_t)$$

GEXP is Libya's real quantity of Capital goods imports.

GDPG is the growth in gross domestic economy

RER is the real bilateral exchange rate of the Libyan Dinar against US\$.

INF is the consumer price index.

DUM is dummy variable to distinguish two different treatment groups (without U.N sanctions 1970-1991 & 2000-2005 =0; with U.N sanctions 1992-1999=1.

Stationarity and Cointegration Tests

In order to test for the stationarity of the variables included in the models, the Dickey-Fuller test of stationarity was applied to each variable, see Dickey-Fuller (1979, 1981). This procedure determines the stationarity of a variable by applying the Dickey-Fuller unit root test, which reduces to testing the significance of the t statistic.

In the literature, most time series variables are non-stationary and using non-stationary variables in the model might lead to spurious regressions (Granger 1969). The first or second differenced terms of most variables will usually be stationary (Ramanathan 1992). All the variables are tested at levels for stationarity and order 1 using the Augmented Dickey-Fuller (ADF). The test reveals that all the variables are stationary at levels except ratio of real bilateral exchange (RER) see Table 4.1.

Table 4.1: Unit root test

Variables	Levels	1 st Difference
	ADF	ADF
GEXP	2.870	-3.788*
GDPG	0.583	-6.464**
RER	-2.584	-2.282
INF	-2.383	-4.387**

** Significant at 1% level

* Significant at 5% level

Having established the stationarity of the series, we can proceed to check for cointegration among the variables. Thereby, Johansen cointegration test was applied to the model to be estimated. In order to determine if there is a linear combination between variables or not after removing unit roots, and attempts to compare the size of estimated Likelihood Ratio (LR), by calculating its critical value at 5% and 1% .

The table 2 below explains that none of the deterministic variable is restricted to the co-integration space; Likelihood ratio is trace test statistics, adjusted for degrees of freedom. The critical values are taken from Osterwald-Lenum (1992). The ** indicates rejection of likelihood ratio tests at 5% significance level. L.R. test indicates 4 co-integrating equation at 5% significance level.

In determining the number of co-integrating vectors, we used the degrees of freedom, adjusted version of trace statistics, given the existence of small samples with too many variables or lags. Johansen procedure tends to over estimates the number of cointegrating

vectors. The test statistics strongly reject the null hypothesis of no cointegration in favour of four co-integration relationships.

Table 4.2: Johansen cointegration test for Libya's Government Expenditure (1970-2005)

Eigenvalue	Likelihood Ratio (LR)	5% Critical Value	1% Critical Value	Hypothetical number of CEs
0.516253	62.207	47.21	54.46	None**
0.472562	37.516	29.68	35.65	At most 1**
0.363787	15.376	15.41	20.04	At most 2
0.003793	0.0012	3.76	6.65	At most 3

LR tests indicate 2 co integrating equations at both 5%, and 1% levels

Granger Causality Test

Traditionally, to test for a causal relationship between two variables, the standard Granger (1969) test has been employed in the relevant literature. This test states that, if past values of a variable Y significantly contribute to forecasting the value of another variable X_{t+1} then Y is said to Granger cause X and vice versa

Table 4.3 Granger Causality Test

Regression	F value	Probability	Result
GEXP = f.(LGDPG)	5.198	0.0133	GDPG causes GEXP
LGDPG = f (GEXP)	0.098	0.906	GEXP does not cause GDPG

Regarding the results of the Granger causality test between GEXP and growth of income GDP, the results of the F test indicate that the direction is only one way from GDPG to GEXP, meaning that any changes in GDP inputs lead to changes in Government expenditure growth. This also means that the growth of imported intermediate inputs during the period of study has a significant role in affecting the GDP growth in Libya. The results also show that GDP growth does not granger causes IM.

The Error Correction Model (ECM)

The Granger Representation Theorem is the most important finding of cointegration analysis. This theorem states that if a set of variables is found to be cointegrated of order 1, there exists a valid error-correction representation of the data. Engle and Granger (1987) provided a principal feature of the cointegrated variables in that their time paths are influenced by the deviation from the long-run relationship, given that cointegration implies error correction representation. That is, a cointegration system can always be represented by an ECM.

Table 4.4 Granger and ECM Estimates

	Granger	GECM	ECM
GEXP _{t-1}		0.75	-
0.25			-
	(0.02) *		(0.02)
Error Correction Term	-	-0.25	
		(0.02)	
GDPG _{t-1}		0.53**	-
-			-
		(0.06)	
RER _{t-1}	0.25	0.52	0.77
	(0.07)	(0.05)	(0.07)
Δ INF _t		-	0.53
0.53			
		(0.06)	(0.06)
N	249	249	249
R ²		.94	.45
.45			

First, let us examine the short run effects of GEXP on GDPG. For the Granger model in column 1 these are given explicitly by the estimated coefficients β_0 and β_1 , which are 0.53 and 0.25 respectively. For the GECM and ECM, λ_1 and λ_2 are both equal to β_0 , which is what we find as both of these estimated coefficients are 0.53 (notice that the estimates of the standard errors are also the same). For the second short-run effect, the comparison is less obvious. In the Granger, $\beta_1 = 0.25$. To calculate this effect in the GECM, we use $\lambda_2 - \lambda_1 + \gamma_1$

which equals again 0.25. Finally, for the ECM we just use $\eta_2 - \eta_1$, again this is 0.25. There is no need for elaborate arguments that two processes are co integrated.

The dummy variable is very useful for capturing a variety of qualification effects, so we will use the dummy variable to distinguish two different treatment groups, the first covering the period prior U.N sanctions 1970-1991, by a zero value, and by one value r from 1992-1999, and zero value for the period 2000-2005.

As discussed earlier, the econometric estimation of economic growth function is based here on estimating the equations over the entire period 1970-2005, testing whether there have been any significant changes in the Libyan economy since 1970. The aim behind running this estimation is to examine the economic growth function including an error correction term to model the long run response of economic growth. The long-run equation is inserted in the equation as a residual vector (Res) derived from the error correction mechanism through applying co integration.

4.2 Economic Growth

Model Structure:

The estimated model of effect of government expenditure on economic growth in Libya as the following:

$$LGDPG = a_0 + a_1 LGEPX + a_2 LRER + a_3 LINF + a_4 DUM + a_5 ECM + \varepsilon$$

All variables are in log in except of DUM and ECM _ ε is the error term and the results of our estimated model presented In theory, the expected signs of the equation coefficients are: a_1, a_2 , are positive, while a_3 is expected to be negative. As shown in Table 4.5 below:

Table 4.5 How Government Expenditure affects Economic Growth

Independent Variables	Coefficient	(t-ratio)
Constant	15.32	(22.98)
GEXP	0.96	(2.168)
LRER	0.250	(-.177)
LRINF	0.059	(0.371)
Dum	0.204	(0.169)
ECM	0.770	(6.25)
R²-adjusted	0.74	
S.E of regression	0.336	
F- Statistic	16.28	
DW	1.89	

The result in the table above reflects the dynamism of the Libyan economy; also it reflects that any growth in the government expenditure leads to increase the GDP. In addition, the elasticity of economic growth a_1 , gives a clear indication of the importance and significance of GEXP growth in the determination of GDPG. The estimation results indicate that income and exchange rate are significant in Libya's government expenditure. The high F value confirms that our model provides a good fit.

On the other hand, the estimated coefficient of the exchange rate a_2 is shown to be large but insignificant with a positive sign. This implies that a 1 per cent increase of the domestic currency against the US\$ leads to increase government expenditure by 20 percent. This is due to the fact that Libya's exchange rate has remained rather stable against the US\$. Moreover,

the estimated price elasticity of government expenditure demand, a_3 , is unexpectedly small and insignificant. This may be due to government policy, subsidizing prices of intermediate inputs.

The estimated value of the coefficient of the dummy variable, a_4 is small and insignificant. This implies that may be as a result of Libya's high dependence on foreign market, the lack of domestic inputs produced locally and the high growth of local demand for intermediate inputs.

The estimated parameter of a_5 indicates that the contribution of the error correction residual appears to be significant with a positive sign. It can be inferred that at time t , 77 per cent of the deviation from the long-run equilibrium at time $t-1$ is corrected. This means that errors in the previous year were not fully corrected within the year.

The overall goodness of fit of the estimated total government expenditure function is shown by the estimated R^2 -adjusted. As mentioned above the main objectives are to examine the cause of increase in expenditure in Libya from 1970 to 2005 and also to determine what is going to be the impact of such increase in expenditure on the economy.

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

This chapter presents an impact of government expenditure on the economy, from the political context and the economic outlook. And a discussion of the findings will also follow, then lastly, the nature and sources of data will also be discussed.

5.1 Negative Effect of Government Expenditure and Economic Growth

The common-sense notion that government spending retards economic performance is bolstered by cross-country comparisons and academic research. International comparisons are especially useful. Government spending consumes almost half of Europe's economic output—a full one-third higher than the burden of government in the U.S. This excessive government is associated with sub-par economic performance (Mitchel, 2005). Similarly, various methods of financing government—taxes, borrowing, and printing money—have harmful effects. This is also true because government spending by its very nature is often economically destructive, regardless of how it is financed. The many reasons for the negative relationship between the size of government expenditure and economic growth as argued by Marc et al (2005) include:

- **The extraction cost.** Government spending requires costly financing choices. The federal government cannot spend money without first taking that money from someone. All of the options used to finance government spending have adverse consequences.
- **The displacement cost.** Government spending displaces private-sector activity. Every dollar that the government spends means one less dollar in the productive sector of the economy. This dampens growth since economic forces guide the allocation of resources in the private sector.

- **The negative multiplier cost.** Government spending finances harmful intervention. Portions of the federal budget are used to finance activities that generate a distinctly negative effect on economic activity. For instance, many regulatory agencies have comparatively small budgets, but they impose large costs on the economy's productive sector.

- **The behavioral subsidy cost.** Government spending encourages destructive choices. Many government programs subsidize economically undesirable decisions. Welfare encourages people to choose leisure. Unemployment insurance programs provide an incentive to remain unemployed.

- **The behavioral penalty cost.** Government spending discourages productive choices. Government programs often discourage economically desirable decisions. Saving is important to help provide capital for new investment, yet the incentive to save has been undermined by government programs that subsidize retirement, housing, and education.

- **The market distortion cost.** Government spending hinders resource allocation. Competitive markets determine prices in a process that ensures the most efficient allocation of resources. However, in both health care and education, government subsidies to reduce out-of-pocket expenses have created a "third-party payer" problem.

- **The inefficiency cost.** Government spending is a less effective way to deliver services. Government directly provides many services and activities such as education, airports, and postal operations. However, there is considerable evidence that the private sector could provide these important services at higher quality and lower costs.

- **The stagnation cost.** Government spending inhibits innovation. Because of competition and the desire to increase income and wealth, individuals and entities in the private sector constantly search for new options and opportunities.

5.2 Political and Economic Context of the effect of Public Expenditure on Economic Growth

Between 1969 and 1978, the government adopted a state-led path of development and introduced unique people based administrative and governance structures. From 1979 to 1999, the government, hard hit by the fall in oil revenues and external sanctions, attempted to liberalize the economy and fine tune the political structure.

More recently, with the lifting of international sanctions, Libya has adopted a new development approach and is renewing relations with countries, with whom relations were strained in the past. The stage is also set for close relations with the developed countries and an increased interest in developing its vast oil and gas resources.

Libya has a relatively high level of political stability and a relatively decentralized decision making process (**Figure: 5.1**). There is scope for further improvement in governance indicators such as voice and accountability, government effectiveness, rule of law, regulatory quality and control of corruption.

The nationally-owned oil and gas sector dominates Libya's economy, contributing 74 percent of the GDP in 2007, compared to 62.5 percent of GDP in 2001. Consequently, Libya's rapid growth has been state-led, and funded virtually entirely by oil revenues. Government controls much of the production and distribution, thereby limiting private sector activities, with the exception of those in the agricultural sector and small scale enterprises. The non-oil manufacturing and construction sectors account for about 20 percent of the GDP, and have expanded from processing mostly agricultural products to include the production of petrochemicals, iron, steel, and aluminum.

The outlook for the Libyan economy over the medium term can be described as mixed. Economic growth and financial position have strengthened as a result of high oil receipts, the upgrading of the infrastructure, and increased interest of foreign investors. On this account, oil production is projected to increase to about 3 million barrels per day by 2013. The increase has been premised on the large investments and employment of modern technologies by foreign investors. The growth of both public expenditure and imports is forecast to decline on account of prioritization, while the external current account surplus is projected to moderate to 32 percent.

LIBYA

Comparison between 2007, 2006, 2005, 2004, 2003, 2002, 2000, 1998, 1996 (top-bottom order)

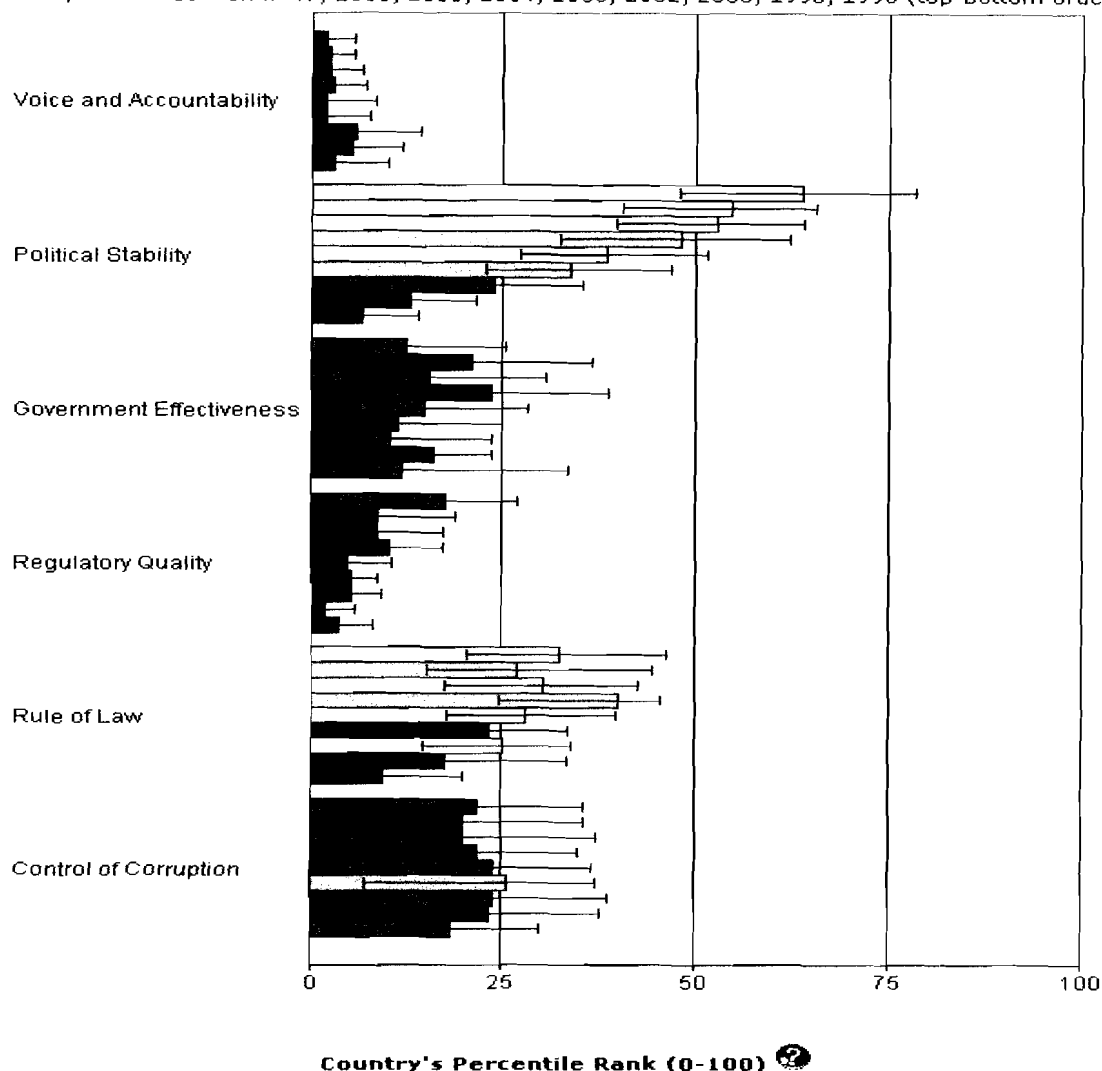
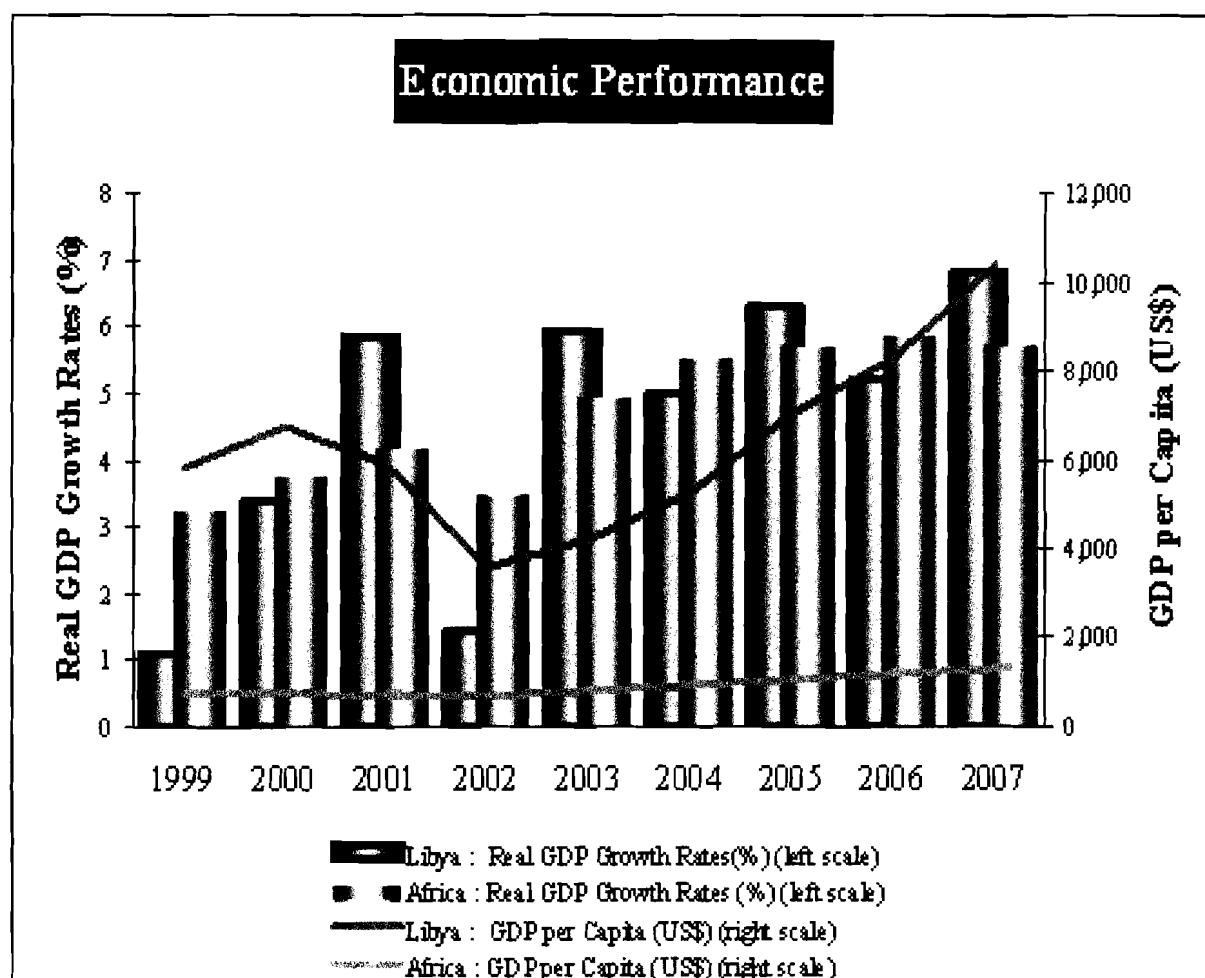


Figure: 5.1

Real GDP growth rate averaged 7.5 percent per year between 2005 and 2007, compared to an average growth of 3.2 percent during 2000-2004 (**Figure: 5.2**). the strong economic growth recently has been attributed to the successive increases in oil production and revenues. Buoyant oil prices and increased investment led to substantial fiscal surpluses and a favorable external balance. In addition to the increase in oil prices until the third quarter of 2008, non-oil sources of growth have resulted from the expansion in construction, transport and trade activities.



Source: Economic Indicators: AEO, ADB Statistics Department, April 2008

Figure:5. 2

On the fiscal side, Government revenues increased from 53.6 percent of GDP in 2004 to 61.4 percent of GDP in 2007 (of which, the share of non-oil sector was 6.2 percent), and estimated to have increased further in 2008. Total public expenditure and net lending decreased from 39.7 percent to 35.2 percent of the GDP during the same period. However, the fiscal surplus narrowed to 26 percent of GDP in 2007, compared to 35 percent in 2006, reflecting a rapid increase public expenditure, including an increase in the wage bill of around 50 percent.

Inflation increased substantially by 6.2 percent⁵ in 2007, largely driven by higher food prices and a marked increase in public expenditure. Inflation accelerated further in 2008, averaging about 10.4 percent, owing to a leap in food prices.

CHAPTER SIX

CONCLUSION

This study was carried out to serve two main purposes with respect to Libya's economic expenditure impact on the economic growth. First, it examines the relationship between the country's import, export and actual GDP, the political effect was also measured. Third, it offers findings on how the value of imports increased consecutively and its ratio in GDP reached to a peak of 28.5% in 1975 and to around 18.5% in 1980. It also revealed that the percentage share of imports from the EU continued rising until it has reached 70.4 per cent before declining again to 63 per cent in 1988. It then accounted for 61.5 per cent, 57 per cent, 55 per cent and 57 per cent of total imports in the years 1990, 1995, 2000, and 2005 respectively. It discusses the theoretical arguments, reviews the international evidence and highlights the latest academic researches on the subject area.

Previous empirical studies of the relationship between government spending and economic growth were primarily based on cross-sectional analysis. The research further investigates the nature of the relationship between government expenditure and economic growth by examining the inter-temporal interactions among the growth rate in per capita real GDP and the share of government spending in GDP.

In particular, attention was paid to the causal relationship between the variables in the context of Stationarity and Co integration Tests, Granger Causality Test and The Error Correction Model. The analysis applied to data from Libya, found no consistent evidence that changes in government spending have an impact on per capita real output growth. The flow of causality seems to be running in the other direction from output growth to government spending.

Therefore, an important implication of the analysis for the conduct of public policy in Libya is that the government can face its deficit by shrinking its size and limiting its role in the economy.

This research unravels that there is a significant relationship between government expenditure and economic growth it is therefore suggested that There should be increase of government expenditures on the productive sectors of the economy because that will have a multiplier effect, i.e. take care of productive capacity of individuals, income re distribution, economic stability and growth and overall productivity.

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