OIL, ECONOMIC DEVELOPMENT AND DIVERSIFICATION IN LIBYA

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Abstract: The Libyan economy depends heavily on oil revenue and remains largely state controlled and regulated. This dependence makes the economy vulnerable to macroeconomic instability and associated problems because of volatility of the prices of oil. Policy-makers should attempt to diversify the economy to avoid such problems in the long term. Furthermore, the government tries to alleviate and soften the risk of price deteriorations. Oil wealth will dry up sooner or later and new alternative resources must be required. The government attempts to address such problems but still a lot of work has to be done. The key challenge facing the authorities in the medium and long-term is to achieve a sustainable high rate of economic growth and to generate non-oil receipts. In this paper, we consider the Libyan economic performance over recent decades.

Keywords: Macroeconomic instability, diversification, sustainable, economic growth

INTRODUCTION

During 1973-74, economists and the popular press predicted that the unprecedented transfer of wealth to oil exporting countries would make Libya a rich country. Most of these predictions assumed that oil prices would not decline and government policies would effectively transform this wealth into productive foreign or domestic assets Oil prices were doubled and the world was poised to witness the economic miracle of the oil exporting countries. Libya has not been diversifying its economy away from a dependence on oil. Wealth in the form of oil reserves has been rundown with only limited conversion into other forms of wealth, such as productive economic assets necessary to guarantee future income and to create the basis for future growth. The formation and implementation of inconsistent economic policies were a reason for this negative development. In the absence of sound policies, and without the realization of continually increasing oil prices, the predictions of the mid 1970s for the growth prospects of the Libyan economic have proved excessively optimistic. The rapid pace of economic change in Libya has been without precedent. Oil has financed a total transformation of the economic life of the citizens of Libya, and this at an unparalleled pace, while the world has witnessed numerous instances of fast and successful economic growth and development (such as Japan, Singapore and Hong Kong). The pace of economic change in Libya has been impressive in certain eras, but its structural form has been quite different from that experienced in countries that have not been benefited from a booming depleteable resource sector.

The oil and gas industry has become the most value-creating industry in Libya. In 2001, some 35.6 per cent of Libya's GDP was from the oil and gas sector. The oil and gas revenue represented some 63 per cent of total government revenue. The oil and gas industries share of total exports was 95 per cent in 2001. The availability presents both an opportunity and a challenge. The sums involved can have an enormous positive impact on development, which is quite clearly very great. Unfortunately, while there are certain exceptions, evidence to date suggests that petroleum revenue has become a curse rather than a blessing. Research in this regard has spawned a rich literature of cases studies and theoretical frameworks for analysis of the rise of petroleum. Yet petroleum revenue could in principle unlock the constraints of foreign exchange saving development and spurring diversification.

Furthermore, fluctuating oil revenues and pro-cyclical fiscal policy increased government domestic borrowing, resulting in a high debt burden. A typical phenomenon in Libya has been that, during oil boom years, large expenditure programmes were initiated, but during the subsequent period of lower oil prices and lower government revenues, these programmes were cut back or postponed. Domestic borrowing financed the fiscal deficit record in the late 1980s and the early 1990s. The debt-to-GDP ratio increased from 30 per cent in early 1980 to about 50 per cent during 1999-2000.

Libya’s economic management during the last three decades has been focused on how to accommodate change in the international oil market whilst also looking for another resource instead of the oil and gas sector, and diversifying revenue. The particular choice of economic policy instruments has resulted in the poor management of oil resources with flow-on effects to the economy, reflected in the high variability of saving and investment. However, major efforts were directed toward not only the provision of basic goods and services, such as hospitals and schools but also included the establishment of industrial centres and several production projects. Development goals in Libya are quite different from that most other developing countries. In Libya, these goals are largely restricted to the diversification of the economy and the preparation for the non-oil future.

The criteria for assessing the success or failure of Libyan economy development reside in determining the extent to which the development process is successful in furthering those goals. Thus, failure of the development process in Libya, despite the priority of several development attempts and the massive financial resources allocated towards development since the early 1960 means that only modest progress towards these goals has been achieved. The Libyan economy still lacks the level of diversification that would enable the country to reduce its dependency on the oil sector. Moreover, there are no clear and specific plans to guide the country through the anticipated non-oil future.

RATIONALE

Oil revenues are volatile and unpredictable, and will sooner or later dry up, in most countries that are rich in oil, minerals and other natural resources. Economic growth over the long term tends to be slower than in other countries that are less well endowed. An oil-rich and politically stable country, Libya has nevertheless faced serious macroeconomic and structural challenges. Over the past three decades, the dependence on oil exports has led to uneven growth performance and significant macroeconomic instability. Efforts to shield consumption from income losses following an oil price fall coupled with ambitions infrastructure projects, led to a rapid build-up of internal public debt in the 1980s and early 1990s. Problems in serving the internal debt have led to the build- up of significant internal arrears. At the same time, domestic public sector arrears in the financial system have also increased. Moreover, oil production levels had a sharp decline from 3.3 million barrel a day in the 1970s, to 1.4 million b/d in the following decades, leading to a sharp decline in fiscal revenues and the flow reserves. Given the lack of a broader economic base, the short-term possibilities to cushion the decline in oil output are limited. However, despite substantial research, there is still not a consensus about the channels through which oil prices influence the economy and the magnitudes of their effects. The oil price swings of the past few years have been substantial, making an understanding of those effects especially important from a policy perspective. For example, oil prices fell by more than 50 per cent from the third quarter of 1996 to the end of 1998, while the Philips curve and other traditional models consistently over- predicted inflation. Because oil prices are volatile and unpredictable (see Table 1), so are oil revenues.

This means that actual revenues often differ greatly from budget projections, which in the case of a shortfall, requires an offsetting fiscal adjustment (typically, decreased spending) or financing.

Table 1 Spot Oil Price in the Libyan Arab Jamahiriya 1994-2003 ($/b)

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Price	15	17	21	19	12	18	28	24	28	29

Source: OPEC Annual Statistical Bulletin 2003

Cutting expenditure sharply at short notice is costly. Current expenditure cuts can be notoriously difficult and unpopular, and cutting capital spending might mean abandoning viable projects that are crucial to a country's development. Dealing with higher-then-expected oil revenues is easier, but still difficult to do efficiently. Spending money quickly often means spending it poorly. Moreover, concern over every project started when oil prices rise, is the threat that it may be scrapped when they fall. The international price of oil does not appear to have a constant average or at least not one to which it reverts in a practical sense. Thus, one cannot say with confidence that oil prices will fall or rise in the future or the price change is temporary or permanent.

Diversification of the national economic structures must come first, and the creation of new sources of finance to generate budgets. In the diversified economic structure, the oil sector share of gross domestic product declined from 63.1 per cent in 1970 to 37.8 per cent in 2000. There was a significant growth in non-oil activities. Nevertheless, this result does not reflect discovery of new sources for national income. Furthermore, the contributions of activities such as agriculture, manufacturing and service sectors were still less than the required levels. In terms of the administrative budget, for the last three decades, it has still depended on oil resources to finance a part of expenditure. That shows limited diversification has happened.

Many oil producers have had difficulty designing and implementing policies in this context. Studies have shown that non-resource-dependent economies tend to grow more slowly than non- resource-dependent ones at comparable levels of development. Poverty is still widespread in a number of oil-producing countries. Downturns in oil prices have, in a number of cases, led to external and fiscal crises, and a pattern of fluctuating fiscal expenditures associated with oil volatility has entailed significant economic and social cost (Davis et al, 2003). However, the fluctuation in oil markets has had a negative effect on the Libyan economy.

The uncertainty and volatility of oil revenue complicates macroeconomic management and fiscal planning with the challenge being to avoid transmitting the oil price volatility, which is outside the control of policy makers, into the macro economy. Since oil revenue often represents transfers from abroad, changes to it drive movements in the overall fiscal balance that do not directly affect domestic demand. The fiscal use of these resources, however, has significant consequences for the domestic economy (Bennet and Osooki, 2003).

THE FUTURE PROSPECTS FOR THE OIL SECTOR

It is an interesting paradox given the demonstrated vulnerability of Libya as an oil-based economy that petroleum will inevitably remain as an area of state concern, as measured by government investment, in the immediate future. The emphasis on petroleum will arise for the good reason that the country has a desperate need to augment its foreign exchange income merely to keep the most fundamental components of the economy viable. The most accessible means of increasing income from oil will be to improve value added sectors and ensure a growing market share, both of which are possible through investment in downstream activities. The involvement in purchasing refinery and distribution assets in Western Europe will absorb much of the narrow margin of foreign exchange surplus that Libya can currently generate. No less than 70 per cent of the country's food must be imported at a cost of $600m each year, while domestic raw materials for the man-made river and domestic petroleum require a further $1.6 billion. Other basic items such as machinery demand approximately $400m and transport equipment $400m. After taking into account a meagre allocation of funds for imports of consumer goods and other overseas expenditures, what little is left will be needed for investment abroad.

The outlook at the end of the 1990s for the structure of the economy at large was promising. There were few signs that a radical review of the kind, which would transform Libya into something other than an oil-dependent economy, was contemplated. Rather the country appeared set to remain oil-dependent and hopeful of future improvements in oil income as a remedy for the nation's difficulties. There were good prospects that the oil market will eventually return to favour the oil exporters to a greater or lesser extent in the longer term.

Overall, Libya would like foreign companies to help to increase the country's oil production capacity from 1.4 million b/d at present to 2 million b/d over the next year at a cost of perhaps $5 billion. In order to achieve its oil sector goals, Libya will require as much as $10 billion in foreign investment through 2010 to produce 3 million b/d. Around $6 billion of this is to go towards exploration and production, with the rest going towards refining and petrochemicals. In addition, the National Oil Company has earmarked $1.5 billion for oil infrastructure investment.

ECONOMIC DEVELOPMENT

The Libyan economy has grown strongly over the past three or four years fuelled by the recovery in oil prices since 1999. Given that the oil sector generates about 95 per cent of the country's hard currency earnings and some 75 per cent of budgetary receipts the ups and downs of oil prices have a direct impact on the level of economic activity and on domestic and external financial balances. After growing only marginally in 1996-97 and contracting by 1.5 per sent in 1998 economic activity started to recover in 1999 and real GDP growth accelerated to 6.5 per cent in 2000, although it fell back to 3.5-4 per cent in 2001 and continued at a similar rate in 2002.

The outcome in 2000 reflected the buoyancy of the oil sector, since oil export earnings soared to $12.2 billion that year from $7.7 billion in 1999, after dropping to $4.56 billion in 1998 from $8.9 billion in 1997 and $9.5 billion in 1996. However, they fell back to $ 10.9 billion in 2001 and an estimated $10.6 billion in 2002, partly because of the decline in oil production and exports.

With total exports amounting to $11.2 billion and imports to $8.7 billion in 2001, Libya recorded a trade surplus of $2.5 billion that year. Its current account surplus was variously estimated at between $875 million and $2 billion in 2001, down from over $4 billion in 2000. The country's total external debt (excluding military debt) stood at no more than $4.4 billion at the end of 2001, while its foreign exchange reserves amounted to $ 14.2 billion equivalent to 25.6 months of imports.

Higher oil prices have also boosted state revenue to the point where public finances are now showing substantial surplus, although the annual budgets produced by the government always show revenue called "other revenues". In the fiscal year 2002-03, for instance, the budget forecast oil revenues at no more that Libyan Dinar 1.027 million, less than one-third of total revenue of LD 3.737 million while " other revenues" were put at LD 1.340 million.

The 1973-74 oil price surges gave the growth target the needed financial boost. The 1973-5 plan was generally successful as all expenditure targets were nearly reached and the plan allocation well spent. The 1976-80 plans also achieved an annual growth rate of nearly 10 per cent, although the sectoral performance deviated from the planned targets. Due to wide variation in the oil sector contribution, there were major deviations from the 1981-5 plan targets. Non-oil sectors averaged less than 3 per cent annual growth compared with the planned target of 10 per cent. Total real GDP experienced a 4 per cent annual decline compared with the 1 per cent growth rate projected in the plan. Benefiting from the third oil boom, aggregate output rebounded with vigour, producing a real GDP increase of about 4.5 per cent on average in 1990 and 1991 despite the contraction in the non-oil sectors.

The objective of reducing dependence on oil was partly achieved. The oil sector, during the first two oil booms, accounted for 50-60 per cent of real GDP, 97 per cent of total exports and more than 85 per cent of public revenues. Between 1981 and 1986, the oil sector accounted, on average, for almost half of nominal GDP, 70 per cent of public revenues and virtually all exports. Between 1987 and 1994, the hydrocarbons sector ended up accounting for about 21 per cent of GDP, still more than 50 per cent of total government revenue, and about 93 per cent of total exports.

Despite strenuous efforts toward "food security "as a national goal, the results were disappointing (Amuzegar, 1999).

Agriculture, constrained by the dearth of cultivatable land (less than 2 per cent of total territory), fragmented holding, the vagaries of the weather and water shortage, was adversely affected by the growth of economic activity in urban construction and trade, which drained both labour and capital from farming.

Libyan industry,(including mining, manufacturing and construction) had high annual growth rates in the second half of the 1970s, thanks mostly to construction activities. Manufacturing's performance decelerated in later years due to shortages of skilled and managerial manpower, the smallness of the domestic market, relatively high costs and interrupted flow of input as a result of lower (and erratic) oil export proceeds. Labour problems such as absenteeism and frequent turnover were added factors. Insufficient local resources, interrupted availability of water and power and shortage of spare parts additionally hampered capacity utilisation.

The services sector (including, finance, trade, educational and health) increased their value-added steadily throughout the period albeit at uneven rates. This sector's growth was accelerated toward the end of the period due to the measures taken to encourage private sector participation in trade and transport, and to reduced public services other than health and education. The services sector accounted for about 60 per cent of non-oil GDP in 1994.

The biggest black spot on the economic front is the level of unemployment, estimated at as much as 30 per cent in the late 1990s. That is attributable, in part, to the effects of international sanctions, which have seriously hampered the country's economic development and diversification. The government estimated the total losses to the country resulting from the combined effects of sanctions and the freezing of its assets abroad at over $26 billion between 1992 and 2001.

According to the Ministry of Planning, the Libyan economy requires total capital investment of the order of $35 billion for the next five years to ensure GDP growth of 5 per cent per annum. The state is expected to finance 60-70 per cent of the total, while the rest will have to come from both local and foreign private sector investors. The bulk of this investment is required for the oil and gas industry and the power sector, each of which require capital investment of $6 billion during the four years period, while $ 4 billion will be needed for the water resources sector. Other priorities are the development and modernization of transport and communication networks.

The lack of progress in diversifying economic activity means that Libya has so far failed to establish a significant non-oil industrial sector. The 1.3 million ton/year steelworks at Misurata, which entered production in September 1990, is the only major industrial project to have come to fruition so far. Even the oil industry suffers from under-investment, although it is hoped that increased foreign participation in oil and gas exploration and development due to the assignment of new acreage to foreign companies will start to make up for the years of neglect attributable to sanctions.

LARGE AND COSTLY PUBLIC SECTOR

A large and inefficient public sector can impose significant costs on the economy in a number of ways, such as crowding out output. Costly revenue collection, delays in awarding licenses, permits and contracts, arbitrary enforcement of existing regulations and law all indicate inefficiency. Poor quality of institutions and poor delivery of other public goods, and services for which the public sector has the main responsibility, such as the role of law and protection of property right are also indicative of this.

These deficiencies diversely affect the business for both domestic and foreign investors. The public sector has also increasingly served as employer of last resort inflating public payrolls and wage bills. The wage bill has been growing steadily, accounting for LD 2062 and representing 42 per cent of government spending in early 1997 and the LD 2437 in 2003 (25 per cent). The percentage declined as a result of oil price increases (IMF Country Report, 2003).

The public sector remains an important source of employment and job creation (Gardner, 2003). In Libya on average, public sector employment accounts for about 50 per cent of total employment. The evidence suggests that the share has increased recently as a result of government policy which, gives more authority to local government. However, a new policy has been implemented to restrain the public sector. Thus, the government are seeking to redress public finance and have contained public sector wages.

The Libyan government wage bill, as a percentage of GDP, has continued to rise to about 40 per cent of GDP, one of the highest in the world. Much of the growth of government during the 1980s and 1990s has been fuelled by high rates of economic and population growth. As result, the size of government in the Middle East and North Africa countries, as measured by the ratio of central government spending to GDP averaged about 42 per cent of GDP in the 1970s, some 12 per cent points higher than for developing countries as a group (excluding the Middle East and North African countries). Although this ratio has been declining since then, by the end of the 1990s it remained relatively high by international standard (George and hamid, 2003).

Diversifying the economy

Economic development in Libya has depended to an inordinate degree on the revenue benefits of the hydrocarbon industry. In an attempt to reduce the heavy reliance on oil and gas revenues and returns from overseas investments, development plans have focused on economic diversification. Planners now accept that the long-term growth of the economy depends on a more diversified economic base. With most of the state's food needs, and even labour equipment, intermediate materials and even labour being imported, the problems of such external dependency have become increasingly acute. The need for access to alternative sources of income and employment has also been underlined by the medium and long-term fragility of the oil economy. Planners and political analysts alike are aware that a prolonged slump in prices and production would threaten national revenues and increase unemployment.

The need for access to alternative sources of revenues and jobs has thus underpinned attempts to wean the economy away from its dependency on oil and gas.

Diversification policies have thus been a central leitmotiv of the developments debate. Within the context of the Libyan economy diversification, it means reducing heavy dependence on the oil and gas sector by developing non-oil revenue sources. By implication, it also means reducing the leading role of the public sector in the economy by promoting the growth of the private sector (National Report of Libya, 2003).

The diversification dilemma

Economic diversification has been a constant element in the development strategies pursued by the state in preparing for a non-oil future. It might be argued however, that at least until recent years, the development plans paid little more than lip service to such aims rather than elaborating clear strategies to achieve diversification. A diversified economic base was seen as vital. For the three past decades, the achievement has been muted to say the least. There can be little doubt that the expansion of the oil and gas industry has greatly improved the standard of living. Libya, with its revenues contributing to increased GDP, no foreign debt, a state-funded system of health and education has experienced increases in material prosperity. Such real achievements, however, cannot disguise the fact that the hydrocarbon industry alone will not be able to meet the rising demands and expectation amongst all sections of society. A changed external and internal economic environment has necessitated the diversification moves.

Diversification efforts

Over the past three decades, Libya's economy has seen many attempts to diversify. Output, investment and employment have been expanded to new sectors and products. The most important development has been the increased participation of construction and production-based services in the generation of GDP and employment opportunities. While manufacturing has grown slowly, its share of GDP and employment has only increased modestly. However, new sub-sectors, namely, chemicals, non-ferrous metals including iron, and non-metal products including cement and petrochemicals have gained in importance and expanded relative to such traditional sub-sectors as food products and textiles. The tourism sector has become the most promising sector for foreign exchange earnings for Libya. However, the volatility of oil prices makes this sector more significant for the future.

Vertical developments in the Libya economy have included diversification in the tourism sector. Export and production of iron has increased while the petrochemical industries have expanded in term of import substitution.

Foreign investment could play an important role in the diversification of the Libyan economy and the future diversification and competitiveness would require a comprehensive and integrated strategy. An active partnership between the private and government sectors would be vital. In addition, government involvement in industry should be reduced in order to foster growth and private sector participation in the economy.

Where does Libya stand and what should be done?

While the timing and details of policy responses have varied widely, Libya has managed to exercise fiscal restraint. This has been achieved in a selective manner that has enabled non-oil output to continue to grow, albeit at a considerably ability slower pace. Inflationary pressure has abated. Deterioration in the balance of payments has been reduced although they are still heavily dependent on oil. Besides large untapped reserves of oil and gas, Libya has a modern economic infrastructure as well as a sizable industrial base. Yet financial difficulties still confront Libya government.

All the same, the adjustment is still far from complete, and perseverance is imperative, despite the recently improved outlook for oil prices. Reductions in fiscal outlays have generally failed to deep pace with revenue decline, and while subsidies have been cut, they still weigh heavily, directly and indirectly, by way of low energy prices. Moreover, much remains to be done to improve the efficiency of the public enterprises, which are frequently dependent on budgetary subsidies. In addition, a greater effort is needed for the Libyan government to expand and diversify the tax base to obtain lower dependence on the volatile receipts from oil.

The need to continue with the diversification effort under a more restrained fiscal stance, underscores the importance of mobilizing domestic savings and channelling these into productive investments. The widespread practice of maintaining interest rates at levels below those prevailing abroad, in particular must be reviewed, if saving is to be stimulated and capital flight discouraged. Also, the persistence in some cases with price controls, has impeded the growth of efficient and competitive industries under private initiative.

Libya should invest oil rent in financial assets-company stock and bonds, government bonds, real capital estate- behind which is productive real capital in the form of machines, building, infrastructure, or knowledge embodied in people.

Finally, an adjustment effort is needed to phase out the tariffs, subsidies, and other more indirect factors that have encouraged the emergence of uncompetitive industries.

Conclusion and recommendations

Decades of state dominance have also left the tiny private sector in a chronic shape.

Greater efforts are needed to accelerate trade liberalization, financial and labour market reform and improve transparency, governance, and the quality of state institutions. Economic liberalization should ensure fair and open competition where market forces could create opportunities for a more efficient allocation of resources and support private sector investment and growth. These reforms must aim at transforming the business and investment climate that is crucial to economic growth, employment generation if the Libyan economy is to be integrated in to the global economy.

Libya needs to conduct fiscal policy, which takes a long view of its resource endowments and their impact on the country welfare. Fiscal policy, the single most important policy instrument in the oil-producing countries, needs to cushion the effects on the economy of booms and busts in the oil market and, over the longer term take account of issues of intergenerational equity in mapping out strategies for government spending, investment, and financing of public sector operations. Although Libya has taken steps (George and Hamid, 2003), to reduce government spending from current oil receipts, a much more considered and comprehensive approach is needed to help diversify the economy and remove obstacles to developing the non-oil sector. Reducing dependence on oil would also require establishing modern tax policy structures and tax administrations, with broad-based taxes and low rates.

High oil prices helped underpin growth in 2003. Real GDP is estimated to have grown by around 5.5 per cent. Given current oil prices and the pick-up in output, economic growth prospects remain positive. Both the budget and current account also stand to benefit from an expected increase hydrocarbon revenue. With the hydrocarbon sector's domination on the Libyan economy not about to change, Libya's economic prospects remain firmly tied to developments in the global oil market. To reduce the economy's reliance on oil revenue and improve its growth prospects, competitiveness, and diversification, the authorities are urged to deepen their reform agenda. This would include, at an early stage, measures aimed at improving the macroeconomic management through: (i) Bringing domestic prices in line with world prices while addressing explicitly in the budget the impact of price realignment on vulnerable groups, public enterprises and public banks. (ii) Implementing tariff reform, establishing, an agenda to reform public enterprises. (iii) Improving the conduct of monetary policy within a well-defined framework and developing indirect monetary instruments. (iv) Strengthening the banking system.

In the second stage, structural reforms that require longer technical preparations would need to be implemented including: (i) Privatization and restructuring of public owned enterprises and banks (ii) Rationalizing the system of subsidies and transforms (iii) Legal and regulatory reforms (iv) Civil service reform, and (v) Tax and customs administration reforms.

The key challenge, which faces the Libyan government in the medium and long- term, is to achieve a sustainable high rate of economic growth to generate employment opportunities for a rapidly growing labour force,

REFERENCES

Benn, E. et al, (2003). *The Political Economy of Fiscal Policy and Economic Management in Oil Exporting Countries.* World Bank Policy Research Working Paper 2899

Dirk, V. (1998). *Libya since Independence: Oil and State Building,* Cornel University Press

Dirk V, (ed) (1996) *Qadahfi failed Economic reform; Market institutions and development in rentier states*. Mac Millan Press Ltd

Economic and Social Commission for Western Asia (2001). *Challenge of Growth and Globalization in the Middle East and North Africa*. United Nations, New York.

Edward, G. (2003) *Creating Employment in the Middle East and North Africa* International Monetary Fund Washington D.C

Frank, C. W. (1980). *The Libya Oil industry*. Croom Helm LTD London

George, T. A. and Hamdi, D. (2003). *Challenge of Growth and Globalization in the Middle East and North Africa*. International Monetary Fund

Indicators for sustainable development in the Mediterranean coastal regions (2002), *national report of Libya* UN Paris

International Monetary Fund, (2003). *Country Report No 3/327 International Monetary* Fund Washington D. C

Jahangir, A (1999). *Managing the Oil Wealth*. I.B. Tauris & Co Ltd

Jeffrey, D. et al (2001). *Oil Funds Problems Posing as Solutions. Finance and Development*. International Monetary Fund.

Judith, G. (1996). *Libya: The Political Economy of Oil- Exporting Countries*. Oxford University Press

McLaclam, K (1989). *Libya's Oil Resources, Libya Studies School of Oriented and African Studies*, University of London

Steven, B. and Ronaldo, O. (2003). *Operational Aspects Of fiscal Policy in* Oil-*Producing Countries*. Working Paper International Monetary Fund

OPEC (2003) *Annual Statistical Bulletin* Vienna