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The Contribution of the Oil Sector to Arab Economic Development

by Dr. Majid Al-Moneef

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Paper presented at the High-level Roundtable
Partnership for Arab Development: A Window of Opportunity
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Foreword

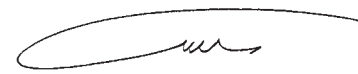
It is indeed an honor for me to introduce *The Contribution of the Oil Sector to Arab Economic Development* by Dr. Majid A. Al-Moneef, Governor of Saudi Arabia to OPEC. This publication reproduces the position paper Dr. Al-Moneef presented at the High-level Roundtable on *Partnership for Arab Development: A Window of Opportunity,* which the OPEC Fund for International Development (OFID) hosted in May 2006 as one of many special events held to mark the 30th anniversary of the institution.

The Roundtable brought together chief executives and high ranking representatives from Arab multilateral and bilateral aid institutions, OPEC, the World Bank, the Organization for Economic Cooperation and Development and various United Nations agencies as well as members of academia and the Vienna diplomatic community.

Meeting in four sessions, the participants focused on the status of the Arab economy, the contributions of the oil sector to Arab economic development, the efficacy of economic and trade reforms in Arab countries, and the many challenges and opportunities facing the Arab world today.

With the publishing of this study, OFID is renewing its longstanding tradition of promoting intellectual debate on crucial development issues and topics of interest to developing countries, including the OPEC member states.

It is my profound hope that this pamphlet, the 34th in the OFID Pamphlet Series, will provide policymakers and development experts an in-depth analysis of the important role the oil sector is playing in the development of Arab economies and the process of reform in the Arab world.



Suleiman Jasir Al-Herbish
Director-General

About the Author

Dr. Majid Al-Moneef is Saudi Arabia's Governor to OPEC and a member of the *Majlis Ashura* (the Consultative Assembly) of Saudi Arabia and the Advisory Board of the Supreme Economic Council of Saudi Arabia. He is a member of the Board of Trustees of the Economic Research Forum of the Arab Countries, Iran and Turkey, Vice President of the World Energy Council and a member of the Oxford Energy Policy Club.

Dr. Al-Moneef earned his Ph.D. from the University of Oregon (USA) and was professor of economics at King Saud University in Riyadh and president of the Saudi Economics Association. He was vice dean of King Saud University and a lead author of the second and third assessment reports on climate change of the UN Intergovernmental Panel on Climate Change. He was also advisor to the Saudi Minister of Petroleum and Mineral Resources, and representative of Saudi Arabia to the OPEC Economic Commission Board.

Dr. Al-Moneef has published extensively on energy economics, international finance and public policy.

Executive Summary

This paper analyzes the direct and indirect contributions of the petroleum sector (the extraction of oil and gas and the related refining and processing operations) to the economies of the Arab oil exporting and non-oil exporting countries. The paper identifies five linkages from the petroleum sector to the rest of the economy in oil exporting Arab countries, and four transmission channels from the oil sector (and economies) to the non-oil exporting group. The impact and policy parameters of the various linkages and channels of transmission of the petroleum sector on the economies concerned varies among countries and at different historical junctures, depending on the relative size of the particular economy and its petroleum sector (and its stage of development), as well as the degree of economic openness and the setting of oil price/revenue cycles.

The paper argues that the current oil boom, the first of the 21st century, is distinctly different from the oil booms the oil exporting Arab countries experienced in the past century. Whereas the oil booms of 1974 and 1980 began suddenly, the current boom has developed gradually. The global economic setting (and the petroleum market) together with the existing economic structures of the Arab oil exporting states may enable these countries to make good use of the current boom for their economic development, provided they draw the right conclusions from their experience with previous booms and properly address the challenges and opportunities provided by the new setting. While no single growth and development pattern or policy fix is suitable for all Arab countries, certain far-reaching changes are necessary and should be pursued by all Arab economies. The proper development and management of the oil sector will be central to achieving sustainable growth in the Arab oil exporting economies.

1. Introduction

Oil and its relations have shaped Arab economies in one way or another since the dawn of independence and/or the formation of nation states in the Arab World. The discovery of oil and the realization of its importance and potential for meeting world energy needs not only increased the strategic significance of Arab countries, but also helped integrate their economies into the global economy. During the 20th century, the socio-economic and political transformation of the Arab countries and their relationship to major powers was influenced by the international political economy of oil on the one hand, and by the impact of the development of the oil sector on individual Arab economies on the other.

The term "the Arab world" is often used to refer to the countries of the Middle East and North Africa (MENA) region, and the member states of the Arab League.[1] With a population of 310 million (5% of the world population), a combined GDP of $870 billion (3% of global GDP), and a per capita income of around $2,900, Arab countries are classified as low middle-income countries, as defined by the World Bank. Despite the historical and cultural ties that exist among Arab countries, there are wide ranging differences among Arab sub-regions (the Gulf and the Arabian Peninsula, the *Mashreq* and the *Maghreb)* in terms of population size, resource endowment, levels of socio-economic development, output structure and per capita income, among others. These differences not only influence the growth patterns of Arab economies, but also have an impact on the process of economic integration and the political unity and cohesion in the Arab world.

The countries of the Arab world have witnessed massive social, economic, and political transformations in the past three decades. The oil sector and the political economy of oil have played a pivotal role in such transformations at different historical junctures. During the early years of oil discovery, when production was still in the

1 The Arab League has 22 member countries covering an area of 13.5 million km^2. Most of the writings in the West on political and cultural issues refer to the "Arab world" without proper definition. Issues related to the Arab economy – especially in UN, IMF or World Bank publications – are often discussed within the context of the "Middle East" or "the Middle East and North Africa (MENA) region." Official inter-Arab organizations such as the Arab Monetary Fund (Abu Dhabi) or independent centers such as the Center for Arab Unity Studies (Beirut) or the Arab Thought Forum (Amman) have contributed to the availability of information and research on countries of the Arab world.

hands of international oil companies (IOCs) under the old concessions, these transformations were shaped by rivalries among the major world powers, as well as by the various alliances of the IOCs and their worldwide influence on oil production and pricing policies. After the wave of nationalizations and takeovers of the former concessionaires ended, the oil sector was gradually integrated into the economies of the oil producing countries, and, consequently, into the Arab economies at large.

Following its integration into the Arab economies, the role of the oil sector went through various stages and forms depending on developments in the oil market and the flow of oil revenues on the one hand, and the utilization of the comparative advantages of Arab economies on the other. The role of the oil sector also differed among countries where the sector is dominant, depending on the political, institutional and fiscal relations between the oil sector, represented by the national oil companies (NOCs) and their respective governments.

This paper aims at analyzing the evolution of the direct and indirect contributions of the oil sector to individual Arab economies and to "the Arab economy" at large. Both the historical process of these contributions and their potential will be evaluated for the oil exporting countries of the region and the other economies, as well as the interaction between the two groups through capital and labor movements, trade flows and development assistance. Furthermore, the role of the oil sector will be evaluated both from its role in the diversification drive of the major oil exporting countries and its role as a mechanism for integrating the Arab economies into the global economy. In this context, the impact of the various oil booms on the Arab economies and their responses to the boom periods will also be highlighted.

2. The Role of the Oil Sector in the Arab Economies

By the end of 2005, the countries of the Arab world held 667 billion barrels of oil reserves and 53 trillion cubic meters (1,870 tcf) of gas reserves, or 56% and 30% of the world's total oil and gas reserves, respectively. In 2005, the Arab oil exporting countries produced 25 million barrels a day (mbd) of oil and 30 billion cubic feet per day (bcfd) of gas, or 303 billion cubic meters (bcm), thereby accounting for 32% and 12% of the total global oil and gas production, respectively. With oil exports of 20.5 mbd and gas exports of 100 bcm, the Arab countries were responsible for 43% and 15% of total oil and gas exports, respectively. For the past three decades, the countries of the Arab world have had a higher share of worldwide oil reserves, production and exports than any other group of countries, a fact that explains the relative dominance of the oil sector in the economies of the Arab oil producing countries and consequently of the whole region.

Of the 19 Arab League member states, 14 are producers of oil and gas. The six countries of the Gulf Cooperation Council (GCC)[2] together with Iraq, Algeria and Libya account for 98% of total Arab oil reserves, 95% of gas reserves and 90% of all Arab oil and gas production. In 2004, the oil sector (oil and gas production, processing and refining) contributed between 30 to 60% of the respective gross domestic product (GDP) of those economies, as shown in Table 1.

In 2004, the average share of the oil sector in Arab economies reached 35%. This exceptionally high oil sector share in the combined GDPs of the Arab economies reflected the major oil production and price increases recorded that year. That year also witnessed a higher share of the group of major oil producers in total Arab GDP, at 72%.[3] During the period 1990-2004, however, the share of the oil sector in total Arab GDP followed the booms and busts in the global oil market, dipping to a low of 16% in 1998 and peaking at 35% in 2004.

There are also differences among the various sub-regions in the size of the GDP and its contribution to overall Arab GDP. During the period 1995-2004, four countries, namely, Saudi Arabia, the United Arab Emirates (UAE), Algeria and Egypt, accounted for 60% of the combined GDP of Arab countries.

2 The Gulf Cooperation Council member states are Bahrain, Kuwait, Qatar, Oman, Saudi Arabia and the UAE.

3 Iraq has been excluded from the overall ranking and analysis. After 1980, data is lacking as a result of the tragic wars this resource-rich country has suffered.

The Share of the Oil Sector in Arab Economies (Nominal) as of 2004

Table 1

	GDP in $ million	Oil Sector	Share of Oil by %	Share of Total GDP
GCC countries	**474.5**	**197.8**	**42**	**55.0**
Bahrain	11.07	3.13	28	1.3
Kuwait	55.72	26.60	48	6.4
Oman	24.82	10.53	42	2.8
Qatar	28.45	17.68	62	3.3
Saudi Arabia	250.56	105.75	42	28.8
UAE	103.83	34.10	33	11.9
Other Major Oil Producers	**146.1**	**80.73**	**55**	**16.0**
Iraq	33.7	31.32	93	3.9
Algeria	84.8	32.18	38	9.7
Libya	27.6	17.23	62	3.2
Other Oil Producers	**136.9**	**20.0**	**15**	**16.0**
Egypt	78.5	9.30	12	9.0
Sudan	22.0	1.81	9	2.5
Syria	23.5	4.85	21	2.7
Yemen	12.9	4.07	32	1.5
Other Countries	**112.5**	**2.25**	**2**	**13.0**
Djibouti	0.66	--	--	--
Jordan	11.50	0.27	2	1.3
Lebanon	19.75	--	--	2.3
Morocco	50.00	0.81	2	5.7
Mauritania	1.35	0.14	10	--
Tunisia	29.25	1.03	3	3.4
Total Arab Countries	**870**	**301**	**35**	**100**

Source: Joint Arab Economic Report, Arab Monetary Fund (AMF), September 2005.

2.1 The Role of the Oil Sector in the Economies of Arab Oil Exporters

Over the past three decades, despite their stated development objective of diversifying their economies and reducing their exposure to external shocks, many Arab oil producing countries have seen their GDP growth mainly following the growth pattern of the oil sector.

The dismal economic performance of Arab countries in comparison with other developing countries has rekindled interest in the relationship between resource abundance and economic growth.[4]

Theoretically, resource abundance is supposed to provide the economy with the investment capital and advanced technologies needed for the "big push." It has been observed, however, that resource-poor Holland outperformed gold-rich Spain in the 17th century, while Japan surpassed resource-rich Russia in the 19th and 20th centuries. More recently, South Korea has succeeded in outpacing Argentina and Brazil (Sachs and Warner, 1997). A recent study of 115 countries from 1960 to 2000, a period that witnessed several oil price increases and declines, found that real per capita income grew by 1.8% in the non-oil exporting developing countries, compared with a growth rate of only 1.1% in the oil exporting countries (Hausmann and Rogibon, 2002).

In the "Dutch disease" literature, this phenomenon is explained from the perspective of a reallocation of resources across sectors and structural transformation, rather than as a dynamic growth process. The resource boom is expected to affect the economy in two ways: the *spending effect* and the *resource movement effect.* It has been observed, however, that the "resource curse" model may not be an appropriate tool for describing the growth patterns of OPEC or Arab economies since it is based on assumptions of full employment of resources, external balance, wage/price flexibility and immobility of production factors across borders, assumptions that do not necessarily hold true for OPEC or Arab economies, where state ownership of oil resources gives the state an important role in sectoral supply and prices. Government spending policies can alter the relationships between economic sectors, thereby influencing the size of GDP and its rate of growth – an aspect not accounted for in the model.[5]

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4 Most of the literature on the relationship between resource abundance and economic growth draws from the neo-classical "Dutch disease" analytical framework, which describes how a sudden surge in an export activity can be expected to cause a retardation of traded sectors compared to non-traded sectors (Gelb, 1988). The term *Dutch disease* is derived from the experience of the Dutch economy following the development of gas in The Netherlands in the 1970s.

5 Amuzegar surveys the different hypotheses, including the "Booming Sector" theory, and their applicability to OPEC economies. See Amuzegar, 2001, pp. 10-20.

Looking at the performance of the Arab economies, one finds mixed evidence of the divergence of growth performance between oil producing and other economies. Table 2 shows the pattern of economic growth in selected Arab economies during 1990-2004. During the "oil boom" years of 2000-2004, the group of oil producing economies grew slightly faster than the other economies, while performance varied among countries of the two groups. The minor oil producers Egypt, Tunisia and Yemen, for example, registered higher real growth than the major oil producers Saudi Arabia, Algeria and Oman. However, during the period 1995-1999, which experienced a softer oil market and the oil price collapse of 1998, the oil economies of Algeria, Bahrain and the UAE performed better than those of Egypt, Jordan and Morocco. Growth in individual countries seems to be more related to country-specific economic conditions, policies and programs than to changes affecting oil resources.

Growth of Real GDP in Selected Arab Countries (1990-2004) — Table 2

	1990-1994	1995-1999	2000-2004
Oil Producing Countries	**3.9**	**2.4**	**4.1**
Bahrain	5.7	4.0	5.4
Kuwait	4.7	1.6	5.1
Oman	6.6	3.5	2.9
Saudi Arabia	4.4	1.0	3.9
UAE	6.4	5.6	5.2
Algeria	-.4	3.4	4.2
Other Economies	**4.0**	**3.8**	**3.4**
Egypt	2.2	5.3	4.0
Jordan	7.7	2.4	4.6
Lebanon	8.9	3.8	3.0
Morocco	3.3	1.9	2.9
Syria	7.6	3.6	3.4
Tunisia	4.9	5.2	4.4
Yemen	0.3	5.6	4.3
Arab Economies	**3.8**	**2.9**	**3.8**

Source: World Development Indicators 2003-2005, World Bank.

Fiscal Parameters for Saudi Arabia, 1974-2005 Table 3

(Annual percentage of change, unless otherwise specified)

	Oil Revenue	Government Expenditure	Accumulated Deficit/Surplus (in SR billions)	Deficit (Surplus) / GDP
1974-1981	22.8	39.0	324.0	12.7
1982-1986	-26.3	-13.2	-187.7	-10.6
1987-1999	-8.3	4.0	-628.0	-10.7
2000-2005	28.5	11.5	324.7	5.0

Source: Annual Reports of the Saudi Arabian Monetary Authority (SAMA).

The oil sector contributes to the economies of oil producers through five linkages: fiscal, forward, backward, consumption and socio-political. Oil revenues accruing to the state enable the public sector to make expenditure and investment outlays without resorting to taxation. The exhaustibility of oil and state ownership of the resource make the allocation and uses of oil revenue across generations – state intervention in the economy and the latter's response to government initiatives and policies – central to economic growth and development.[6]

Fiscal Linkages: These linkages have shaped the growth patterns of oil producing countries and their macroeconomic policies. Even monetary policies and their parameters such as interest and exchange rates were an extension of the fiscal policies of the state. Throughout the various "oil booms and busts," the allocation of oil revenues through government expenditure to competing needs depended on the absorptive capacity of the economy and the magnitude of oil revenues.

When absorptive capacity was low and revenues were high during the first and second oil booms of 1973-1974 and 1979-1980, governments tended to insulate foreign exchange receipts from the domestic money supply by accumulating foreign assets abroad. When absorptive capacity picked up and oil revenues declined during 1981-1986, governments drew down their foreign reserves, reduced capital expenditures and streamlined or reduced subsidies. During 1987-1999, when absorptive capacity increased markedly, lower oil revenues persisted and foreign reserves dried up, the governments of the affected countries resorted to deficit financing and sometimes to external borrowing. Table 3 shows the fiscal outcome of the different oil price episodes described above, including the most recent one, for Saudi Arabia.

6 Some have argued that oil revenues are not really income in the sense of permanent cash flow. They are the liquidation of a capital stock or the transformation of an asset from one form to another (Stauffer, 1984).

During the period 1985-1999, the governments of many Arab oil producing countries introduced wide-ranging economic reforms aimed at reducing the burden on the welfare state that had characterized periods of higher revenues and lower absorptive capacity and become unsustainable with lower revenues, growing populations and expanding private sectors. The reform process differed among the countries depending on the severity of the economic decline they were experiencing. Algeria, Oman and Saudi Arabia initiated different economic reform measures. On the fiscal side, these measures included privatizing public enterprises and activities; diversifying the government revenue base through fees and user taxes; establishing oil stabilization funds; adopting conservative oil price assumptions in planning government expenditures; reducing government subsidies; and reforming energy prices to reflect marginal costs.

Forward Linkages: This term refers to the actual physical output from the petroleum sector (oil and gas) which feeds into the rest of the economy as intermediate inputs, including crude oil input into the refining industry; the input of gas and its liquid feed stocks (and refined products) into the petrochemical industry; and the input of oil and gas fuels into electricity production and energy intensive industries. These linkages have been of particular importance to the development of the manufacturing sector in oil producing Arab countries and its growing share in their respective GDPs, as well as in the increase of their non-oil exports and the provision of utilities at favorable prices, a factor which has, in turn, contributed to the growth and development of the services sector and its share in GDP.

The first direct contribution of the oil sector came through the development of the refining industry in Arab oil exporting countries. This development was a natural outcome of the growth of the oil industry in those countries, which had seen their refining capacity expand from 2.2 mbd in 1975 to 5.7 mbd in 2003.

The second contribution came through the development of the petrochemical industry, which was initially based on natural gas and its liquids. After the first oil price boom, this development accelerated as a result of more liberal government policies on using oil as a vehicle for diversification in industry and the various alliances that had been formed between the newly emerging national oil (or petrochemical) companies and the international majors in the petrochemicals field. This acceleration led to an explosion of basic, intermediate and final petrochemical production in the Arab oil exporting countries, especially in the GCC. By the end of 2005, petrochemical production had increased to 50 million tons, up from less than 10 million tons in the early 1980s, including basic petrochemicals (51%; 56% olefins), intermediate petrochemicals (16%) and final chemicals (33%). This trend is expected to continue, as will be shown elsewhere in this paper.

The Share of the Manufacturing and Petrochemical Sector in the Economies of Arab Oil Producers in Percent (2004)

Table 4

	Contribution of the Manufacturing Sector to GDP	Share of Refining and Petrochemicals in Manufacturing
Bahrain	12.6	15
Kuwait	8.0	76
Oman	8.1	28
Saudi Arabia	10.1	38
UAE	12.6	51
Algeria	4.9	11
Libya	3.4	n.a

Source: Unified Arab Economic Report, Arab Monetary Fund (AMF), 2005

The contributions of the oil sector to the manufacturing sector as described above resulted in an increase in the value added of that sector in the economies of oil producing countries of the region from $25 billion in 1990 to $54 billion in 2004. It also brought about a rise in that group's share in combined Arab manufacturing GDP from 56% to 61% in those two years. Table 4 shows the contribution of the manufacturing sector for the group of Arab oil producing countries, and the share of petrochemical and related industries in the value added of that sector.

Such linkages to the local economies continued to exert a positive effect, irrespective of the changes in the global oil market because the industrialization and development strategies of these countries enjoyed their governments' direct and indirect support. In addition, the related industries were mainly export-oriented, had a comparative advantage over competing industries globally, and were mostly developed through alliances with international companies that had a marketing presence worldwide. This situation explains the continued growth of these industries and their linkages with the economies of Arab oil exporting countries during the period 1974-2004.[7]

7 The data shows that the value added in the manufacturing sector increased in all Arab oil producing countries (except Iraq and Libya) during 1990-2004. The increase was due to deliberate government policies to strengthen the role of the private sector and to the inability of nationalized industries to provide all of the required goods and services. The strength of this linkage differed among the countries concerned, depending on their level of development, the business climate for the private sector, and the institutional and decision-making setting of the national oil industry.

Backward Linkages: This term refers to inputs of goods and services provided to the petroleum sector by local sources. In Arab oil producing countries, the contribution of these linkages accelerated after nationalization or takeover from foreign operators. Unlike forward linkages, backward linkages to the local economy follow the market cycles that influence the oil sector and its operations. During 1981-1986, when Arab oil production decreased in response to declining world oil demand and increasing non-OPEC production, oil sector-related services were also affected. However, when oil sector activity picked up in the form of oil and gas capacity expansion or infrastructure construction, oil sector-related services flourished as well.

Consumption Linkages: This term refers to the impact of oil income expenditure on the national economy. The more income is spent on imported goods and services, the greater the negative impact on the balance of payments. In Arab oil producing countries, the first and second oil booms were characterized by increasing oil exports and increasing imports, a situation that kept trade balances mostly in surplus. On the other hand, excessive spending exposed these economies to symptoms of the "Dutch disease" outlined above. As the value of oil exports dropped during the protracted oil market decline of 1982-1999, non-oil exports increased while the rate of import growth declined. This slowdown in import growth was due to the reduction of infrastructure expenditure, the development of other sectors and the growth of import competing industries, which often enjoyed government support. The slowdown helped keep the balance of payments manageable in most of the oil producing countries.

Socio-Political Linkages: This term refers to the impact of oil wealth on the political system and the spillover effects on the economy. An often cited negative consequence of oil wealth is that rising oil revenues reduce the need to tax citizens, thereby weakening the democratic process (Stevens, 2005). Other authors have studied the negative social attributes of the "rentier state," where rent-seeking behavior in the form of commissions, handouts and similar activities exerts a negative influence on productivity and innovation.[8]

In addition to the above linkages, the oil sector has contributed to the economic and social development of the countries concerned through the adaptation and assimilation of advanced technologies, and the training of nationals in various technical fields of the industry.

The ultimate effects of such linkages on the economies of Arab oil producing countries have varied, depending on the size of the economy or/and the magnitude of the oil revenues, the degree of economic openness, the framework of fiscal and

GDP Growth in Selected Arab Oil Producing Countries 1980-2004

Table 5

	1970-1980	1980-1989	1990-1994	1995-1999	2000-2004
Bahrain	n.a	-0.7	5.7	4.0	5.4
Kuwait	2.5	1.3	4.7	1.5	5.1
Oman	6.2	8.4	6.6	3.5	2.9
Saudi Arabia	10.1	-1.3	4.4	1.0	3.9
UAE	n.a	-2.1	6.4	5.6	5.2
Algeria	4.6	2.7	-0.4	3.4	4.2
Libya	2.2	-7.0	-0.6	1.6	n.a

Source: World Bank, 2005a and 2005b; Arab Monetary Fund (AMF), 2005.

monetary policies, and the extent of political and social stability. Table 5 summarizes such differences in different periods. Except for Oman, all of the oil and gas producing countries of the region witnessed slow or contracted growth during 1980-1989, a period characterized by a slack world oil market. During 1995-2004, Algeria and the UAE performed better than the other countries because of economic reforms in the former and the Dubai-led diversification drive in the latter.

8 The literature on the characteristics of the "rentier state" is vast. Beblawi and Luciani (eds.) (1987) examined it for the Arab States, while Karl studied it for Venezuela (1997).

2.2 The Contribution of Oil to the Development of Other Arab Economies

The contribution of oil to development has not been confined to the economies of Arab oil exporters, but has spilled over to other Arab economies as well, whereby the transmission mechanisms have differed during the various oil booms and among the individual economies of this sub-group of Arab countries. Initially, during the first two oil price and oil revenue increases of 1973-74 and 1979-80, the non-oil exporting Arab countries benefited through four channels: workers' remittances, tourism flows, bilateral and multilateral aid, and investment flows. The oil price increases also helped Arab oil and gas producers indirectly, including Egypt, Syria and Tunisia, by increasing the value of their oil exports or reducing their oil import bills, and by encouraging foreign direct investment in their petroleum sectors, thus improving their balance of payments. The proliferation of various inter-Arab economic organizations and government-sponsored projects during 1973-1983 was another contributing factor.

Remittances: The oil booms of 1973 and 1980 sparked the largest wave of migration within the Arab world in recent history. Rising government expenditure, increased private sector activity and improved standards of living in the oil exporting countries coupled with limited labor supply (except in Algeria) – due to demographic and socio-political factors – helped increase incentives for migrating from non-oil exporting to oil exporting Arab countries. The number of Arab migrant workers rose from one million in 1975 to 3.7 million in 1985.[9] The increase in migration affected the economies of the migrants' home countries in two ways: First, it eased unemployment where it existed. Second, it increased the flow of remittances from oil exporting, labor importing countries to the labor exporting countries. Remittances became a major source of foreign exchange revenues for those countries, totaling $1.5 billion for Egypt, Jordan, Morocco, Sudan, Tunisia and Yemen in 1975. By 1985, total remittances had risen to $7.8 billion and by 1992 to $10 billion, representing 40% of the exports and 10% of the combined GDPs of Egypt, Jordan and Yemen.

A recent study has estimated the cumulative remittances of Arab workers in the GCC countries during 1973-2004 at $189 billion. Total remittances from all expatriate workers in the GCC were estimated at $413 billion. Expatriate workers' remittances in general and Arab workers' remittances in particular have gone through four periods in the GCC countries. The first period, covering 1975-78, was dominated by the presence of an Arab workforce and saw workers' remittances from both Arab and non-Arab sources increase from $1.6 billion to $9 billion, at an average annual growth rate of 33%.[10] The second period, which lasted from 1982 to 1987, witnessed

relative stability with remittances averaging $9.6 billion per year and growing at a rate of 1%. During the third period (1988-94), remittances, predominantly by workers from Southeast Asia, increased remarkably, from $11 billion to $25 billion, growing at an annual rate of 15%. The fourth period, stretching from 1995-2000, saw relative stability in remittances with an annual average of $23 billion and a zero growth rate (GCC, 2004).

The relative decrease in the importance of remittances to the economies of the recipient countries cannot be ascribed solely to declining oil revenues. High population growth rates as well as human resource development programs in the oil exporting countries have resulted in a higher growth rate for the indigenous labor force. The efforts of GCC governments to provide their citizens with job opportunities through the substitution of expatriate workers affected the Arab workforce first. Since the early 1990s, the Arab workforce in the GCC countries has gradually been replaced by more imported labor from Southeast Asia (World Bank, 2005a).

Tourism Flows: This mechanism for the transfer of oil revenues to other Arab economies is more relevant to countries with relatively well developed tourism infrastructure and sectors such as Egypt, Lebanon and Morocco. The flow of tourists from Arab oil exporting countries to these countries has helped boost their foreign exchange receipts and further develop their service sectors. Inter-regional tourism seems to have grown faster during the first oil boom of 1974 and again during the most recent boom than during the period 1980-2000. Tourist arrivals from within the Arab world rose from 22% of total tourists in 1999 to 45% in 2004. The different cultural, economic and political reasons for this pattern, however, do not fall within the scope of this paper.

Bilateral and Multilateral Aid: This important channel for the transmission of oil sector revenues to non-oil exporting Arab economies takes two forms: official bilateral aid and multilateral aid. Aid is provided either directly, through financial institutions set up by the governments of oil producing countries, or through collective efforts – whether regional, Islamic, or otherwise – to provide assistance to either Arab countries or developing countries at large. The first bilateral institution, the Kuwait Fund for Arab Economic Development, was established by Kuwait in 1962. It was followed by the Abu Dhabi Development Fund in 1971 and the Saudi Fund for Development in 1974.

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9 Richards and Waterbury (1998) contend that labor migration within the region has contributed more to the transformation and integration of Arab economies than deliberate attempts to integrate the political economies of Arab nations at the levels of state, trade and investment (pp. 369-389).

10 These figures are for the "official" remittances recorded by the banking sector and do not include unofficial transfers. See World Bank (1995) and GCC (2004).

Bilateral and Multilateral Aid Institutions and the Disposition of Their Resources to Arab Countries (Annual percentage of change, unless otherwise specified)

Table 6

	Total Assets*	Cumulative Loans	Arab Countries	Share of Arab Countries by Percent
Kuwait Fund for Arab Economic Development	11,928	13,014	6,965	54
Abu Dhabi Development Fund	1,058	3,317	2,596	78
Saudi Fund for Development	8,267	7,637	3,675	48
Arab Fund for Social and Economic Development	7,372	15,923	15,925	100
Islamic Development Bank	6,756	20,528	10,049	49
OPEC Fund for International Development	4,895	5,371	955	18
Arab Bank For Economic Development in Africa	2,868	2,348	9	4
Total	**43,144**	**68,238**	**40,173**	**59**

** At the end of 2003 and shareholder equity for the Abu Dhabi Fund and the Saudi Fund.*
Source: AMF, 2005a and 2005b.

The multilateral financing institutions were all established after the first oil price boom of the 1970s. This group includes the Arab Fund for Social and Economic Development, established in 1975, the Arab Bank for Economic Development in Africa (BADEA) in 1974, the Islamic Development Bank in 1975, and the OPEC Fund for International Development in 1976. Respectively, more than 70% and two-thirds of the resources of the last two institutions, which both include non-Arab countries as shareholders, originated in Arab countries.

Table 6 details the assets, cumulative loans, and shares of Arab countries in the bilateral and multilateral aid institutions of Arab oil exporting countries. The table shows that around 60% of all loans disbursed by these institutions have gone to Arab countries, with Egypt receiving the highest share.

Approximately 72% of the $40 billion in cumulative lending provided by the above institutions as of the end of 2004 were allocated to infrastructure projects, while the remainder helped finance various productive sectors, including agriculture, industry, mining, etc. This lending was supplemented by other sources of bilateral assistance to Arab non-oil exporting countries. The total cumulative assistance from all sources has been estimated at $124 billion. Of that amount, $117 billion originated in GCC countries, representing on average 1% of their combined GDP during the period 1990-2004.

In addition to development loans, Arab aid institutions have provided various forms of technical assistance, including feasibility studies, sectoral studies and technical training. Arab aid has assisted the economies of recipient countries in a number of other, indirect ways as well, e.g., by attracting foreign investment. Some Arab aid institutions have also introduced programs for financing inter-Arab trade and set up facilities for private sector financing. In addition, the Arab Monetary Fund has provided a cumulative total of over $4.4 billion in balance of payments and structural adjustment support since its inception in 1976 (AMF, 2005a).

Investment Flows: This kind of resource transfer from the oil economies of some Arab countries to other Arab economies is made through two channels: official investments and private investments.

Official investments are made by 16 inter-Arab companies, covering different sectors and operating on a commercial basis, which were established by Arab governments or multilateral institutions after the first oil boom in the seventies. By the end of 2004, the total shareholder equity in these companies amounted to $5 billion, with activities ranging from petroleum (APICORP, the Arab Petroleum Services Company, the Arab Marine Petroleum Company) to investment (the Arab Investment Company and the Inter-Arab Investment Guarantee Corporation), and agriculture and related activities (the Arab Company for Livestock Development, the Arab Fisheries Company and the Arab Authority for Agricultural Investment and Development). The growth and success of these companies have been constrained by the circumstances surrounding their establishment, their ownership and management, and their spheres of activities. Further expansion of such government-sponsored investments has been inhibited by these and related factors since the late 1970s.

Private capital flows represent a second channel for investment in other Arab countries. Private investment has gained in importance since 1990 due to the increasing role and broadening sphere of private sector activities in the GCC and the more open economic and investment policies that have been introduced by non-oil export-

ing Arab countries, either as part of an overall economic reform effort, or within the framework of an IMF structural adjustment package. Inter-Arab investment flows have also mirrored oil market turns and their effects on the economies of the oil exporters and, consequently, their private sectors. During 1995-1999, for example, total inter-Arab investment flows amounted to $9.6 billion, with the GCC countries accounting for a share of 12%. When oil prices recovered during 2000-2004, inter-Arab investment reached $17.4 billion, with the GCC accounting for a share of 35% (Inter-Arab Investment Guarantee Corporation, 2005).

3. The Future Role of the Oil Sector in Arab Economies

The oil sector, which has contributed to growth and development in the Arab world for the past thirty years, is expected to maintain its role, but through different channels and relationships. For the economies of the Arab oil exporting countries, these differences can be ascribed to changes in the relative size of the sector and its relation to the economy, the investment needs and challenges in the oil and gas sector and in the overall economy, population growth and the absorptive capacity of the economy. For the other Arab economies, the differences are due to changes in trade and investment climate and policies, the level of integration in regional and global economies, and the fiscal and external positions.

Oil and gas production will continue to play a major role in the Arab economy. This projection is based on the role of petroleum in the world energy mix on one hand, and on the share of global petroleum supplies held by the Arab region on the other. The world energy outlooks published by the International Energy Agency (IEA), OPEC, the Energy Information Administration (EIA) and other institutions all point towards oil and gas commanding larger shares of world energy demand over the next two decades and towards rising shares from Middle Eastern producers in incremental world supply. For example, the results from the latest OPEC World Energy Model (OWEM) base case scenario indicate that world oil consumption is projected to increase by 30 million barrels a day (mbd) through 2025, or at an annual average of 1.5 mbd. Based on the results of the above model, if Arab OPEC member countries continue to supply 72% of total oil production (today totaling 24 mbd), then Arab countries would be expected to supply 39 mbd, or 15 mbd of incremental world oil supply by 2025.

Bringing new oil supplies to the market will require significant investment in the upstream, downstream and related infrastructure in Arab OPEC member countries. Investment needed to maintain or increase production from non-OPEC Arab countries (Egypt, Syria, Sudan and Yemen), which currently totals some 1.6 mbd, is excluded. Table 7 details the investment needs in the hydrocarbons sector in Arab countries through 2011.

Investment in gas operations whether for domestic use, export (by pipelines or LNG) or inter-regional trade (electricity generation, water desalination and petrochemical feedstock) will also be needed across the Arab world.

Table 7

Estimated Investment Requirements in the Oil and Gas Sector in the Arab World, 2007-2011 (in $ Billions)

	Total Arab Countries	GCC Countries	Saudi Arabia
Oil Upstream	48.1	33.5	12.5
Oil Midstream	5.7	2.6	1.5
Oil Downstream	87.7	49.9	26.8
Total Oil Chain	**141.5**	**86.0**	**40.8**
Gas Upstream	33.6	21.7	3.1
Gas Midstream	11.7	3.1	1.5
Gas Downstream	111.5	87.1	31.3
LNG/GTL	40.0	30.4	0
Petrochem./Fertilizers	71.5	56.7	31.3
Total Gas Chain	**156.7**	**163.1**	**35.9**
Total Hydrocarbons	**298.2**	**249.0** (84%)	**76.7** (26%)

Source: APICORP, 2006.

It is worth noting that oil sector investment has been virtually stagnant for the past 20 years in most of the oil and gas-rich countries of the GCC, with the exception of Qatar since 1995. However, investment has risen in other Arab countries. The oil sectors of Egypt, Sudan and Yemen, for example, have experienced an influx of foreign direct investment (FDI) that has contributed to their growth. Algeria has also benefited from increased investment in its oil sector since the mid-1990s, especially in the form of FDI. During 1995-2003, Algeria and Sudan together received 20% of total FDI inflows into the Arab world, most of which was petroleum sector related. This investment contributed both directly and indirectly to the higher GDP growth rates these countries turned in during that period.

Unlike the past 20 years, which saw investment levels stagnate, the next few years are expected to experience increasing investments in the oil and gas sector of GCC countries – whether domestic, through national oil companies (NOCs), or through FDI. These investments will be made in a climate of relatively high oil prices, with better prospects for oil and gas exports from the region, greater downstream opportunities in the oil and gas chain, and a favorable business environment in the countries concerned.

The Impact of a High Oil Price Environment: A high oil price environment is important for two reasons: First, it creates sufficient financial resources for governments to make upstream and downstream investments, and to receive higher returns. Second, it re-positions the oil sector in those economies, both as a provider of revenues and as a vehicle for diversification. While no one can predict how long the current high oil price environment will last, it is safe to assume that the planned investments will continue until 2010.

Improved Prospects for Petroleum Exports: The various forecasts upon which such investments are based predict increases in crude oil, refined products and LNG exports from the GCC to the rest of the world, especially Southeast Asia. The increase in Southeast Asia is important for two reasons: First, it will strengthen trade and investment ties between the two regions. Second, it will prolong the oil market cycle, since economic growth and increasing energy consumption in Southeast Asia are expected to continue in the foreseeable future.

Better Downstream Investment Opportunities in Oil and Gas Chains: The downstream bottlenecks in major markets (including Asia) and the well developed infrastructure in the GCC countries give the latter a competitive edge for expanding investments in their refining and petrochemical industries. The experiences and alliances formed through such investments since the early 1980s and the willingness of governments to utilize the comparative advantages of their economies as well as their high country and project ratings by relevant agencies will do much to add to the success and growth prospects of such investments.

Favorable Business Environment: The oil and gas investments in the GCC will certainly benefit from the growing role of the private sector, higher standards of living and freer economies. The accession of all GCC countries to the World Trade Organization (WTO), the deepening of their regional integration (from free trade to a customs union and a potential monetary union), and their economic integration into the wider Arab world through the Greater Arab Free Trade Area (GAFTA) add to the favorable business environment of the region. The countries in this region have been classified as "partially free economies" by the Heritage Foundation, which monitors levels of economic freedom worldwide.

The prospects for future growth in the oil and gas sector will affect the rest of the economy in oil exporting and other Arab countries. This time, the role of the forward and backward linkages discussed above could outweigh the role of fiscal and other transmission channels. The huge investments in oil and gas downstream projects, which are estimated to reach $103 billion by 2010, or 56% of overall hydrocarbon

investments in the Arab World, will contribute to the growth of refining and petrochemical industries. Total estimated investment in oil and gas chains, amounting to $183 billion, will contribute through backward linkages to the growth and development of hydrocarbon service industries.

As for the transmission mechanisms from the oil sector of Arab oil exporting countries to other Arab economies, the importance of the various transmission channels will certainly differ from the previous oil price booms. Remittances and official development assistance, once the dominant mechanisms for transmission, will be replaced by private capital flows and tourism. The impact of remittances will continue to decline because the nature of government spending in oil exporting countries now differs from that during the oil booms of 1973 and 1980, and because labor market dynamics in the host and home countries have also changed. Tourism, however, will continue to contribute to the transmission of oil revenues to other Arab economies, and the tourism sector is likely to attract increased Arab private investment in coming years.

Development aid, which has contributed significantly to the transmission of oil revenues to the rest of Arab countries over the past two decades, will decline in relative importance. This decline will be due to the higher absorptive capacities of the donor countries; the growth of foreign and Arab investment in other economies as a result of a more open and favorable investment climate; and the "hostile" investment climate in the U.S. and Europe after 2001. Inter-Arab private investment flows are therefore expected to continue the growth trend observed in recent years, and to contribute more to the transmission from the oil and gas economy to the rest of the Arab economy.

4. Opportunities and Challenges of the New Oil Boom

The GDP of Arab economies grew at an estimated average rate of 5.4% over 2000-2005, while per capita income rose at an average of 3.5% over the same period – its highest rate in three decades. Unemployment and budgetary deficits generally decreased, while investment increased. While this economic performance of Arab economies came amidst rising oil prices and revenues, it was also achieved against the background of perpetual crises, especially in Iraq and Palestine. The prolonged nature of the tragic political situations in these countries seems to have economically isolated both of them from the rest of the Arab world.

The performance of the Arab economy poses many questions related to the main features of this boom as compared to the oil booms of 1973 and 1980, the sustainability of the current growth pattern, and the prospects for more diversified individual Arab economies and a stronger Arab economy in general. These issues are all important for policymakers in Arab countries and local and international businesses, as well as for inter-Arab and international organizations interested in the economic and political transformation of the Arab world.

Main Features of the Current Boom: While debate continues on whether the current oil prices are the result of structural oil market changes or of another cycle, it is important to note that the recent price and revenue increases were more gradual than the oil price increases of 1974 and 1979-1980.[11]

Whereas oil prices quadrupled in 1974 and doubled in 1980, in 2003 they rose by 15%, followed in 2004 by 28% and by 40% in 2005. The oil price regime is also different now that the old fixed-price system has given way to flexible prices. Furthermore, the old official selling price system (OSP) implied relatively greater price control by the producers as well as less short-term volatility than the new system.

Arab oil exporters seem to have adopted a more prudent spending stance during the current boom than in previous ones. Some of the oil revenue increase is being directed to current and capital expenditure, while the rest is being used to pay off part of the accumulated government debt, or to build reserves. It has been observed that during the current boom, only some 25% of the additional revenue has been spent, as compared to 60% during the 1974 boom (World Bank, 2005b).

11 On this debate see for example Stevens (2004) and Horsnell (2004).

The economies of Arab oil exporters are now more diversified and resilient, with larger non-oil exports than during earlier boom periods. The labor market and the role of the state in the economy also differ structurally from those during previous booms. Economic reform programs, including price reforms, privatization and subsidy reduction or phasing out, have reduced the burden on the government, either as the spender or the employer of last resort. In most of the countries, the financial market is now deeper and better integrated in the world system. Inter-regional trade and investment flows – especially among GCC countries – are larger, while the degree of economic integration is greater and the institutions governing them are more mature.

While the income gap between the Arab oil exporting and non-oil exporting countries still exists, it has become narrower during the past 10 years thanks to higher population growth in the first group and faster economic growth in the latter group. Large differences in the degree of economic openness between the two groups and among Arab countries in general have also been reduced. During the previous two booms, only a few Arab states were members of GATT, but today most Arab countries are members of its successor, the WTO. And although intra-Arab trade is still negligible, it is on the increase, and institutions for its growth such as the Greater Arab Free Trade Area (GAFTA) are now in place.

The Sustainability of the Arab Growth Pattern: One of the most portentous questions in the Arab world today is "Will the current boom last, and if so, how can it be sustained?" This is a crucial question for both policymakers and economic actors alike, given the experiences of past oil price cycles and the impact these have had on the economies of the oil exporters and, consequently, on the entire Arab world. And since there are no surefire answers to these questions, issues such as insulating the economy from wide oil price fluctuations and ensuring inter-generational equity have once again become relevant for oil exporting societies.

To address the fiscal imbalances associated with oil price volatility and the unpredictability of oil revenues, some oil exporting countries (Algeria, Oman and Qatar in the Arab world) have resorted to the establishment of special funds that are designed to stabilize budgetary revenue and thus, budgetary expenditure. When oil revenues are high, some part is channeled to the "stabilization fund," whose resources can be used later to finance the shortfall. It has been observed that the effectiveness of such funds depends on the transparency of their objectives, rules, management and operations as well as on the extent to which they are shielded from political manipulation, a questionable issue in Arab countries (World Bank, 2005b).

In a recent study which evaluated 12 countries producing non-renewable resources worldwide, including five with stabilization funds, the authors concluded that such funds *per se* do not affect the pattern of government expenditure. In all of the countries, whether or not they had stabilization funds, government spending usually followed oil export earnings. While the objective of such funds is to stabilize budgetary revenue, the main objective in government policy is to balance expenditure, and that requires prudent fiscal policy decisions. And stabilization funds are no substitute for fiscal prudence (Davis, et al., 2001). Other Arab oil exporting countries, including Saudi Arabia, have resorted to conservative oil price assumptions for estimating their oil revenues and have consequently adopted a more cautious expenditure stance.

Another long-term resource management issue is even more complex than stabilizing revenues. Since oil revenues are derived from the depletion of a finite resource, if all the proceeds are consumed, future generations will be left with less wealth and fewer opportunities for consumption. This fact raises issues of intergenerational equity and long-term fiscal sustainability, and implies the need to save part of today's oil revenues by accumulating financial resources, or by creating other forms of assets to make up for the depletion of the resource. The "Funds for Future Generations" in Kuwait and the United Arab Emirates (the Emirate of Abu Dhabi) are examples of such savings and investment funds. Their aim is to set aside some resources (pre-specified shares of oil revenues presumably independent of the oil market and the fiscal situation), and gradually build up a store of wealth so that future generations will also benefit from the proceeds of the non-renewable resource extracted by the current generation.

Like the stabilization funds, the savings funds have also been criticized on conceptual and operational grounds. It has been argued that the portion of oil revenues to be set aside is problematic and depends on too many variables such as population growth, technological progress and the absorptive capacity of the economy. Moreover, savings funds are no substitute for a measured intertemporal approach to fiscal policy in the long run, and do not necessarily lead to higher savings since governments can finance spending in other ways, such as by borrowing. On the operational side, governance issues and problems resulting from the separation of the management of the fund from other public sector spending decisions have been cited (Davis, et al., 2001). Table 8 summarizes the various oil stabilization and savings funds in Arab oil exporting countries, with the exception of the Abu Dhabi Investment Fund, where public information is not available.

Arab Oil Stabilization and Savings Funds as of 2004

Table 8

Country/ Fund	Year Creation	Principal Replenishment	Principal Expenditure	Value of Assets as a % of GDP	General Government Debt as a % of GDP
Algeria					
Hydrocarbon Stabilization Fund	2000	Hydrocarbon revenues transferred when in excess of the forecast budget	Funds used to finance deficits and cut external debt	n.a	54.0
Kuwait					
Reserve Fund for Future Generations (RFFG)	1976	Finance deficit or receive percentage of revenues	n.a	208	234.0
Oman					
General State Reserve Fund	1980	Petroleum revenues transferred when in excess of the budget forecast	Spend when revenues are below budgeted level	21	22.7
Qatar					
Qatar Stabilization Fund	2000	Petroleum revenues transferred when in excess of the budget forecast	No expenditure. Only a repayable credit line extended to government to balance under-budget oil revenues	3.6	113.7

Source: Hepburn, 2005.

The Oil and Gas Sector as a Medium for Diversification and Growth: When the performance records for the Arab economies over the past three decades are compared to those for the economies of Asia and Latin America, the results are not very encouraging. The current oil boom, which has been forecast to continue for the full first decade of the 21st century, is providing many opportunities, but also posing many challenges. The Arab countries have already gone through two previous booms with all their achievements and pitfalls, and are now called upon to draw the right conclusions from their own experiences.

To provide employment opportunities for some 100 million new entrants to the labor force over the next twenty years, the Arab economy will need to sustain its current performance and grow annually by 6-7% in real terms – double the rate observed for the past 15 years (World Bank, 2005b). To meet this and other challenges, the following adjustments will be required:

- To move from oil-dominated to more diversified economies;
- To change from public sector-dominated to private sector-led economies;
- To convert their closed economies to more open ones that are better integrated not only with the rest of the Arab world, but also with the rest of the globe; and
- To transform a passive oil industry to a more proactive one.

Making such realignments will require a new set of innovative fiscal, industrial, trade and labor policies in all Arab economies. The oil and gas sector will be central to the above adjustments because of its relative contribution to GDP, investment, external balances, and overall growth.

Diversification: Oil and gas revenues provide the necessary capital and foreign exchange for the build-up of human and physical infrastructure required for the development of the non-oil sectors. Through forward and backward linkages, such revenues contribute both directly and indirectly to the development of the industrial and services sectors. The estimated $183 billion in investments to be made in the oil and gas chains of Arab countries over the next five years, while adding to the growth of the oil and gas sector, should also contribute to the growth of other sectors, thus enhancing diversification. Although the oil sector GDP of many Arab economies will continue to rise in the medium term, its relative share in total GDP will decline as the growth rates of other sectors outstrip the growth rates in the oil and gas sector.

However, while oil contributes to economic diversification in the Arab oil exporting countries, the prospects for reducing its contribution to government rev-

enues through the introduction of income taxes or VAT seem distant. Since the year 2000, the rise in oil revenues has halted the debate in those countries on the merits of diversifying government revenues, a discussion that began in the 1990s when oil prices and revenues were falling.

Reducing the Role of the State in the Economy. Historically, oil revenues have helped consolidate the role of the state in the economies of Arab oil exporting countries. The past 15 years, however, have seen the role of the state declining vis-à-vis the private sector as a result of the decreasing importance of government expenditure, and the increasing importance of the private sector in employment creation and capital formation. During the period when low oil revenues persisted, which lasted at least until 2000, Arab governments initiated reform programs that included trade liberalization, price and investment reforms, and the restructuring or privatization of public enterprises and activities, strategies that have been instrumental in reducing the role of the state. Today, there are concerns that with increased oil revenues, the state will revert to its former guardian role, and that the reform process will be slowed or even reversed in those countries.

There are indicators, however, that this need not happen. As mentioned earlier, government expenditure in most Arab oil exporting countries has been moderate, with part of the revenue increase being earmarked to pay off accumulated public debt. Furthermore, with their accession to the WTO and their integration in inter-regional organizations such as the GCC, these economies have undertaken irreversible trade reforms. While the role of the state will continue to be instrumental, especially in relation to the expansion of the oil and gas sector, the forward and backward linkages of the sector will certainly benefit the private sector in the oil exporting economies, and enhance its role and contribution.

The role of the state in the economies of non-oil exporting Arab countries has also been affected by trade and investment reforms. This process is likely to continue, irrespective of the boom in the oil exporting group. As mentioned earlier, the spillover effects of the previous oil booms to these non-oil exporting economies (through remittances and development aid) might not be associated with this boom. However, the open markets and the increase in consumption in the oil exporting group can be expected to provide opportunities for the private sector and the exports of the region's non-oil exporting countries.

Openness and Inter-regional Integration: It is worth noting that Arab countries lag behind many other developing countries in terms of exports diversification and FDI inflows. While the oil exporting group has succeeded in diversifying exports

towards energy intensive, refined and petrochemical goods, the non-oil exporting countries have not managed to build a strong export base. For various historical and political reasons, their economies are still relatively closed compared to those of oil exporting countries. However, in the past few years these economies, aided by structural reform programs and the challenges of globalization, have exhibited increasing openness. The free trade agreements concluded (or negotiated) by Arab oil and non-oil exporting countries – both with their trading partners and within the framework of the Arab League – should foster the processes of liberalization and integration with the global economy. The inter-Arab integration process is likely to accelerate, particularly if the import markets of the oil exporting group continue to expand as expected.

Proactive National Petroleum Industry: In the early 1960s, most Arab governments embarked upon plans to build up national oil industries capable of managing their hydrocarbon resources once the transfer from the concessionaires was accomplished. This process accelerated in the 1970s following the nationalization or takeover of oil and gas assets from the international oil companies. Country experiences in building strong, integrated and efficient national oil industries differed, as did their contributions to income diversification, human resource development, and technology assimilation and adaptation. The unimpressive record of many Arab national oil companies (NOCs) is shared by many other oil exporters, prompting many to question their role.[12]

The NOCs in Arab countries are crucially important, given the size of the reserves they manage on behalf of their governments, the oil and gas production and export volumes, and the role they play in integrating the oil sector into their national economies. There are many reasons for the poor records of many NOCs. Some are country specific and related to the political, legal and structural relations that exist between the NOCs and their respective governments on one side and the international oil companies (IOCs) on the other, and to the impact these relations have on the efficiency, independence, and accountability of the NOCs. The other reasons are more general and often related to the international setting in which these companies operate. A few years after the oil companies were acquired from the concessionaires, predominantly in the mid-1970s (whether in a hostile or mutually agreed manner) the oil market reached a turning point which affected both strategies and programs.

12 See for example the articles by Celasum (2001), McPherson (2003), and Zanoyan (2004) on the important role of NOCs in developing hydrocarbon resources, and in deriving maximum value added from them for their economies.

Today, the national and international environment in which the NOCs operate is more conducive to growth than ever before. The new international oil industry landscape also differs from the one that prevailed after the resurgence of the NOCs in the 1970s, when their only counterparts were the old IOCs. The current industry setting favors a growing role for NOCs through various upstream and downstream alliances with both old and new IOCs. The entry of new players into the industry from China, India, Malaysia, Norway, Russia and Brazil is giving these new relationships additional dimensions and opportunities.

Although some countries have re-opened their national oil and gas sectors to foreign investment in the past few years, in most Arab countries the NOCs are still the principal managers of the oil and gas sector. They are entrusted with the task of being the vehicles through which their national oil and gas sector can contribute to the growth and development of their economies through the linkages described above. The NOCs will need to draw on past experiences and benefit from the new boom by building new business structures, establishing or continuing smooth working relations with their governments, and promoting mutually beneficial international alliances. The role of governments is crucial in helping national oil industries become commercially driven, independent and accountable.

5. Conclusions

For the past four decades, the economies of the countries of the Arab world have been shaped in one way or another by oil and its relations. The political economy of oil and the oil sector have played a pivotal role in the social, political, and economic transformation of these countries at different historical junctures. The Arab oil exporting countries have had a larger share of world oil reserves, production and exports than any other group of countries now for more than 30 years. This situation has translated into the relative dominance of the oil sector in the economies of the Arab oil producing countries, and consequently, in the Arab world at large.

The oil sector contributes to the economies of oil producers through five linkages: fiscal, forward, backward, consumption and socio-political. The oil revenues accruing to these states enable the public sector to make expenditures and investment outlays without resort to taxation. The exhaustibility of oil and state ownership of the resource make the allocation and use of oil revenues across generations, state intervention in the economy, and the latter's response to government initiatives and policies, central to economic growth and development.

The contribution of oil to development has spilled over to other Arab economies, with the transmission mechanisms differing during the various oil booms and among the various Arab non-oil exporting economies. Contributions have been made through four channels: workers remittances, tourism flows, bilateral and multilateral aid, and investment flows.

The oil sector, which has contributed to growth and development in the Arab world for the past three decades, is projected to continue its role, but through different channels and relations. For the economies of the oil exporting countries of the region, the differences will include changes in the relative size of the sector and its relation to the economy, the investment needs and challenges in the oil and gas sector and in the overall economy, population growth, and the absorptive capacity of the economy. For the Arab economies, the differences include changes in the trade and investment climate and policies, the level of integration with regional and global economies, and the fiscal and external positions.

Most world energy outlooks show that world oil consumption is projected to increase by an annual average of 1.5 mbd through 2025. The share of Arab countries

in incremental world oil supply is expected to reach 15 mbd by 2025. Total cumulative investments by 2010 in the oil and gas chains in Arab countries – through national oil companies, FDI, or both – are estimated at $183 billion. These investments are expected to be carried out in an environment of relatively higher oil prices, improved prospects for increased oil and gas exports, and a favorable business climate in the countries concerned.

This time, the impact of the projected growth in the oil and gas sector on Arab economies will be different. The role of forward and backward linkages in oil exporting countries could outweigh the fiscal and other transmission channels. For other Arab economies, transmission mechanisms such as remittances and official development assistance will give way to private capital flows and tourism. This development is due to the nature of current government spending in the oil exporting countries in comparison with that of previous oil booms, changes in labor market dynamics in the host and home countries, and the increasing absorptive capacity of donor countries.

While the income gap between Arab oil exporting and non-oil exporting countries remains, it has narrowed because of higher population growth in the former group and high rates of economic growth over the past 10 years in the latter. The large differences in the degree of economic openness between the two groups and within the countries of the region in general have also been reduced.

However, there are numerous challenges ahead for all Arab countries. For the oil exporting countries, sustaining the current economic performance, which has been fueled by oil market developments, is a major challenge. Two tasks are of great importance: The first is to insulate the economy from wide oil price fluctuations by means of mechanisms such as oil price stabilization funds. The second is to achieve intergenerational equity through the establishment (or performance) of "funds for future generations." The conceptual and operational aspects of such funds have been questioned, however, especially in the absence of sound and transparent fiscal policies.

To meet future challenges, Arab economies will need to achieve the transformation from oil-dominated to more diversified economies, from public sector to private sector-led economies, and from closed to more open economies that are integrated both with the rest of the Arab world and globally. At the same time, their oil industry must change from a passive to a proactive oil industry. Such realignments will require a new set of innovative fiscal, industrial, trade and labor policies in all Arab economies. Because of its contribution to GDP, investment, external balances and overall growth, the oil and gas sector will be central to the success of the above adjustments.

Bibliography

Amuzegar, Jahangir (2001). *Managing the Oil Wealth: OPEC's Windfalls and Pitfalls*, London: I. B. Tauris.

Arab Petroleum Investment Corporation, APICORP (2005). *Arab Energy Investment Outlook*, Dammam.

Arab Monetary Fund, AMF (2005a). *Arab Financial Institutions and Development Financing and Investment in the Arab Countries* (in Arabic), Abu Dhabi.

_____ (2005b). *Unified Arab Economic Statistical Book*, Abu Dhabi.

Askari, Hussein, Nowshirvani, Vahid and Jaber, Mohamed (1997). *Economic Development in the GCC: The Blessing and the Curse of Oil*, London: JAI Press.

Beblawi, Hazem and Luciani, Giacomo, Eds. (1987). *The Rentier State in the Arab World*, New York: Croom Helm.

Celasum, Merih, ed. (2001). *State-Owned Enterprises in the Middle East and North Africa: Privatization, Performance and Reform*, Cairo: American University Press.

Davis, Jeffrey, Ossowski, Rolando, Daniel, James and Barnett, Steven (2001). *Stabilization and Savings Funds for Nonrenewable Resources: Experience and Fiscal Policy Implications*, IMF Occasional Paper No. 205, Washington D.C.

Gelb, Allen (1988). *Oil Windfalls*, Oxford: Oxford University Press.

Hausmann, Ricardo and Rigobon, Roberto (2002). *An Alternative Interpretation of the Resource Curse: Theory and Policy Implications for Stabilization, Saving and Beyond*, IMF Working Paper.

Hepburn, James (2005, March 7). MENA Countries Turn Increasingly to Oil Funds to Hedge Against Price Volatility, *Middle East Economic Survey*.

Horsnell, Paul (2004). Why Oil Prices Have Moved Higher, *Oxford Energy Forum*, Oxford.

Karl, Terry Lynn (1997). *The Paradox of Plenty: Oil Booms and Petro-States*, Berkeley: University of California Press.

McPherson, Charles (2003). National Oil Companies: Evolution, Issues, Outlook, in J.M. Davis, R. Ossowski and A. Fedilino (eds.) *Fiscal Policy Formulation and Implementation in Oil Producing Countries,* Washington, D.C.: International Monetary Fund.

Richards, Alan and Waterbury, John. *A Political Economy of the Middle East*, Second Edition, Boulder: Westview Press.

Sachs, Jeffrey and Warner, Andrew (1997). *Natural Resource Abundance and Economic Growth,* Center for International Development and Harvard Institute for International Development, Cambridge, Massachusetts.

Stauffer, Thomas R. (1984). *Accounting for "Wasting Assets": Income Measurement for Oil and Mineral-Exporting Rentier States,* Vienna: OPEC Fund for International Development.

Stevens, Paul (2005). Promoting Economic Development through the Oil and Gas Sector, paper presented to the Royal Institute for International Affairs, London.

_____ (2004, September). Has There Been a Structural Change in the Oil Market? What Are the Expected Market Developments in the Medium Term? *Middle East Economic Survey.*

World Bank (1995). *Claiming the Promise: A Long-Term Prospective Study for the Middle East and North Africa*, Washington, D.C.

_____ (2005a). *Economic Development and Prospects: Oil Booms and Revenue Management*, Washington, D.C.

_____ (2005b). *World Development Indicators*, Washington, D.C.

Zanoyan, Vahan (2004, June 28). The Oil investment Climate, *Middle East Economic Survey*.

Acronyms and Abbreviations

AMF	Arab Monetary Fund
APICORP	Arab Petroleum Investment Corporation
bcfd	Billion cubic feet per day
bcm	Billion cubic meters
EIA	Energy Information Administration
FDI	Foreign Direct Investment
GAFTA	Greater Arab Free Trade Area
GATT	General Agreement on Tariffs and Trade
GCC	Gulf Cooperation Council
GDP	Gross domestic product
GTL	Gas-to-liquids
IEA	International Energy Agency
IMF	International Monetary Fund
IOCs	International oil companies
LNG	Liquified natural gas
mbd	Million barrels per day
MENA	Middle East and North Africa
NOCs	National oil companies
OFID	OPEC Fund for International Development
OPEC	Organization of Petroleum Exporting Countries
OSP	Official selling price
OWEM	OPEC World Energy Model
SAMA	Saudi Arabian Monetary Authority
tcf	Trillion cubic feet
UAE	United Arab Emirates
VAT	Value Added Tax
WTO	World Trade Organization

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