Changing Financial Structures in the Arab World: Some Implications for Oil and Gas

Randa Alami

Oxford Institute for Energy Studies

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ABBREVIATIONS

AMF	Arab Monetary Fund
APICORP	Arab Petroleum Investment Corporation
DRS	Debt Reporting System (World Bank)
ECA	Export Credit Agency
ECGD	Export Credit Guarantee Department (UK government export guarantee agency)
EXIM	Export-Import Bank (US government export guarantee agency)
FDI	Foreign Direct Investment
JV	Joint Venture
GDP	Gross Domestic Product
GNL	Gas liquids
IFI	International financial institution
IMF	International Monetary Fund
IOC	international oil company
LNG	Liquefied natural gas
NOC	national oil company
O&G	oil and gas
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OPEC	Organisation of Petroleum Exporting Countries
OSEC	Official and officially supported Export Credit
PSA	Production Sharing Agreement
QGPC	Qatar General Petroleum Company
UNCTAD	United Nations Conference on Trade and Development

ABSTRACT

This paper relates changes in Arab financial structures to financing patterns in oil and gas. Until the mid-1990s, inherited financial structures displayed a reliance on external official finance. Since then, governments, who are the main borrowers, have shifted to domestic and private sources of finance, reflecting two broad changes. The first, is a global context where bilateral loans have largely dried up and private finance is more important, though not more reliable. In the medium term, capital flows to developing countries are expected to remain low and volatile, indicating difficulties in credit supplies. Secondly, the region has witnessed a resizing of the role of Arab states, and programmes to deepen and reform financial sectors.

Arab oil and gas sectors have changed in a similar direction. In-house finance and export credits remain important for their investment needs, linking the sector to government balances and external debt. Recently, improved and expanded financial structures have facilitated the use of more diverse financing strategies. Domestically, the sector can now tap local savings through voluntary debt instruments and stock markets. This underpinning, though quantitatively small, may be a stabilising force: local investors react less severely to rising uncertainties.

Externally, the implicit guarantee offered by hydrocarbon receivables, which had been a key to accessing foreign finance, is now helping the sectors to mobilise new instruments. On the other hand, the use of private sources of fresh finance has re-introduced sensitivity to political and country risk, and added weight to the importance of regulatory and institutional frameworks.

Arab oil and gas are therefore more dependent than ever on 'balanced' development, i.e. on improvements in all sectors. If financing availability to oil and gas improved in response to financial deepening, it is likely to respond positively to overall development. The current upsurge in oil revenues is an ideal opportunity to finance this development, and to upgrade all resources, including human capital.

1. Introduction

This paper examines the interactions between recent changes in domestic and external finance in Arab countries and developments in their hydrocarbon (oil and gas) sectors. In the last two decades, countries have witnessed three major transformations in their financial and energy sectors, and in the role and size of the state. First, in line with global trends to deregulate and reform financial sectors, the regional financial scene has seen a double switch: from official to private sources of finance, and from external to domestic funding. In the last few years, this has taken place against a background of heightened political turmoil, which in turn has affected the mix and availability of finance. Second, to varying extents, their oil and gas sectors are being transformed by reform and restructuring, including through corporatisation or privatisation. This is in line with the third transformation, whereby pressures of economic adjustment and globalisation have redefined and resized the role of the state in the region. The involvement of Arab governments in running their economies was historically prominent, including in energy. Therefore, sectoral re-organisation falls within this broader transformation of the Arab state, but represents a more fundamental departure from the previously dominant pattern of state intervention.

Each of these transformations has been the subject of extensive discussions. However, there have been fewer attempts to relate them to each other, or to examine overlapping problems. Yet, these inter-linkages have both affected past developments, and are significant in shaping future strategies. In the case of hydrocarbon sectors, which are the focus of this study, these inter-linkages are reflected in several ways:

In the past, financial flows to the region have focused substantially, albeit not exclusively, on hydrocarbon sectors. Hydrocarbons are a key avenue through which global finance affects the region.

Oil and gas (O&G) related projects and institutions are now competing with other projects and economic agents for funds and for presence in capital markets, both domestically and internationally. The financing mix in some projects has reflected the aforementioned switch to private funding.

The withdrawal of the state from the economy has been driven, to varying extents, by fiscal pressures and the need to balance budgets, to which hydrocarbon outlays[1] and revenues are critical.

A noticeable pre-occupation of policy makers and analysts since the late 1990s has been the suitability of finance for sectoral and regional growth needs. These worries are accentuated by two major developments. First is the negative outlook and difficult financial markets in which developing countries have to operate in the short to medium term. In many sectors and regions, this global situation has offset conscious efforts to attract or revive investments. Second, there is a sustained high level of political turmoil and uncertainties across the region. Hence, until the sustained rise in crude oil prices, a key challenge to Arab oil and gas (O&G) was perceived and declared to be whether domestic and international resources are currently adequate enough for the magnitude of capital required by the sector.

This study is largely a preliminary and *qualitative* exploration of this challenge; analysis is pegged at the macro-level. The focus is primarily on identifying, broadly speaking, inter-linkages between the debt and external financing profiles of Arab O&G producers, and oil and gas activities. Information on the former, whilst detailed in terms of commitments or the type of finance, is typically devoid of sectoral content. In fact, up to the mid-1990s, data on and analyses of external debt and international finance provided by international financial institutions (IFIs) were focused almost exclusively around balance of payments, i.e. on aggregate numbers relating to a country's external balances. A uniform diagnosis tended to be applied across countries and time periods. It was not until 2000, for example, that the IMF took into account the ratio of debt service to government revenues when assessing debt burdens, and only in 2002 did it highlight the features of Latin American debt (*World Economic Outlook*, April 2002).

Similarly, oil revenues may be included in an economy's external financial position, but it is hard to distinguish imports or debts incurred in the production process from the financing needs originating in other sectors. Although financial aspects of O&G activities such as the features of a specific deal may be available, the micro information is too sporadic to enable one to deduce a precise aggregate about the financing activities of the sector as a whole. Such information does not usually refer to the impact on the economy or on the external debt position. Additionally, data available on financial

[1] Outlay means expenditures or commitments, and the word is often used to refer to capital expenditures. Definitions and a glossary of terms used are available at the end of this paper.

markets, financing instruments, or debt flows are not matched by a similar disaggregation of the financial activities of government and national companies in oil and gas.

Mapping micro-macro financial interactions may be possible for other sectors such as agriculture or the cement industry, where relevant data or time series about investment spending or capital inflows are more readily identifiable and available. Not only is there a problem with the availability of data, but these concepts do not have precise parallels in O&G. The industry's structure differs in several fundamental aspects, including its downstream and upstream segments, and the triangular relationship between governments, international, and national oil companies (IOCs and NOCs). Disentangling or decomposing aggregate financing flows according to their corporate origin is particularly difficult when it comes to governments and NOCs in the Arab world. The political, fiscal, and financial relationships vary greatly across the region, and across time within each country. NOCs have changed in nature, status and structure, but the documentation of these changes is sporadic in coverage and depth. Further, NOCs are often still required to act as the guardian of the national wealth of hydrocarbon resources. Therefore it is not possible either to interpret or to trace their financial structures or financial histories over time to the same extent that it can be done for IOCs, or for NOCs with clearer corporate identities such as PEMEX. Likewise, a mere consideration of government budgetary allocations will reveal little as to whether the earmarked amounts have undermined or helped the financial health of an NOC. IOCs, who come into the scene from the position of a global investor, add yet another dynamic to the equation.

Whilst aware of underlying complexities, therefore, this paper's primary task is to detect changes at the macro level in issues such as the nature of participants (foreign vs. local, and government vs. private) and in the financial mixes in recent O&G projects, and to put them in the context of broader changes. This may give some indication of where Arab O&G sectors are heading, and how they are responding to current problems and opportunities. In turn, the directions they are taking can provide some clues about the perceived adequacy of financial resources available to the sector as well as the anticipated shortage problem. The study is focused on major Arab oil producers (the Gulf countries and Algeria). Other Arab countries are included in so far as regional financial trends or economic policies refer to them, and in so far as it is useful to contrast policies across income groups.

The investigation begins by setting out the financial context, outlining the main trends in the developing world's financial markets in Section 2, and reviewing the behaviour of oil and gas financing in Section 3. The next three sections relate the Arab financial scene to financing secured

by hydrocarbon sectors. Sections 4 and 5 look at current financial structures, both external and domestic, highlighting the shift away from traditional mixes and official funding. Section 6 reviews the main trends in the financing of Arab O&G sectors, which now incorporates new players and new instruments. It finds that domestic flows and local investors have acquired a qualitative significance, and that this change was largely permitted by measures of financial reform and deepening.[2] This is somewhat surprising, as the positive effect would not be obvious from a quantitative measurement of these changes. The next two sections consist of a country case study, which was felt to be the most appropriate method in light of the data problem and the focus on detecting policy changes. Section 7 considers the case of Qatar in the 1990s, highlighting the distinguishing features of the financing of its massive gas investments. Their macroeconomic consequences are addressed in Section 8. Qatar was chosen because of its pioneering use of sophisticated financing instruments (as far as the Arab world is concerned), its prominent reliance on capital markets, and the simultaneous rise in domestic credit use. The Qatari gas case allows the delineation of the risks and opportunities offered to Arab O&G by the current financial context, which are the subject of Section 9. Section 10 assesses the current outlook for the sector, questioning in particular whether financing availability is likely to be a constraint on sectoral growth. The upsurge in oil revenues since mid-2004 should go a long way in relieving any funding constraints. Section 11 draws the conclusions. A glossary and list of definitions of technical terms are grouped in an appendix.

2. Current trends in global finance in developing countries

Until the last two years or so, enthusiasm and optimism about private capital flows to developing countries – whether Foreign Direct Investment (FDI), equity, bond issuance, or bank lending - took a severe blow, and thereby halted the sharp upswing displayed in the 1990s. The East Asian financial crisis of 1997-8 was followed by a number of other shocks (Russia, Brazil, Argentina and Turkey). Together with transformations in the advanced countries' capital markets, this has led to a new, more difficult, international financial context within which developing countries must operate. As of 2004, the economic outlook and financing available to developing countries improved, but risks remain.

[2] Financial deepening is used here in its broader sense, namely the overall expansion in financial transactions as a result of the broadening of the products and terms offered by financial institutions, and of the diversification of the financial

Hence, international financial institutions (Bank of International Settlements, IMF, World Bank) have focused their attention in the last few years on the weakness and volatility of the levels of private financial flows. Net lending to developing countries had been shrinking for a number of years, with repayments to private creditors exceeding the loans they disbursed. Fresh lending from official sources has remained largely positive, but could not offset the overall fall in debt finance provided. Preliminary data for 2003 indicate that net debt financing is picking up. However, the $44 billion of loans extended in 2003 – of which $31 billion went to Central and Eastern Europe - were below the $105 billion registered in 1997.

Similarly, the World Bank 2004 *Global Development Finance* indicates that net private inflows to developing countries edged up to $200 billion in 2003, above the $178 billion in 2001 but below the peak of $285 billion in 1997. Global issuance of debt securities, bonds, and equities followed a similar trend: at $33 billion in 2003 they still had not recovered from the falls of 1998-9. Net bank lending, the other component of net private flows, remained negative at $-6.6 billion in 2003. The current consensus is that subdued private flows are the new reality in the medium term. This outlook includes five trends of relevance to this analysis.

First, many investors burned their fingers in emerging markets and there has been a tangible shift since then away from high-risk ventures, even where yields appear promising. The market is said to be increasingly concerned about, and sensitive to, credit risk. This has been translated into a differentiated attitude to investments and purchases, with investors concentrating on highly rated developing countries (such as China or South Africa). Within that, the market is further distinguishing between different types of borrowers according to their financial health, and is demonstrating strong preferences for investment grade ventures. An important factor underpinning this change is a shift in the composition of the investor base. The participation of non-specialised hedge funds has diminished by about one-third in the last few years, implying less speculative investment. While a concentration on better asset classes may stabilise flows, it also means that borrowers below investment grade or those suffering a setback in credit ratings, will probably face higher costs of raising capital in an increasingly constrained credit market. At the same time, risk averse investors were showing an interest in developing countries since 2003 partly in response to increased rigour and stablility in their macro-economic frameworks.

infrastructure. For simpler economies, this may just mean the opening of non-bank rural credit co-operatives or cash points. For more advanced economies, it may mean the setting up and evolution of capital and securities markets.

The second trend is the visible retrenchment of banks and bank lending away from developing markets, and away from loan syndication. While analysts point out that bank lending has never recovered since the East Asian Crisis – with both European and Japanese banks withdrawing - the decline in the market valuation of the large Western banks has reinforced this trend. It is also widely believed that new regulations concerning banking risks and capital adequacy under the Basel II Accord will lead to new calculations of credit risks and hence to higher bank charges. Specifically, according to the IMF *Global Financial Stability Report* (September 2003), 'lead banks' will continue to concentrate their activities on underwriting syndicated loans and receiving up-front fees, rather than participating in the syndication *per se*.

The third trend concerns equity flows and international debt securities, which are currently characterised by their small size, and their concentration on a minority of recipients. Despite gains in 2003-2004, portfolio equity flows never recovered after falling from their peak in 1993, registering a mere $14 billion in 2003. Similarly, the net issuance of international debt securities by developing countries stood at $35 billion compared to $946.3 billion for developed countries (Bank for International Settlements, September 2003). In 2002 East Asia still accounted for 60% of issues, with fourteen developing economies accounting for three-quarters of international placements (World Bank, *Global Development Finance 2003*). Modest levels of new issues distinguish the current trend. Investors' demand may force many potential borrowers out of this route of financing, but can also be revived, as with $13 billion of bonds issued in Latin America (*Global Development Finance 2004)*.

Trends continue to vary across borrowing sectors and regions, depending on the prevailing composition of private flows used. According to the IMF (*Global Financial Stability Report*, May 2003), domestic bond issues in Latin America - which peaked at $147 billion in 1997 - were the largest source of corporate funding. That region suffered the most during the weakening of issuance levels. By contrast, in Asia, domestic bank lending accounted for 65% of corporate financing. Financial structures in Arab countries are closer to this model of bank-dominated financial systems.

Fourth, two types of bond appear to be evading the declining trend. The first is international project bonds, which international organisations expect will grow and become a key instrument for financing infrastructure. The second group is local currency bonds. These have received increasing

market attention recently, reflecting both a reduced appetite for international currency issues as well as an increased interest in mobilising domestic funds. While local bond markets have always been an important source of funding for public sectors, the *Global Financial Stability Report* (September 2003) expects that these markets may prove to be an alternative source of funding for the corporate sector, and a way of managing currency risks. Local bond markets can be attractive to domestic investors and useful for capturing domestic savings. More generally, broadening and diversifying the investors' base and reducing the importance of speculative investments are seen to be of strategic importance in stabilising and strengthening capital markets.

Fifth, the volatility of private financial flows and emerging capital markets has reinforced perceptions of the merits of the relatively more stable direct investment or foreign direct investment (FDI). This has two components: greenfield investment and FDI equity investment. The first category is easier to classify because it is simply the acquisition by foreign residents of tangible assets, such as a factory. The second is a type of portfolio investment, the key difference being that FDI implies a long-term interest in, and/or significant management influence over, a foreign affiliate. International organisations use a statistical benchmark to distinguish between the two, and that is a threshold of 10% of share ownership. However, the distinction between FDI and portfolio investment is often blurred.[3] Yet, according to UNCTAD, FDI levels fell between 2000 and 2003, as if to prove the volatility of international capital flows. It seems that no sooner is a capital flow praised for its reliability, it confounds observers by reversing its course and falling.

Nevertheless, FDI is still the largest component of worldwide aggregate resource flows. It is beyond the scope of this paper to consider the mushrooming literature on its merits, or to summarise findings on the barriers to, incentives for, and experiences with FDI expansion in developing countries. Such investments continue to be a key issue, with the sustained rise in bilateral agreements signed reflecting the centrality of investment to current policies. Here, we merely touch on the status of its two components, while the next section considers sectoral investment more closely.

As confirmed in *Global Development Finance 2004* Report, FDI is still concentrated geographically: ten countries accounted for 68 percent of FDI in 2003, down from a peak concentration of 78% in 2000. As is well known, China led the global revival in capital spending,

receiving the largest amount of FDI in 2003. *Net* FDI flows in 2003 were about $135 billion compared to $171.7 billion in 2001 (*Global Development Finance* 2004). According to UNCTAD, FDI inflows inched up to $172 billion in 2003, but were still below the $209 billion (*World Investment Report 2004)*. An important reason for weakening FDI flows had been falling mergers and acquisitions (M&A), which were particularly significant for Latin America. Portfolio investment levels are still tangibly lower than in the 1990s, when their rise was driven by the privatisation of public enterprises. The diminishing range of assets on offer and the increasingly widespread concerns about privatisation mean that this type of investment is unlikely to rise significantly in the medium term. This has been also recently emphasised by the World Bank (Buresch 2003, Razavi 2003; *Global Economic Prospects* 2003).

On the other hand, greenfield FDI has been more resilient, thanks to some inherent properties as well as to the drive by developing countries to promote investments. Aspects such as sunk costs and irreversibility have long been discussed in the literature, and it has been observed that the inalienability of some factors of production often make this type of FDI a preferred mode of entry to developing countries, particularly where financing constraints prevail. In this sense, Albuquerque (2002) notes that the share of FDI inflows in gross private capital flows is higher for poorer than for richer countries, and is correlated with their country risk ratings. In his words, FDI is often the only form of investment that the poorer and financially constrained countries can get: other forms demand more sophisticated capital markets and economies. Similar remarks have also been made by the IEA (2003).

It should be stressed that the distribution of investment flows is likely to change in the near future in light of recent changes in measurement practices. Since 2002, many IFIs have engaged in a major statistical correction exercise to take into account the use of retained earnings for investment purposes, namely reinvestment and depreciation spending. UNCTAD, the World Bank, and the IMF, are now arguing that total investment and net FDI levels in many developing countries may be seriously underestimated because of the failure to include in-house finance and retained earnings used by international companies for their worldwide investments. Consequently, many investment levels need to be increased to allow for re-investment activities. While India has been highlighted as a current example, future revisions may well concern the way joint ventures and production-sharing agreements in O&G are accounted for.

[3] For example, investors may use their shares as collateral for borrowing, and portfolios can have options to be converted to shares.

The overall implications of the current international financial context are relevant to O&G actors currently accessing international capital markets, or attempting to attract non debt creating flows. IOCs are more regular and substantive users of mature OECD capital markets. Governments and NOCs have tended to use bank lending, with equity and portfolio flows only relevant to entities with the appropriate corporate structure. Similarly, using local currency bonds presumes the presence of the required exchange rate and clearing mechanisms, i.e. the presence of fairly developed financial systems. Only a few Arab governments and even fewer Arab private corporations have been able to engage in this type of financing. The main message seems to be that accessing fresh finance from international markets in the medium term is more conditional and costly than previously, particularly for entities below investment grades, as is the case with most Arab borrowers. Accessing fresh official finance is another issue, to be discussed in Section 4.

3. Recent trends in oil and gas financing

Analyses of Foreign Direct Investment have tended to focus almost exclusively on types of flows, volumes, or issues relating to regulatory requirements or similar factors believed to affect investment decisions - so much so that many aspects of investment, including its sectoral emphasis, have taken the backstage. Yet, historically, FDI has been attracted to countries with significant endowments of capital or natural resources, and/or with large domestic markets.[4] Furthermore, rises in FDI have at times been due to specific sectoral activities, such as in the telecom boom in 1999- 2001, or the current interest in services. An even more striking feature of investment data in most sources is the fact that investment in oil and mineral resources has been resilient across regions, income groups, and time periods.

Starting with UNCTAD's review of FDI in Africa (1999), Gross Fixed Capital Formation as a percent of GDP in the period 1991-7 in oil-exporting African countries was higher than the average for Africa, at 6.9% and 5.6% of GDP respectively. UNCTAD's *World Investment Report 2000* notes that two of the three largest recipients of investment flows in Africa in 2000 were Angola and Nigeria. Neither received much investment outside their hydrocarbon sectors. Subsequent *World Investment Reports* also show that top investment recipients in Africa are dominated by oil

exporters (Angola, Algeria, Chad, Nigeria); and greenfield investment in oil explained why some countries avoided the current fall in FDI. Two sources also note that in Latin America, the contribution of FDI to Gross Fixed Capital Formation is higher among oil exporters than in other Latin economies (US Office of Energy Markets and Energy Use 1996; ECLAC 2000). The IMF's Working Group on Capital Markets (2003) also observes that investment in Andean countries is concentrated on extractive sectors.

More generally, the UNCTAD *World Investment Report 2003* states that FDI in oil and mining outperformed manufacturing and services, and escaped the current downturn. Similarly, the World Bank *Global Development Finance 2003* notes sustained interest in extractive industries, and that the share of oil exporters in FDI flows to developing countries had been around a steady 20% through most of the 1990s. Finally and significantly, Smith (2003) claims that exploration and development spending by international oil companies has been mostly steady in nominal terms, averaging $25- 6 billion over the last decade. In other words, large O&G investors and/or operators, OECD based oil majors in particular, have little problem in using international capital markets to finance their operations.

Despite this apparent stability in levels of capital mobilised, some analysts have argued that O&G sectors have been affected by the current crisis in investor confidence, the sharp correction of risk-taking attitude, and the consequent tightening of credit availability. Since the supply of funds to the sector did not collapse in the current atmosphere, the puzzling questions are why levels have been so stable, what other credit market conditions have changed, and what transformations – if any - lie underneath these stable levels?

Four arguments can be advanced regarding the stability of O&G investments. Firstly, the sector has always required 'patient capital' because of several inherent characteristics, such as its high capital requirements, and long gestation and pay-back periods. Secondly, O&G projects are directly and indirectly linked to export revenues and the entailed cash flows. This link acts as a guarantee, thereby minimising risks of default or repayment problems. This guarantee is more secure than in the case of other commodities because of the critical importance of fossil fuels as an economic input and a source of revenue. Hydrocarbon exports have acted, however implicitly, as inherent collateral in sectoral financing.

[4] See for example Aziz (2001).

In fact, the World Bank (Kether and Retha, 2001) argued that with the setting up of special purpose vehicles, more developing countries would be able to benefit from the 'securitisation of future flow receivables'. They also argued that there is huge potential for expansion for O&G exporters, as the current over-collateralisation ratio is 5:1, and as issues backed by O&G receivables have particularly high ratings.[5] At that time, the issuance of such instruments had been limited to a few participants with relatively advanced corporate structures or a long history in capital market participation (such as PEMEX).

Third, in contrast with other types of investment, multi-year agreements prevail, commonly in the form of joint ventures (JVs) or production sharing agreements (PSAs), especially in the upstream. These frameworks act to stabilise investment levels in several ways:

A. By allowing lenders to monitor, observe and enforce, these contracts overcome the three major disadvantages that characterise sovereign lending and distinguish it from domestic lending.

B. Investors are provided with clarity of vision, at least in the medium term. Empirically, this was found to be more important than other promotional measures.[6]

C. Agreements allow companies to determine their tax liabilities over time, and may even protect them from a sudden adverse change in tax regimes or tax collection purposes.

D. The contracts help to stabilise the business outlook in the medium term, which in turn makes longer maturities less risky.

As will be shown later, new instruments such as project bonds have been successful to the extent that the bond covenants have been able to reduce sovereign lending risks in a similar vein.

Fourth, contractors and exporters of O&G equipment have always been able to mitigate commercial and other risks by relying on the support of export credit agencies (ECAs). Historically, ECAs have been an important source of debt finance for developing countries, including Arab economies. Effectively, ECA guarantees shift risks of non-repayments and the costs of debt recovery away from the exporter, thereby artificially increasing the viability of their ventures and filling a vacuum created by the absence of private insurance. By lowering risk, these guarantees can improve terms of finance by for example lengthening maturities, a crucial consideration for oil and gas.

[5] The over-collateralisation ratio is the ratio of fuel and mineral exports to debt issues backed by corresponding receivables. It makes an implicit and simplistic assumption that the bulk of export revenues are idle, or not used in other commitments.

[6] See Chapter 3 of *Global Economic Prospects 2003* for general findings, and Antill and Arnott (2003) on oil investments.

On the other hand, this guarantee may be a source of risk for borrowers. A burgeoning literature shows that from avoiding the problems of mis-pricing and adverse selection associated with private debt, official and officially supported export credits (OSECs) extended by ECAs suffer from distortions that undermine the optimality of borrowing. These distortions may emanate from the donors' strategic trade interests, including promoting arms exports, as well as political aims.[7] OSECs have often been granted when commercial entities would not have done so, and without consideration to the recipient's overall debt position.[8]

OSECs are provided to all sectors. However, energy, including O&G, has been arguably the single most important user of this form of finance. Energy sectors are often of vital and strategic interest, and associated finance typically relates to large projects worth billions of dollars, and that may be tied to other strategic interests. Recent publications and increased pressures for disclosure[9] document the importance of fossil fuel projects in ECA portfolios. Thus, $5 billion of the $28 billion of loans and guarantees extended by the US EXIM bank in 1991-2001 were for energy projects, including fossil fuels (US GAO, 2002). Likewise, in 2001, the O&G sector accounted for 38% of facilities provided by Japan's ECA, with energy projects in 2002 accounting for 48% of financing by OECD ECAs.[10] Examples of such projects are:

- In 2001, the EXIM bank guaranteed $535 million worth of equipment and services exports by thirty Texan oil companies for production enhancement activities in Mexico and Algeria. In 2003, Sonatrach reached a preliminary agreement with the EXIM bank for a $1 billion line of credit, Algeria having been their customer for some thirty years (EXIM Press releases, 5/10/2001, 27/10/2003).
- In 2002, the UK's ECGD supported a $215 million loan for an LNG expansion project in Bonny Island, classifying it under 'good projects in difficult markets'. In 2003, UK rapprochement with Iran led the ECGD to announce its support for exporters interested in Iranian oil projects, and lifted the requirement for the Iranian National Oil Company to enter into structured agreements for deals below $20 million (ECGD: *Annual Reports*; Press release 28/02/2003).

[7] Alami (2003) compiles these arguments on the basis of OECD, IMF, and UNCTAD data, and from country specific material such as the Scott Enquiry in the UK.
[8] See: Raynaud (1992); UNCTAD, *Trade & Development Report 1996*; Kuhn *et al* (1999); Williamson (2000).
[9] This has partly resulted from growing pressures over environmental concerns, and the lobbying by related NGOs, ECA Watch in particular.
[10] International financial institutions such as the World Bank are also involved in guaranteeing O&G projects. These guarantees are usually offered partially, e.g. for the transit of production or a state payment obligation. However, little data are publicly available.

However, the relative stability of financing available to O&G masks significant changes in the industrial structure and investment strategies of the main actors, namely IOCs and producers. These changes are reflected in the geographical redistribution of flows and in diverging types and means of financing rather than volatility in overall levels. A limited synopsis of these changes is presented here.[11]

Among oil majors, the most distinguishing concern is with access to and control of resources and reserves. Many analysts [12] point out that the re-organisation of oil majors has essentially increased the importance of corporate targets and of shareholders' interests in deciding investment strategies (Antill and Arnott 2003). Prominent among these are a 'bottom-line obsession' (Williams, 2001), which underlined the restructuring and redeployment of IOCs.

By the mid-1990s, the restructuring of oil majors took the form of asset acquisition, as opposed to 'organic' growth through reserve acquisition or discovery. Asset acquisition became the dominant strategy for achieving corporate financial targets, this resulting in a wave of Merger and Acquisition activities. The significant increase in cross-border investments included acquiring assets offered in developing countries, a salient deal being Spain's Repsol acquiring Argentina's YPF (Yacimientos Petroliferos Fiscales) at $15-$16 billion in 1999. This wave appears to have ended, particularly following economic downturns in Latin America.

With respect to redeployment, the oil majors have tended to diversify geographical and political risk and to achieve a particular competitive position vis-à-vis other players. In other words, IOCs have increasingly been managing their presence in producer countries as a portfolio of investments, and looking to consolidate operations in a particular area (Zanoyan 2003). This consolidation would seek to secure access to reserves and to areas where high returns can be secured. The target of achieving high returns has therefore led to an expansion in new areas, which is sometimes referred to as a drive to 'difficult oil' and 'new country' access (see Skinner 2003, Smith 2003). This resulted in a pattern of new investments with a bias towards regions like the Caspian Sea and deepwater offshore production, as typified in West African and Brazilian ventures.[13] The latter has also been mediated by technological advances that significantly improved the cost structures of

[11] For the sake of brevity and simplicity, we deliberately abstract from many major defining factors, such as the role of OPEC vs. non-OPEC policies, or the increased volatility in crude prices.
[12] See US Office of Energy Markets & Energy Use (1996), Lynch (2000), Williams (2001), IEA (2003).

such ventures (al-Moneef, 2000). According to Skinner (2003) large companies seek oil reserves in technically and/or politically difficult places, because they need discoveries large enough to offset depletion and maintain growth.

On the whole, a global portfolio approach to considering IOCs' investment decisions, and an appreciation of their corporate size and culture offer plausible explanations to what may otherwise appear to be perverse behaviour. In other words, it is easier to understand why IOCs invested in Angola and were not deterred by apparently difficult production agreements (Bindemann, 1999), or why they invested in Sudan despite political risks (Rodgers, 2003). The companies do not lack risk aversion, but they are driven and are securing high returns in high risk ventures.

While it is quite easy to categorise IOCs and trace their role in the industry, the same cannot be said about either governments or NOCs. Each of these consists of a much more diverse group of agents at any one time. The first point of departure is due to the fact that for producers and their NOCs, control over oil reserves and natural resources has been a priority and an important determinant of the type of financing they sought. Generally speaking, up to the mid-1980s, national ownership of reserves meant that the upstream and downstream were primarily the responsibility of governments and NOCs, with IOCs entering as a partner. Thus, O&G finance by producers, including any borrowing, would be defined primarily by fiscal and budgetary positions and practices. The financing may involve domestic avenues, affecting domestic credit systems, and may also require accessing international markets as sovereign. The terms of access are dictated by global financial trends (such as the current bank lending retrenchment). But as previously argued, O&G flows offer borrowers possibilities of structuring finance in ways not necessarily available to other sectors. To the extent that governments and NOCs access capital separately, the terms they secure may differ as well as their exposure and borrowing requirements.

Macro-economic pressures and tightening credit availability since the mid-1980s brought changes in government involvement and financing of the sectors. They created incentives for governments to distance themselves or reduce their provisions of resources to oil and gas. While fiscal constraints meant that retrenchment and/or divestiture affected all sectors, their application to O&G would be a more significant departure from the prevailing presumption that the state alone is capable of developing those sectors.

[13] See also a discussion of 'Lord Brown's paradox' in Mabro (2003).

By the mid-1990s, sensitivity about controlling reserves had certainly been eroded. Poorer producers and newcomers in particular needed the capital as well as the financial muscle of IOCs to rescue and/or develop their sectors. A variety of policies were adopted. Bolivia privatised all its oil enterprises, while Morocco acquired its state-owned petroleum companies through FDI. Yemen's oil industry took off at a time when the economy had turned its back on state control, with the government's meagre resources contributing to its opening up oil and gas to IOC leadership. However, a more general pattern has been that of partial divestiture. The upstream sector remained in essence off limits to IOCs. Large producers in particular tend instead to engage foreign capital and expertise through service contracts or production sharing agreements (PSAs), i.e. agreements allowing them to retain ownership of 'national assets'.

The presence of external debt, currency, or other financial crises, was a limiting factor for these types of manoeuvres. In such crises, alliances with capital rich IOCs were vital, since financially vulnerable governments and/or state entities would have been limited in their access to international capital markets. On the other hand, by the late-1990s, the range of IOCs had expanded beyond the super-majors, especially in countries where majors were either not interested in working or were not allowed to. The operations of Russian, Chinese, Malaysian, and Canadian companies expanded the range of arrangements and terms suitable for producers.

To sum up, it seems that oil and gas financing has almost always involved producing country government, IOC, and NOC, with changing contractual and financial relationships. Considering the differing positions of these main players generates diverging assessments as to what constitutes a financing problem for the sector. Given its history, it is rather implausible that the dominant financing problem would be about a shortage of funds. Anxieties by investors and recipients primarily reflect anxieties about their positions in an increasingly competitive industrial structure, not to mention the influence of oil price volatility on their investment strategies.

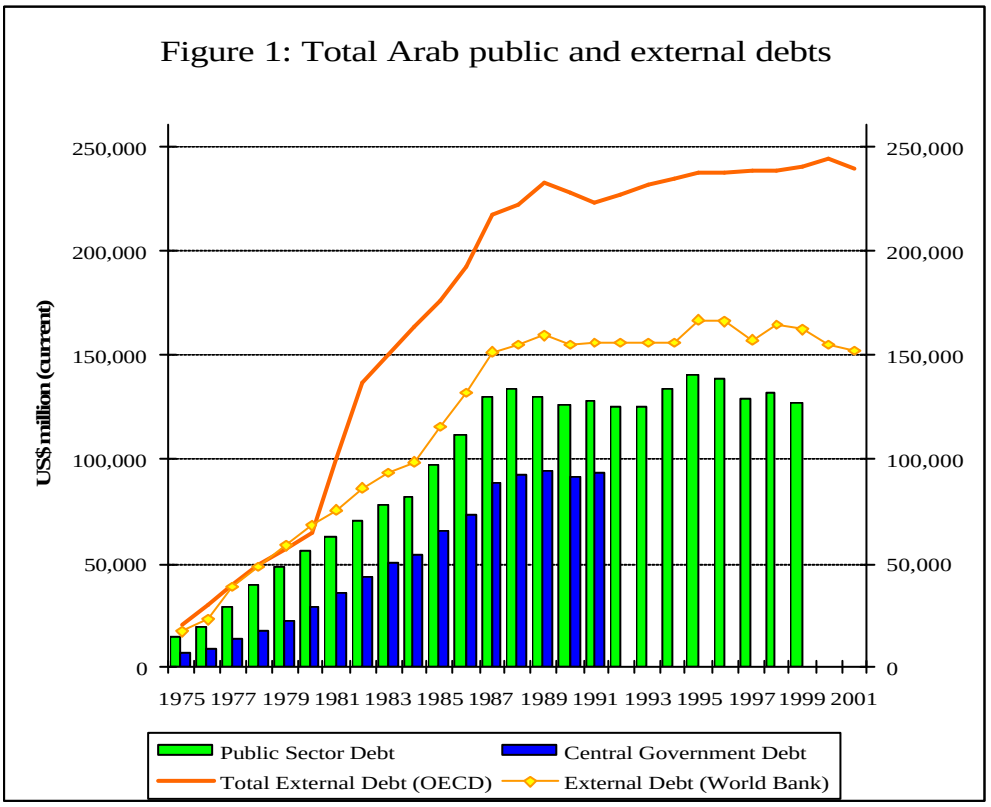
As such, it is questionable whether access to reserves has been a deterrent to foreign investment in producing countries, or whether it constitutes a policy failure on the part of recipients. Arguably, the issue is being highlighted because of the super-majors' current corporate financial targets and strategies, and because of competition among producers to attract investments. The determinants of foreign investments into O&G are not limited to this factor, and their importance can only vary across situations.

4. Changes in external financing in Arab countries

4.1 Current external debt positions and structures

As Figure 1 illustrates, after significant rises in the early 1980s, Arab external debt stocks reached a plateau in the mid-1990s. The regional data series are the author's compilation from individual country data. According to the World Bank database - which uses a debtor country reporting system that excludes Iraq and the Gulf countries - total Arab external debt peaked at $166 billion in 1995, retreating to $152 billion in 2001. The OECD database, a creditor based system which covers all Arab countries,[14] indicates that Arab debt stocks rose to a peak of some $237 billion in the mid to late 1990s, rising slightly to $239.6 billion in 2001. The difference between the two data sets is accounted for by the Gulf countries' external financing activities. Total Arab debt stocks would more likely to be at a minimum of $320 billion if Iraqi debt was to be included. While unofficial estimates of Iraq's debts in 1989- 99 were put at $75-100 billion (Alami 2003), G8 Summit discussions in June 2004 referred to debts of $120 billion (*Financial Times*, 9 and 10 June 2004).

Figure 1: Total Arab public and external debts



Source: Author's compilation from OECD and World Bank data series.

[14] Country coverage by various organisations is tabulated in Appendix Table A1.

Being dominated by government-to-government loans, Arab external debts reflected the relationship states have had with their economy and polity on the one hand, and their regional and global alliances on the other. The resulting debt structures have two distinguishing features. Firstly, they reflect a balance between the concessional and official debts of the poorer indebted economies, and the more commercial and short-term debts of richer borrowers. Secondly, they are dominated by an official and long-term component.

Reflecting previous reliance on ex-USSR, Arab, and OECD government loans, the share of bilateral debt in total Arab debt continues to be higher than the corresponding share in other developing regions, reaching 58% in World Bank data for the late 1990s, with OECD data indicating that official debt is between 63% and 65% of the total debts. This share is likely to diminish in the absence of fresh loans, although bilateral finance may remain important for poorer economies. The specificity of this regional debt pattern is better appreciated when contrasted with other regions. For example, in 1998, debt to private creditors by Arab countries was at under half of the share of private finance for developing countries. In 2001, 35% of debt outstanding was private compared to 67% in Latin America.

Three small changes were noted in sources of official finance. Firstly, debts outstanding to Arab and East European countries continue to diminish in importance in the absence of new loans. They now account for less than 20% of total identified debt, vs. a third of total stocks in the 1980s. Secondly, multilateral debt increased its share marginally: for poorer countries, they are the only source of fresh funding. Thirdly, while fresh official loans weakened, OECD debt in the form of official and officially supported export credits (OSECs), retained their centrality. OSECs rose from nearly $49 billion to $58.7 billion between 1995 and 2001, and accounted for over half of official Arab debt. OSECs are the only type of official debt finance used by richer borrowers. Their importance for exporting countries can be at least partly explained by referring to the aforementioned sectoral composition, namely the prominence of oil and gas in the economy. For example, Algeria's current external exposure will undoubtedly reflect Sonatrach's line of credit from the EXIM Bank.

As to the borrowing sector, World Bank data confirm that Arab public sectors – including central governments - accounted for the lion's share of outstanding amounts, reaching 81% of stocks in 1998, compared to 54% in the developing world. No comparable borrowing sector data for Arab Gulf economies are available. However, as OECD data indicate that most loans had been trade

related and short-term in nature, it can be argued that until recently the external debts of rich oil economies were mostly to finance private commercial activities. The issuance of government and state-owned enterprise debts by Gulf economies since the late 1990s suggests that their exposures partly rose as a result of public sector activities.

Currently, only seven Arab economies are severely indebted,[15] compared to nine in the late 1980s. Most major oil exporters are either less indebted or net creditors to the world, with important exceptions. Algeria was severely indebted until 2000 and Libya has had payments difficulties for a good decade. Qatar is not covered by the World Bank's classification, but its reported debt/GDP ratio of over 90% in the 1990s indicated a severe, albeit temporary, debt burden. More details of indebtedness levels are found in Table A1 in the appendix.

As demonstrated in Table 1, in stark contrast with the official nature of outstanding amounts, the region has clearly shifted away from official sources of fresh financing to private ones. At the end of the 1980s, nine Arab debtors relied on official sources of external borrowing. At the end of the 1990s, only three countries were official borrowers; six were diversified borrowers. By 2001, only the five poorest Arab countries relied on official financing. *Global Development Finance 2004* confirms that the level and share of debt owed to private creditors in the Middle East and North Africa has been rising since 1998-99.

Table 1: Classification of economies by source of finance

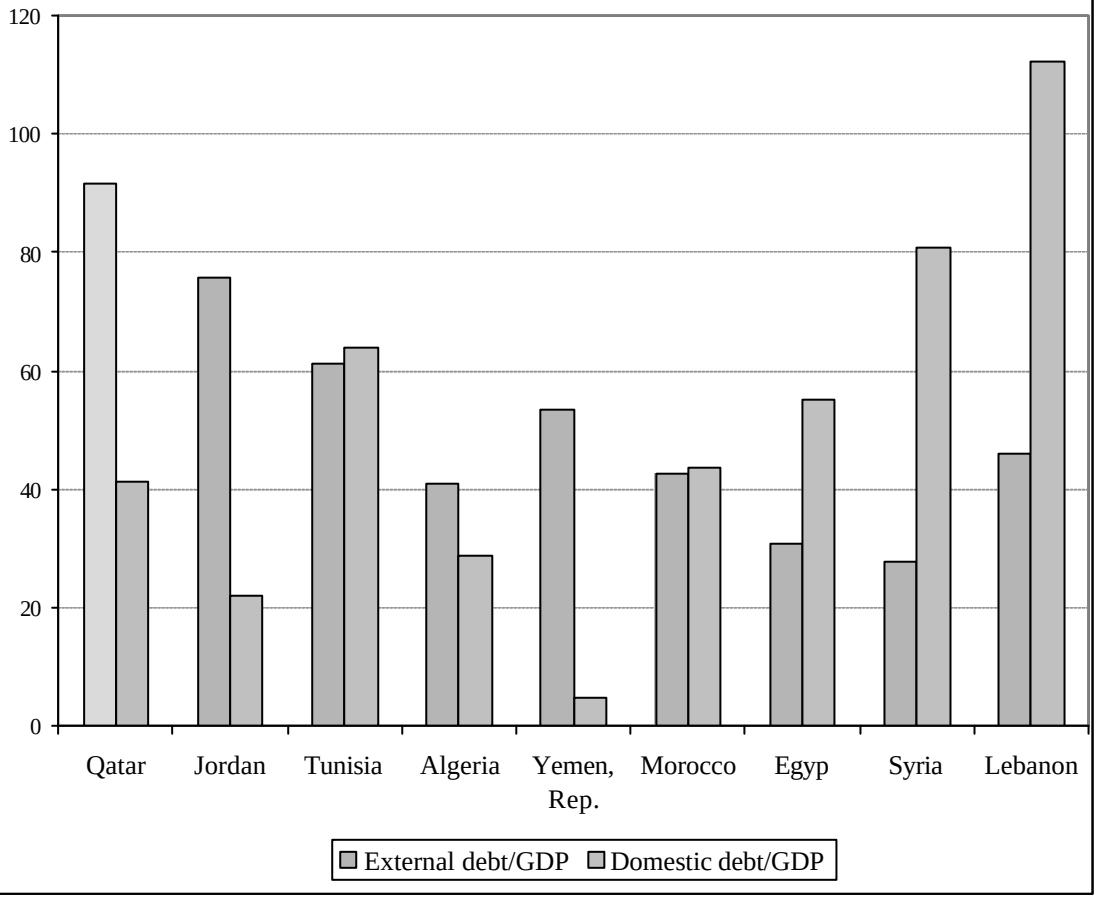
	1989	1994-1998	1997-2001
Official financing	Djibouti Egypt Mauritania Morocco Somalia Sudan Syria Tunisia Yemen	Algeria Jordan Mauritania	Djibouti Jordan Mauritania Somalia Sudan Yemen
Private financing	Algeria Bahrain	Bahrain Egypt Morocco	Bahrain Egypt Morocco
Diversified financing	Lebanon Jordan	Iraq Lebanon Somalia Sudan Syria Tunisia Yemen	Iraq Lebanon Oman Syria
Creditors	Iraq Kuwait Libya Oman Qatar Saudi Arabia UAE	Kuwait Libya Oman Qatar Saudi Arabia UAE	Algeria Kuwait Libya Qatar Saudi Arabia UAE

Source: *World Economic Outlook*, October 1993, May 2000, September 2003
Countries are classified according to the type of finance that accounts for over two thirds of their external financing.
As of 2001, the IMF stopped this tabulation, and only refers to whether an economy is a net debtor, or uses official financing.

[15] These are: Iraq Jordan Lebanon Mauritania Sudan Syria Somalia.

If Arab governments have been adjusting to the drying up of bilateral finance, as observed in other developing regions, they are also increasingly resorting to domestic borrowing. Figure 2 illustrates the significance of these debts across the region for 2001, including net creditors such as Saudi Arabia.[16] The figure attests to the variety of mixes in the use of domestic and external borrowing. For example, Lebanon's move to borrow abroad was mainly due to the fact that the domestic public debt had reached its limits. In 2000/01, the Egyptian government found it cheaper to borrow internationally than domestically. *The fiscal roots of both domestic and external debts are critical for understanding Arab debt paths*. This has been further confirmed by the recent earmarking of

Figure 2: External & domestic debts in Arab countries in percent of GDP, 2001



Source: *Joint Arab Economic Report (2002)*

surplus oil and government revenues to alleviate these burdens. In the case of Saudi Arabia, the intention is to cut the share of domestic debt from 90% to 66% of GDP (*MEES*, 20-27 December 2004; 17 January 2005*)*

[16] No attempt was made to use more recent data because these are not available for all countries, and are subject to repeated revisions.

According to the *Joint Arab Economic Report* (2001, 2002) - jointly produced by the Arab Monetary Report, Arab Fund for Social and Economic Development, and OAPEC - a good half of Arab countries have been increasing the use of government paper and of open market operations when borrowing domestically. Arab domestic debts are being held on a more voluntary basis than previously. This is corroborated by the growth and evolution of a government bonds market, with maturities recently ranging between two to ten years. These shifts in the sources of financing have important behavioural implications. Domestically, the use of voluntary instruments means that governments have to persuade rather than force the private sector to hold its debt. Similarly, leaving bilateral official financing behind means that Arab borrowers (both governments and NOCs), are more subject to the scrutiny of credit risk agencies and market sentiment. Consequently, Arab governments are now faced with more costly or more conditional external borrowing. *Oil revenues are no longer a sufficient guarantee of access to capital*, although they are a source of credit enhancement. Other economic, regulatory, and political determinants and risk elements have come into play.

With respect to economic elements, of foremost consideration for creditworthiness and access to capital are indicators and market perceptions of debt sustainability. Arab borrowers' credit positions and overall debt burdens are more visible, particularly in light of international agreements on financial disclosures and debt monitoring. Markets now also look at both domestic and external public debts when assessing the sustainability of debt paths, particularly in the aftermath of the experiences of Highly Indebted Poor Countries, Argentina and Brazil. Thus, with the scrutiny of financial markets, domestic debts matter for external creditworthiness. Arab budgetary decisions and fiscal balances have become significant signals for foreign lenders, with strong inter-linkages between domestic and foreign exposures.[17]

As to institutional and regulatory risks, these refer to the quality, reliability, and trustworthiness of the borrowing country's legal system, dispute enforcement mechanism, and so on. Researchers on the region - such as the recent World Economic Forum, *Arab World Competitiveness Report 2002- 2003* - regularly call for more to be done on these issues to attract more financial inflows. Another factor affecting capital provision is of course political risk, which is known to make private investors more nervous than official lenders, undermining credit provision. Recently, Haddad and Hakim (2003) find that sovereign risk for the region rose by 135 basis points (bpts) in the wake of

11 September 2001, making borrowers vulnerable to downgrading by rating agencies. The war on Iraq would have caused similar nervousness in capital markets. However, the surprise of the last two years has not been nervous responses to war. Rather, it is that the loss of confidence in the region has not been as accentuated or as widespread as in previous shocks. In Standard & Poor's view (2004), credit agencies are acknowledging years of reforms and more sophisticated management. It is not just that current oil revenues may boost growth in the region, but that regional economies appear to handle fiscal volatility more competently.

4.2 Transformations in financial flows to the region

Financial inflows to the Arab region since the late 1990s can be summarised by three broad trends. Firstly, transfers and resource flows have shifted in focus from official to private. Secondly, levels have subsided considerably. Thirdly, Arab countries have witnessed a switch away from debt financing towards other types of finance, namely portfolio investment and FDI. The last two trends bring the region in line with other developing regions. As shown in Section 2, developing countries on the whole suffered a slow-down in private flows, with repayments to private creditors typically exceeding new debt financing. Data sources documenting these changes are not consistent in their coverage. UNCTAD and pan-Arab organisations cover all Arab countries but not all types of inflows. The World Bank gives extensive decompositions of aggregate financial flows, but does not cover Iraq or the Gulf countries (see Table A1). This section focuses on different types of financial flows, and therefore uses World Bank data. These data are supplemented by other sources and country-specific information in Section 5, which considers Arab financial markets.

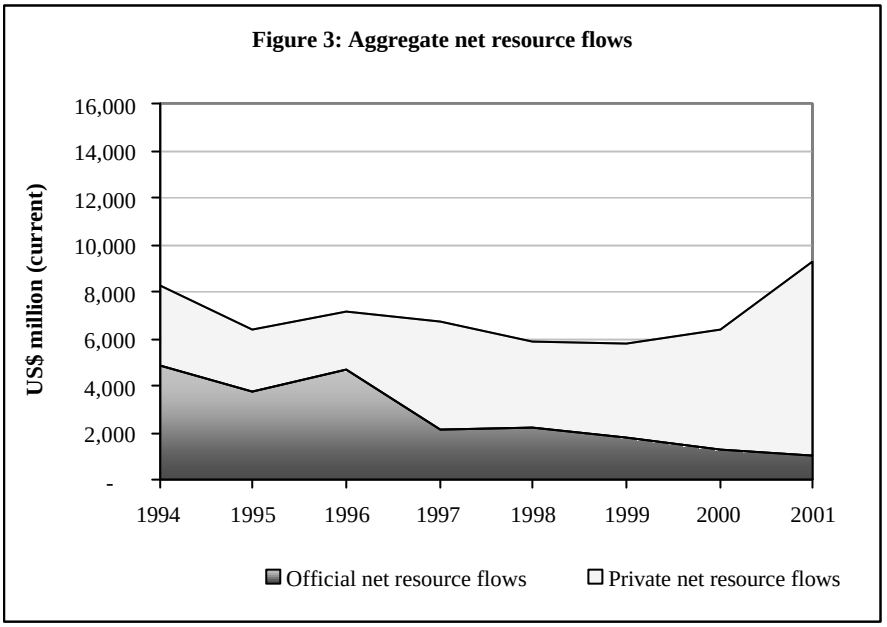
The first trend is illustrated in Figure 3. This shows that, while overall levels of aggregate net resource flows to most of the region followed a downward trend, by the late 1990s private net resource flows accounted for a larger share of aggregate resources than official flows. Net private flows to the Middle East and North Africa also exceeded net official flows in 2001-2002 (*Global Development Finance 2004).* However, when repayments are taken into account, net private flows look less impressive. Private inflows of capital have yet to match the volume and stability of official finance in its hey day, at least for the countries concerned.

[17] For example, Lebanon's public debt pushed the country into the severely indebted category, while concern over Saudi domestic public debt has undermined the country's credit rating for a number of years.

Figure 4, which confirms the decline in the volume of total finance received, illustrates the other two trends, namely:

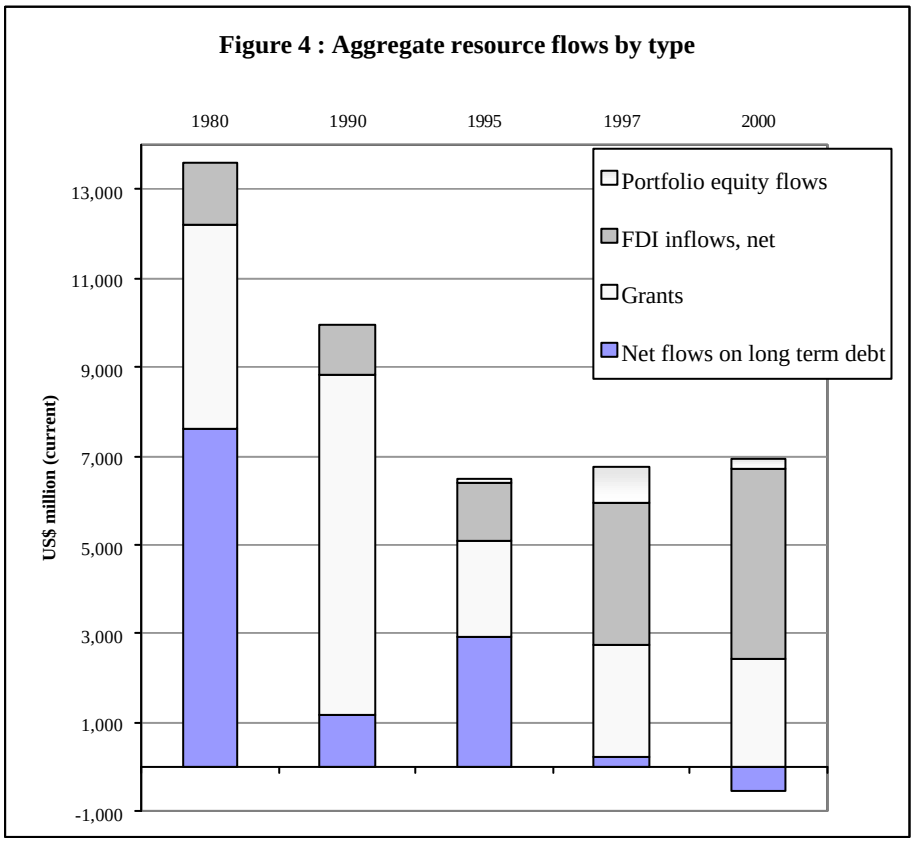
- A switch away from debt finance
- A significant shift in external capital structures away from official finance towards financial markets.

Figure 3: Aggregate net resource flows



Source: *Global Development Finance (2003)*

Figure 4 : Aggregate resource flows by type



Source: *Global Development Finance (2003)*

The switch away from debt finance is the result of the drying up of fresh loans relative to repayments. The negative net flows on long-term debt in Figure 4 indicate that repayments exceeded disbursements. Individual country situations may vary, but this is broadly relevant for many Arab and other developing economies. The rise in the importance of private financial inflows meant that the later 1990s saw more active loan syndication, but also better capital market access and longer-term credit. Mixes used across countries reflect a host of factors, including experience. Figure A1 in the appendix shows that the period 1997- 2001 was an active period for loan syndications by Arab borrowers, compared to a trickle previously. Figure A2 shows that both Egypt and Qatar had access to syndicated loans, the difference in income levels notwithstanding.

The most significant change in the aggregate resource flow to the region is not the weakening of official lending, although payments to official creditors of the Middle East and North Africa have been negative for some time (*Global Development Finance 2004)*. Rather, it is the appearance of non-debt creating inflows. In other words, since the late 1990s, portfolio and direct investment finance have become a visible component of financial flows to the region. For the thirteen Arab countries considered, private equity flows for borrowers exceeded debt payments in importance in 1997, with percentage changes shown in Table 2. In that year, FDI accounted for about half of aggregate flows, thereby exceeding grants for the first time in the region's recent financial history. 1997 FDI into Arab countries according to the World Bank estimate totalled $3 billion, out of $170 billion of FDI in the developing world. Other sources provide further support to changes featured here (*Joint Arab Economic Report* 2002; *ERF Economic Trends 2002;* World Bank, *Global Development Finance 2003*).

Table 2: The composition of aggregate net resource flows

	1990	1997	2000
Net flows on long term debt	12%	4%	-6%
FDI inflows, net	11%	50%	46%
Portfolio equity flows	0%	13%	3%
Grants	77%	39%	26%

Source: World Bank, Global Development Finance (2003)
Note: Bahrain, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, UAE are not covered by the data.

Compositions and mixes are of course very varied, because flow data are sensitive to individual financing deals or investment activities being completed. The important point here is the qualitative change. Similarly, whatever the current regional FDI inflows, clearly the region only secures a

marginal share of investment flows in the developing world. Further, sub-regional differences in private flows attracted must be emphasised. As argued in Section 2, private capital has a well-documented tendency to avoid countries plagued by poverty or high political risks. Hence, as with other regions, private investment flows are concentrated on a few Arab recipients: Saudi Arabia, Egypt, Morocco, and Tunisia. Poorer Arab countries and countries with under-developed financial structures remain dependent on official funding and grants. An important exception is Yemen, which embraced FDI as soon as it started liberalising its economy in the mid-1990s, with greenfield FDI being the only source of finance for its burgeoning oil sector. Sudan has also allowed IOCs to establish oil production, but without an overall drive to open the economy.

Finally, private and official bilateral capital is not entirely independent in practice. Official sanctioning may precede private capital entry in some countries. Economic history abounds with examples of public-led rallies and politically motivated economic rescue programmes. For example, Egypt's situation after 11 September 2001 was reminiscent of the aftermath of the 1990 Gulf War when the USA cancelled its civilian and military debts. At a special summit in February 2002, Egypt's donors pledged $10.3 billion over three years (Megalli and Noeman 2002). Until recently, pariah states (Libya, Iraq before 2002) received no Western private flows to speak of, with US and other Western entities forbidden to operate in the oil sectors.

5. An overview of Arab financial markets

Since the late 1980s Arab financial sectors have witnessed significant transformations, which have been the subject of numerous studies, the latest including Wilson (2003), Fgrais and Zkantur (2003), Creane *et al* (2003). In a nutshell, most Arab economies have implemented a first wave of reforms, including some liberalisation of credit and interest rate regulations, and the setting up or strengthening of non-banking financing institutions. Significantly, these reforms have reduced the capacity of monetary authorities to direct credit or to impose involuntary holding of government debt, though they are yet to reduce the prevailing domination of state banks. Further, financial intermediation remains weak, and liquidity will remain high, pending a more effective mobilisation of savings. Even in Gulf economies, whose modern banking sectors are relatively independent from monetary authorities, non-banking institutions remain relatively underdeveloped. Hence, the region

still has a long agenda before achieving significant financial modernisation and deepening, the details of which vary among countries.[18]

The reform programmes, as well as regulatory and institutional changes have contributed to the increase in the volume and diversification of the types of private financial inflows to the region. As indicated in Section 4, the increase in private flows has meant that in most Arab countries fresh private finance makes a greater contribution to total flows than official finance. Private flows have grown substantially from low initial levels, although they remain small in comparison to other developing regions or to local economies. Most significantly, external private flows are no longer limited to bank loans. Non-debt financing in the region has expanded to include greenfield investment, bonds, equities, and capital market participation, which this section considers in turn.

Note that data sources are not consistent in coverage. The World Bank's coverage is more comprehensive in terms of the types of flows monitored, but excludes Bahrain, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the UAE. UNCTAD monitors investments flows and stocks for all countries, but little else. Arab organisations, which monitor all Arab countries, tend to reproduce data from international organisations, and occasionally use national and in-house estimates.

Beginning with FDI, the World Bank puts total FDI in Arab countries in 1998-9 at $3 billion. The more comprehensive UNCTAD data (which include Gulf countries) refer to an average of $3.98 billion of FDI inflows in 1992-97 rising to $7.17 billion in 2000-2003. Eid and Paua (2002), who use UNCTAD data, indicate an average of $4.9 billion in the last five years, and state that the share of the region in FDI inflows to developing countries fell from 4% in 1998 to 1.9% in 2000. Interestingly, in line with rising South-South investment, inter-Arab investment has been expanding since 2000, reaching $2.9 billion in 2002 (Inter Arab Investment Guarantee Corporation, 2002).[19] Table A3 shows UNCTAD data on FDI inflows to the region.

In terms of the domestic economy, according to the World Bank, FDI flows reached a peak of 2% of GDP in 1992, retreating to 1% in 1997-8, and weakened slightly thereafter. In Saudi Arabia, the largest recipient in the region, FDI stocks in percent of GDP in 2000 were at the developing country

[18] Creane *et al* (2003) rank Arab economies in terms of financial development. Eight economies achieve a high score (Gulf Cooperation Council, Jordan, Lebanon), five a medium score (Algeria, Djibouti, Mauritania, Egypt, Morocco), the rest are poorly developed.

average of 16%, but below the 96% scored by Singapore (Eid and Paua 2002). While a good proportion of FDI flows to developing countries was mobilised through privatisation, this has *not* been the case in the Arab world, except perhaps in Morocco. Only 10% of FDI inflows received in 1996-2000 were through privatisation. In the period 1990-96, privatisation in Arab countries amounted to some $5.7 billion compared to $69.8 billion worldwide. Foreign investors accounted for under $600 million of regional proceeds (AMF, *Joint Arab Economic Report 2001)*. By the same token, flows due to mergers and acquisitions, which had risen on the back of privatisation in Latin America, have been negligible in the region.

It must be stressed that FDI figures *do not* include funds secured through JVs or PSAs in hydrocarbon sectors. For example, Qatar's FDI inflows ranged between $113 and $418 million in 1997-9, when its external exposure increased by over $1 billion due to its gas projects. In 2001, Qatari FDI inflows and Gross Domestic Investment stood at $296 and $2,847 million respectively. Thus, FDI flows are a poor measure of total investment activities in oil and gas. This lack of data is a major obstacle to an accurate assessment of the capital requirements of Arab hydrocarbons sectors.

As to other types of private inflows, *portfolio equity flows*[20] are still small relative to domestic economies despite having grown from $163 million in 1992 to a peak of $2,259 million in 1997. Their performance has remained lacklustre in the years 2001-2003, at least when compared with FDI flows (*Global Development Finance 2004).* Sustained growth in levels has not improved their marginal importance. Arab *domestic bond markets* also lack depth and volume, and are furthermore dominated by the issuance of government paper. According to Azzam (2000), the total value of corporate bonds stood at $5 billion compared to $87 billion of government bonds. In other words, local corporate bond markets are yet to function as a significant new source of long-term financing for corporate borrowers. The world of large corporations with a wide shareholder basis in Arab countries is still small. Average sized companies continue to rely largely on bank borrowing. Only larger entities, including Arab NOCs, tend to use international or local capital markets. This is another link between financial structures or exposures, and Arab O&G activities. Qatar broke new grounds in 1996 with the $1.2 billion Eurobond issue to finance gas projects, and in which the Qatari General Petroleum Company was involved. The Qatari issues indicated a new mix of finance

[19] These investments exclude O&G, and are concentrated in services, industry, and agriculture. A recent survey by three Arab investment boards indicate a huge potential for this flow, as the current rise is occurring despite a typical lack of awareness of opportunities in neighbouring Arab countries.

[20] Portfolio equity flows are the sum of country funds, depository receipts, and purchases of shares by foreign investors.

in O&G, where capital markets supplement commercial loans and export credits. As such, they have been mentioned in several recent publications by international financial institutions.

More generally, it was only in the 1990s that Arab financial systems expanded to include local capital and stock markets. However, these *capital markets* remain small, thin, and lacking in depth, despite sustained government support, and despite the fact that thirteen Arab stock and securities exchanges are now established. Typical indicators such as turnover ratios or days traded are way below international and emerging market averages. The immaturity of Arab markets is indicated for example, by the absence of secondary bond markets. This in turn means that published yield curves are missing, except perhaps for government paper. Without published yield curves and without the clearing mechanisms and facilities available in more mature markets, Arab capital markets cannot be integrated into global indexes or global investment funds.[21]

As to listed companies, the total number had increased by about 50% by the late 1990s, reaching 1,723 companies in December 2003 (Arab Monetary Fund website), which compares poorly with 5,863 listed in India and 725 in South Korea in 2000. Egyptian companies account for a large proportion of this number. Another distinguishing feature of Arab capital markets is that they contain an over-representation of government companies and financial institutions. Hence, such companies account for 40% of the Saudi market, and 50- 60% of listed companies relate to Arab financial sectors, although the latest data indicate widening participation by other sectors. That is not surprising given that state-owned enterprises and banks are often the largest corporations, and have structures allowing them to be listed, if only for the fact that they are not family-owned. Financial institutions also have the relevant experience to engage in this avenue of financing. The narrow range of capital market participants underlines the paucity of regional institutional investors, mutual funds or insurance companies, which are major actors elsewhere.

The nascent Arab capital markets are therefore only beginning to acquire significance in terms of the local economies and financial systems. Total market capitalisation in 2001 was at $152.2 billion, a modest 21% of GDP. The capitalisation of the Saudi market of 40% of GDP pales in comparison with the market capitalisation of Switzerland of 261% of GDP (Allen 2000). In 2002, market capitalisations in Latin America and Arab countries reached $419 and $208.9 billion

[21] Previously, the small market capitalisation was seen as the main obstacle. According to Abdelrazzak (1999), Arab capital markets capitalisation equalled a mere 0.1% in Morgan Stanley's emerging markets index.

respectively.[22] The rallies witnessed by Arab capital markets since 2002 are closing the gap, but there is still a long way to go. Total market capitalisation almost tripled to $363.8 billion in 2003, jumping to $622 billion in 2004 (*AMF Quarterly Bulletin* December 2004). The capitalisation of markets in Qatar, Bahrain, Jordan and Kuwaiti exceeded 100% of GDP, with the Saudi market at 74.6% and Morocco at 29.5% (*Joint Arab Economic Report 2004)*. Capital markets are also secondary in importance in terms of the sources of credit available to local economies. Average market capitalisation of 27% of GDP in 1998 for the region was below the share of banking credit in GDP of 59% (AMF, *Joint Arab Economic Report 2001*). In 2003, the average market capitalisation had risen to 50%, but was still below a largely unchanged share of banking credit in GDP (*Joint Arab Economic Report 2004).* On their own, Arab capital markets will not revive the dull performance of Arab domestic savings and investments. Their presence has opened a route of venture capital, but the tradition of setting up enterprises through this route is largely embryonic.

Lastly, the small size of Arab stock exchanges has been a double-edged sword. On the one hand, these markets are relatively insulated from international financial crises. On the other hand, they are more vulnerable to political instability or economic downturns: indicators quickly and significantly affected by single events. Regional capital markets suffered a severe blow from political tensions in the aftermath of 11 September 2001 and the war on Iraq. Market capitalisations and trading volumes fell by over 10% in 2001 in most Arab stock markets (ERF *Economic Trends 2002)*.

However, the stellar rise of Arab capital market values since 2002 has surprised observers. Despite highly volatile trends of daily indicators, and continued political shocks, over the last two years Arab stock markets have continued to deepen, and markets have largely retained the remarkable growth in value. Apart from speculative interest, these markets have seen many successful public offerings of shares. Thus, stronger inter-Arab trade, the good gains on a year-to-year basis in virtually all Arab capital markets, the continued over-subscription on most public offerings, and the good take-up of government bonds, all emphasise that domestic investment will be an important source of economic and financial stability for the region.

[22] These figures are taken from the World Bank's Development Indicators and the Arab Monetary Fund's database published on their respective websites.

6. Trends in the financing of Arab oil and gas

In Section 2 it was shown that international private finance for developing countries remains low in volume, and is focused on particular countries and on investment-grade opportunities. Section 3 argued that natural resources and oil and gas in particular have always been important recipients of this finance, even at times of recessions, thanks to their strategic importance, contractual arrangements that eased uncertainties, and the possibility of securing repayments using output revenues. Oil and gas finance has always involved tri-partite contributions from IOCs, NOCs, and host governments. The first group had the most substantive and steady access to international capital flows, if only because of their size, experience, and positions in the world. Financing by the other two groups is influenced by the type of partnership they were willing to see in the downstream and upstream sectors, other budgetary commitments, and their ability to tap the type of international finance on offer. Section 4 considered Arab external financial structures, which are rarely related to the main economic sectors. While substantial oil revenues have helped many Arab countries maintain a status of net creditors, the use of export credits to finance O&G activities – i.e. the need to spend on oil and gas - has been overlooked. Section 5 noted a shift towards private flows in the composition of the fresh external financing sought by the region, which was underpinned by the expansion of financial markets beyond their traditional focus on banking. The range of savings and types of resources mobilised domestically and internationally is wider, although the quantitative change is not overwhelming. This section argues that at the regional level, the financial history of Arab O&G sectors falls within these described patterns. A summary of this history is constructed using these patterns, and the historical outline of O&G financing found in the Arab Petroleum Investments Corporation (APICORP) [23] publications (1999, 2002, 2003, 2004). APICORP has been directly involved in that history, and the individual project and country data are uniquely available to them.

In a nutshell, the 1ate 1970s/early 1980s were dominated by state spending on production and export activities, the state being the main economic actor throughout the region. This dominance is reflected in the official nature of external funding, specifically in the concentration of export credits on oil and gas. Export credits have therefore always been central to O&G activities, Arab financial

structures, and international capital flows to the region. On the other hand, it is not possible to detail the distribution of O&G spending between ministries and NOCs, or within their budgets, mainly because of a lack of consistent and readily available disaggregated data.

Nevertheless, by the mid-1980s, a resort to regional and international bank lending to supplement in-house resources emerged against a backdrop of falling oil revenues. This constituted a further link between O&G financing and regional debt profiles in that period, and contributed to the noticeable external borrowing of Arab oil exporters depicted in Figure 1. The 1980s also witnessed a shift in government policy to indirect support for O&G, through fiscal measures or spending on infrastructure. Government involvement in that way would have created additional macro-economic linkages between O&G and the rest of the economy, in so far as it involved domestic credit use or engaged the private sector to build the infrastructure.

By the 1990s, the sector followed a worldwide trend of relying chiefly on corporate finance. The financial institutions, which came to provide between 60 and 70% of the funds required, were also more heavily involved in the projects. Therefore, the state of domestic and international financial markets and the way they favoured a particular instrument or financial package had more impact on Arab oil and gas. However, the long-term nature of the financing required and scale of activities of the sectors presumably excluded the influence of fads or bubbles associated with short-term capital.

APICORP considers that the region's O&G benefited from the international banks' appetite for major strategic projects in the 1990s. By that time, Arab hydrocarbon sectors had evolved enormously, not only in terms of their output and activities but also in terms of the development of their downstream sectors. Interested investors now had a wider range of activities to consider, which governments were no longer willing to or capable of controlling. This reflected persistent budget deficits and government commitments in other economic activities, as well as the increasingly tangible erosion of *étatism* throughout the region. While this may have been less the case in say, Algeria, it would be more so for Saudi Arabia or the UAE, where downstream efforts aimed at the industrialisation and diversification of their economies. Such efforts involved state nurturing of the nascent industries, but not necessarily a permanent control by the state.

[23] APICORP is an inter-Arab joint stock company set up in 1975 by the Organization of Arab Petroleum Exporting Countries. It is mandated to provide equity investment, finance and specialised advisory services to the hydrocarbon and energy industries in Arab countries; initiate and participate in related projects; provide financial guarantees for medium and long-term loans; co-finance short-term trade of Arab petroleum, gas and petrochemicals; and to be an active shareholder or underwriter of Arab companies in the industry.

Following the East Asian and other financial crises, APICORP finds that financiers in the late 1990s shifted their attention away from factors concerned with the success of projects, to contracts granting them priority in repayment and more control over financial arrangements. Arab moves to external financing of O&G reflected this shift, with the financing phase of the late 1990s until the present described as the limited recourse finance phase. APICORP emphasises that the segments of Arab O&G which have been and are likely to continue to be financed in this way are natural gas, refining, and petrochemicals.

In this phase, lenders' participation in sovereign finance has become increasingly dependent on their ability to control for credit risk and to enforce repayments. In agreement with arguments in Section 3, among other policies, lenders sought to reduce credit risk through insurance covers from export credit agencies. As ECAs have always been active in world trade, presumably what APICORP means is that financiers were more likely to use this sort of guarantee to protect themselves. The advantage from the borrowers' point of view is that such guarantees can lower the costs of borrowing (through narrower spreads or an extended loan period). At the limit, some borrowers would not be able to secure funds without official guarantees.

Other policies to reduce risk aversion and improve lenders' appetite have been the use of credit enhancements, and specific clauses concerning repayment arrangements (for example, escrow accounts or off-take agreements). As argued in Section 3, oil and gas sectors are ideally placed to meet these contractual requirements. The IMF considers that O&G have under-used the 'securitisation of future flows of receivables' for funding investments. The example it mentions is PEMEX, with few other deals exploiting this potential since 2000 (Kether and Retha 2001). Three explanations can be advanced to explain this apparent under-utilisation:

- Oil revenues may have increased enough to avoid the need to pledge future receivables.
- Such securitisation is only usable by NOCs with advanced corporate structures. Escrow accounts are a simpler arrangement that is amenable to economies and entities with less advanced financial systems.
- Oil and gas revenues are the main source of funding for most government activities. Therefore revenues would be used up by current spending. What is left for capital investment is less than the IMF assumes.

APICORP notes an increasing stringency in deals secured: contracts have become more complex and more demanding in terms of disclosure, in an increasingly standards-driven environment. Fuller disclosure is demanded as a result of practices required by international financial and statistical organisations of which Arab countries are members. The current period has also witnessed a widening of the range of financial options used, including project bonds. In other words, the sector now uses a great variety of financial instruments, reflecting the increasing sophistication of world financial markets. Arab O&G would be able to use instruments to the extent that their own financial markets and regulations are mature enough to permit it. As Section 5 showed, this is only just beginning to happen in the Arab world.

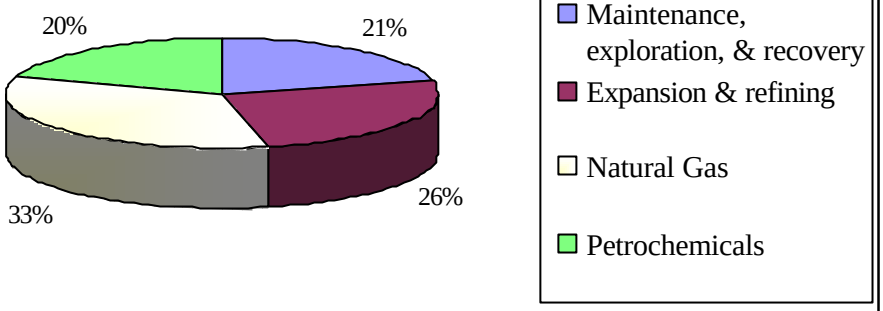
APICORP has been the main source of estimates of investment needs in Arab O&G, reflecting its first-hand experience. These estimates are compiled using its extensive database of projects realised, underway, or planned. They decompose amounts required by sector and funding sources. The former covers oil, gas, refining, and petrochemicals, while the latter is divided between domestic equity or self-finance, foreign participation, and commercial sources (bank lending). APICORP's figures for the oil sector are based on a 1999 study of investment needs for the period 1998- 2003. A precursor study was published in 1995, and three subsequent versions in 2002, 2003, and 2004.

Additional investments needed are estimated in 2004 at $120 billion for the next five years (i.e. at $24 billion a year). The funds needed by Arab O&G are expected to be higher than previously due to the rolling over of project proposals and the inclusion of modest projections of $18 billion for the rehabilitation of the Iraqi oil and gas industry. The estimated capital required is distributed approximately as follows:

- $40 billion for natural gas
- $56 billion for oil (recovery, production, and refining)
- $24 billion for petrochemicals and fertilisers

APICORP's estimate of distribution among industry segments is depicted in Figure 5. The estimate for both oil and gas now stand at $96 billion, which is higher than the $84 billion estimated at the end of the 1990s.

Figure 5: APICORP's expectations about distribution of O&G investments, 2004-2008



The estimates do not appear unreasonable. Running all Arab O&G sectors at their current output levels must involve much larger current expenditure, especially if allowance is made for depletion, depreciation, upgrading and expansion. Therefore, APICORP projections probably refer to new capital expenditure needs, rather than the total expenditure of all Arab oil and gas.[24] In effect, they are top of the range estimates of the *financing gap* that would emerge if *all* projects (including those still on the drawing board) were to be completed, with revenues remaining unchanged. In fact, project details for refineries and natural gas show that current and approved projects account for nine in 21 and eleven in 23 listed projects respectively. The rest are still on the drawing board. Thus, APICORP figures are an indication - rather than a measure – of foreign financial inflows that Arab O&G *could* need if current plans were implemented. It must be stressed that:

- There is an explicit assumption of modest world prices and hence an implicit assumption that O&G revenues will not increase;
- As with other industries, projects for expansion in particular depend on demand expectations and the call within that on Arab O&G, not just on finance availability

The first assumption has already been overtaken by the price rises of 2004- 2005. These have generated surpluses of $200-300 billion, i.e. levels not seen since the 1980s.

[24] The original texts are ambiguous. The Arabic 2002 paper uses the term 'investment needs', while the English 2003 text mentions an 'external financing gap' that could arise from projected needs.

With regard to oil sectors, the estimates are not clear about the distribution of investments between maintenance, recovery of depleted reserves, and current expenditure (on lifting, transport, and so on). The expansion rate is not stated, but presumably varies across country. Previously, extra funds needed to maintain current oil production capacity were estimated at $27 billion in 1999. Projections were based on a cost-per-barrel analysis done in the late 1990s by a London-based consultancy. The sensitivity of projections to alternative cost estimates has not been tested, and it is not clear if more recent costs per barrel are now being used. Currently, APICORP puts maintenance, exploration and recovery spending at $5 billion a year, or $25 billion between 2004 and 2008.

The explicit itemisation of maintenance outlays, as opposed to a previous focus on new expansionary projects is welcome. It highlights the fact that depletion and depreciation require substantive commitments that need to be itemised in financing frameworks. The importance of this item of capital expenditure is also substantiated by the fact that 22 in 44 current and approved projects in refining and gas are for upgrading existing facilities. [25] Note that there are no easily accessible historical data on the issue, and understanding it is largely restricted to media alerts and public announcements. For example, Kuwait only acknowledged under-spending on maintenance following accidents in 2002.

We also have little information on budgetary allocations to non-physical capital, namely human capital, and technology development or acquisition. The capital-intensive nature of the industry, and the continued progress in technologies and instrumentations used in drilling, recovery, and so on, require major players to invest heavily in these aspects. These investments not only have a direct or immediate bearing on the costs of production per barrel, but also affect the long-term efficiency of operations, and the competence with which the companies involved manage the resources. The budgetary plans revealed in the wake of the rise in oil revenues since 2004 confirm the importance of upgrading and improving existing facilities, and of educational development throughout the region. Thus, the sector should benefit from a revival of public capital spending, although educational allocations are not sector specific.

[25] APICORP does not provide similar decompositions for oil.

APICORP project information and analysis highlights differences in the financial mixes used and available to oil and gas. The current debt/equity ratio it anticipates for O&G as a whole is 40% to 60%. Unsurprisingly, equity, which refers to self-finance and sponsors participation, remains largely an in-house affair for the upstream sector. Historically, bank lending has provided between 10% and over 50% of O&G projects, so that the debt ratio assumed is reasonable. Bank lending can be in the form of loans as well as other instruments. As previously discussed, the positive effect of ECA support and of export revenues on sovereign risk are useful in explaining the sustained bank presence in Arab O&G projects at a time of banking retrenchment elsewhere.

While APICORP anticipated that spending required to sustain current levels of production (i.e. enough to replace depleted reserves) would be $5 billion a year, its estimate for 'oil expansion and refining' stands at over $6 billion a year, and $31 billion till 2008. This compares to $40 billion that the gas sectors need. Therefore, as in previous sectoral plans, natural gas continues to be allocated over half of the commitments for production and expansion. It seems that natural gas is the segment most likely to grow rapidly, driven by downstream and export schemes. At least this was the view prevailing before the current rises in crude prices.

APICORP notes three further features of Arab O&G financing. Firstly, bank lending will remain focused on export-oriented projects. This mostly refers to oil products, petrochemicals, and LNG. Commercial loans would be easily available for such projects, particularly in the downstream and in gas, because of the direct linkage to export revenues. Secondly, while project finance is expected to account for some 36.4% of investment funds, its projected share in gas is higher at 55%, and much lower in oil production.

Table 3: APICORP's decomposition of sources of financing in Arab O&G, 1998-2003

	Oil production	Refining	Natural gas	**TOTAL**
Sponsor & self finance	65.0%	38.1%	29.1%	48.1%
Foreign Capital	25.0%	7.4%	14.6%	18.3%
Banks	10.0%	54.8%	56.4%	33.8%
Total investments (US$ billion)	*25.0*	*9.7*	*17.3*	*52.0*

Source: Arab Oil & Gas Directory (2001); Al-Marraj (2002)

Arab gas production, which was developed later, seems to have been relegated to the financial and technological charge of IOCs. As early as 1997 Mohamedi showed that IOCs were invited to build the UAE's gas facilities in the 1970s, and were similarly in charge in Oman and Yemen between 1997 and 1999. But the gas industry also lends itself to a kind of economics that is more

comparable to other industries. The issue of guardianship and ownership of reserves has little effect on industrial structure. The main constraint here is the very long-term physical and financial capital required for the chain of investments needed to produce the gas and bring it to market. In turn this has involved long-term partnerships between IOCs, NOCs, and customers, with financing dominated by long-term bank lending. Recently, equity tended to be used to spread risks, particularly in LNG and new ventures. Hence in the case of gas there has been a greater resort to and ability to use project finance.

With private finance already engaged in meeting the capital needs of a good proportion of Arab oil and gas projects, trends affecting international and domestic financial markets have a direct bearing on their financing prospects. For the remaining proportion, particularly in the upstream, it seems that the financial health of host government and NOCs will determine their borrowing strategy, or whether they turn to the IOCs. Currently, as argued at length, international capital flows are weaker than previously, while domestic financial markets have expanded in maturity, depth, and size.

Therefore it is vital to nurture the regional financial basis, especially given that information adduced so far does not suggest that Arab O&G have suffered shortages of private capital; rather, it shows that the sectors have begun to engage domestic banks and local investors. The importance of local investors cannot be over-emphasised given their resilience in the face of regional risks relative to more nervous and volatile international capital flows.

APICORP project information indicates that the patterns of Arab O&G financing have underpinned the following developments in financial markets:

- A retreat of international banks;
- Increased participation by regional and international financial institutions; and
- Rising interest from local investors and capital: local financial participation levels (presumably private finance) are between 40 to 50% of investments.

APICORP data on the distribution of financing between international and Arab banks since the late 1990s indicate a trend of reduced final take by major international banks. However, APICORP warns against concluding that international banks have definitely turned their back on Arab oil and gas *per se*. This trend is mostly due to their global policies of concentrating on the syndication

while reducing underwriting exposure. As argued in Section 3, were it not for the nature of the industry, the reduction in participation would have been more severe.[26]

In contrast, the final take by Arab banks in total lending to O&G rose from a range of 15 to 20% in 1996-7, to 50 to 60% in 2001, and 25 to 45% in 2002. Similarly, according to al-Farrag (1999), participation and subscription of Arab capital in twelve loans over the period 1995-9 reached 40% of total finance, amounting to $9.8 billion. Financial deepening and development also allowed Arab banks to hold a wider and more sophisticated range of financial instruments, whose maturity has lengthened noticeably since the 1980s. In turn, this enabled Arab oil and gas to widen the range of borrowing instruments available to it directly, or as part of government support.

Arab private finance houses could consolidate their support to O&G if they continue to mature and expand their capital bases. Moreover, they are expected to prove innovative enough to create instruments that would tap Islamic funds, noting the generally long-term perspective of Islamic instruments being particularly suited for O&G projects. Islamic bonds or *sukuks*, whose regional market size is estimated at $2.5 billion, are already in use in real estate, power projects and telecommunications. They were a theoretical possibility in the case of oil and gas until 2005. For now, Arab financing institutions are still held back by their relatively small size, their inability to engage in very long-term lending, and other sectoral problems (APICORP 2003 and 2004; Wilson 2003). Hence, Arab bank lending to the region's hydrocarbons sector is likely to become more important, without gaining prominence in the short term.

As to the increased interest and exposure by international and regional financial institutions, the involvement of the former is not different from their activities in other regions. Rather, Arab O&G projects are now more likely to tap on this source. An important example here is the role of the European Investment Bank (EIB) in financing international tranches of projects to export gas to Europe (specifically from Egypt and Algeria). Previously, EIB financing in the region had concentrated on power sector projects.

[26] BIS data on syndicated loans reveal that the period 1997-2001 was very active across all Arab countries. By contrast, during 20012003, only richer economies (Qatar or Saudi Arabia) were really accessing banking finance.

Among regional institutions, a key player is APICORP, whose participation is representative of that class of lenders. Its final stake in O&G projects rose linearly from $28 million out of $1.8 billion in 1994, to $436 million out of $4.3 billion in 2002 (from 1.5% to 10% respectively), reflecting a growing capital base and experience.

In the absence of direct measures, the widening participation by Arab investors (other than local banks) has to be gauged indirectly. One broad development has been an increase in inter-Arab investments in O&G, for example Sonatrach's exploration activities in Yemen and joint ventures in Lebanon and Egypt. Other Arab companies have become important players in servicing and construction aspects of O&G projects, for example the involvement of Abu-Dhabi's National Petroleum Corporation in the construction of the platform topsides in QatarGas (*International Petroleum Encyclopaedia 1995).*[27] These developments could not have been contemplated under old company structures or investment regimes.

Another broad development is that local private companies are now a visible and fairly substantive group of agents. As documented, for example, in the *Joint Arab Economic Report 2002*, some O&G companies were sold as part of Arab privatisation efforts, a trend well established across the region (except in Syria and Libya). Other companies emerged as a result of the corporate restructuring of NOCs. New companies were also established by public offerings, an option made possible by capital market developments. As an example, SABIC, the Saudi petrochemical giant, initially set up by the government, moved from creating affiliates through joint ventures to using market flotation, as with the 1995 establishment of Ibn Rushd (its polyester affiliate) as a joint stock company with 52% private ownership (al-Farrag, 1999).[28]

A positive offshoot of financial reforms is that Arab private sector oil and gas activities have also trickled into Arab stock markets, which have therefore widened the platforms available to O&G to mobilise investments. This participation represents a notable qualitative change over previous periods, although the numbers involved are not significant on a worldwide scale. However, as previously argued, Arab stock markets are still small and are dominated by financial institutions and large government companies. NOCs are not among them. In fact, there are currently only 23 O&G companies listed in Arab stock exchanges - which is well below the 205 private O&G companies

[27] In 2003, OAPEC issued a directory of all Arab O&G companies that are allowed to do business abroad, in an effort to overcome information barriers to increased intra-Arab co-operation and investment.
[28] See also SABIC's web-site on www.sabic.com.

operating across the region.[29] With immature capital markets and current company types, the bulk of the support that can be provided to Arab O&G still lies in banking institutions and multilateral funds.

The ownership distribution of oil and gas companies, summarised in Table 4, attests to the growing involvement of the private sector. The table is based on the regional company database of Zawya (an internet information service). The number of companies tabulated should not be taken to imply a fragmented industrial structure: the industry is dominated by vertically integrated companies. These consist of ten NOCs and six oil majors operating in Arab O&G, as well as a number of smaller Russian, Chinese and Canadian IOCs. Therefore, the lion's share of companies counted by the database consists of subsidiaries and segments of IOCs and NOCs.

Table 4: Companies in Arab O&G by ownership type and sector

	Government	*Private*		**TOTAL**
		Local/Joint Venture	Foreign	
Oil and Gas Production	43	14	33	**90**
Distribution and Marketing	26	59	4	**89**
of which Listed		*10*		
Oil and Gas Field Services	18	81	15	**114**
of which Listed		*1*		
Petroleum Products	6	15	0	**21**
of which Listed		*1*		
Pipelines and Shipping	21	6	2	**29**
of which Listed		*1*		
Refining and petrochemicals	65	30	0	**95**
of which Listed		*10*		
TOTAL	*179*	*205*	*54*	***438***

Source: http://www.zawya.com/cm/companylookup.cfm - 17 September 2004
Note: Company total excludes the Iranian National Oil Company and 2 representative offices

Significantly, listed Arab companies are concentrated in two segments: distribution & marketing, and refining & petrochemicals. In contrast, among the 54 privately owned foreign companies, 33 are in production, and 15 are in field services. However, foreign participation in the sector goes beyond that. A closer look at the list of 205 private local companies reveals that many consist of joint ventures or affiliates of foreign companies with a local ownership majority. Foreign expertise and capital underpin a good part, if not most, of the entities active in Arab O&G, reflecting the international nature of the industry.

[29] See 'Company lookup' on www.zawya.com.

The range of arrangements and company structures operating in the region is not just wide, but most entities do not fall into clear business categories. This is clearly shown in Table 5. Roughly speaking, it can be advanced that:

- When governments engage private foreign agents, they typically form closed joint stock companies.
- Most private local companies have a 'traditional' business type (limited liability).
- Some Arab private O&G companies, essentially in the downstream, were launched or transferred from public hands through capital markets.

Table 5: Companies in Arab O&G by type

	Joint Stock	Limited Liability	Others
Foreign	3	1	49
Private local	38	86	54
Listed	*3*	0	*20*
Government	34	18	127
Total	*78*	*105*	*250*

Source: http://www.zawya.com/cm/companylookup.cfm - 17 September 2004

Private local management and capital, therefore, has only recently assumed responsibility and in only a segment of the industry. The more 'traditional' way in which Arab companies have been active in oil and gas has been as providers of ancillary services, and as sub-contractors to NOCs, supplying material and technical support.

To sum up, the overall pattern that characterises the industrial structure of Arab O&G is a world centred around NOCs, whereby government divestiture from the hydrocarbons sector is gradual, selective, and starts at the downstream. Private ownership, participation, or management of downstream activities and related industries are allowed and relied upon. There are no Arab integrated private oil companies. While local human and financial capital is more widespread than it was a decade ago, production and the control of reserves remain firmly in state hands. Production remains a field that local firms have not been able to snatch from foreign competitors: the main battle here is still between IOCs and NOCs.

7. QATAR: Main developments in oil and gas financing

Like many of its neighbours, the Qatari hydrocarbons sector is now thirty years old and has undergone significant changes in its organisation, outlook and overall financial structure. The latter change has been central to the transformation of Qatar into a leading gas exporter.

In terms of organisation, the development of Qatar's oil sector is similar to that of other OPEC or Arab producers, centring on setting up a NOC (the Qatar General Petroleum Company or QGPC, in 1974), initially assuming full control over resources, then evolving gradually towards more defined (or less fuzzy) division of tasks between the ministries and the NOC. In the mid-1980s, cash flow problems and the 1986 oil price crisis provided impetus for further change, particularly in terms of opening up to foreign investors.

Thus, during the 1990s, unlike larger producers Qatar decided to try to expand its oil production and reserves by entering into partnerships with IOCs. QGPC signed seven PSAs in that period (*MEES*, 15/12/1997), most of which concerned offshore blocks. This outward re-orientation of the Qatari hydrocarbons sector coincided with overall efforts by Arab and developing economies to open up their economies. On the domestic front, QGPC was streamlined and restructured. It was given responsibility for procurement, and moved to unify the management of its operations. In 1998, it was given the freedom to negotiate contracts. The ministries involved were also re-organised.[30]

However, it is the confirmation of the size of the huge gas reserves by the early 1990s that really changed the sector and the country's outlook and world positions. Qatar's North Field is probably the largest non-associated gas field in the world, and Qatari gas reserves stand at 509 trillion cubic feet (*EIA Country Analysis Brief 2004)*. While gas production was initially led and financed by Elf and Sumitomo, the next phase of LNG production and export necessitated wider partnerships and more advanced project development arrangements. The scale of the field, the need to build an infrastructure, and the resulting overall costs of the first part of the projects at over $6.5 billion, necessitated major overhauls and rapid change. To develop this massive resource, the small state with its narrow domestic economy and limited financial and technical capacities expanded its foreign partnerships. In financial terms, Qatar essentially opted for rapid development through

[30] Further details can be found on QGPC's website and in various issues of the *Arab Oil & Gas Directory*.

extensive borrowing from commercial and traditional sources. This policy has been known as a rolling debt policy, or a mortgaging of future income, because entailed investments were to be financed mainly by future oil revenue flows. Government revenues, it was hoped, would also come from sales of associated gas liquids (condensates and NGLs).

The first phase of the project centred on QatarGas, a downstream consortium or special purpose vehicle especially set up by QGPC, Mobil, Mitsui and Marubeni. It focused on setting up production facilities, namely three 2 million tonnes a year (Mmt/y) or 97 billion cubic feet (bcf) trains. The financing of this phase was 'traditional', i.e. a mix of syndicated bank loans, export credits, and in-house resources. Hence, QGPC set aside a volume of crude for the purpose, i.e. part of the oil revenues were earmarked for these investments. The finance included two $400 million Euroloans, syndications led by Japanese banks, with participation by APICORP. Japan's Export Import agency provided a line of credit of $1.6 billion. As with most gas projects, long-term off-take agreements were secured, mainly with Japanese utilities.

The second phase, 1996- 2002, aimed to bring on stream QatarGas and to set up another LNG plant (Ras Laffan LNG Company or RasGas). RasGas involved the construction of two 3.3 Mmt/y or 163 bcf trains. The major shareholders here are QGPC and ExxonMobil. Mobil is also a production partner in the North Field. For the first time in Arab countries, the financing involved the use of international project bonds. RasGas bonds are still hailed as a prominent example of innovative financial instruments for developing countries and for the O&G industry, which tapped into additional sources of funds, and lengthened the maturity of the overall financial package.

The second phase of gas development was a clear departure from traditional financing mixes in two fundamental ways. Firstly, the downstream sections were highly leveraged, i.e. financed mainly by external debt: RasGas involved 75% in debt. This is higher than the average of 60% of debt used in OECD mixes. According to Bartsch (1998), external funds accounted for 70- 75% of cost in most parts of the project, except for the upstream leg of QatarGas plant (55%). Secondly and unusually, Mobil had a direct stake in the output and reserves. The government was effectively a minor partner in the finance provided, and in the production share of LNGs. Instead, it was to rely on the income from NGL sales. The successful use of project bonds was crucial for achieving such participation and securing the amounts required. Box 1 summarises the overall capital structure of the project at the time of the launch.

Box 1: Global Capital Structure of RasGas LNG project:	
Goldman Sachs issued bonds	$1.2 billion, with 7 and 15 year tranches
Bank facility/syndicated loan	$450 million (9 year maturity)
Export credits	$900 (8.5 years)
Shareholder equity	$850 million
Gas price guarantee by MOBIL	$200 million
Spread over US Treasury rates	187.5 bpts and 135 bpts

A major feature of the global capital structure of Qatari projects, RasGas in particular, is the involvement of key large industrial and financial players and the quality of the guarantees. Hence, at their launch, the related bonds were over-subscribed and secured an A3 rating. The key attractions highlighted in the project bonds' literature at the time were:

- The strategic importance of the projects for Qatar and for the buyers
- The economic and financial strength of buyers (Korgas)
- The security of long-term agreements
- Minimal uncertainty regarding repayments due to offshore payments arrangements
- Clarity of legal framework

Unfortunately, the link to Korgas became a liability between 1998 and 1999, with the economic and financial crisis in Korea and East Asia leading Moody to downgrade the ratings to Baa2.

Dailami and Hauswald (November 2003) attribute the success of project bonds to the ability of bond covenants to take into account the interests of all partners, a crucial one being the security and seniority of bondholders' claims. In their analysis of RasGas bonds, 'the largest and most liquid global project bonds ever issued', the authors found that the most important risk spread there related to Korgas. Some spillover effects from emerging market events were also detected. By contrast, the credit quality of offtakers and output-price contingent debt service by MOBIL, effectively reduced the risk. The most important overall lesson to be drawn, the authors argue, is that market reception of project bonds depends on their contractual structure, i.e. on how well the structure addresses investors' risk concerns. These bonds not only achieve lower costs and longer maturity for borrowers, but they provide security to lenders by 'deliberately matching debt service cash flow profiles with payment ability'.

Again, we find the argument that hydrocarbon revenues act as secure collateral, especially if contracts specify an offshore payment route. The second element that is clear from this financing instrument is a contractual structure that is perceived by investors to take into account their interests and risk positions. The fact that ExxonMobil was prepared to risk its financial reputation and put its resources to alleviate risk aversion left little room for hesitation about the credit quality of the package. In the current context of political turbulence and volatile capital markets in the Middle East, such risk-reducing measures may be essential ingredients for accessing fresh commercial funds. For the Qatari state and NOC, it was crucial to securing long maturities and excellent ratings in an increasingly demanding credit market.

Therefore, Arab O&G agents hoping to be similarly successful in capturing international capital flows need to be flagging the kind of credit enhancements and payment guarantees offered by RasGas bonds. This is not to forget elements highlighted in the bond document such as:

- the clarity of legal framework
- the security of long-term agreements
- the strength of each partner in the project

As far as the host country is concerned, a key element behind its strength is the size of reserves available to it. Country ownership of reserves can be flagged to strengthen a negotiating position in the same way that super majors use reserves to advance their world position.

Unfortunately, while fresh financing in the region attempted to emulate rigorous contractual structures, there were no other bond issues in Arab O&G in that period or indeed recently. Bond financing of Arab O&G did not take off in the aftermath of Rasgas bonds. While part of the explanation lies in the lack of international appetite for bonds, it is also the case that upstream segments of the industry do not lend themselves to bond financing.

A third wave of expansion is under way. Apart from de-bottlenecking Qatargas, Qatargas II has just completed financial closure, with a RasGas II venture to construct two additional LNG trains by 2008/9.[31] In September 2003, Moody downgraded the Qatari ventures because of concern about insufficient insurance provision for possible terrorist attacks, which other investors find adequate

[31] This expansion would add 15.6 million tonnes/year in liquefaction capacity.

(*MEES*, 17/2/2004; *AME Information*, April 2003).[32] However, with gas financing 'in vogue' with bankers, excellent project implementation and repayment records, and A rating for Qatar, QatargasII had no problem in securing the $6.5 billion it sought (*MEES:* 15 November 2004, 20/27 December 2004, 7 March 2005). The venture, owned by Qatar Petroleum and ExxonMobil (at 70% and 30% respectively), broke new grounds in terms of: the size of bank lending secured and the use of a long tenured Islamic tranche. Cash flows from the first leg of the project and excellent track records are reflected in improved terms of commitments (lower spreads and longer tenures).

Box 2 Global Capital Structure of QatarGasII:

Bank facility/syndicated loan	$3200 million (15 years maturity)
Islamic tranche	$530 million (15 years maturity)
Export credits	$805 (16 years)
Sponsors equity	$2000 ($5 billion committed and available)
Spread over US Treasury rates	50 bpts pre completion; 95- 125 bpts post completion

8. QATAR: Macroeconomic Impacts

The centrality of the government to Qatar's economy and its hydrocarbons industry means that its financial requirements had a large impact on both the government and country's debt profiles, as well as on its banking system.

The growth of the Qatari economy remains driven largely by the growth of its oil and gas. As Table 6 shows, since it accounts for the largest part of government revenues, the importance of capital expenditure on O&G in economic outlays is not surprising. The shift to a focus on gas exports in the 1990s merely increased the share of gas in total hydrocarbon export earnings from 8.1% in 1999 to 24% in 2000.

[32] See *MEES* (17/2/2003; 27/10/2003), and *AME Information* (2003).

However, given government liabilities and participation in all sub-sectors (such as refining), and in the island's industrial ventures (notably steel and iron), with a small and developing financial system which did not have the commensurate capital base, Qatar's gas ambitions inevitably resulted in increasing total and government financial burdens throughout the 1990s.

Table 6: Qatar: Selected Macro-economic Data, 1997-2001 1/

				Preliminary	Estimated
	1997	**1998**	**1999**	**2000**	**2001**
	(Annual percentage change)				
Real GDP	25.4	6.2	5.3	11.6	7.2
Oil GDP 2/	23.4	9.7	-3.7	5.9	-1.2
Liquefied natural gas and related GDP 2/ 3/	...	56.8	62.9	59	25.8
Non-hydrocarbon GDP	14.6	2.2	0.4	2	3.5
	(In percent of GDP, unless otherwise stated)				
Financial variables	**1997**	**1998**	**1999**	**2000**	**2001**
Total revenue	34.9	32.7	31.4	38.5	32.2
Oil revenue	21.8	19.3	23.4	30.5	21.7
Total expenditure	43.9	43.1	35.7	30.1	32.1
Fiscal balance (deficit -)	-9	-10.4	-4.3	8.4	0.1
Excluding oil revenue	-30.6	-30.2	-28.1	-22.1	-21.6
	(In millions of U.S. dollars, unless otherwise stated)				
Macro variables	**1997**	**1998**	**1999**	**2000**	**2001**
Nominal GDP	11,298	10,255	12,197	16,763	16,553
Exports, f.o.b. 2/	4,355	4,808	7,697	11,094	10,858
LNG and related exports 2/	499	615	2,513	3,363	3,882
Total external debt 2/ 4/	9,323	10,118	11,689	14,493	15,171
In percent of GDP	*82.5*	*98.7*	*95.8*	*86.5*	*91.7*

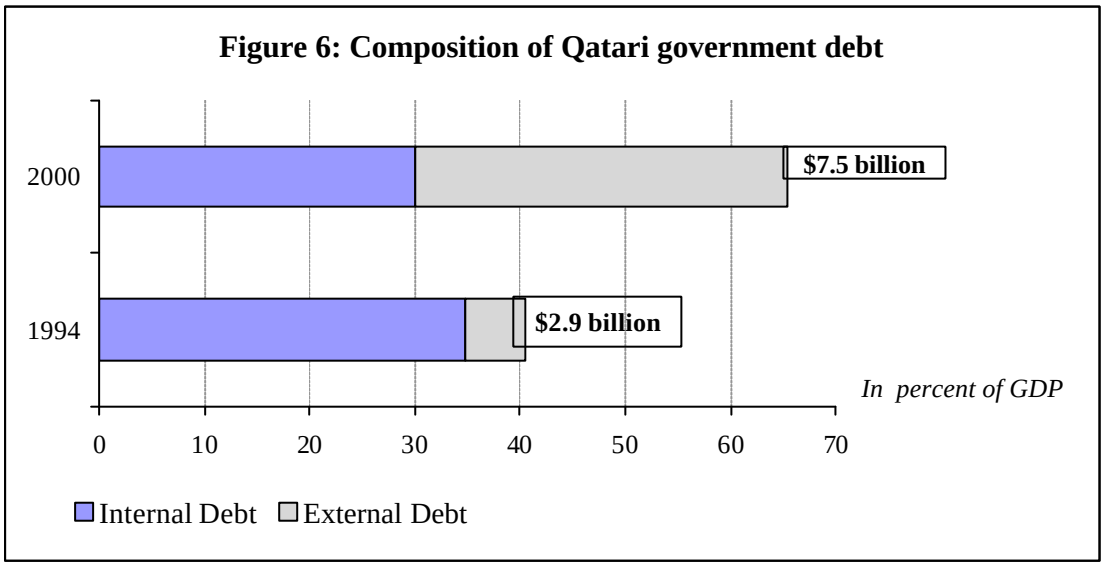
Source: IMF Public Information Notice (PIN) No. 02/99, 10 Septembre 2002.
1/ Based on official data available as of May 2002.
2/ IMF staff estimates.
3/ Staff estimates from 2000 onwards.
4/ Government, government-guaranteed, & non-guaranteed external debt; excludes external liabilities of the banking system.

According to government data, total 'direct' government debt rose from 46% of GDP in 1995 to nearly 66% in 2000, having more than doubled from over $3.4 billion to under $7.5 billion during the period. Although financial reforms were being activated to establish the Qatari Central Bank (in 1993), to allow banks to set deposit rates (in 1995), and to establish a securities market (in 1997), government borrowing essentially relied on the liquidity of commercial banks. Inevitably, a good proportion of this domestic debt consisted of costly short-term loans. Throughout the 1990s, government debt accounted for 42- 49% of total credit, and caused a substantial squeeze on the

commercial banks portfolios. As a result, the credit ratings and risk perception of Qatari banks were undermined throughout the decade.[33]

This limitation eventually triggered two policy responses: a move to consider voluntary debt instruments for the commercial sector to hold, and recourse to external borrowing. With respect to the former, domestic bonds issued in 2000 allowed the government to reduce short-term borrowing from banks from a peak of 79% of domestic debt in 1999 to 49% in 2000. Figure 6 clearly demonstrates that 2000 witnessed a shift to foreign borrowing. Consequently, the government's external debt reached $4 billion or over 35% of GDP, in addition to its internal debt of 30% of GDP. Here too, bond issuance helped to reduce the share of bank lending from 84% to 63% between 1999 and 2000.

Figure 6: Composition of Qatari government debt

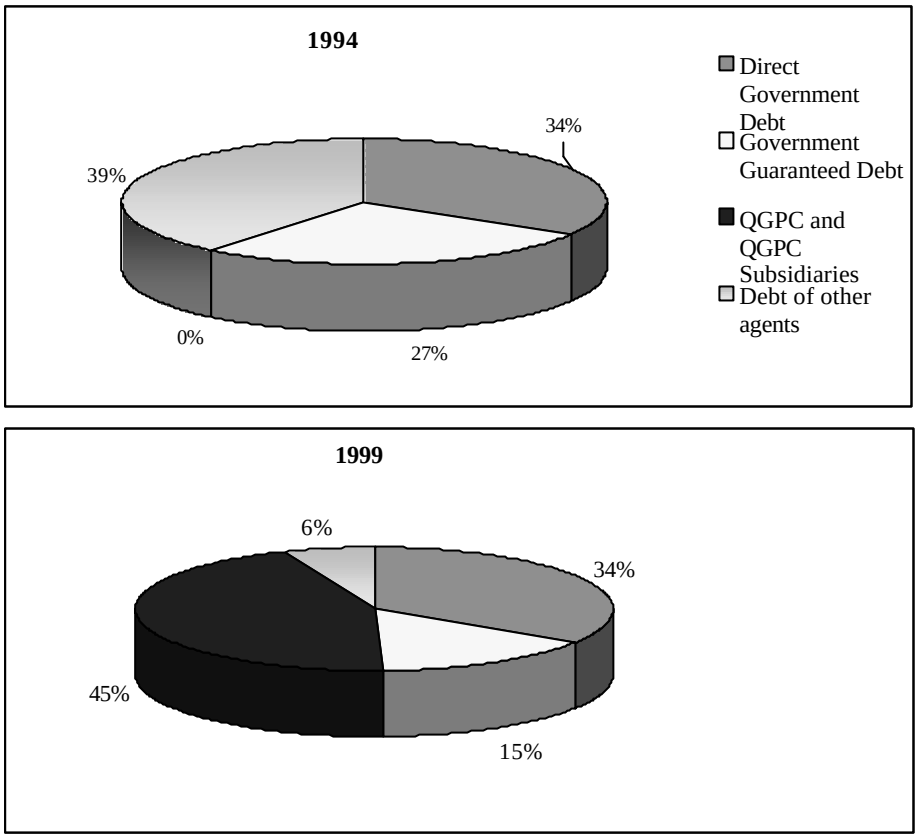


Source: Qatari Ministry of Finance Economy and Commerce, *MEES* , 24 May 1999, vol.42, no.21

Market reception of Qatari government debt issuance reflected concern about its debt burden and the related support for hydrocarbon investments.[34] According to government data, debt service had tripled from 5% of exports in 1997 to 15% in 2000. The spread on government international bonds were much higher than for RasGas, at +385 bpts vs. +175 bpts respectively. On the one hand, this is not uncommon in developing countries, with other oil exporters also paying high sovereign

[33] See *MEES*: 15/12/1997, 28/6/1999, 8/4/2002, and 27/12/2003.

Figure 7: Qatari external debt by borrowing sector



Source: Qatari Ministry of Finance, Economy and Commerce, *MEES* , 24 May 1999, vol.42, nc

premiums on external debt.[35] On the other hand, the premium paid by the Qatari government partly because of its O&G commitments contrasts with the situation of PEMEX, whose access to capital was described as suffering from its relations to government.[36] Still, the use of new financial instruments highlights the importance of financial deepening for managing a debt burden which otherwise could have sunk the banking sector.

Qatari total external debt exposure also rose on the back of the borrowing activities of the QGPC, whose external borrowing had taken off at under $3 billion in 1996, and reached nearly $4.9 billion in 1999, as shown in Figure 7. By 1999, total external debt for Qatar as a whole became a serious concern, nearing $11 billion compared to a GDP of around $12 billion. IMF data suggest the debt burden receded slightly from 98.7% of GDP in 1998 to 91.7% in 2001. Were it not for large export revenues, this would have led to Qatar being classified as a severely indebted country.

[34] During that period, the government also incurred a debt of $931.33 million under three loan agreements. This amount was lent on to the Qatar Electricity & Water Company for electricity projects. In March 2000, $659 million in repayments were outstanding (*MEES*, 24 May 1999).
[35] In Barnett and Ossowski (2002), spreads paid by Ecuador, Nigeria, Russia, and Venezuela in 2000- 2001 ranged between +800 and +1300 bpts.

In 2001, government revenues reached 32.2% of GDP as associated gas exports finally started to kick in.[37] Debt stocks were higher at $15 billion according to the IMF (September 2002), and at $13.3 billion or 75% of GDP according to a Qatari source (*MEES*, 8/4/2002). More recently, surplus revenues are reported to be used for debt repayment, but total external exposure is unclear. Qatari external debt has been put at $14-$17 billion, i.e. 85-90% of GDP (*HSBC* 2004; *CIA Factbook 2004*). Government interest payments on its total borrowing are also more manageable, having declined to under 8% of its expenditure (Qatar Central Bank, 2003). The LNG expansion and other planned industrial ventures are likely to keep up the demand for foreign financing. Hopefully the 'good economics' and continued strength of hydrocarbons revenues will make this debt path sustainable. On the domestic scene, increased government activity has not led to a credit squeeze, and government bonds are now in their fifth issuance. However, the Qatari Central Bank admits much remains to be done before benefiting from a sophisticated, securitised bonds and currency markets (Qatar Central Bank, 2003).

9. Limitations of the special case

Qatar's successful financing of its gas projects was eased by the availability of substantive revenue flows afforded by the associated liquids to the QGPC and to the government. This is one of the factors that may limit the possibilities of it being replicated in other Arab countries. Among these factors is the size of Qatar's natural gas reserves, which are the third largest in the world after Iran and Russia. This is an inherent advantage that *smaller* producers, including regional competitors, can hardly replicate. Conversely, larger producers may be advised to retain control of their reserves: *large reserves are valuable assets that strengthen negotiating positions.*

The success of Qatari gas financing was further underpinned by a number of elements, namely:

- The ability to secure an impressive array of partnerships
- A debt service guarantee offered by MOBIL, reducing credit risk further
- The ability to negotiate better terms with contractors and financiers.

Of course, good negotiating skills and a debt service guarantee are policies that other producers can incorporate, but their replication is neither spontaneous nor obvious, especially for newcomers with

[36] See ratings for PEMEX by Standard & Poor (May 2002) and Moody (January 2003).
[37] LNG export revenues $837 million in 1998 to $1.353 billion in 1999 (*MEES*, 14 August 2000), with total gas exports reaching $3,882 million in 2001 (IMF Public Information Notice, September 2002).

no established hydrocarbons industry. For example, the weaker negotiating position of the Yemeni government, with smaller reserves, less experience, and a less developed regulatory environment, may have led it to accept lower equity participation in its LNG project. In the same vein, Rodgers (2003) argues that Sudan is ill placed to increase government takes beyond those currently on offer by oil majors.

Another specificity of Qatar's case is the project's judicious timing: it happened when financial flows to developing countries were still rising, and the region was relatively stable politically. Market response in subsequent cases was clearly overwhelmed by political developments. In the fall of 2001, Oman LNG failed twice to refinance its $1.3 billion loan because of market nervousness after 11 September 2001, despite solid ratings, credit enhancements, substantial guarantees from BP and other project partners, and the virtual absence of defaults in regional deals. Oman LNG eventually secured a top rating and refinanced the loan successfully in 2002, using traditional bank lending. Bond issuance was abandoned.

Thus, apart from the impacts of financial turbulences on global financial flows, country risk has become a critical determinant of the type and cost of finance offered to Arab oil and gas, including to NOCs. Yet indications are that since 2001, $10 billion worth of project finance has been secured (*Euromoney* 2003). Private capital investors may be more nervous than before, but are not fleeing. This difficult context and the delay in re-financing the Oman LNG deal illustrates the point that although Arab O&G might learn from Qatar and replicate structures attractive to investors, investor sentiment and global financial trends can offset efforts in that direction. As argued in Section 2, financial trends also involve the favouring and disfavouring of certain types of financial instruments in response to particular shocks and/or regulatory changes, i.e. not because of the specifics of a particular country.

This is currently the situation characterising commercial lending. To reiterate, APICORP and other financiers have all stated that international bank lending is unlikely to reverse its retrenchment from developing countries. Oil and gas finance can therefore expect continued - though not necessarily increased - support from bank loans. Such support may also improve with participation by international O&G agents or IOCs. More generally, it is unusual for developing country projects to be able to mobilise over half of the funding from external borrowing. Hence, more resource-constrained Egypt followed a path that is more typical of poorer economies, relying on multilateral funding (namely EIB support) to complete the financing required for its LNG plants.

Egypt also had to rely more on domestic financing. The share of domestic investments in its petroleum sector rose from 49% to 54% between 2000/01 and 2001/02, with foreign investment accounting for the rest (American Chamber of Commerce in Egypt 2003). No further details are available to allow us to work out precisely the distribution of national and international capital between oil and gas, or between the upstream and downstream.

A further considerable limitation to replicating the Qatari success is that the stress on the country's exposure may be too risky for more vulnerable countries, or during times of tighter credit markets. The severe, albeit temporary, increase in the Qatari external debt burden is a gamble that other developing countries could not have taken, and would not have been allowed to take, in light of the sovereign debt problems of developing countries. This episode of high government domestic and external financial exposure in Qatar is often overlooked when Rasgas bonds financing is mentioned, precisely because the project structure isolates it from macro-economic impacts. The debts incurred by the government, the pressure on the banking system, the fact that the government had to pay twice the spread over the Rasgas deal when it went to market in 1999, are all hidden costs and hidden risks of Qatar's gas expansion. Other governments or NOCs wishing to engage in expansions on a similar scale need to either have an excellent credit history, a favourable creditor prepared to twist the arms of hesitant bankers, or relatively light debt burdens.

According to current financial fashion, the prospects of increased reliance by Arab O&G projects on project bonds are more promising. The IMF, World Bank and others anticipate project bonds to be an important future funding source for many sectors, noting that this is an under-used avenue of financing in developing countries. According to Dailami and Hauswald (2003), who examined 105 infrastructure project bonds[38] issued by developing countries between 1993 and 2002, issuance volume was only at $8 billion vs. $25 billion worldwide in 2000-01, indicating a huge potential for expansion. The Qatari bonds were the only two Middle Eastern bonds, vs. thirteen Mexican and five Venezuelan oil project bonds. The authors further argue that the success of the bonds is demonstrated by the near investment grade secured, especially in power and energy.

On the other hand, to date this promise remains unfulfilled. There has been no other Arab issuance of a similar size, and no other Arab oil and gas project secured over one-third of total funding

[38] Energy and power accounted for 77 of these bonds.

through bonds. There is little firm evidence to indicate that investors will remain interested in project bonds. The current favouring by IFIs will not in itself guarantee sufficient market demand. Hence, despite its championing by most analysts, FDI confounded expectations and has been falling for the last three years. Lastly, an increase of issuance by all developing countries may undermine the terms they can secure.

10. Outlook: from financing gap to financial bounty?

This section argues that even before the current rise in oil revenues accruing to the Arab region, the alarm over a potential shortage of investment funds was not entirely justified. Clearly, the structure of Arab hydrocarbons sectors has moved visibly and irreversibly towards accommodating a wider range of agents and using more diverse financing strategies, i.e. including a greater call on international capital markets and private financing instruments. It is also clear that a shift to market financing is not a sufficient guarantee of capital adequacy, neither on the sectoral nor economy level. Risk exposures have become more complex to manage, involving the reactions of credit rating agencies and investor sentiment. This has many behavioural implications, including that NOCs and governments now have to pay more attention to financial performance indicators. Arab O&G actors are more linked to capital market conditions than ever before, however little they may borrow from them.

Thus, compared to the 1990s, the resort to private and to market financing has altered the context within which Arab O&G operated. Arab governments and NOCs can no longer exclusively rely on the intimacy of long-standing relations with IOCs or banks to secure funding. Government budgetary plans are no longer sufficient for coping with sectoral needs. This is particularly true where fiscal prudence and other pressures on government spending created a discrepancy between fiscal resources available for O&G, and identified capital needs in the sector. This is a notable departure from the presumption that government resources are either available or sufficient. Even if O&G revenues strengthen, government commitments to non-oil needs will retain their importance in budgetary plans.

As such, both the IEA (2003) and APICORP (2003), who assumed a stagnation or even a fall in oil revenues, were concerned about a possible financing gap between current investment needs and available finance, at both country and regional level. Assuming stagnant oil revenue levels, current

investment plans entail additional capital inflows in the order of $10- $12 billion a year. They add that Arab O&G sectors raised annually $5- 6 billion from external sources for that purpose in recent years. Hence, APICORP and other analysts are alarmed that an annual external financing *gap* of at least $4- 6 billion may arise. Likewise, local investors are said to believe that government provision of capital expenditure for energy and infrastructure is unsustainable (MEIDC, 2003).

Yet, evidence gathered so far questions this concern. To begin with, the worry has often been justified by reference to the poor level of FDI received by Arab countries. This comparison is incorrect, as *FDI* data for the region may be under-estimated *precisely* because they *do not encompass O&G investments*, nor do they use retained earnings of IOCs for capital formation. To re-iterate, Qatari gas investments involved billions of dollars at a time when FDI was said to be between $100 and $500 million. Many obstacles to increased FDI to Arab countries are due to global pressures and to sectoral issues outside O&G, i.e. they have little to do with failings in O&G policies. Second, understanding where pressing needs lie is hampered by the lack of retrospective studies that identify gaps between projected and actual spending, and by the lack of data series detailing investments at the sub-sectoral levels.[39]

It is also clear that in the past, not all projects were needed or realised, so that financing gaps experienced by the region would have been less severe than expected. Further, the sector's financial history shows that it did secure funds under difficult political conditions and under *étatisme*, because of its strategic importance for producers and consumers. In the same grain, sovereign risk literature continues to show that in practice, developing countries are rarely completely cut off from capital markets. Instead, credit supply tightness typically implies costlier and more conditional access.[40] Again, Arab O&G sectors are today well placed to overcome such obstacles. In fact, they often enhance a country's creditworthiness, and the revenues they generate can be used increasingly easily to secure repayment to lenders. Further, given the strategic importance of Arab O&G, and given the billions of revenues generated now, the possibility that the region may face a borrowing gap of $5- 6 billion a year is not seriously alarming.

It is true that pressure is accentuated because Arab O&G sectors are shifting to private finance at a time when market confidence is suffering from heightened uncertainty, and when many pre-

[39] Oman is rather exceptional in that it publishes data on government capital spending on O&G. Otherwise, we have no consistent knowledge of practices across the region, with published data usually aggregated.
[40] See Claessens *et al* (May 2002), and Gelos *et al* (2003),

requisites for such an engagement – such as adequate regulatory frameworks - are still being developed. It is also true that a long-standing feature of private capital is its tendency to avoid areas of high volatility. Gelos *et al* (2003) are among more recent authors showing that the most important determinants of market access by developing countries since 1983 are the vulnerability of recipients to shocks, and the perceived quality of their institutions and policies. However, this does not mean that Arab O&G will not secure the funds needed. Rather, the challenge for these leading sectors and producer countries is one of adapting to uncertainty, and of responding to the qualitative requirements of private financiers.

In other words, like other countries, Arab economies are operating in a difficult lenders' market, and will be importing its uncertainties. Since the medium-term expectations are that capital flows to developing countries will remain low and volatile for a number of systemic reasons, attracting financial inflows will clearly be as dependent on conditions in global financial markets as it is on sectoral issues.

Sectoral policies are still important, but credit risk and regulatory requirements are now linking them to economy wide improvements. This is hardly surprising to many regional analysts, who had been highlighting the importance of reform and of 'over-ground issues' for sectoral development for sometime.[41] The recourse to private finance and involvement of credit rating agencies merely pushed in the same direction. It has also re-introduced linkages between NOC, government, and economy, despite an increased corporatisation.

A government's fiscal stance and creditworthiness are now among the matrix of factors entering risk analysis, as are a country's regulatory frameworks, or level of macro economic distress. And as the Qatari case showed, *the ability of the government to use domestic bonds and voluntary instruments, which resulted from financial sector reforms, was as important to the success of LNG projects as was the policy of opening the door to IOCs.* Similarly, NOC borrowing activity can and does have macro-economic impacts, and it has also changed in response to financial sector policies. These inter-linkages arguably constitute another reason for the state not to dissociate from the sector, even if it may be necessary for it to engage in re-defining its relationships with the main players. The maturing of economic and financial policies through most of the region since the 1990s

[41] See Joffe and Soligo (2000) and Zanoyan (2002).

is beginning to be rewarded by less severe corrections of financial ratings (Standard and Poor, December 2004).

Hence, current pressures may be characteristic of a fluid and dynamic situation whereby the industry is maturing. Financial availability will probably evolve to accommodate its emerging structure.[42] Arab O&G need to continue evolving, and to remain flexible enough to continuously adapt to changing financing mixes on offer. Several policies are available to support them, including international partnerships. Partnerships can provide ways of spreading risks, acquiring technology, or sharing costs. The latter reason is the least important for improving efficiency or for building a more vibrant industry.

The current rise in revenues in the wake of strong crude prices will be an excellent opportunity for the sector to deal with any rising recurrent costs, and to plan for expansion. Host governments and NOCs can use these revenues to grow the financial muscles needed, and explore more advanced financing structures. Measures could include strengthening the capital base of institutions that supported capital investments in the sectors (such as APICORP), and devising new and special oil sector development bonds or funds. Lastly, there is a need to look beyond adding physical installations: resources should be allocated into research and development of various aspects of the industry and its labour force.

11. Conclusions

In conclusion, this paper related changes in Arab financial structures to financing patterns in their O&G sectors, highlighting inter-linkages between financial flows, capital markets, and investments. The picture of debt structures and financial flows in the Arab region is a useful summary of its recent economic history and of the conjunctures within which it has to operate. Up to the early 1990s, Arab economies relied mostly on external inflows and specifically on official finance. More recently, governments, who are the main borrowers, have switched from external to domestic sources and from official to private financing, including non-bank lending. While outstanding debt

[42] An illustration of this argument in another context is O&G financing in the USA in 2002. That year, US lenders focused on non-investment grade borrowers because of financial market conditions. Lending to such companies exceeded lending to super-majors for the first time in decades. At the same time, large O&G borrowers reacted to market conditions by changing their portfolios and extinguishing bank loans (*Oil & Gas Investor,* 2003).

stocks may have stagnated at the regional level, government liabilities, including domestic debts, rose significantly, but with an increasing reliance on voluntary debt instruments made possible by financial reforms. Similarly, external flows from private sources have expanded to include FDI, bonds, and portfolio flows, although volumes have been insufficient to stem falling aggregate levels of financial transfers.

These changes reflect two main trends. Firstly, a changing global financial scene, whereby bilateral loans have largely dried up, and private finance increased in importance, though not in reliability or availability. Secondly, regional reforms have centred on two axes: a resizing of and divestiture by Arab governments and de-regulation and deepening of financial sectors, however modest these may seem.

As far as Arab O&G finance is concerned, in-house resources are still central for all players, especially in the upstream. Likewise, export credits remain a key component of secured finance, their sustained use becoming an added guarantee when investors are nervous, or where there are liquidity problems. These flows had constituted the more known interlinkages between sectoral financing, government balances, and external debt structures. The main change now is that additional inter-linkages have emerged, as O&G are now tapping on new types of flows.

These new inflows both reflect and are reflected in sectoral changes. O&G sectors have expanded and matured considerably, with NOCs and affiliates being consolidated through privatisation or restructuring, with some ventures being formed through public offerings. This is particularly true in the downstream, petrochemical, and gas sectors, which have relied more substantially on private and non-bank finance. Developing a solid shareholder and equity culture takes time, but private capital engaged in this avenue is likely to grow.

Financial deepening has been critical for O&G's ability to access new domestic avenues and local private investors. It was critical to the Qatari government support for its successful gas investment programme, and eased the consequences of rising domestic debt. Arab financial participation has therefore grown in importance and maturity, with inter-Arab co-operation adding strength to the trend. Significantly, both are having a stabilising effect in the current uncertainties, an additional reason for governments to nurture them.

New foreign flows have likewise introduced bondholders and non-banking institutions to Arab O&G, and were critical for closing many deals. O&G has been an enabling factor for Arab countries accessing capital markets, with associated receivables acting as collateral and underpinning good ratings. This is why new instruments such as project bonds were first used by Arab oil exporters as opposed to other Arab borrowers. While bonds may not be appropriate for all industry segments, it can be expected that new financing instruments will continue to appear in the future.

New financing avenues have also created additional inter-linkages between O&G and the rest of the economy. Sectoral finance mixes not only affect domestic credit markets, but are also linked to country performance, because financiers assess them according to a similar matrix of factors. If local financial markets have re-introduced local investors to the sector, international capital has re-introduced sensitivity to country risk. In both senses, Arab O&G are more dependent than ever on *balanced* development being achieved by the economy as a whole, i.e. on growth and maturity in non-oil activities and on non-physical capital. The challenge is more qualitative than quantitative. It is not about a quick fix or a financial shortfall. After all, the sectors' financial history rarely displayed a suffocating shortfall in finance, the current rise in revenues being a case in point.

Therefore, neither financing gaps nor access to reserves appear to be urgent priorities. Evidence gathered here clearly shows that the lack of access to reserves is more a corporate IOC issue than a determinant of oil and gas financing. Access to reserves has not always underpinned successful financing deals. In fact, the opposite can be suggested: large reserves can be used to strengthen bargaining positions of NOCs.

Beyond that, a historical feature of O&G financing is that it has always demonstrably involved the participation of governments, NOCs and IOCs. This is likely to remain the governing framework for sometime to come. The more distinguishing feature of the current period is that sectoral and financial policies enhanced financial resources available to Arab O&G by involving more instruments and more players. Therefore, current efforts must build on this success, fine tune existing policies, and continue to improve the quality and flexibility of financing structures.

The policy directions that can be proposed by way of building on current strengths are as follows.

1. There is a need to address 'software' issues that concern all the economy (i.e. the depth and spread of growth in non-oil sectors), with financial deepening and regulation meriting sustained attention. Among these issues that governments and/or public bodies will have to take on or lead are the monitoring and regulation of the financial activities of existing and new O&G players.
2. Attention must be paid to both inter-Arab co-operation and to domestic savings, so as to consolidate the burgeoning participation by Arab investors. Rising oil revenues witnessed since 2004 make this an ideal time to build long-term stabilisers, including strengthening the capitalisation of regional banks.
3. In so far as foreign investment has shown a preference for funding new plants, governments have to take fuller responsibility, and plan more explicitly, for recurrent spending. Capital depletion and technology acquisition may deserve more explicit itemisation.

Finally, this snapshot of interactions between Arab financial scenes and O&G sectors requires more extensive investigations to arrive at a fuller picture. While financial profiles of IOCs are available, we do not know what are their current investment levels in the region, nor can spending in O&G be apportioned exactly between players. 'Visibility' seems to be limited around a few macro-economic observations (declared projects, aggregated export revenues, or aggregated investment projections), and a few micro level series (cost per barrel per field, wells drilled).

Hence, it is not possible to assess the adequacy of current financing mixes for sectoral needs in any meaningful way. Ways forward include more country level case studies, and further investigations of particular components of sectoral financing.

Table A1: Coverage of Arab countries in data sources

OECD, UNCTAD, Arab institutions	World Bank
Algeria	Algeria
Bahrain	Djibouti
Djibouti	Egypt
Egypt	Jordan
Jordan	Lebanon
Kuwait	Mauritania
Lebanon	Morocco
Libya	Oman
Mauritania	Somalia
Morocco	Sudan
Oman	Syria
Qatar	Tunisia
Saudi Arabia	Yemen
Sudan	
Syria	
Tunisia	
UAE	
Yemen	

Notes:

1. Due to their dire state of affairs, data for Iraq and Somalia are not available.
2. The World Bank included Bahrain, Kuwait, and Saudi Arabia in its FDI data on a balance of payments basis.

Table A2: Arab economies by level of income and indebtedness 2002

	Severely indebted	**Moderately indebted**	**Less indebted**	**Not classified by indebtedness**
Low-income	Mauritania Somalia Sudan		Yemen, Rep.	
Middle-income	Iraq Jordan Lebanon Syria	Tunisia	Algeria Bahrain Djibouti Egypt Libya Morocco Oman	
High-income				Saudi Arabia Kuwait U.A.E

* *Income groups* are classified using the World Bank Atlas method: low-income have GNI per capita of $745 or less; middle-income, GNI per capita between $746–9,205; and high-income, $9,206 or more.
* *Severely indebted* : present value (PV) of debt/GNI exceeds 80%, or the PV of debt service/exports exceeds 220%.
* *Moderately indebted* : either PV/GNI is betweeen 48%-80%, or the PV of debt service/export is between 132%-220%.

Table A3: Foreign Direct Investment Inflows, 1998-2003

Host economy	Annual Average 1992-1997	1998	1999	2000	2001	2002	2003
				(US$ million)			
Algeria	93	501	507	438	1196	1065	634
Bahrain	602	180	454	364	81	217	517
Egypt	820	1076	1065	1235	235	647	237
Iraq	2	7	-7	3	-6	-2	..
Jordan	67	310	158	787	100	56	379
Kuwait	70	59	72	16	-147	7	67
Lebanon	52	200	250	298	249	257	358
Libya	-31	-128	-128	-142	101	-96	700
Mauritania	6		1	40	9	118	214
Morocco	551	417	850	215	2825	481	2279
Oman	79	101	39	16	83	23	138
Palestinian	154	218	189	62	20	..	..
Qatar	182	347	113	252	296	631	400
Saudi Arabia	280	4289	-780	-1184	20	-615	208
Somalia	1		-1				1
Sudan	35	371	371	392	574	713	1349
Syria	108	82	263	270	110	115	150
Tunisia	457	668	368	779	486	821	584
UAE	254	258	-985	-515	1184	834	480
Yemen	203	-219	-308	6	136	102	-89
TOTAL	$3,985	$8,737	$2,491	$3,332	$7,552	$5,374	$8,606

Source: Annex Table B.1, World Investment Report 2004, UNCTAD

Figure A1: Syndicated loans by number of Arab borrowers 1993-2003

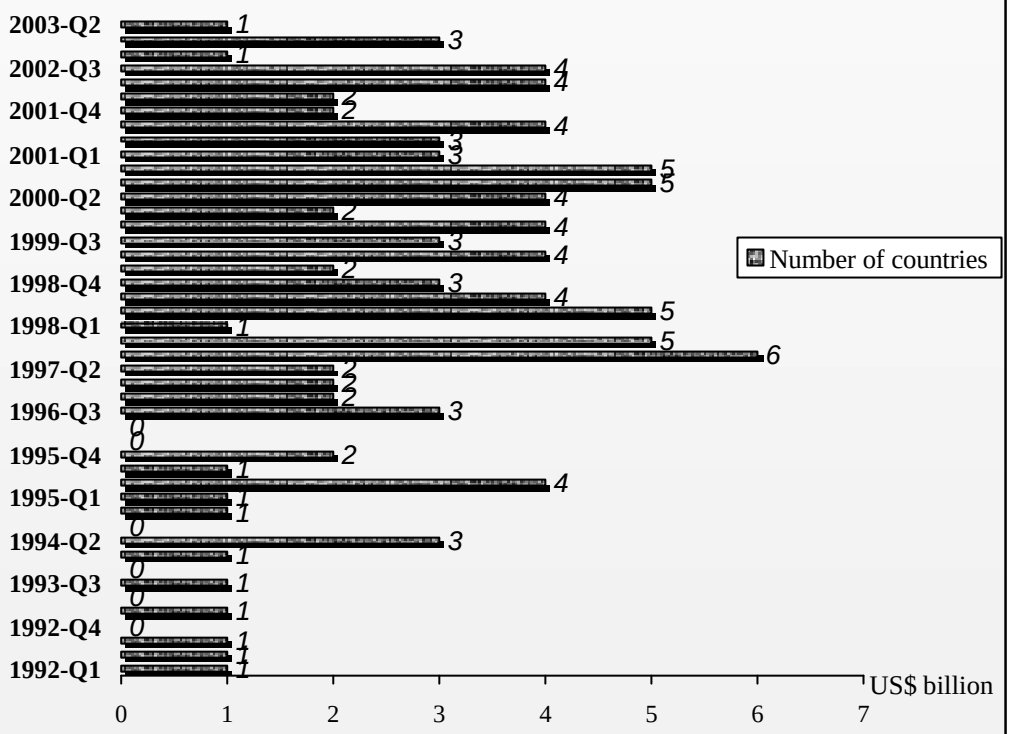
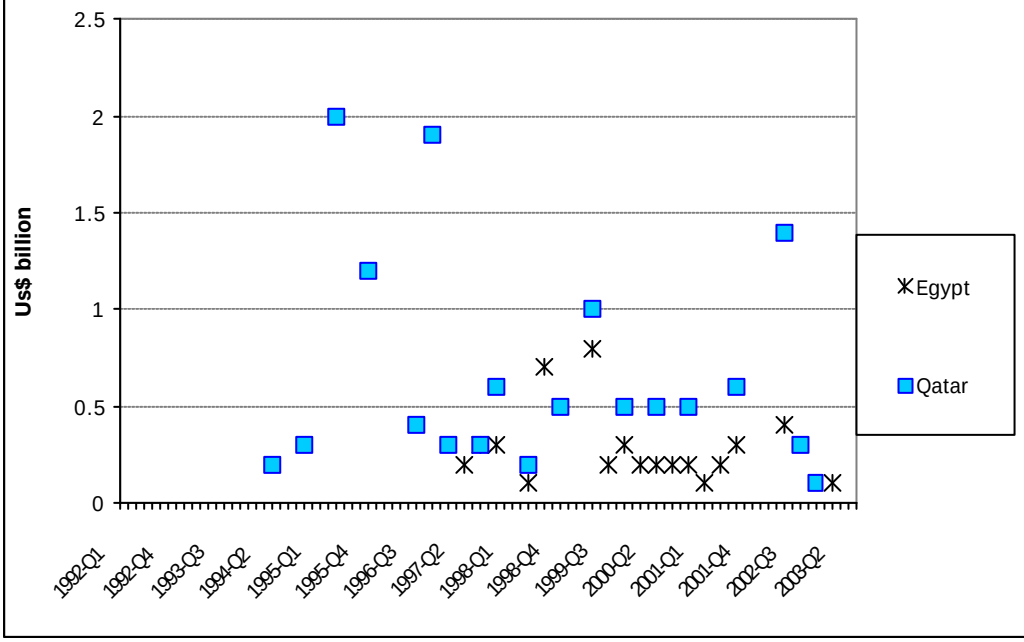


Figure A2: Syndicated Loans by Qatari & Egyptian borrowers, 1993-2003



Source: Bank of International Settlements, 2003

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Glossary and definitions

Terms and definitions are compiled mainly using World Bank's definitions and terminology, particularly as they appear in *Global Development Finance*. UNCTAD and IMF definitions are also used as indicated.

BENCHMARK ISSUES are high-quality debt securities, typically bonds. Investors use their yield for comparison purposes and to price other bond issues. (IMF)

CAPITAL ACCOUNT LIBERALISATION is the removal of statutory restrictions on cross-border private capital flows. In particular, the relaxation of controls or prohibitions on transactions in the capital and financial accounts of the balance of payments, including the removal of foreign exchange convertibility restrictions. (IMF)

CASH SECURITISATION is the creation of securities from a pool of pre-existing assets and receivables that are placed under the legal control of investors through a special intermediary created for this purpose. This compares with a 'synthetic' securitisation where the generic securities are created out of derivative instruments. (IMF)

CONCESSIONAL DEBT conveys information about the borrower's receipt of aid from official lenders at concessional terms as defined by the DAC, that is, loans with an original grant element of 25 percent
or more. Loans from major regional development banks are classified as concessional according to each institution's classification and not according to the DAC definition, as was the practice in earlier reports.

CONTAGION is he transmission or spill-over of financial shocks or crises across countries and/or across asset classes, characterized by an apparent increase in the co-movement of asset prices. (IMF)

CONSUMPTION OF FIXED CAPITAL is the decline, during an accounting period, in the value of fixed assets unit as a result of physical deterioration, normal obsolescence, or normal accidental damage (also called depreciation). Statistical coverage can include tangible and intangible fixed assets, such as infrastructure assets or the costs of ownership transfer incurred on the acquisition assets. (IMF)

CORPORATE GOVERNANCE is the governing relationships between all the stakeholders in a company—including the shareholders, directors, and management—as defined by the corporate charter, bylaws, formal policy, and rule of law. (IMF)

CREDIT INSURANCE is a form of guarantee to manufacturers and wholesalers against loss resulting from default on the part of debtors. (IMF)

CREDIT RISK is the risk that a counter-party to the insurer is unable or unwilling to meet its obligations causing a financial loss to the insurer. (IMF)

CREDIT SPREADS is the spread between sovereign benchmark securities and other debt securities that are comparable in all respects except for credit quality (e.g., the difference between yields on U.S. Treasuries and those on single A-rated corporate bonds of a certain term to maturity). (IMF)

DEBT OUTSTANDING is the total outstanding debt at year end.

DERIVATIVES are financial contracts whose value derives from underlying securities prices, interest rates, foreign exchange rates, market indexes, or commodity prices.

DISBURSEMENTS are drawings on loan commitments by the borrower during the year.

DIRECT INVESTMENT (UNCTAD) or FOREIGN DIRECT INVESTMENT (World Bank) is investment to acquire abroad (defined according to residency), physical assets and/or a financial/ managerial stake in an enterprise. Direct investment involves a lasting management interest (usually 10% of voting stock) in an enterprise operating in a country other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other capital for that purpose, as shown in the balance of payments.

EMERGING MARKETS are developing countries' financial markets that are less than fully developed, but are nonetheless broadly accessible to foreign investors. (IMF)
EXPORT CREDITS includes official export credits, suppliers' credits, the official non-ODA lending, and bank credits officially guaranteed or insured by an export credit agency.

FINANCIAL GUARANTEE is a form of coverage in which the insurer guarantees the payment of insurance interest and/or principal of the insured in connection with debt instruments issued by the insured. (IMF)

GRANTS are defined as legally binding commitments that obligate a specific value of funds available. They are available for disbursement for which there is no repayment requirement.
GREENFIELD INVESTMENT is the acquisition of physical assets (plant or equipment or land) abroad by non-residents.

HEDGE FUNDS are investment pools, typically organized as private partnerships and often resident offshore for tax and regulatory purposes. These funds face few restrictions on their portfolios and transactions. Consequently, they are free to use a variety of investment techniques—including short positions, transactions in derivatives, and leverage—to raise returns and cushion risk. (IMF)
HEDGING is offsetting an existing risk exposure by taking an opposite position in the same or a similar risk, for example, by buying derivatives contracts. (IMF)

INVESTMENT, according to *UNCTAD's World Investment Reports*, does not have a generally accepted meaning. Its components commonly include: portfolio investment (both equity and debt components), other capital flows (bank loans, nonblank loans and other flows), and various investment assets (both tangible and intangible, including intellectual property rights). The internationally accepted method for classifying cross-border foreign investment flows for balance-of-payments statistics divides them into:

- direct investment (FDI in World Bank terms),
- portfolio investment,
- financial derivatives, and
- other investments.

The conceptual difference between FDI and portfolio investment is that FDI implies a long-term interest in, and/or significant management influence over, a foreign affiliate. In contrast, portfolio investment does not imply managerial control. For statistical purposes, a threshold of 10% of share ownership has been established to differentiate equity holdings of direct and portfolio investors. According to the IMF, FDI is 'The acquisition abroad of physical assets, such as plant and equipment, or of a controlling stake (usually greater than 10 percent of shareholdings).' However, many flows are difficult to classify, and the distinction between FDI and portfolio investment is often blurred. For example, investors may use their INVESTMENT-GRADE ISSUE is a bond that is assigned a rating in the top four categories by (Sub-investment-grade issues) commercial credit rating agencies. S&P classifies investment grade bonds as BBB or higher, and Moody's classifies

investment grade bonds as Baa or higher. (Sub-investment-grade bond issues are rated bonds that are below investment-grade.) (IMF)
assets as collateral to borrow from local capital markets and use the proceeds for hedging or speculation.

LEVERAGE is the proportion of debt to equity. Leverage can be built up by borrowing (on-balance-sheet leverage, commonly measured by debt-to equity ratios) or by using off-balance-sheet transactions. (IMF)
LONG-TERM EXTERNAL DEBT is defined as debt that has an original or extended maturity of more than one year and that is owed to nonresidents and repayable in foreign currency, goods, or services.

NET FOREIGN DIRECT INVESTMENT (World Bank) or NET DIRECT INVESTMENT (UNCTAD) is foreign direct investment minus repatriated profits or earnings (i.e FDI inflows minus FDI outflows)
NET CAPITAL FLOWS Net private capital flows comprise net direct investment, net portfolio investment, and other long- and short-term net investment flows including borrowing (IMF)
NET FLOWS (or net lending or net disbursements) are disbursements minus principal repayments.
NET TRANSFERS are net flows minus interest payments (or disbursements minus total debt service payments). Negative transfers show net transfers made by the borrower to the creditor during the year
NET RESOURCE FLOWS (LONG TERM) are the sum of net resource flows on long-term debt (excluding IMF credit) plus non–debt-creating flows.
NON–DEBT-CREATING FLOWS are net foreign direct investment, portfolio equity flows, and official grants (excluding technical cooperation).

ODA Official Development Assistance. It is monitored and defined by the Development Assistance Committee of the OECD.
OFFSHORE INSTRUMENTS are securities issued outside of national boundaries. (IMF)

PORTFOLIO EQUITY FLOWS are the sum of country funds, depository receipts (American or global), and direct purchases of shares by foreign investors.
PRIVATE CREDITORS include bonds, commercial banks, and other private creditors. Commercial banks and other private creditors comprise bank and trade-related lending.
PUBLIC DEBT is an external obligation of a public debtor, including the national government, a political subdivision (or an agency of either), and autonomous public bodies.
PUBLICLY GUARANTEED DEBT, which is an external obligation of a private debtor that is guaranteed for repayment by a public entity.

RETRENCHMENT (from risk) is a reduction in the purchases or holdings of risky securities. (IMF)
RISK AVERSION is the degree to which an investor who, when faced with two investments with the same expected return but different risk, prefers the one with the lower risk. That is, it measures an investor's aversion to uncertain outcomes or payoffs. (IMF)

SECONDARY MARKETS are markets in which securities are traded after they are initially offered/sold in the primary market. (IMF)
SHORT-TERM EXTERNAL DEBT is defined as debt that has an original maturity of one year or less. Available data permit no distinction between public and private non-guaranteed short-term debt.
SOLVENCY is the ability of an insurer to meet its obligations (liabilities) at any time. (IMF)

SOLVENCY REQUIREMENTS are the statutory requirements or rules on the required solvency margin and eligible capital elements, including the performance of the solvency test, to prove compliance with these requirements. (IMF)
SOVEREIGN RISK is the risk of default on a sovereign loan, i.e. the risk attached to a loan or obligation due to the fact that the issuance originates from a country different from the country of the investor or lender. The difference may create problems of monitoring, enforcing, and collecting payments, in the event of default, bankruptcy, or repudiation. Lending to governments, public entities, or commercial enterprises abroad, all have elements of sovereign risk. In the case where the borrower is a government, sovereign risk is the risk that this government will default on its payment obligations, repudiate them, or declare a moratorium preventing all debtors in the country from honouring their foreign obligations.
SPECIAL PURPOSE VEHICLE: A lending arrangement whereby, instead of pledging assets, a debtor might 'sell' lenders a 'vehicle', a corporate entity whose only purpose is to hold the assets. The special purpose vehicle, in turn, pledges to the financier, and remits the financing to the original holder of the assets, as payment for the assets. The vehicle is structured so that it will not become insolvent, even if the debtor does. Hence, the financier will be paid regardless of the debtor's insolvency. (IMF)
SUBSIDIES are unrequited payments that the government to citizens and/or enterprises on the basis of their consumption and/or production activities, whether these concern goods or services. Subsidies also include transfers to public corporations to compensate for losses they incur on their productive activities as a result of charging prices that are lower than their average costs of production due to a deliberate government economic and social policy. (IMF)
SYNDICATED LOANS are large loans made jointly by a group of banks to one borrower. Usually, one lead bank takes a small percentage of the loan and partitions (syndicates) the rest to other banks. (IMF)

TOTAL DEBT FLOWS include disbursements, principal repayments, net flows and transfers on debt, and interest payments.
TOTAL DEBT STOCKS are defined as the sum of public and publicly guaranteed long-term debt, private non-guaranteed long-term debt, the use of IMF credit, and short-term debt.

UNDERWRITING The process by which an insurance company determines whether or not and on what basis it will accept an application for insurance. (IMF)