National Oil Companies

Evolution, Issues, Outlook

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I. Introduction

Oil is of special importance to developing countries. It accounts for very high percentages of GDP, government revenues and foreign exchange earnings in many of the countries where it is produced. In importing countries, it typically accounts for a significant share of foreign exchange expenditures and, in all countries in the developing world, taxes on oil consumption contribute importantly to fiscal revenues.

How well the oil sector performs in these countries depends critically on industry structure and patterns of ownership. More often than not, the national oil company (NOC) plays a central role in determining outcomes.

This paper examines the origins and evolution of NOCs, the issues they have raised, and the outlook for their future.

There has been surprisingly little systematic research on NOCs. Literature on NOCs is limited, their importance notwithstanding, and organized, comprehensive data is virtually non-existent. This paper, then, is an initial essay. Its arguments are based on “arm-chair empiricism” rather than rigorous analysis, and should be regarded more as testable hypotheses than research findings. Motivated by the relevance of NOCs to the economic performance of many of its client countries, and by the limited work done to date, the World Bank now has further research underway.

II. The Origins and Evolution of NOCs

NOCs date back to the 1920s when Yacimientos Petroliferos Fiscales (YPF) was founded in Argentina. Petroleos Mexicanos (Pemex) came a bit later in the 1930s. The major increase in numbers of NOCs, however, occurred in the 1970s, triggered by a worldwide tide of nationalism and of enthusiasm for state intervention and ownership. The Organization of Petroleum Exporting Countries (OPEC) was formed at that time, and its members were stunningly successful in wresting control of international oil markets from the international oil companies, and in dramatically increasing oil prices.

Oil was viewed as a commodity of strategic importance, or, to borrow from Lenin, and a recent book title, as one of the “commanding heights” of the economy. As such, oil was considered as something the government must control. Legislation and regulation were not thought sufficient for this purpose. Direct participation through ownership was regarded as key in this regard, and NOCs proliferated. NOCs were expected to operate “downstream”, i.e., in crude oil refining, product importing and marketing, as well as “upstream”, i.e. in oil exploration and production. Upstream, the principal motivation for NOCs was the creation (through OPEC action) and capture of a large share of the economic rents associated with oil production. Interest in NOC involvement downstream in oil producing countries stemmed from a pursuit of the value added to production by

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refining and marketing activities. In oil importing countries, the oil shocks of the 1970s and concern for supply security moved oil to center stage and led to the creation of downstream NOCs. In both oil exporting and oil importing countries, interest in a downstream role for the NOCs also revolved around gaining control over the pricing of petroleum products to final consumers, an area of great political and social sensitivity.

To day, there are more than 100 NOCs, found in almost all oil exporting and many oil importing developing countries. The early years saw NOCs established in a number of OECD countries – the United Kingdom, Canada, Norway, and Denmark – as well as in the developing world.

NOCs in developing countries quickly became the focal point for accomplishing a broad range of national economic, social and political objectives that went well beyond their original sector-focused objectives. These roles expanded rapidly based on perceptions of almost limitless cash available to the NOCs, their size (often the largest local enterprises by a wide margin); and their near monopoly on local technical and commercial talent.

At the same time, NOCs were expected to emulate the international oil companies (IOCs) in the areas of technical and managerial skill and the ability to generate profits, with the aim of either effectively counter-balancing the local influence of the IOCs, or of replacing the IOCs altogether.

While high real oil prices lasted, both the NOCs and their governments believed it was possible to accomplish both non-commercial and commercial objectives. Politics, however, meant that priority was assigned to the achievement of social, economic and political goals, and the cracks that began to emerge with respect to attainment of commercial goals were ignored, papered over by massive cash flows.

The oil crisis of 1986, the dramatic revenue drops associated with it, and continued lower real oil prices, exposed these cracks and the incompatibility of the dual roles the NOCs were expected to play (Exhibit 1). As a consequence, the late 1980s and the 1990s saw concerns increasingly expressed with respect to the commercial performance of the NOCs, and, at the same time, the wisdom of the non-commercial agendas assigned to the NOCs was increasingly challenged.
This debate has led to a reconsideration of the NOC’s role and a closer look at their organization and management. Some NOCs have gone, or have had their roles reduced, as a result of full or partial privatization. Others have gone through wide-ranging commercialization exercises. But so far, most NOCs remain a major presence in their home countries, and, as a group, they continue to have a significant influence on the international industry. NOCs control 90% of world oil reserves, and account for 73% of production. And 25 of the world’s top 50 oil companies are NOCs. 

“Getting it right” with respect to NOCs can be expected to have major political, social, and developmental consequences.

III. Issues

This section looks at the wide range of NOC-related issues that have arisen over their past 30 years of history. Most of these issues are interrelated. The first of these is commercial efficiency.

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2 World Bank  
3 Petroleum Intelligence Weekly (PIW), PIW’s Top 50: How the Firms Stack Up, 2000…..
Commercial Efficiency

With few exceptions, the NOCs score poorly in this area. A recent management audit of Pertamina, Indonesia’s NOC, exposed losses of over US$ 2 billion per year\(^4\), an amount equal to 10% of the national budget. A similar audit of the Nigerian National Petroleum Company (NNPC) estimated losses at between US$800 million and US$1 billion annually\(^5\). The Pertamina audit calculated direct production costs of US$ 5.50 for Pertamina’s own-operated production versus an industry average of US$ 1.20, a significant gap. A casual comparison of SOCAR, the Azeri NOC, with Mobil, a major IOC operator in Central Asia, suggests that the NOCs have a long way to go if they are to catch up with IOCs in efficiency. At the time of comparison, both SOCAR and Mobil employed about 65,000 people, but Mobil operated in 100 countries, not one country; produced 1.6 million barrels per day of crude oil compared to SOCAR’s 100,000 barrels per day; and operated 33 refineries compared to SOCAR’s two.

Losses due to inefficiencies may be expected in both the upstream and downstream operations of the NOCs. Upstream operations attract a lot of attention because of the sheer volume of revenues generated at that level. However, NOC losses frequently appear to be concentrated downstream. Daunting technological and financial challenges have caused most NOCs to opt for joint ventures or other forms of contract with the IOCs in upstream operations. IOC operatorship of these ventures ensures efficiency standards will be at or close to the IOCs’ own thus minimizing losses, at least at the project level (overhead inefficiencies at the NOC may be unaffected). Downstream, the story is often very different. Although the situation has begun to change, NOCs, in many countries, have held virtual monopoly positions over petroleum refining, transportation and storage, and imports. A report commissioned by the World Bank in 1995, but whose findings are still considered to be robust, put annual losses attributable to inefficient NOC operations in Sub-Saharan Africa at in excess of US$ 1.4 billion, an amount which was equivalent at the time to the Bank’s entire Sub-Saharan lending program in all sectors\(^6\).

A variety of factors have contributed to the low levels of commercial efficiency in NOCs. Lack of competition to the NOCs, especially downstream, is surely an important cause. A major 10 year study recently released by McKinsey\(^7\), the management consultants, found that lack of competition was the key factor in explaining enterprise underperformance in developing countries. Other causes, issues in themselves, such as the assignment of non-commercial objectives to NOCs, and governance issues, discussed next, have also been important explanatory factors.

\(^4\) PriceWaterhouseCoopers Audit, July 1998, various press reports…
Non-Commercial Objectives

As already suggested, non-commercial objectives whether social, economic or political, featured importantly on the NOCs agendas almost from the outset, and have since become far-reaching. A non-exhaustive list might include:

- **Job Creation.** Oil is a capital, not labour-intensive, industry. Yet most states have looked to their oil sectors, and their NOCs in particular, to provide employment, presumably on the presumption that the NOCs can afford to do this. Typically higher than industry average employee per barrel or employee per dollar of net income for NOCs bear witness to the governments’ success in this area. Many of those employed have very low productivity, either because they are not needed, or because they have not had the necessary training or education.

- **Local Capacity.** NOCs are almost invariably expected to develop local technical, commercial and managerial capacity in the oil sector, the oil services and supply sector, and beyond. They are often not well equipped to take on this role because of their limited operational experience (upstream) or because of their constrained ability to operate commercially (see, e.g., the discussion on Governance below). A common approach to developing the service and supply sector is to incorporate these activities into the NOC either on a 100% basis or an affiliated basis, a practice which creates problems of its own (see Conflict of Interest below).

- **Social Infrastructure.** NOCs may be asked to fund and directly support local schools, hospitals and related community services – activities that can be expensive and that take them well outside their core competencies. Pemex is famous for its support in these areas. In Russia, withdrawal of NOC support of this type was one of the most contentious aspects of the privatization of Russia’s several state oil companies.

- **Regional Development.** Local roads, bridges, airports, telecommunications and water would all come under this heading.

- **Income Redistribution/Transfers.** The most common example of this is a government-imposed, politically popular requirement to sell petroleum products locally at prices that are below and usually well below, market levels. The costs of such policies, initially to the NOC but ultimately to government, can be enormous. The annual cost of Pertamina’s subsidies has been calculated as US$ 3 billion, or 15% of the budget. Similar policies implemented by NIOC in Iran impose costs which are conservatively estimated to equate at 10% of the country’s GDP.

- **State Borrowing.** Using the leverage of their oil, NOCs may be asked to raise finance for government for non-oil activities. This is common practice in many countries. Sonangol’s regular approaches to the capital markets on behalf of the Government of Angola provide just one example.
These objectives are considered the proper province of government in most countries, but in oil producing countries NOCs have been enlisted to perform them because of the cash they control, and because of their perceived capacity, a perception that may not be true in absolute terms, but is probably correct in relative terms. Time has shown that the NOCs cannot discharge these obligations and at the same time, develop commercially. Non-commercial obligations drain the cash flow needed for re-investment and distract management attention from its proper business.

**Governance**

Weak governance has also undermined the performance of NOCs. More often than not, transparency, accountability, and commercial oversight, management structures and commercial “signaling” are all lacking.

Where there is only one shareholder, i.e., government, NOCs are subject to little pressure to be transparent in their operations. Indeed, it may often be more convenient to their owners to obscure the uses to which funds are put, many of which uses may have been politically or personally motivated. Few NOCs to date publish accounts that are either consistent with International Accounting Standards, or independently or externally audited. Internal financial controls - accounting and management information systems and internal audit functions - are often lax for the same reasons.

Reluctance to relinquish political influence over NOCs or surrender discretionary control over the use of NOC funds has led politicians to: a) deliberately avoid clarity concerning the NOC’s organizational positioning in the government structure; b) put in place politically constituted Boards of Directors, without requisite professionalism or independence; and c) obstruct the formation of adequately capitalized or independent enterprises, or business units within enterprises with incentives to act commercially. Budget procedures often require that NOCs return all revenues to the government, forcing the NOCs to rely on uncertain annual allocations to finance ongoing operations or new investments, and severely limiting their ability to plan or even to meet their existing obligations to financiers or joint venture partners in a predictable and timely fashion.

Examples of this type of behaviour abound. Government’s concern to exercise more direct political control over NNPC in Nigeria resulted in NNPC being without a Board of any kind for 10 years. More recently, rightly or wrongly, Venezuela’s President has been charged with replacing a highly professional Board and management team at Petroleos de Venezuela (PDVSA), very rare in the world of NOCs, with a hand-picked political team. While NNPC established Strategic Business Units (SBUs) within its organization some time ago, these have never been adequately funded and are obliged to seek authorization for even relatively minor expenditures. Further, the incentive system in place has neither rewarded good performance of sanctioned poor performance (for example, most SBUs operate on a cost pass-through basis), making it difficult to hold them accountable. As a result, NNPC has operated more like government department than a commercial entity.

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8 It is noteworthy that net income figures are available for only 6 of the 25 NOCs that rank among the world’s top 50 oil companies.
Although this appears about to change, Nigeria also provides an example of the damage annual government budget dependence can do to planning and financing. The same situation exists in Mexico, where draconian taxes effectively confiscate all of Pemex’s net income and force Pemex into virtually continuous item-by-item negotiation of its budget with the Ministry of Finance often under very non-transparent circumstances.

The intrusion of government into the governance of NOCs has clearly hampered achievement of commercial objectives. It has also led to NOCs being commonly referred to as “states within states.” The lack of transparency and accountability in the NOC - the government’s “cash cow” - has made it possible for government to adopt the same traits, causing an erosion of governance at the country level, with negative consequences for economic and social development and political stability. This is the “resource curse” that has attracted so much attention in research and policy debate in recent years.\(^9\)

**Cash Requirements**

NOCs may be attractive to their governments for the cash they generate, but they are also very cash hungry. Oil is a cash and capital intensive industry and the budgetary demands of NOCs are often very large relative to the requirements of other sectors, particularly social sectors such as education and health, and even physical infrastructure, such as transport. As a result of the competition for funding, oil sector investments are likely to be delayed or less than optimal, and social needs, frequently urgent, may go unmet. Exhibit 2 illustrates dramatically the dilemma posed by NNPC’s financing requirements.

**Exhibit 2**

*Competing Budgetary Requirements in Nigeria, FY 1999*\(^{10}\)

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\(^9\) Karl, Terry Lynn, *Paradox of Plenty*, 1997 (Berkeley,University of California Press) contains a good discussion of the relationship between NOCs and their governments and the consequences for governance at the country level.

Mexico faces an even more extreme situation. Without massive new investments, oil production in Mexico will begin to decline. Yet over the same time period, the Government expects the demand for new social and physical infrastructure to mushroom as the country’s very young and rapidly growing population matures. While it may have been possible in the past, with difficulty, to address both needs, it will be impossible in the future to fund both Pemex and the country’s non-oil priorities.

The issue is especially worthy of debate because: a) under appropriate terms and conditions most oil producing countries will have no problems in attracting private sector investment; and b) progress in petroleum tax design has made it possible for governments to efficiently collect a major share of oil rents from the private sector through the tax system without investing themselves (through the NOC) and without investment risk. The risks associated with the oil business, which are by no means confined to the exploration phase, have led many to question whether investment in the sector constitutes an appropriate use of public funds.

**Conflict of Interest**

NOCs in many countries are expected to formulate and implement oil sector policy, and to enforce sector regulations. Even where other government ministries and agencies exist to perform these functions, they more often than not lack the resources, expertise and political support necessary to carry them out, and the NOC by default becomes more or less involved, giving rise to a range of potential conflict of interest situations.

It is hardly appropriate for a major player in the sector to at the same time be writing sector policy and enforcing the rules of the game. This “poacher turned game-keeper” type of arrangement will almost certainly tilt the playing field against existing or potential private sector participants, and is highly likely to prove detrimental to protection of the public interest.

The harm arising from this conflict of interest situation will vary widely depending on the precise nature of the tasks delegated to the NOC, but may include: preferential treatment of the NOC’s own operations; preferential allocation of exploration acreage and development approvals; discretionary penalties or waivers related to the enforcement of regulations; and extortion of benefits arising from control over permitting.

One particularly contentious area relates to the promotion of local capacity and content, a role which, as noted earlier, is often assigned to the NOC. Typically, this involves employment policies, and procurement of goods and services for oil operations. The risk is that this role will encourage cronyism in the advancement of employment candidates, and unwarranted preference to local enterprises in the supply of goods and services, which are often affiliated, formally or informally, with the NOC and/or its management. In at least 2 major oil producing countries, Indonesia and Angola, IOC operators have estimated that this kind of distortion of the procurement process has occasioned delays and increased costs on the order of 25% to 30%, while at the same time creating unnecessary tensions between the IOC and NOC.
Setting the Stage for Reform

Widespread recognition of the foregoing issues and ills has set the stage for oil sector reform and a reconsideration of the role and functions of the NOC in a growing number of countries. The conditions existing in Argentina in the early 1990s, just before the country embarked on a sweeping oil sector reform program, echo the discussion above (Exhibit 3). The same list could be, and indeed has been, drawn up, for the oil sector in many other countries.

Exhibit 3
Argentina’s Oil Sector Before Reform

• Poor NOC (YPF) Performance vs. Benchmarks
• Declining Production and Reserve Additions
• Wide Range of Non-Core, Non-commercial Obligations
• Frequent Political Interference
• Urgent Competing Claims on Budget
• “Poacher/Gamekeeper”

III. Outlook

A considerable variety of remedies have been proposed and/or adopted in response to the issues just reviewed, and together they suggest the future outlook for the NOCs. They are discussed below, following the order of topics of the preceding section.

Commercial Efficiency

Remedies to the observed commercial inefficiencies of NOCs cover a broad range and include:

• Benchmarking. Comparison of key indicators of operating and financial efficiency between the NOC and IOCs. To maximize the impact of this exercise, the comparisons should be made public. Pemex and several other large NOCs conduct benchmarking exercises on a regular basis, but the results are rarely published.

• Limited Competition. Competition, but limited to competition among NOCs, which may be independent of one another, or different subsidiaries of a single NOC holding company. China has adopted this approach setting up competition among its three government-owed oil companies – CNPC, Sinopec and CNOOC.

• Unrestricted Competition. The NOC competes with private sector operators. Ideally, a level playing field should apply, but in practice the NOC often enjoys preferential status. This is most common in the retail phase - petroleum product marketing – but can be observed upstream as well, e.g., in Brazil, where private sector companies can compete successfully against Petrobras for exploration and
production licenses, and in refining where Nigeria has just announced a program of licensing for green field private sector refinery construction.

- **Joint Ventures.** As noted earlier, unincorporated joint ventures between the NOC and IOCs, or more rarely, the domestic private sector are commonplace in the upstream sector. Thirty-four out of 49, or 70% of the oil producing developing countries recently surveyed by the World Bank had adopted joint ventures in one form or another in their upstream sectors. The NOC is seldom the operator, but benefits from the technical, managerial and commercial skills of its partner(s).

- **Partial Privatization.** Sale of a part of the NOC to a strategic investor or to the public. Sale to a strategic investor on a bid or negotiated basis is usually, but not always, of a controlling interest and brings many of the same advantages as an unincorporated joint venture. Partial sale to the public does not typically involve loss of control, but does bring the discipline of the stock market to bear on the NOC’s commercial performance. It also has the broader positive impact of helping to develop local capital markets.

- **Divestiture of Non-Core Assets.** Sale of non-performing or non-core assets. The first of these to go should be those outside the oil and gas business, but many ancillary activities in the service and supply areas should be considered for divestiture as well. A common feature of NOC reform programs, divestiture of non-core assets allows management to focus on activities where it has, or should have, a comparative advantage. The divested assets as well as the retained assets can be expected to perform better under new owners prepared to give them more focused attention. Divestiture of Sonatrach’s non-core assets is one of the central features of Algeria’s ongoing program to improve efficiency at its NOC.

- **Full Privatization.** Transfer of the NOC in its entirety to the private sector through sale to a strategic investor, the public, or a combination of the two. Because it means a complete break with state ownership, and the multiple conflicting roles associated with that ownership, full privatization can be expected to be more effective than other remedies in delivering commercial efficiency. However, it can also be expected to be the most difficult remedy to “sell”. Opponents of privatization range from those who are ideologically opposed to private ownership, through nationalists, who suspect that privatization will result in at least partial foreign ownership and domination, to those who are directly interested in preserving the status quo, including employees, beneficiaries of the non-commercial services provided by NOCs and other less defensible stakeholders who have used non-transparency and/or conflicting NOC roles for their own political or personal ends. The mechanism used to privatize has proven to be one the keys to success. A number of different approaches have been suggested or implemented. Political palatability is critical and depends on, among other things: placing ownership at least in part in the hands of deserving

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11 Bacon, R, *Energy Sector Reform in Developing Countries: A Scorecard*, 1999 (Washington, DC, ESMAP)
stakeholders, such as employees and their pension funds, local regions or communities; transparent and worthwhile use of the proceeds of privatization; and a transaction structured to produce early improvements in performance. The privatization mechanisms adopted in three Latin American countries and Russia illustrate the options, good and bad (Exhibit 4).

### Exhibit 4

**NOC Privatisation Options**

<table>
<thead>
<tr>
<th>Country (NOC)</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina (YPF)</td>
<td>Non-core activities sold to employees/private sector investors. YPF shares distributed 55%, 35%, 10% to Federal and Provincial governments and employees respectively. Federal and Provincial governments to sell 50% of shares on international capital markets in 3 years. Licensing terms enhanced to attract private sector. NOC/public “buy-in”. Substantial new investment.</td>
</tr>
<tr>
<td>Bolivia (YPFB)</td>
<td>YPFB divided into 3 independent companies. 50% of each transferred to a strategic private sector investor. Bids based on investment in the corporation (“capitalization”) rather than purchase of assets. Government share transferred to Bolivian public through pension fund. Politically sensitive privatization of downstream deferred to later date.</td>
</tr>
<tr>
<td>Brazil (Petrobras)</td>
<td>Partial privatization. Government share reduced from 82% to 50%. Retention of state ownership politically palatable. Shares sold to local and international private sector individual and institutional investors. Future sales will focus on providing local benefits from sales proceeds. Petrobras management reorganized to be more competitive. Question mark persists over state-appointed management.</td>
</tr>
</tbody>
</table>
Russia (State VICs)

Controlling interests in state companies mortgaged on non-competitive basis to private investor groups.
Government option to reacquire debt lapsed and ownership passed to private sector.
Non-transparent process deeply resented by public.

Focusing solely on the efficiency issue is unlikely to meet with success absent parallel action on other fronts, e.g., non-commercial obligations, governance and conflict interest, as discussed next.

Non-Commercial Obligations

Most NOC reform “packages” transfer non-commercial social, economic and political functions to government leaving the NOC free to get on with commercial activities. Weaning non-commercial activities from their dependency on NOCs can be very difficult, however. Careful attention needs to be paid to the transition period. Best practice usually includes transitional social safety nets for those individuals or institutions – employees, schools, hospitals, etc. – most negatively impacted by the withdrawal of NOC support. Government’s concern over the lack of viable alternatives to employment at SOCAR is one of the main obstacles to launch of an NOC reform program in Azerbaijan. The transfer of non-commercial obligations away from NOCs will not be successful at all unless the institutions taking over from the NOCs are adequately funded, staffed, and managed.

Governance

Transparency is a critical ingredient to good governance and starts with the NOC’s publication of properly prepared and externally audited accounts. Transparency is not only important for its contribution to governance, it is a sine qua non for access to commercial finance on a balance sheet, rather than oil-backed or sovereign basis. Until the NOCs are in the position to raise finance on this basis, they will not have closed the gap between themselves and the IOCs.

If anything less than full privatization is contemplated, commercialization of the NOC will also be essential to ensuring good governance. Commercialization implies an adequately constituted Board of Directors capable of providing independent, objective oversight and direction. Commercialization also means profit-oriented internal restructuring, creating business units that are adequately capitalized or funded, and independent yet accountable. Strong internal financial oversight and corporate planning functions are equally important. Finally, an NOC cannot behave commercially unless it is allowed to retain net cash flow adequate to meet current and near term obligations and plan over a reasonable time horizon.
**Cash Requirements**

Consideration of competing demands on public funds can be determining in deciding on a move to partial or full NOC privatization. The privatization transaction itself may bring in considerable cash on a one time basis, but equally importantly, privatization reduces or eliminates significant annual demands on the budget.

More commonly than through outright privatization, governments reduce the oil sector’s demands on the budget by relying on NOC contracts with the private sector structured to delay or avoid altogether NOC equity contributions to operations. So-called “carried interest” provision, or Production Sharing contracts are typical. Transferring part of the financing burden to the private sector in this way is financially equivalent to partial privatization.

Finally, shifting financing to the private sector IOCs, which have much better access to finance than most NOCs or their governments, has the benefit of reducing the overall cost of operations.12

**Conflict of Interest**

The simple solution to the conflict of interest issue is to transfer policy and regulation roles from the NOC to government, ideally to a ministry and a quasi-independent regulatory agency, leaving the NOC with a primarily or purely commercial role. This is more easily said than done, given the likely resistance of entrenched interests, and the all too common failure to provide the ministry or agency involved with the capacity, resources, salaries and skills necessary to perform these roles properly.

Difficult as it may be to put into practice, the triangular configuration of roles recommended here, sometimes referred as the “Norwegian Trinity Model”, is proving effective in a number of countries (Exhibit 5). NOCs in countries adopting the model appear to be performing better than those in countries where roles are blurred.

**Exhibit 5**  
**Oil Sector Roles: the Norwegian Model**

- **Government**: Policy, Licensing, Taxation  
- **Technical Directorate**: Data and Technical Regulation  
- **NOC (Statoil)**: Commercial Operations

**Reform Strategies**

Just as reference to one country’s pre-reform circumstances helped summarize the various NOC issues urging reform, so reference one country’s reform strategy (again Argentina’s, and again not unique to Argentina) helps bring together the range of remedies that may be adopted to address those issues (Exhibit 6).

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Exhibit 6
Argentina’s Oil Sector Reform Strategy

- Confine Government’s Role to Policy and Regulation and Build Capacity
- Privatize NOC (YPF)
- Provide Incentives to Enhance Private Sector Participation and Competition
- Deregulate Downstream Markets

IV. Summary and Concluding Remarks

The environment in which the NOCs find themselves has changed enormously since they were first formed in the 1970s.

Firstly, the environment has become much more commercially demanding. It is not enough to control the resources to be profitable. Real prices are down sharply, and all firms, including the NOCs, must increasingly rely on technical and managerial skills and agility to survive and operate efficiently.

Secondly, the expectations of civil society with respect to government and state-owned enterprises, and NOCs in particular, given the volume of revenues they control, have changed and go well beyond bottom line profitability, demanding, in addition to efficiency, transparency, and accountability.

Thirdly, perceptions of oil as one of the “commanding heights” are changing. Broad, deep, competitive global markets for both crude oil and petroleum products have resulted in the commoditization of oil, reducing its strategic value to many market participants. Further, new organizational models have emerged that rely successfully on competition, private sector participation, and light-handed but efficient regulation to protect the public interest, rather than relying on state ownership.

While significant number of NOCs have yet to take concrete steps to catch up with their changed environment, a growing number have begun a process of profound change. In some countries, the NOC has altogether or effectively disappeared through privatisation, e.g. in the UK and Canada, and in Argentina, Peru and Bolivia. In others, partial privatization and commercialization of the NOC and increased direct private sector participation has been the adopted route to reform. This route has been followed or is under active discussion in Brazil, Nigeria, Pakistan, and Indonesia.

NOC reform programs face serious obstacles: ideological opposition, nationalism, entrenched interests, suspicion…. To be successful, these programs will need to have support from the top, and, at the same time, from a wide range of public opinion. Normally, they will have to be part of a broader package of economic political and social reform. They will need to be carefully designed to ensure the institutional capacity is there to take on to roles the NOC divests itself of, and, during the transition period,
to safeguard deserving stakeholders who may be adversely affected by change policies. It is still “early days” but the evidence available to date suggests that the new directions in the air for the NOCs produce substantial developmental benefits in terms of increased opportunities, increased investment, superior allocation of resources and reduced loss.

The final exhibit below (Exhibit 7) summarizes a number of recent or ongoing NOC reform initiatives, suggesting not only their future but the possible future of other NOCs which have yet to act.

Exhibit 7
Recent and Ongoing NOC Reform Initiatives
(1990s and Current)

<table>
<thead>
<tr>
<th>Country</th>
<th>Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Privatisation of YPF and Gas del Estado. Promotion of Private Sector Participation.</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Privatisation of YPFB Promotion of Private Sector</td>
</tr>
<tr>
<td>Brazil</td>
<td>Partial Privatization of Petrobras Commercialization of Petrobras Promotion of Private Sector</td>
</tr>
<tr>
<td>Russia</td>
<td>Privatization of State-owned Companies</td>
</tr>
<tr>
<td>China</td>
<td>Partial Privatization of NOCs through sale of shares Creation of 3 competing NOCs</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Planned Privatization of Downstream Commercialization of NNPC</td>
</tr>
<tr>
<td>Algeria</td>
<td>Divestiture of Policy and Regulatory Roles from Sonatrach Commercialization of Sonatrach Private Sector Entry to All Phases of Business Downstream Price Deregulation</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Withdrawal of Pertamina’s Monopoly Commercialization of Pertamina New Entry Encouraged End Downstream Price Distortions.</td>
</tr>
</tbody>
</table>