National Oil Companies (NOCs)

Overview

National Oil Companies (NOCs) are oil and gas companies which are fully or primarily owned and controlled by a State (state owned companies). NOCs play a powerful, and often controversial, role in extractive industry sector management in many states. They serve both commercial and non-commercial objectives of a government, and have often been used as instruments of political control.

This is a topic overview on:

1. The history of the National Oil Company
2. 'Permanent Sovereignty' over natural resources
3. Resource-rich NOC vs. resource-poor NOC
4. State interest
5. Domestic and international policies
6. Access to capital
7. NOC and IOC relations
8. OPEC
9. NOC and Regulator relations
10. Domestic market obligations
11. Civil society and NOCs
12. Climate regulation
13. Business models
14. Country comparisons
15. Key policy considerations
16. Best practices

1. The history of the National Oil Company
National Oil Companies (NOCs) are oil and gas companies which are fully or primarily owned and controlled by a State (state owned companies). NOCs play a powerful, and often controversial, role in extractive industry sector management in many states. They serve both commercial and non-commercial objectives by a government, and have often been used as instruments of political control. It is believed that the first NOC was established in Austria-Hungary in 1908. There was an excess supply of crude oil to private importers, Emperor Franz Joseph approved the building of a topping plant owned and operated by the government. Other governments followed suit, as oil developed to be an important strategic commodity.

Foundation of National Oil Companies (NOCs) in chronological order

The table below provides a list of the foundation of various national oil companies (NOCs) in chronological order.

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Company</th>
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<tbody>
<tr>
<td>1914</td>
<td>United Kingdom</td>
<td>BNOC</td>
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<td>1922</td>
<td>Argentina</td>
<td>YPF</td>
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<td>1938</td>
<td>Mexico</td>
<td>PEMEX</td>
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<td>1951</td>
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<td>1953</td>
<td>Brazil</td>
<td>Petrobras</td>
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<td>1956</td>
<td>India</td>
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<td>1960</td>
<td>Kuwait</td>
<td>KNPC</td>
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<td>1962</td>
<td>Saudi Arabia</td>
<td>Petromin</td>
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<td>1965</td>
<td>Algeria</td>
<td>Sonatrach</td>
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<td>1971</td>
<td>Indonesia</td>
<td>Pertamina</td>
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<td>1971</td>
<td>Nigeria</td>
<td>NNOC</td>
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<td>1972</td>
<td>Norway</td>
<td>Statoil</td>
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<td>1974</td>
<td>Malaysia</td>
<td>Petronas</td>
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<td>1975</td>
<td>Venezuela</td>
<td>RB PdVSA</td>
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<td>1975</td>
<td>Canada</td>
<td>Petro-Canada</td>
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<td>1975</td>
<td>United Kingdom</td>
<td>BNOC</td>
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<tr>
<td>1976</td>
<td>Angola</td>
<td>Sonangol</td>
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<tr>
<td>2002</td>
<td>Equatorial Guinea</td>
<td>GEPetrol</td>
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From 1970s to 2010s

In the 1970s in the Middle East and North Africa, as a result of post-colonial resource nationalisation by states, and gradual exclusion of international oil companies (IOCs) from key producing areas, NOCs in these countries started gaining prominence. NOCs have to date grown in prominence in both resource rich and resource poor countries, and as at 2011, they controlled approximately 90% of the world’s oil reserves and 75% of production, as well as many of the major oil infrastructure systems. As at 2013, NOCs controlled 90% of production and over 95% of reserves.

The NOC began as an entity of producer states, although there are now many which are based in consumer states. There is a difference in the model for those NOCs which are intended to promote the state into the international petroleum business and those (such as those of China and India) which are charged more with acquiring petroleum and petroleum interests around the world in order to bring petroleum back to those host states.

NOCs are responsible for commercial operations and the development of a shared national capacity in the extractives sector. In sharing competence between public and private obligations, NOCs often have difficulty in separating these obligations. Since NOCs are charged with responsibilities going far beyond commercial operations and may ‘capture’ local managerial and technical sector expertise, they often bypass the EI sector ministry to which they usually nominally report.

How NOCs are formulated?

NOCs may be the subject of separate legislation, such as the Nigerian National Petroleum Corporation Act (No. 33 of 1977), which created Nigeria’s Nigeria National Petroleum Corporation (NNPC), or Presidential Decree No. 1017 / PR / MMPH which created the Gabon Oil Company (GOC). They may also emerge from a merger of existing domestic companies, as was the case of Pertamina in Indonesia, which was formed in 1968 as a merger of Pertamin and Permina. NOCs may also emerge as a result of nationalization, as was the case in: Saudi Aramco of Saudi Arabia, which was a 1970s nationalisation of Arabian-American Oil Co, previously owned by Standard
Oil of California and Texaco; and Petroleos de Venezuela S.A (PDVSA) in Venezuela, which was nationalised in 1976.

**Links to the host state**

Controversy tends to be sharpest in relation to the NOCs’ links to the host state, where management and budgetary interference is common, or when there are different views about the kinds of relationships that lead to optimal outcomes in a particular country context.

Where a new NOC is envisaged, capacity building is inevitably an important issue.

**Private sector participation**

Participation of the private sector is one of the most important issues to be addressed in any sector policy statement. This is more so in resource-poor countries or frontier countries with an under-developed extractives sector that is still in the exploration days. Under such production sharing contracts (PSCs), there are extensive provisions on involvement of NOCs (or other state organs such as energy ministries) in joint management, and provision for carried interest or participating interest in development operations by the state through its NOC. For instance, the Tanzania Petroleum Development Corporation (Tanzania’s NOC), can elect to have a participating interest in an IOC’s petroleum development operations under the PSC.

Among resource-rich states such private sector participation is not uncommon, with notable exceptions being the petroleum sector in Mexico, which after 75 years of NOC monopoly by PEMEX (the state NOC) sweeping legal reforms were approved in August 2014 to allow private sector participation in the oil & gas industry. Private sector involvement is also present in a number of Middle Eastern states. Norway had a very public debate on whether or not to open its petroleum sector to foreign investors and eventually decided to permit foreign involvement in 2001/2002, for many of the reasons just given.

For policymakers in many former colonial states, the historical memory of unhappy private sector involvements – even if they occurred decades ago - will play a significant role in shaping the legal and contractual frameworks.

Looking to the future, NOCs will need to adjust to, and improve on matters such as: corporate governance and anti-corruption; state control and balancing commercial and non-commercial interests; and business
adjustments which will be caused by their states’ carbon emission reduction commitments under the Paris Agreement on Climate Change 2015.

2. “Permanent Sovereignty” over natural resources

The principle of permanent sovereignty over natural resources is perhaps the primary principle that has led to the creation of NOCs across the post-colonial world, and will continue to assure NOC existence in the future.

A nation and its people’s permanent sovereignty over its natural resources has been recognised in several United Nations (UN) declarations, the most important of them being the UN General Assembly’s Resolution on Permanent Sovereignty over Natural Resources. Resolution 1803 (XXVII) if 14th December 1962. Other relevant UN resolutions include: GA Resolution 626 (VII) of 21 December 1952; and GA Resolution 2158 (XXI) of 25 November 1966. In relation to offshore oil & gas resources. The UN Convention on the Law of the Sea (UNCLOS), confers sovereign rights on coastal States for the purpose of exploring and exploiting, conserving and managing the natural resources (Article 57) and authorizing and regulating drilling on the continental shelf (Article 81). The Energy Charter Treaty, a multilateral treaty by mostly EU states, also recognise state sovereignty and sovereign rights over energy resources at Article 18.

The most common vehicle for state participation in the oil & gas industry has been the NOC, but participation can still be effected in other ways, for instance, through an energy ministry, as is the case under the Kenyan PSC.

Return of resource nationalism in 2000s

Before the 1970s, the global oil and gas industry was dominated by international oil companies (IOCs), who had long term concession agreements dating back to the colonial era, and inherited in the immediate post-colonial years after independence. Aside from colonial legacy, another reason for the continued long term concessions was because the host countries did not have the technical competence to explore and develop for oil and gas, and so relied on the IOCs for expertise and funding. Concession agreements were normally heavily skewed to the advantage of IOCs. After 1970, IOC dominance was gradually replaced by developing NOCs which were established by the resource-rich developing countries to take control of their oil & gas reserves. This was further buoyed by the expansion of international service companies, to whom IOCs were outsourcing technical competence as a way of re-structuring operations and cutting costs. These
international service companies provided technical services to NOCs, further reducing the need for IOCs.

An example is Saudi Arabia’s Arabian-American Oil Co. (Aramco), which was initially owned by Standard Oil of California and Texaco, who funded exploration and the development of Saudi oil basins from the 1930s. Due to colonial legacy and the government’s reliance on their technological expertise and access to project finance, Standard Oil and Texaco enjoyed favourable terms. However, by 1950, bargaining power had shifted and the Saudi government negotiated a 50:50 profit split. In the 1970s, Saudi Arabia nationalised Aramco, first retaining the original owners as operators, and eventually having full control. Another example is PDVSA in Venezuela, which was nationalised in 1976.

There was renewed resource nationalism in the 2000s and by the end of 2014, 57.3 per cent of global proved oil reserves were in five countries: Saudi Arabia, Iraq, Iran, Kuwait and Venezuela, all of which operated through NOCs.

**NOCs: a tool to prevent information asymmetry and exercise national control**

On the face of it, NOCs would seem an ideal instrument to tackle the problem of asymmetry of information between governments and foreign investors. Under most PSCs, bridging information asymmetry is achieved by making provisions for joint management through a management committee comprising of the NOCs officials and those of the IOC, as is the case under the Indonesia PSC, where Pertamina has management responsibilities, and under the Malaysian PSC, where Petronas and the contractor are required to form a joint management committee.

NOCs seem to be an obvious vehicle for ensuring and promoting national control over the development of the oil, gas and mining sectors. Yet they feature far more prominently in the development of oil and gas than in the mining sector. State participation rates of 20 per cent or more are common in oil-producing countries. Rates in Brunei, the United Arab Emirates, Venezuela and other oil producers exceed 50 percent NOCs are now a typical feature in most if not all petroleum regimes around the world, particularly outside of the OECD countries.

3. Resource rich NOC vs resource poor NOC
Enthusiasm for NOCs has waxed and waned over the years, as experience with them has varied greatly. However, they have proved durable, particularly in resource-rich developing states. They are usually a powerful influence on policy-making in developing countries.

In resource-rich countries with sufficient technical expertise and funding, NOCs dominate the oil and gas sector, as is the case with the members of OPEC.

Resource-rich developing countries with limited technical capacity, funds and production capacity, often seek to attract foreign direct investments, through entry into petroleum contracts (such as PSCs) where a NOC is a counter party. Balancing the fair share of resources between the parties is an important question.

**Different approaches to NOCs**

Resource-poor countries or high-risk countries with little or no known reserves are more focused on attracting FDI for exploration, and most often do not have a NOC. If they do, the NOC is more focused on petroleum importation, and also on gaining technical know-how from the foreign investor, or having a reserved participating interest under a PSC. For instance, in Kenya, National Oil was formed in 1984 as a response to the supply disruptions and price hikes experienced in the 1970s oil crisis. It was initially formed for exploration activities, but in 1988, started participating in downstream activities for the importation and sale of petroleum products. Uganda only recently in June 2015 incorporated a NOC, the Uganda National Oil Company, a few years after Tullow Oil discovered commercially viable reserves in the country. Guyana does not have a NOC. The country does not currently produce oil, but Exxon and its joint venture partner Hess Corp, announced a find of 1.4 Billion Barrels of recoverable oil reserves in June 2016 in the Liza-2 field. As with many other aspiring oil and gas producers with institutions at an infancy, Guyana’s development will be interesting to watch.

Some resource-rich countries have more than one NOC: Russia has Rosneft (oil), and Gazprom (gas); China has China National Offshore Oil Corporation (CNOOC), Petrochina and China National Petroleum Corporation (CNPC); and Trinidad and Tobago has NGC (gas) and NPC (oil).

4. State interest
Often referred to as ‘national champions,’ NOCs have been established with a wide range of both commercial and non-commercial objectives. Non-commercial objectives in countries like Nigeria and Angola have included licensing, revenue collection and public expenditures. Other non-commercial objectives can include job creation, development of local capacity, and provision of social and physical infrastructure.

In addition to these roles, petroleum NOCs have also had a key role in income redistribution through the supply of products at subsidised prices for domestic consumption. Importantly, these may not cover even the NOC’s operating costs. If the NOC tolerates an accrual of arrears by consumers, the de facto subsidies can be even higher. More often, governments use NOCs to control the energy sector, and hide the cost of petroleum subsidies when there is political or social pressure to offer low domestic prices. However, this sometimes has negative effects. For instance, In the mid-1990s, Brazil’s NOC, Petrobras was in heavy debt and the government was forced to transfer U.S.$5.8 billion to the company as compensation for selling oil below market price. It is estimated that global petroleum subsidies peaked at U.S. $520 billion in 2008 and reached U.S.$212 billion in 2011, carrying high fiscal and environmental costs. In Uruguay, where the downstream sector is regulated, ANCAP cannot pass on fuel cost increases to domestic consumers, and the NOC offsets losses with debt. Its downstream activities are therefore not profitable.

Another way open to governments to achieve low domestic prices, with respect to hydrocarbons pricing, is to require the foreign oil company to accept a Domestic Market Obligation (DMO). This commonly requires the foreign company to sell a proportion of crude oil production to the domestic market at below the market price. The NOC would at times be the DMO buyer.

Other assigned functions for petroleum NOCs include acting as the petroleum sector regulator, and in the case of petroleum projects under Production Sharing Agreement (PSA), NOCs act as a fiscal or commercial agent selling the government’s share of petroleum on the government’s behalf.

**Non-commercial roles allocated to NOCs**

Examples of non-commercial roles allocated to an NOC are many. In Angola, Sonangol, the national oil company, has the duty to use its revenues to manage and service Angola’s sovereign debt. In Mexico, PEMEX, the state petroleum company, has directed a program called Gifts and Donations,
which aims to promote social development by providing small-scale infrastructure, in-kind goods and cash transfers. This is one of the areas that were targeted for reform in 2013. It may be argued that the NOC is better suited to provide services to remote communities than the central government: this was an argument that made in Angola with respect to Sonangol. The transparency of any such activities would need to be clear however, with reporting requirements put in place. Often they are not.

NOCs’ performance in pursuing non-commercial objectives has provoked debate and prompted responses aligned with what is now considered good practice. Initially, there was a tendency to evaluate them in relation to the kind of objectives that International Resource Companies set themselves, and identify ways in which they could be more effective in value creation. More recently, appraisals of their performance have focused on their governance, since often they operate with low levels of oversight and accountability. Indeed, recent research has indicated that no less than 18 out of 45 NOCs are not under any legal obligation to report information about their operations and 28 fail to provide comprehensive reports on their activities and finances. However, where existing NOCs have accepted remedial reform measures, there is good evidence of their achieving enhanced levels of performance.

**Potential for tensions between the State and NOCs**

NOCs should be established as distinct legal entities under the state’s corporate laws and not as a unit within a governmental department. This legal separation assists in providing a clear profit motive and avoids productive enterprises being used for predominantly social or political purposes. Corporatization can also help avoid operational subsidies being subsumed in the budgets of government departments. It can also help incorporate fiscal discipline principles from the corporate world in terms of both capital raising and corporate decision-making. Beyond corporatisation, a partial stock listing (where the state maintains majority control) can bring the added discipline of meeting stock market listing and reporting requirements. The story of the NOCs and particularly the tensions of the NOC and the state over time are very well told in Daniel Yergin's book, The Prize. Among the significant factors identified there are the ways in which the NOC comes to absorb state roles and can come to compete with the state itself, given the scale of revenues and tax/fiscal dependency. Independent chairpersons and budgetary autonomy could reduce the NOC’s role as an instrument of political control.
5. Domestic and international policies

NOCs are often used as an instrument for government control and policy making, both domestically and internationally.

Domestically, most NOCs find themselves seeking both commercial and non-commercial objectives. NOC management in most countries are accountable to politicians rather than profit-driven shareholders. NOCs goals therefore often diverge from those of profit making and operational efficiency characteristic of private companies.

Due to their different risk profiles, government owned companies like NOCs often act as a buffer between large risk-averse multinationals and small and/or privately owned companies, which tend to be risk-takers. Through farm-outs, for instance, NRCs can create space for junior miners to enter the market.

International policies

Internationally, the reach of NOCs has grown over the years, and several NOCs have adopted strategies and policies of diversifying internationally into upstream investments abroad. Examples include Statoil of Norway, Petrobras in Brazil; the Chinese National Petroleum Corporation (CNPC) and Sinopec in China; Oil and Natural Gas Corporation Limited (ONGC) in India; Gazprom, LukOil, and Rosneft in Russia; and Petronas in Malaysia. For the Chinese and Indian companies, one of the drivers behind such expansion is to gain access to energy production that can meet the home state’s growing economic demands. However, NOCs have achieved very diverse results in their internationalization strategies, some achieving no success at all.

Saudi Aramco is the largest of the NOCs which announced in October 2016 that they are preparing to make the world’s largest initial public offering (IPO) by selling shares in its entire business and to list the company in Riyadh with a dual listing on an Asian exchange. The shares that will be opened to investors are expected to be worth $2 trillion. This planning comes as a response to the low oil prices and discussion over peak consumption.

As an indicator of NOCs international reach, among Standard & Poor’s list of the top 2,000 corporate capital spenders in the financial year 2012, energy or mining companies make up 13 of the top 20. Five of them can be classed as SOEs, including China’s PetroChina and Brazil’s Petrobras.
According to data obtained from UNCTAD by Chatham House:

“The bulk of foreign direct investment (FDI) by SOEs has gone to the mining, quarrying and petroleum sectors. SOEs from China accounted for 27 per cent of total outflows in 2010, up from just 13 per cent in 2003, predominantly in oil, iron ore, aluminium and uranium. Developing countries’ SOEs have also increased the scale of their investments: they completed four of the six FDIs valued at more than $10 billion in 2005–10.”

6. Access to capital

Most NOCs rely on governments for their budgetary requirements, especially in the initial stages of operations and prior to oil and gas discoveries. Even after discoveries, NOCs often continue to rely on the government for their operational costs, in addition to revenues from discoveries or from data sales. The financial autonomy of NOCs is an important consideration in determining a NOCs efficiency and market and sector strategy. Autonomy among most NOCs has be categorised into 3 broad terms:

1. Low level of budgetary and financial autonomy – where all NOC revenues are transferred to the government and NOC funding of operations comes from the government;
2. A level of budgetary and financial autonomy – where the NOC can use its revenues to a certain maximum amount, beyond which government approval is required; and

3. High level of budgetary and financial autonomy – where there is minimum government intervention and the NOC makes decisions on revenue allocation through its board.

**NOCs as market players**

Most NOCs have objectives that include a requirement to act in a commercial manner, even if the way in which that is defined and its relationship to other goals vary considerably from one case to the next. In a small number of cases in the past, NOCs in the petroleum industry have been expected to emulate, and have been successful in emulating, their privately owned counterparts in terms of commercial efficiency and the generation of profits. These NOCs have been successful in operating as a counterbalance to the traditional influence of IOCs. In a limited number of cases, these NOCs have been able to replace IOCs completely.

The most efficient NOCs are those which have budgetary autonomy, have been subject to full market competition, and gain no advantageous treatment from their own governments compared with privately owned companies. NOCs should be subject to the same fiscal regimes, tax assessments, auditing procedures, and tax payments of a privately-held company.

Like a private company, the NOC should be subject to strong market discipline. It would be ideal for the NOC to raise capital in the private marketplace and set up and maintain a strong balance sheet. Several NOCs are quoted on domestic and international stock exchanges, including Ecopetrol, KMG, Petrobras, Petrochina, and Statoil) and some are only quoted domestically, including ONGC, PTT.

**7. NOC and IOC relations**

NOCs and IOCs can best be described as having a love-hate relationship.

NOCs have in some countries completely unseated IOCs in resource projects. In the 1970s resource nationalisation strategies in the developing world and in the second resource nationalisation wave of the 2000s, NOCs were established as the governments’ replacement of IOCs in resource projects or privately held companies were nationalised into NOCs and IOCs.
excluded from operations. This was the case with for instance, Saudi Aramco and Venezuela’s PDVSA.

NOCs in many developing countries work as partners with IOCs. This is especially in developing countries where the government and NOCs still lack sufficient capacity, technical competence and funding, to carry out oil and gas projects exclusively. Such partnership is usually in the form of being counterparties in PSCs and in NOCs having a carried interest or participating interest in development operations on behalf of the government.

**Local content policies and technical capacity**

Local content policies are also used in a government’s policy mechanism, in order to influence partnership between NOCs and IOCs. Local content policies were first introduced in the North Sea in the early 1970s. NOC participation as a local content tool is in addition to bidding parameters that include local content, contractual requirements that favour local goods and services, requirements for investment in local infrastructure and education, mandatory local incorporation of foreign companies and local ownership requirements.

An example of the technical capacity and funding gaps that call for NOC-IOC participation is in Kazakhstan, where its NOC, Kazmunaigaz (KMG), is financially overburdened and lacks the technical capacity to operate major offshore projects. IOCs are integral to the Kazakh government, despite the sometimes strained relations. For instance, in Kazakhstan, PetroKazakhstan, a Canadian company with interests in the Turgai Basin region, was in 2005 imposed with new environmental and tax-related charges. It sold its stake. KMG acquired one third of the project at a discounted price, and China National Petroleum Corporation (CNPC), acquired the other two-thirds of the project.

Explore the Extractives Hub [Local Content](#) topic overview for a comprehensive review of this subject.

**Disputes between NOCs and IOCs**

NOCs have been the subject of bitter petroleum disputes with IOCs, mostly due to: resource nationalisation; as collateral damage due to state actions; and because of operational joint venture relations. For instance:

a) Resource nationalisation and state action – in 2005, the Venezuela government declared some terms and conditions in joint venture
agreements between its NOC, PDVSA and several IOCs to be inconsistent with the Hydrocarbons Law, and sought to offer new, less favourable terms to the IOCs. One of the IOCs, ExxonMobil not only commenced international arbitrations proceedings against the Venezuela government, but also applied for injunctions in different jurisdictions, freezing PDVSA’s assets held outside Venezuela.

b) Joint venture relations – in the 1990s, Ecuador's NOC, PetroEcuador had a partnership with Texpet, owned by Texaco and Chevron. Pollution from oil drilling operations in the Amazon rainforests was the subject of 20 years of disputes between the partners, aggravated by the fact that PetroEcuador had over the years taken on bigger roles in conducting and directing the drilling operations.

Promotion of good NOC-IOC relations

In many countries with forward looking natural resource policies aimed at promoting competition, NOCs and IOCs operate as competitors. In a perfect world, such competition should be on an equal footing. However, this is at times not achieved due to the close relationship that NOCs have with host governments. Good examples are reforms in Norway and Mexico which created competition of IOCs with NOCs, and which are discussed in this paper.

Promotion of good NOC-IOC relations whether as competitors or joint venture partners requires a strong regulatory environment and political will of a government.

8. OPEC

The Organisation of Petroleum Exporting Countries (OPEC) is a permanent intergovernmental organisation of 13 oil-exporting countries founded in 1960, which coordinates and unifies the petroleum policies of its member countries. The current members of OPEC are: Algeria, Angola, Ecuador, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela.

OPEC was formed by five founding members, Iran, Iraq, Kuwait, Saudi Arabia and Venezuela, at the Baghdad Conference on 10th to 14th September 1960. Nine other members joined between 1961 and 2016. OPEC had its headquarters in Vienna, Austria.
All the 13 members of OPEC each have a NOC. These are: Algeria – Sonatrach; Angola – Sonangol; Ecuador – Petroecuador; Iran – National Iranian Oil Company (NIOC); Iraq – SOMO Oil Marketing Company (SOMO); Kuwait – Kuwait Petroleum Corporation (KPC); Libya – National Oil Corporation of Libya (NOC if Libya); Nigeria – Nigeria National Petroleum Corporation (NNPC); Qatar – Qatar Petroleum; Saudi Arabia – Saudi Aramco; United Arab Emirates – Abu Dhabi National Oil Company (ADNOC); and Venezuela – Petroleos de Venezuela S.A (PDVSA). Though not listed on the OPEC website, Gabon also has a national oil company, Gabon Oil Company (GOC), established by presidential decree in August 2011.

OPEC members hold over 80% of world crude reserves as seen in Figure 2 below.

OPEC's influence

OPEC's main aim is the coordination and unification of the petroleum policies of Member Countries and the determination of the best means for safeguarding their interests, individually and collectively. It does this by devising ways and means of ensuring the stabilisation of prices in international oil markets with a view to eliminating harmful and unnecessary fluctuations. For this reason, OPEC has been described as a “cartel” of major oil producing developing countries which controls oil output from its member states to affect global oil markets and prices.

OPEC's influence could be felt as far back as the 1970s and early 1980’s, during the Middle East resource nationalisation actions which excluded IOCs – though actions were by individual states, there was a degree of coordination by OPEC.
Following OPEC's informal agreement in September 2016 to cut crude oil production (for the first time since 2008) global oil prices rose by over 5%.

The significance of OPEC to NOCs of member states is that once a deal is agreed at the OPEC level, member states are obligated to follow-through with the deal, notwithstanding their individual interests or ambitions. Sometimes, the direction could be greatly influenced by the interest of stronger more powerful members. Article 3 of the OPEC Statute recognizes the sovereign equality of Member Countries. However, media reports and analyses indicate that the OPEC output cut deal of November 2016 was primarily led by Saudi Arabia, which has ambitions of life beyond oil, and which was the only member to voluntarily agree to cut output. All other oil producing countries were forced to reduce their production because of technical, political or natural factors.

Questions of OPEC’s influence in the future have been posed, with commentators noting that: the November 2016 oil output cut deal came after 2 years of fruitless negotiations; regional rivalry, such as the one between Saudi Arabia, Iran and Iraq; and competition from U.S. Shale and non-OPEC producers. Explore the International and Regional Petroleum Organisations topic overview for more details on OPEC’s foundations, mandate and impact.

9. NOC and regulator relations

When it comes to regulator relations, a NOC usually either:

- Has the dual role of being both a market player and a regulator; or
- Takes on mostly commercial roles, and is subject to regulation by another government agency or an independent regulator ("trinity" or "Norwegian model").

In the past, most NOCs performed the dual role of being both a regulator and a concessionaire (competitor with IOCs). There is consensus that this created a conflict of interest in the NOCs’ roles.
It is common for NOCs to take on dual roles especially during the exploration phase, especially in relation to data collection and data sales. Data sales generate significant revenues when there is exploration interest, and managing data also helps NOCs build their technical and geological capacity. This corporate strategy is then re-considered in the production phase.

**Advantages of having NOCs act as regulator**

Advantages have been noted with having a NOC take on the role of a regulator, including:

- Building sector capacity
- Faster and more effective national control of resources;
- Training and training and benefits packages to attract and retain talent;
- Simplification of the resource governance system, and limiting decision-making constraints due to involvement of different state agencies.

However, such an approach would still require a proper consideration of the NOC's autonomy and an inevitable transfer of the regulatory functions to a different agency at some stage in development.

The most common regulatory reform strategy taken up by countries is the so called “trinity” or “Norwegian model”, where licensing and regulatory powers are transferred from the NOC to a separate government or independent body and the corporate strategy is left to the NOC.

However, even where the NOC is not a regulator, there is always a risk of government backed monopoly control or preferential treatment *vis a vis* IOCs. The justification for privileges has often been to offset non-commercial obligations imposed on NOCs, or to promote local content policies.

**The regulator role status of some of the emerging NOCs**

Depending on the country's stage in development, the ideal would be pure competition. The NOC should apply for, and obtain, licenses in the same manner as other companies and should be subject to the same licensing
conditions as private companies with all regulatory activities being undertaken by government regulatory offices.

A list of the regulator role status of some emerging NOCs is available below.

<table>
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<tr>
<th>Regulator and Concessionaire</th>
<th>Not Regulator – Concessionaire only</th>
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<tbody>
<tr>
<td>ANCAP, Uruguay</td>
<td>ENH, Mozambique</td>
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<tr>
<td></td>
<td>There is a separate regulator, ENP</td>
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<tr>
<td>NAMCOR, Namibia</td>
<td>GNPC, Ghana</td>
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<tr>
<td></td>
<td>It was previously a regulator, but the present regulator is now the Petroleum Commission</td>
</tr>
<tr>
<td>National Oil, Kenya</td>
<td>NatOil, Uganda</td>
</tr>
<tr>
<td>It has played a regulatory role in the past, but wants to shed the regulatory roles</td>
<td>There is a separate regulator already established</td>
</tr>
<tr>
<td>Petroseychelles, Seychelles</td>
<td>NOCAL, Liberia</td>
</tr>
<tr>
<td></td>
<td>It was a regulator, but the roles were transferred by the Petroleum Act 2014</td>
</tr>
<tr>
<td>Staatsolie, Suriname</td>
<td>Timor GAP</td>
</tr>
<tr>
<td>TPDC, Tanzania</td>
<td></td>
</tr>
<tr>
<td>It is a regulator, but wants to transfer the roles to a new regulatory agency, PURA</td>
<td></td>
</tr>
</tbody>
</table>

10. Domestic market obligations

A domestic market obligation (DMO) is a policy commonly defined in the host state regulation or the PSA. A DMO requires producers to sell a specified portion of their oil or gas production at a rate equivalent to their export prices or at discounted rates to the domestic market.
For instance, Indonesia’s gas law requires producers to offer 25% of their gas production to the domestic market for a minimum price reflecting cost recovery and a margin. Mozambique’s petroleum law also establishes a 25% domestic market supply obligation. In Tanzania, the supply obligation must satisfy the domestic market from their proportional share of production and the volume of crude oil or natural gas to be sold will not exceed the share of producers profit from oil or gas.

To ensure this obligation is compiled by the producers, a working domestic market needs to be established with clearly defined tariffs. This practice can bring benefits as well as disadvantages to the host state, in particular if the domestic price is lower than export prices. For the state, there would be reduced royalties and taxes from production, and low domestic prices carry the risk to discourage upstream gas project development.

11. Civil society and NOCs

Inevitably, due to their nature, resource projects are usually the subject of civil society and community actions and disputes.

Due to NOCs’ status as: resource developers in their own right, as joint venture partners with IOCs under contracts like PSAs, or as regulatory agents of the government, NOCs often find themselves on opposing sides with civil society on resource development projects.

Common areas for civil society action include:

The environment

For instance, it has been noted that a major reason for the minimal uptake of shale oil & gas in Europe is the community and NGO protests against its development. This can be contrasted with the exponential growth of shale oil & gas in the U.S. Stakeholder engagement during environmental impact assessments (EIAs) is a regular point of entry for NGOs and other groups opposed to extractives projects.

There is a major difference of shale gas in the U.S. and elsewhere. The private ownership of land and the underlying hydrocarbons in the U.S (in contrast to state confiscation elsewhere) has made such a difference to the respective developments as it offered small and medium sized natural gas firms to lease land at low prices and obtain return for their early technology investments.
The environmental discussion, as it relates to NOCs is going to become much more complicated in the future as a result of the Paris Agreement on Climate Change, which was signed by 195 countries and the EU in December 2015, and ratified by 115 countries in October 2016. This is discussed in greater detail below.

**Community relations and rights of indigenous communities**

These are mostly related to the “social licence to operate”. They include community engagement, labour and local content. They have been a major cause of tensions between IOCs and NOCs on the one hand, and local communities and NGOs on the other hand in regions like the oil-rich Niger Delta in Nigeria.

Explore the [Community Development Topic Overview](#) for a wider review of community relations.

**Human rights**

Human rights in the EI sector has gained even more prominence with the development of the Guiding Principles for Business and Human Rights, commonly known as the Ruggie Principles in 2008. The Ruggie Principles are a framework on corporate social responsibility and human rights, developed by UN Special Representative John Ruggie, and which are based on 3 pillars:

- The state’s duty to protect against human rights abuses by third parties including business;
- The corporate social responsibility to respect human rights; and
- Greater access by victims of effective remedies against human rights abuses, both judicial and non-judicial.

NOCs have increasingly needed to manage human rights obligations both as regulators/state agencies (under the state’s duty to protect against human rights abuses by third parties, including business), and as commercial entities (under the corporate social responsibility to respect human rights).

**Corruption and revenue management**
These are issues that are central to concerns in both emerging and established petroleum countries and have led to initiatives like Publish What You Pay (PWYP) and the Extractive Industries Transparency Initiative (EITI).

The EITI is a voluntary country-membership initiative, focused on transparency over payments and revenues to governments in the EI sector. Members include the U.S., UK and OECD countries, and most oil and gas producing countries in Africa. The EITI Standard is based on EITI principles agreed by stakeholders in 2003. Countries have to adhere to certain requirements in order to be members and continue to be members of the EITI.

Aside from international “peer pressure” to join transparency initiatives, there has been, and will continue to be pressure on states and NOCs by NGOs and the civil society for greater transparency of payments, and also of the resource contract making process. For instance, Tunisia joined the EITI in February 2016, after having had a history of protests calling for greater EI sector payment transparency, most notably, violent protests in 2013.

Explore the Transparency and Anti-corruption topic overview for a more comprehensive review of this subject.

**The Dodd-Frank Legislation**

NOCs are also affected by the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Legislation). Although primarily focused on Wall Street reforms following the U.S. 2008 financial crisis, the Dodd-Frank Legislation amended the SEC 1504 of the Securities Exchange Act 1934, by requiring extractives resources issuers to disclose payments made to governments.

The Dodd-Frank Legislation would affect NOCs which have joint operations (for instance, under PSAs) with international IOCs listed in the U.S., NOCs in so far as they act as revenue collection agents for governments, and international NOCs which are listed in stock exchanges in the U.S. (such as China’s CNOOC, which is listed in the New York Stock Exchange).

**12. Climate regulation**

Under the inter-governmental Paris Agreement on Climate Change, member countries have committed to the goals of keeping global temperature rise at
below 2 degrees Celsius above pre-industrial levels, and to pursuing efforts to limit increases even further to 1.5 degrees Celsius above pre-industrial levels. This will be achieved through an ambitious reduction of greenhouse gas (GHG) emissions, and as it happens, most GHGs are in the EI sector (carbon and methane).

Countries commit to have a more robust transparency networks, encourage new technology and improve capacity building and support for developing countries.

Countries are required to put forward nationally determined contributions (NDCs) and to have a stock-take every five years, the first one being in 2023. Emission reduction commitments have led governments to make ambitious country-specific regulatory and policy changes. For instance, the UK has committed to a 57% emission reduction from 1990 levels by 2030 (the EU has committed a 40% reduction), and Scotland aims to have 100% renewable energy by 2030.

As reduction commitments have been made by governments, it is expected that EI projects owned or operated by NOCs will be the first casualties of regulatory changes and enforcement, even before IOC projects, since states will need to have “skin in the game” and show commitment by their state-owned companies.

IOCs, unlike NOCs, have options to manage future climate regulation, such as a managed decline where capital is returned to shareholders as existing reserves are used up or diversification and transformation of the company. Traditional IOCs have been gradually diversifying into other sectors. NOCs options are somewhat restricted, or could take longer to accomplish, as these would largely depend on government policy, which is likely to take on a much broader focus, rather than an individual NOC policy.

NOCs will need to actively consider diversification strategies in order to cater for changes that will arise due to climate change commitments.

Explore the Climate Change & Extractives topic overview to learn more about this subject.

13. Business models
There are two main features that distinguish government-owned firms from private firms:

a. the residual ownership claims cannot be transferred to another party unless the government relinquishes ownership, so the government is able to shape the NOC’s pricing policies, even if there are institutional safeguards that protect the independence of the NOC’s management; and

b. the managers of government-owned firms are accountable to politicians rather than profit-driven shareholders.

Good governance of NOCs requires attention to the role of EI sector or financial ministries in exercising the shareholder role on behalf of the state. Commercially based shareholder roles can lead to companies that compete strongly in the international market place. Examples of companies with a strong commercially based shareholder role include: Petronas in Malaysia, and Vale and Petrobras in Brazil.

A misguided or corrupt shareholder role that is combined with large non-commercial roles can lead to companies that are now producing only a small fraction of their peak production. Examples of companies from the petroleum sector include: the Nigerian National Petroleum Corporation (NNPC) in Nigeria and Pertamina in Indonesia, both of which have incurred huge financial losses in the past.

**Six recommended shareholding characteristics at the top NOC management level**

A strong commercial shareholder role is recommended to have these 6 characteristics at the top NOC management level:

1. Shareholding needs to be held in the name of one or more government officials (such as EI sector or finance ministries) which will appoint the board of directors who are the shareholders representatives governing the NRC. The directors should be selected and appointed on the basis that they are knowledgeable about the business, and be fully committed to the NOC’s commercial interests. The directors should be fully independent of management and management influence.

2. Board and management appointments should be made on the basis of professional qualifications and experience, not according to political or family affiliations.
3. The board of directors should provide the management with a clearly stated mission related to resource development (including mineral or petroleum processing and marketing as appropriate).

4. The NOC management should focus on its core business and does not expand its activities into other non-core business areas. The board of directors should approve only those company business and investment plans that are consistent with shareholder objectives (including the scope and focus of core business, and the employment and remuneration policy).

5. The NOC should be financially independent, and should raise funds through commercial borrowing of needed debtor listing in stock-exchanges.

6. The NOC, its managers, and directors should be excluded from any regulatory-type roles or activities.

14. Country comparisons

Here are some examples of well-known and profitable NOCs from different regions:

Azerbaijan

- State Oil Company of the Azerbaijan Republic (SOCAR) was established in 1992 as a state oil company of the Azerbaijan. SOCAR controls foreign involvement in petroleum sector through production sharing agreements which it has commercial and regulative roles in.

- In 2010, around 60% of the state budget came from the oil sector through the State Oil Fund of the Republic of Azerbaijan (SOFAZ) and taxes on the oil sector. In the course of next three years this has fallen to 58%, and much of the non-oil sector was indirectly funded by the oil sector.

- In 2016 however, the low oil price has had negative impacts on SOFAZ’s income whose 2016 budget deficit will be 1.4 time higher that the fund’s total annual income.

- While Azerbaijan became the first country to achieve compliant status with the EITI in 2009, state agencies have been slow to comply with its provisions and The United Nations Working Group on Business and Human Rights have reported their concerns over human rights and
transparent & accountability of SOCAR to the parliament as a result of their ten-day visit to Baku, Azerbaijan.

Norway

- The state petroleum company, Statoil was created in 1972. It was granted preferential status in licences, increasing to 51 percent on commercial discovery, and carried through the exploration phase by the private partners. Statoil developed rapidly as a commercial enterprise. The primary goal from the outset was commercial efficiency, and the institutional structure of the sector was clear. Extended public discussion of both structure and policies took place. The Company's portfolio was later split in two, and all remaining elements of preferential treatment were removed. In 2001 Statoil was partly privatized. The State had no Board participation and the State’s direct participation in licences was held by a separate entity, the State Direct Financial Interest (SDFI), in turn managed by another state entity operating on a non-profit basis. The trend has been for state participation to become much lower to around 20 percent.

Malaysia

- Established in 1974, Petroliam Nasional Bhd (Petronas) is Malaysia’s national oil company. It was ranked among the largest corporations on FORTUNE Global 500®. In 2008 the annual turnover of the company was around 59 billion dollars which has a significant contribution to the national budget. Petronas was particularly successful in geopolitically challenging regions. As such it was the first oil and gas firm to venture into conflict-fraught South Sudan following its independence from Sudan in 2011. Petronas also has been operating four blocks in Iraq. Currently, with two Floating Liquefied Natural Gas (FLNG) facilities in the pipeline the company is promising to create hundreds of new jobs in Malaysia and become a technology pioneer.

15. Key policy considerations

There have been problems and controversy with respect to both the assigned functions and the NOCs’ performance in carrying out these functions. Meeting commercial objectives has proved difficult; in fact, with few exceptions, NOCs have scored poorly in this area. This is attributable to a number of factors which primarily include a lack of competition and weaknesses in capacity among them. Funding equity participation in the EI
sector has also proved a problem for NOCs. In states where there are urgent competing priorities for the use of public funds, choices not to contribute NOC equity participation in EI sector projects can hold back performance and development of capacity. Other causes have been attributable to political interference (using the NOC as a ‘cash-cow’, for example, or changing the directors or management arbitrarily) and requirements to carry out non-commercial activities.

**Assignment of non-commercial objectives to NOCs**

By assigning non-commercial objectives to NOCs (sometimes called ‘non-fiscal’ goals), most of which would usually be seen as falling within the proper province of government, the NOCs have the potential not only to undermine their own commercial effectiveness, but also the effectiveness of governmental macroeconomic management. In granting these non-commercial functions to NOCs, governments can unnecessarily complicate macroeconomic management and diminish transparency and accountability. NOC assumption of the role of sector regulator while simultaneously pursuing commercial objectives creates serious conflict of interest issues.

Along with the assignment of non-commercial objectives, the other main impediment to commercial performance relates to a lack of good governance. Primarily, this issue relates to the problem of NOCs becoming captured by a small number of privileged elites who then use the NOC for their own gain rather than for the national interest and poverty alleviation. With access to significant financial flows and the ability to exercise considerable influence over economic activity both inside and outside the resource sectors, the NOCs have been natural targets for control by elites interested in pursuing their own political and personal agendas. In so doing, these elites have an interest in promoting a lack of clarity with respect to NOC operations, in politicizing management, and in ensuring dependency of the NOCs on the elites for funding and other operational prerequisites.

**Improving resource governance by NOCs**

According to the Natural Resource Governance Institute’s (NRGI) Resource Governance Index, 80% of resource-rich countries fail to achieve good governance in their resource sectors. One of the policy considerations suggested by NRGI to improve resource governance include: extending transparency and accountability standards to state-owned companies; and adopting international reporting standards for governments and companies.
To improve resource governance globally, the NRGI, together with the Columbia Centre for Sustainable Investment (CCSI) provide a twice yearly training course titled: *Natural Resources for Sustainable Development: The Fundamentals of Oil, Gas and Mining Governance*, which would be of interest to NOCs, among other state players. The NRGI also has country specific training courses on its website.

16. Best practices

The debate over NOC performance in the past has prompted a number of positive responses. Commercial performance has been enhanced by the introduction of competition (by partnering with IRCs) and by privatisation in varying degrees (by partial listing on stock exchanges). Funding issues have been addressed by adopting flexible contractual formulas (such as carried interests or production sharing) with the private sector that defers or cancels funding obligations. Efficient modern extractive industries sector tax systems can be relied on to generate revenues for the state comparable to those obtained through equity participation without risking public funds.

As reflected in a number of states, most reform recommendations include the transfer (with suitable transition arrangements) of non-commercial functions to government, leaving the NOC to focus primarily on commercial activities. Most states have avoided giving regulatory roles to NOCs in the mining sector, but in the petroleum sector it is quite common for NOCs to have considerable regulatory obligations in addition to commercial functions. This is usually attributable to capacity issues or overriding political considerations.
A measure of pragmatism is required in addressing the presence of non-commercial functions however. Probably the only NOC that has eliminated all of these functions from its portfolio is the Norwegian NOC, Statoil. The challenges to exporting the Norwegian model to other countries are significant in this and in other areas. Context is crucial here. For small states that are commencing extractives development, a strict separation of functions may not yet be attainable or even desirable. For states with limited capacity or political constraints, it may also not be feasible, at least in the near term. Indeed, some countries, such as Brazil, Indonesia, Colombia and India have temporarily assigned regulatory responsibilities to an NOC during an initial phase of development, only to take them away at a later, more mature phase of operations when commercial behaviour appears feasible and when conflicts of interest may create performance costs.

If regulatory functions cannot be separated from the NOC, they can be ring-fenced within it for operational and accounting purposes, and reported in the national budget and accounts. Transfer of regulatory functions out of the NOC is high on all EI sector reform agendas, but internal ring-fencing may be preferable until credible capacity and assurances of good governance can be established in an external agency. Serious commitment to eventual NOC commercialisation is also essential.

Without resources, the path to eventual commercialisation will prove elusive. If revenue cannot be retained by the NOC, or if flows from the finance ministry cannot be guaranteed, the results are likely to be negative. PEMEX, Petronas, and in Nigeria, the NNPC, have incurred significant losses since revenue flows have proved inadequate to cover operational costs on a regular basis. The experience of Angola’s Sonangol illustrates that the opposite, too much autonomy, can have damaging effects upon revenue flows to the central governmental institutions.

Within the NOC, transparency should be accepted as a critical ingredient to good governance. This starts with properly prepared, externally audited, and public accounts. Disclosure of such key data on company finances and activities on a regular basis is critical. One of the ways in which this can be achieved is to partly privatize the NOC, as with Petrochina, Gazprom, Petrobras, KazmunaiGaz E&P (Kazakhstan) and Statoil. This requires the NOCs to demonstrate to prospective investors that they have good commercial prospects, transparent decision-making and accounts that are clear and fit-for-purpose. Adherence to the EITI standard of 2013 would require the publication of information on the in-kind sales of oil, gas and minerals managed by NOCs; on NOC transfers to and from the state finance
ministry; on the overall revenues earned by the NOC; and on basic information about quasi-fiscal expenditures on infrastructure, subsidies and debt relief. Behind this emphasis on transparency is the familiar concern with effective performance rather than transparency as an end in itself. It can play a key contributory role in transforming economic success in oil, gas and mineral activities into sustainable advances in development.