

State strategies for managing oil and gas resources

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Around the world, the model for managing state-owned oil and gas resources differs widely. There is the mode of direct state control of which some of the characteristics include:

- Direct state control of operations and revenue streams led by National Oil Company (NOC);
- Political and social agenda senior to economic return;
- Renegotiation of contracts/ terms to increase government take;
- Regulatory and operational uncertainties;
- Present in countries with largest resource endowment;
- Government intervention forces NOC to allocate resources to non-productive activities;
- Frequent changes in agenda and managerial priorities impair long-term human and technological capital formation.
- Protected position makes it difficult for the NOC to be a competitive organisation.

The other broad style is one of government facilitation for which some of the key characteristics include the following:

- Competitive framework for the private sector to operate under licence;
- Fiscal incentives to make some opportunities more attractive;
- Pragmatic approach towards policy making.

This approach often exists in countries with smaller or underexploited resource base needing to be developed.

Emergence of National Oil Companies (NOCs)

Based on their huge holdings of oil and gas reserves and new strategic initiatives in international oil and gas trade and investment, national oil companies are rapidly strengthening their influence over world oil and gas markets

to such an extent that no discussion on the future of the world energy outlook is meaningful without reference to their future goals, strategies, and behaviour. The goals, strategies and behaviours of national oil companies have changed over time and understanding this transformation is important to understanding the future organisation and operation of the energy industry.

During the early 1990s, and as part of a widespread push for freer markets and energy

sector reforms around the world, a number of full and partial privatisations of NOCs took place. This activity was triggered by a number of factors:

- Lower prices for oil and gas commodities;
- Revenue needs among the governments engaging in restructuring programmes;
- Pressure from international capital markets; and,
- Shifts in the roles of government and government-owned or controlled enterprises in core activities such as oil and gas exploration and commercialisation.

Today, the situation has more or less been reversed. Generally higher commodity prices, innovation resulting in new technologies and other factors, not excluding political drivers, have essentially caused a complete turnaround in the situation.

National oil company strategies and depth of involvement in the industry vary depending on the size of their reserve holdings; access to technology; experience as an operator in their home country; access to capital; and level of upstream and downstream integration; experience as a participant in international ventures. The points noted are all important, however possibly the most important factor in their operation is the geopolitical position and the concomitant demands placed upon them of their host government.

Ranked on the basis of oil and gas reserve holdings, 14 of the top 20 upstream oil and gas companies in the world are national oil companies or newly privatised national oil companies, according to the annual survey of Petroleum Intelligence Weekly (PIW). State monopolies represent the top 10 reserve holders internationally. By comparison, ExxonMobil and the Royal Dutch Shell Group are ranked 12th and 13th while BP and Chevron are ranked 16th and 19th respectively.

In terms of world oil production, however, only six of the top 20 firms are national oil companies, while ExxonMobil, Royal Dutch Shell, BP and Chevron represent among the largest oil and gas producers worldwide. These Western majors have also achieved a dramatically higher return on capital than national oil companies of similar size and operations. The reason often proffered for this situation is the general superiority of the Western oil majors in operational efficiency and technological ability. What often is not always acknowledged in this situation is that these are publicly quoted companies with a clear driver to quickly get a return on their investment and to have constant increases in production levels to assure their investors that their business is growing.

PIW's ranking shows that Saudi Aramco, Gazprom, NIOC (Iran), Pemex, Sonatrach, INOC (Iraq), PetroChina, KPC (Kuwait), Petrobras, Petronas, Yukos, Lukoil, PDVSA (Venezuela) and NNPC (Nigeria) are among the most important oil and gas companies in the world. PIW's ranking on all measures

ranks Saudi Aramco, PDVSA, NIOC, Pemex and PetroChina in the top 10 oil companies in the world.

The most striking notation based on this information is that generally the IOCs have much smaller reserves than the NOCs. They are much more aggressive, however, in producing their reserves. If this trend continues, the IOCs may exhaust their reserves in a much shorter time than NOCs, a move that could potentially alter the balance of power in the corporate oil and gas world.

Trend Towards Resource Nationalisation

NOCs are still seen as crucial to economic development.

Control of oil revenue, in particular, is often a mechanism for political control of government. The trend towards resource nationalisation that has swept through several Latin American countries and most recently Russia over the past few years has been the most obvious evidence of this.

Russia has nationalised Yukos and now controls 51 per cent of Gazprom. The government has asserted that various foreign oil and gas companies are in arrears on income taxes and has limited foreign company participation in major oil and gas projects. Kazakhstan is considering changing the fiscal regime for foreign investors.

Venezuela has tightened the fiscal regime for oil and increased state participation in oil projects. Venezuela is also alleging that foreign operators owe back taxes. Mexico's upstream sector remains largely off-limits for private investment and the issue of foreign participation continues to be a controversial political issue.

Bolivia renationalised its oil and gas industry in 2006. In Trinidad and Tobago, the state is seeking increased participation in the country's LNG projects. Argentina, an oft-cited 'model' for privatised energy sectors, established a new state-owned energy company, Enarsa.

Based on these developments, it is unlikely that state participation in the oil and gas sectors in developing countries will decrease and fiscal regimes most likely will favour the state.



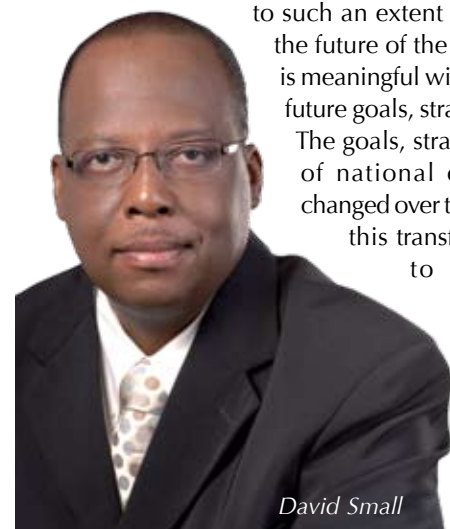
The future's bright for National Oil Companies, Petrotrin included

Trinidad and Tobago

Trinidad and Tobago is a long-established oil producer. Oil was discovered in 1857, and Shell became the first major producer in 1913. By the 1950s British Petroleum, Royal Dutch Shell and Texaco operated oil refineries. By the early 1970s petroleum extraction and refining accounted for almost three-quarters of exports, one-fifth of government revenue, and one-fifth of GDP.

The 1950s and the 1960s were the heyday of foreign investment promotion, using incentives such as tax holidays, subsidised loans and factory space, and tariff protection. The 1970s was the decade of economic nationalism, with nationalisations and localisations of foreign owned companies in many industries. Since the early 1980s, the policy pendulum has swung back in favour of foreign investment as a result of the privatisation and liberalisation policies promoted by the international financial institutions.

The Government of Trinidad and Tobago began a series of economic reforms in 1992 that have turned the economy from a state-controlled to a market one. Some of these reforms include lifting of import restrictions, privatisation, floating the currency, and encouragement of foreign investment. These recent economic reforms aligned with the existence of its natural resources, have been the basis for Trinidad's economic improvement over the



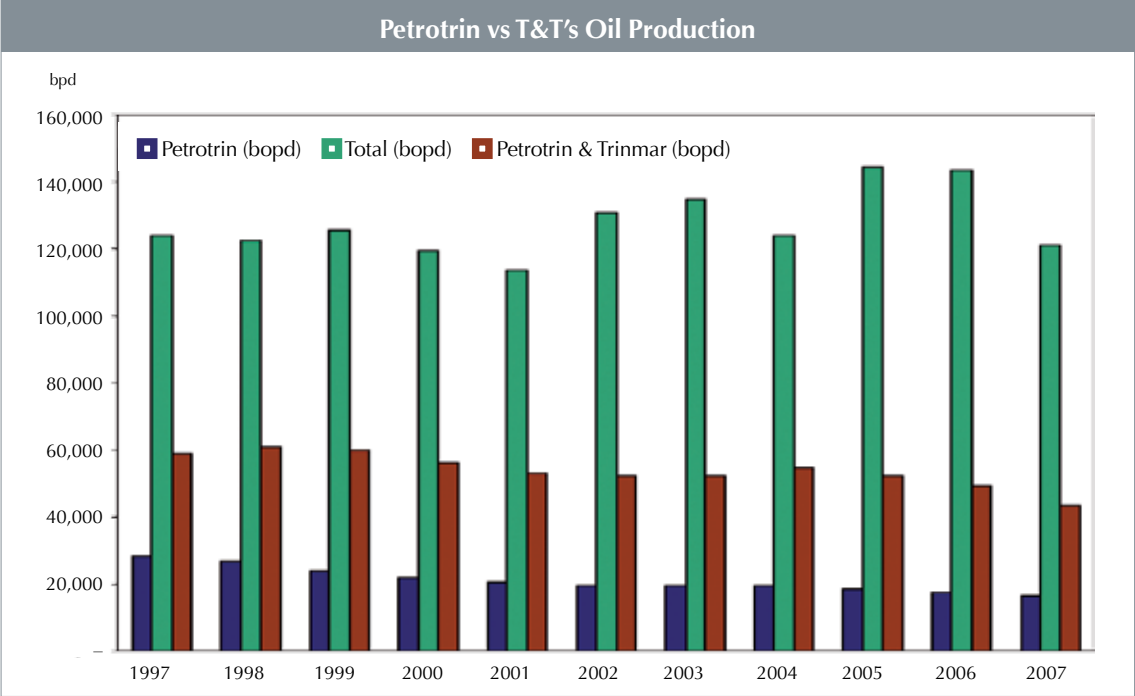
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past several years. As a result, Trinidad has one of the Caribbean region's most liberal trade and investment regimes, and investments have been flowing into the country. The policies of the government have been quite effective in generating foreign direct investment and wealth creation. The role of the state oil and gas companies has not been as important as in other countries in terms of their importance to the national economy.

In Trinidad and Tobago, the state's oil and gas companies are Petrotrin and the National Gas Company (NGC) respectively. The model of management of the country's hydrocarbon assets is one where the state facilitates growth and development of the industry through private international capital.

The Government of Trinidad and Tobago has firmly taken the responsibility of providing an attractive investment environment to facilitate the country's industrialisation thrust. Trinidad and Tobago has several advantages in the competition for foreign investment. Some of these result from the experience and long history of the local industry, together with the fact that many transnational companies have operated on its shores.

The creation of a conducive investment environment has been and continues to be one of the central planks of the government's national development policy. The country's history of political and economic stability has provided a healthy environment for attracting gas-based investments to the country. Foreign direct investment is essential to meet the large costs associated with capital-intensive energy projects. This has been crucial given that the domestic capital capability for such projects is limited. Given the limited nature of domestic demand, export-oriented industrial projects have played a major role in monetising its petroleum resources. The state continues to be focused on providing an investor friendly regulatory, administrative and fiscal regime for attracting investment in the upstream and downstream sectors.



National Gas Company

The 1968 discovery of significant gas reserves by Amoco in its offshore licensed areas provided the prime catalyst for the rapid expansion of the gas industry. In August 1975, the government established the National Gas Company (NGC) with 100 per cent state ownership. NGC undertook the purchasing, selling and distribution of natural gas to industrial and commercial consumers in Trinidad and Tobago. Within recent times, the company has been also required to seek ways to expand the commercial downstream use of natural gas in Trinidad and Tobago.

This development spelled the end of the wasteful flaring of natural gas. By 1979, the government decided to embark on the Flare Gas Conservation project which necessitated the growth of the National Gas Company to operate and maintain the government-financed offshore compression facilities. In order to enhance natural gas availability, the government made a decision to invest directly in the transmission of gas. In 1978, the government confirmed this intention by funding the construction of a 24-inch offshore and land pipeline system to transport gas from offshore gasfields to consumers in the Point Lisas area.

With the rapid and unprecedented industrial developments taking place in the country in the late seventies and early eighties, more and more industrial and commercial consumers were accommodated into the system. At the same time, in order to ensure a secure and totally integrated system of the required

capacity, the National Gas Company began expanding the natural gas pipeline system.

Today NGC is a diversified energy company primarily engaged in the purchase/sale, transmission and distribution of natural gas in Trinidad & Tobago with an asset base exceeding US\$4 billion (bn), a transmission network of over 700 km with a capacity of 4.4 bn cubic feet per day. The company has very good international investment ratings: BBB+ (S&P), A3 (Moody's), AAA (CariCRIS) and has strategic investments in natural gas liquids (NGL), liquefied natural gas (LNG), port infrastructure and development, and other segments of the local natural gas value chain.

The contribution of NGC to the government continues to increase. The financial contribution to government coffers in 2007 was TT\$1.56 bn. In addition the company's subsidiary, NEC, plays a pivotal role in developing industrial infrastructure (estates, ports etc) to support the government's industrialisation thrust.

Petrotrin

Petrotrin, the Petroleum Company of Trinidad and Tobago was established in 1993 by the merger of Trintopec and Trintoc, two state-owned oil companies. A third company, Trinmar was later merged into the company. Trintoc was formed from the assets of Shell Trinidad Ltd and Texaco, while Trintopec was formed when the government purchased Trinidad-Tesoro, a joint venture between the government and Tesoro Oil Company which was created to purchase the assets of British Petroleum. These companies were formed from earlier companies (including United British Oilfields of Trinidad (UBOT) and Trinidad Leaseholds Ltd (TLL) which had themselves been formed from

the companies which were first able to commercialise oil finds in Trinidad in the early twentieth century.

Petrotrin's main holdings are extensive, mature onshore fields located across southern Trinidad. Large areas have been leased out to small private producers who are able to make a profit on wells that are unprofitable for Petrotrin, given its higher labour costs. The company operates a refinery at Pointe-a-Pierre in south Trinidad. Most crude petroleum produced in Trinidad is exported without being refined. The refinery depends on imported crude (mostly from Venezuela), which is either used domestically or exported.

Petrotrin is involved in a wide range of activities in the energy sector industry, including: exploration and production, oil and gas transportation, storage, refining and marketing of refined products and LNG. Over the past five years, Petrotrin's contribution to total government revenue has been rising rapidly. Table 1 below shows the growing importance of Petrotrin to the state.

Conclusion

In contrast to many opinions and expectations, NOCs are likely to remain a strong energy sector feature for countries that remain net exporters of hydrocarbons, at least for the foreseeable future. Efficiency is one of the things that it was assumed would suffer in a state-controlled system. However, recent experience has proven this to be not quite the case as often there is a public policy commitment to efficiency in the sense of commercial performance that brings clarity to the NOC's role in both a strategic and a tactical sense.

In the context of Trinidad and Tobago, as the country begins its second century of commercial hydrocarbon production there are certainly opportunities for the state energy companies to expand their influence. However, the driver for this would most certainly come from the government. The experience of the country to date has shown significant development and industry growth with a relatively small government financial exposure. Whether the appetite for risk increases will depend on several factors, including how well NOCs as a group continue to perform and a likely step change in government policy and strategy. Only time will tell.

Table 1: Petrotrin Payments – Royalties and Taxes					
\$TT/MILLIONS					
Year	Total TT Gov't Revenues (\$)	Total TT Energy Sector Revenues (\$)	Petrotrin's Contribution to Total Gov't Revenues (\$)	Petrotrin's Contribution to TT Energy Sector Revenues (%)	Petrotrin's Contribution to Total Gov't Revenues (%)
2002	13,825.00	3,249.40	627.00	19.30	4.54
2003	16,754.20	6,182.50	1,193.00	19.30	7.12
2004	20,625.60	7,641.70	1,558.00	20.39	7.55
2005	29,638.80	14,044.10	3,587.00	25.54	12.10
2006	38,479.60	21,385.30	4,759.00	22.25	12.37