STATE PARTICIPATION IN THE NATURAL RESOURCE SECTORS:
EVOLUTION, ISSUES AND OUTLOOK

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State Participation in the Natural Resource Sectors: Evolution, Issues and Outlook

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Abstract

In one form or another, state participation has featured importantly in the development of petroleum and mining sectors worldwide over the past 40 to 50 years. While enthusiasm for state participation in these sectors has waxed and waned, it has proved a durable phenomenon, particularly in resource-rich developing countries and countries in economic transition, and there are signs that its popularity is reviving today, encouraged by the surge in commodity prices experienced over the past several years.

This paper reviews the evolution of state participation, the variety of forms it has taken, the drivers behind participation and the issues arising, and policy responses. It concludes with a summary of selected country experiences and comments on the outlook for the future.

In its various forms, state participation has raised serious issues and has too often been abused. These issues and abuses are now well recognized. Where they persist, their continuation is surely in good part due to a political economy that tolerates, or even encourages them. Where governments have a serious commitment to reform and development, policy responses to the challenges of state participation have been positive and a growing body of best practice is emerging. In most countries, policy responses are likely to stop well short of full withdrawal of the state from the resource sectors, but those responses can be expected to not only significantly reduce the risks of adverse consequences, but also substantially increase the likelihood of achieving looked-for benefits. Policies focused on enhanced governance – clarity of roles and responsibilities, transparency, accountability— and the active scrutiny and support of all stakeholders, domestic and global, will be central to the process.

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I. INTRODUCTION

In one form or another, state participation has featured importantly in the development of petroleum and mining sectors worldwide over the past 40 to 50 years. While enthusiasm for state participation in these sectors has waxed and waned, it has proved a durable phenomenon, particularly in resource-rich developing countries and countries in economic transition, and there are signs that its popularity is reviving today, encouraged by the surge in commodity prices experienced over the past several years.

This paper reviews the evolution of state participation, the variety of forms it has taken, the drivers behind participation and the issues arising, and policy responses. It concludes with a summary of selected country experiences and comments on the outlook for the future.

For purposes of this paper, state participation is rather broadly defined to comprise a range of options from 100 percent equity participation, through partial or carried equity arrangements, to equity participation without financial obligation.

II. EVOLUTION OF STATE PARTICIPATION

Petroleum and mineral resources have long been viewed as having special strategic significance in the countries in which they are found in abundance. They were among the sectors identified by Lenin as the "commanding heights" of the economy and as such sectors that the state must control. In a large number of countries this control has been exercised by direct state participation.

In petroleum, the movement towards direct participation began as early as the 1920s and 30s with the formation of the first national oil companies (NOCs), Argentina's Yacimientos Petroliferos Fiscales (YPF) and Mexico's Petroleos Mexicanos (PEMEX). It was in the 1970s, however, that the movement really gained traction on the back of a rising tide of nationalism worldwide and a growing belief in the merits of state ownership. The Organization of Petroleum Exporting Countries (OPEC) was formed at that time and very quickly experienced dramatic success in wresting substantial control and revenues from the private sector international oil companies (IOCs). The number of NOCs proliferated rapidly and with them came a rapid growth in state intervention, to the exclusion of the private sector in some countries, or, more commonly, through continued participation with the IOCs on significantly revised terms.

A great deal was expected of participation, and initially, while the industry was awash with cash, it all seemed possible. However, the oil price collapses experienced in the mid-1980s and 90s, exposed serious cracks in the model and caused a re-think of the role and organization of the NOCs and a revision of their terms of engagement in their petroleum sectors. Some NOCs disappeared or had their roles reduced, others were subjected to wide-ranging internal reviews and reforms.[2] State participation has, nevertheless, remained very much a fact of life in petroleum producing countries, and the decisions of recent country arrivals on the petroleum scene to provide for NOCs and participation, together with the aggressive re-assertion of the state's role in the petroleum sector in other countries, suggests that it is here to stay.[3]

The International Monetary Fund (IMF) has identified 39 countries as currently or potentially petroleum-rich.[4] As shown in Table 1, ____ of these have provided for direct state participation under various formulas and to varying degrees. The Table understates the incidence of state participation in the oil and gas sectors in that it lists only those countries already counted as petroleum-rich. Many other countries whose petroleum resources are of less current significance have also provided for participation.

Statistics on control of global petroleum resources are perhaps even more telling than the numbers on incidence when it comes to illustrating the continuing significance of state participation in the sector. NOCs control 90 percent of world oil reserves and account for over 70 percent of production.[5] And 25 of the world's top 50 oil companies are NOCs.[6]

[2] The United Kingdom abolished its NOC. Norway, Brazil, Colombia, Indonesia and Algeria are among those that significantly revised the roles assigned to their NOCs. See Section VI for a discussion of these and other examples.

[3] Relative newcomers with established or planned NOCs include Timor-Leste, Mauritania, Ghana, and Uganda. Major oil producing states recently expanding their direct intervention in their oil and gas sectors include Venezuela, Bolivia and Russia.

[4] IMF (2007) Appendix I. Countries are considered petroleum or minerals rich (Table 2 above) on the basis of the following criteria: (1) an average share of petroleum and/or mineral fiscal revenues of at least 25 percent during the period 2000-2005; or (2) an average share of petroleum or mineral export proceeds in total export proceeds of at least 25 percent. Norway is the only developed country meeting these criteria (petroleum).

[5] BP (2008)

[6] Petroleum Intelligence Weekly (_____).

Table 1. State Participation in Petroleum-Rich Countries

Country	Participation	Country	Participation
Algeria	51% CI	Oman	
Angola	20%/variable CI	Qatar	65%
Azerbaijan	20%/variable CI	Russia	Minority to 100%
Bahrain	None	Saudi Arabia	100%
Brunei Darussalam	50%	Sudan	5%-10% CI
Cameroon	50% CI	Syria	
Colombia	30%-100% WI	Trinidad and Tobago	None
Congo, Rep. of	15%-50%	Turkmenistan	None
Ecuador	None	United Arab Emirates	60%-100%
Equatorial Guinea	15% CI	Uzbekistan	50%
Gabon	15% CI	Venezuela	60%-100% WI
Indonesia	10%	Vietnam	15% CI
Iran	100%	Yemen	5%-10% PSAs. Selected 100%
Iraq	100%		
Kazakhstan	50%/variable CI	Bolivia*	
Kuwait	100%	Brazil*	Variable
Libya	50% CI	Chad*	10%
Mexico	100%	Mauritania*	10%/variable CI
Nigeria	50+%	Sao Tome and Principe*	None
Norway (SDFI)	20%- 56%WI	Timor-Leste*	20% CI

Sources: IMF Guide on Resource Revenue Transparency (2007; Sunley (2002); IMF staff. Countries are considered petroleum-rich on the basis of the following criteria: (1) an average share of petroleum fiscal revenues in total fiscal revenue of at least 25 percent during the period 2000-05 or (2) an average share of petroleum export proceeds in total export proceeds of at least 25 percent. Countries with asterisk have potentially large medium- and long- term petroleum revenue. CI signifies carried interest. WI working or paying interest.

The mining story is similar. Emerging from the colonial period in the late 1960s, many countries in mineral-rich Africa identified ownership of mineral resources and of resulting revenues with their new-found sovereignty. National mining companies (NMCs) were created, and ownership and direct sector participation were achieved either through nationalization of foreign-owned mining companies or their assets, or through NMC majority partnerships in various forms with the private sector. In Latin America, mining countries with a longer history of independence, fueled by the same nationalist sentiment, a resentment of perceived U.S dominance in the region, and sympathy for socialist economic philosophies, also established NMCs and through them sought control over their mining sectors. Zambia, Chile and Venezuela provided high profile examples of these early trends.

By the 1980s and early 1990s disenchantment with the SME experience had set in. Economic performance had been poor, the global mining and minerals environment had changed dramatically, a long term trend towards lower prices was expected, and the break-up of the Soviet Union had discredited central planning among socialist states. Lower state participation shares became common and greater emphasis was placed on creating investment frameworks attractive to the private sector either investing alone or in joint ventures with the NMC under a variety of new partnership arrangements. There have been very few outright reversals of nationalizations[7], however, and state participation in mining, through outright ownership or share participation, either on a mandatory basis or through the exercise of option rights, remains common practice, at least on the books, particularly in Africa. Table 2 illustrates the incidence of state participation in 18 minerals-rich developing countries.

Table 2. State Participation in Minerals-Rich Countries

Country	State Participation	Country	State Participation
Botswana	Diamonds negotiable WI other minerals	Mauritania	None. 78% SNIM
Chile	None in private mines. Codelco 100%	Mongolia	10% Local/50% Govt
Dem. Republic of Congo	5%F/ Negotiated equity shares 15%-51%	Namibia	None
Ghana	10% F/20% WI	Papua New Guinea	30% WI
Guinea	15% F	Peru	None
Indonesia	None	Sierra Leone	10% F/30% WI
Jordan		South Africa	15% Black Ownership
Kyrgyz Republic	Variable WI 15%-66%	Uzbekistan	
Liberia	15% F	Zambia	Minority Interests

Source: IMF Guide on Resource Revenue Transparency (2007); Otto (2000); Conrad (2008); IMF and World Bank staff. Countries are considered minerals-rich on the basis of the following criteria: (1) an average share of minerals fiscal revenues in total fiscal revenue of at least 25 percent during the period 2000-05 or (2) an average share of minerals export proceeds in total export proceeds of at least 25 percent. F signifies "free" equity.

As was the case with oil, other countries, not yet qualifying as minerals-rich, and so not included in the Table, have also opted for state participation in their mining sectors.[8]

[7] Zambia, the Democratic Republic of the Congo, and Ghana provide examples.

[8] NMCs, however, do not show the dominant control over mineral resources that NOCs have in the oil sector, reflecting the stronger push-back to state ownership during the industry's lean years.

III. Forms of State Participation

As suggested above, governments embraced state participation in their natural resource sectors in a variety of forms, depending on their objectives, their circumstances and issues encountered. Before turning to consideration of these objectives and issues in Sections IV and V, this Section will briefly review the most common forms of participation.[9] Under all forms, except the "free" equity form, the most common vehicle for state participation is the NOC or NMC, collectively referred to here as national resource companies (NRCs). In some countries, however, the state has exercised sector participation without the intermediation of the NRC.

Full Equity Participation

Possibilities under this heading include the state either: (1) going ahead with investments on its own through its NOC or SME, but without private sector involvement; or (2) investing *pari passu* with the private sector from the start of operations by acquiring either a majority or minority interest in an incorporated joint enterprise or a participation share in an unincorporated joint venture.[10]

The best examples of the first possibility are found in the Middle Eastern oil producing countries. Mexico, whose constitution explicitly excludes private participation in petroleum, provides another example. While relatively rare in numbers, these examples are clearly very important in terms of volumes of oil.

Examples of the second option can be found in both the petroleum and mining sectors, although joint enterprise participation is relatively more common in the mining sector while the unincorporated joint venture route is more typical of oil.[11]

Carried Equity Participation

Carried equity participation may take several forms. The most frequently encountered is the partial carry, usually in the context of a state/private investor unincorporated joint venture. Under this approach, the private investor "carries" or pays the way of its NRC partner through the early stages of a project—exploration, appraisal, and possibly even development

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[9] See Daniel (1995) for a comprehensive discussion of forms of participation and their fiscal equivalence.

[10] For clarity, the state in this case has less than a 100 percent share but both spends and receives revenue in full proportion to the share it has.

[11] This is partly due to a history of fewer successful cases of successful unincorporated joint ventures in mining.

—after which, the NRC spends *pari passu* with the private investor, as under full equity participation. The private investor may or may not be compensated for the funds advanced on behalf of the state, and, where compensation does occur, it may be with or without interest reflecting the time value of money, and/or an "uplift"[12] in recognition of the risks incurred on the state's behalf. A full carry occurs where all costs are borne by the private investor and compensation including interest and/or an uplift is paid out of the project itself.

"Free" Equity Participation

So-called "free" equity participation is a simple grant of an equity interest directly to the state without any financial obligation or compensation to the private investor. Once a feature in mining, where it was regarded as a payment for the right to exploit the mineral resource, and is still "on the books" in many countries, it is now found only rarely in new agreements.

Production Sharing

Production sharing is a popular form of state participation in oil prospective or producing developing countries. Production sharing is similar to "free" equity participation in that it provides the state with an equity share income after cost recovery by the private investor, without any offsetting financial obligation. In contrast to "free equity, however, production sharing involves the state, represented by its NOC, actively in operations as a commercial party, a regulator and a fiscal agent. As the state's representative, the NOC participates with private investors in the conduct of operations as it does under full and carried interest equity arrangements. At the same time, however, the NOC oversees those operations from a regulator's point of view and takes responsibility for assessing, collecting and commercializing the production share due to the state and remitting proceeds to the state.

Production sharing is often combined with some form of equity participation by the NOC either on a 100 percent basis or a carried interest basis.

[12] The "uplift" is an agreed multiple of carried costs. Where recovery of interest on carried costs is explicitly allowed for, the uplift relates only to compensation for risk. Where interest cost recovery is not explicitly provided for, the uplift is expected to cover both interest and risk.

IV. Objectives of State Participation

The drivers or objectives of state participation in the oil, gas and mining sectors fall under two general headings – non-economic, and commercial and fiscal.

Non-economic Objectives

Non-economic objectives were, and are still today, extremely important. They are both symbolic and practical.

On the symbolic side, the NRCs have been presented as national champions. As suggested above, their participation in the resource sectors was regarded as essential for protection of sovereignty and the national interest. Founded in fact or not, it would be hard to underestimate the emotional appeal of the NOCs and NMCs in this role, past and present.

On the practical side, state participation was expected to regulate, or rein in, the behavior of private sector investors in the national interest, to build national capacity in the resource sector through the transfer of managerial and technical skills and information from the private sector, and, whether explicitly stated or not, to address a wide range of development goals outside the resource sectors. Specific objectives under these several headings included, but were not confined to, job creation, the promotion of local content in petroleum operations, provision of social and physical infrastructure, regional development, and, not least, and especially in the case of petroleum, income transfers through supply of products at subsidized prices.

Commercial and Fiscal Objectives

The commercial or fiscal objectives of state participation in the resource sectors were, and are, more straight-forward than the non-economic objectives. They are focused on the maximization of revenues flowing to the state from these sectors.

In the first instance, NRC participation was/is expected to generate additional revenues for the state in the form of commercial profits and resulting taxes and dividends, emulating and eventually displacing the private investors in this role.

Secondly, participation was/is expected to obtain a higher share of sector revenues for the state either through recovery of a share of the fiscal benefits given away to the private sector in favorable deals or through capture of a major share of the rents generated by profitable projects and, most visibly, and recently, attributable to the stunning increases in prices for oil and minerals.

Over time, most countries qualified the straight forward revenue maximization objective by taking into account other classic fiscal objectives, such as containment of exposure to risk, and the need to compete with regimes in other countries to attract investor interest.

How these several non-economic, commercial and fiscal objectives relate to the various possible forms of participation is part of the discussion in the next two Sections.

V. Issues Arising from State Participation

Experience with state participation in the resource sectors has identified a number of issues, at both economy-wide and sector-specific levels.

Governance

One of the most important issues posed by state participation at the economy-wide level relates to governance. The tendency of resource wealth to undermine governance in resource–rich countries or to exacerbate pre-existing weaknesses in governance is well documented and has been widely discussed.[13] Unfortunately, more often than not, state participation in the resource sectors has been a contributing factor. With access to significant financial flows and exercising considerable influence over economic activity both inside and outside the resource sectors, the NRCs were natural targets for control by elites who commonly flew the flag of protection of sovereignty and national interest yet who were, in fact, interested in pursuing their own political and personal agendas. In doing so, they had every interest in making sure that the operations of the NRCs were non-transparent, in politicizing their management, in promoting a lack of clarity with respect to the roles and responsibilities of the NRCs and related ministries and agencies, and in ensuring dependency of the NRCs on the elites for funding and other operational prerequisites. The resulting capture of the NRCs encouraged erosion of governance at the economy- wide level, with negative consequences for economic and social development and political stability. Of course, this abuse of participation need not be, and has not proved inevitable. Political context is critical in determining outcomes.[14]

[13] See Karl (1997), McPherson (2000) and Humphreys (2007).

[14] See Eifert et.al. (2003) and Ossowski (2008). Both provide convincing evidence on the importance of political economy and institutional contexts in predicting success in the management of resource revenues

Macroeconomic Management

Closely related to the issue of governance is the issue of macroeconomic management, both on the expenditure side and the revenue side. On the expenditure side, the assignment to NRCs of a long list of non-sector specific tasks raises serious risks. While understandable in one respect, NRCs having access to funds and, in relative terms, management skills, in other respects this practice is bound to create problems. In the first place, NRCs, beyond the possible cash and debatable managerial advantages, do not have real comparative strengths in addressing these issues. Secondly, many of these tasks when the NRC does take them on are conducted off-budget. Quasi-fiscal activities, especially when they are as significant as those commonly assigned to NRCs, prejudice effective macroeconomic and budget management and make forward planning exceptionally difficult. On the revenue side, given the notorious opacity of NRC operations, the substitution of revenue shares from equity participation for tax revenue and/or assignment of fiscal agency roles to the NRCs can be particularly damaging, resulting in weakened accountability and revenue losses. Whether or not the funds attributable to state participation actually go to the budget will depend upon the fiscal (tax and dividend) regime applied to the NRC, on the clear definition of any fiscal agent roles, and, importantly, on their enforcement.

Funding

Funding state participation presents a third set of issues at the economy-wide level. Funding of state participation can be problematic. The resource sectors generate a lot of cash, but they are also very cash-hungry. Funding significant participation draws resources away from other urgent budget priorities, jeopardizing overall development objectives, and creating social and political tensions. It may also run counter to macroeconomic and fiscal policies designed to protect the economy of a resource- rich country from Dutch Disease by investing in the growth of non-resource sectors. [15] Putting more eggs back into the resource basket does not help in this regard. Nigeria's experience over the last several years, considerable reform efforts notwithstanding, illustrates dramatically the dilemma. Figure 3 below contrasts sharply the budgetary allocations made to the Nigerian National Oil Company (NNPC) to fund its own operations and its share of "cash calls" from its private sector joint venture partners with allocations to competing sectors including critical social sectors such as education, health and housing, physical infrastructure such as roads and construction and agriculture.

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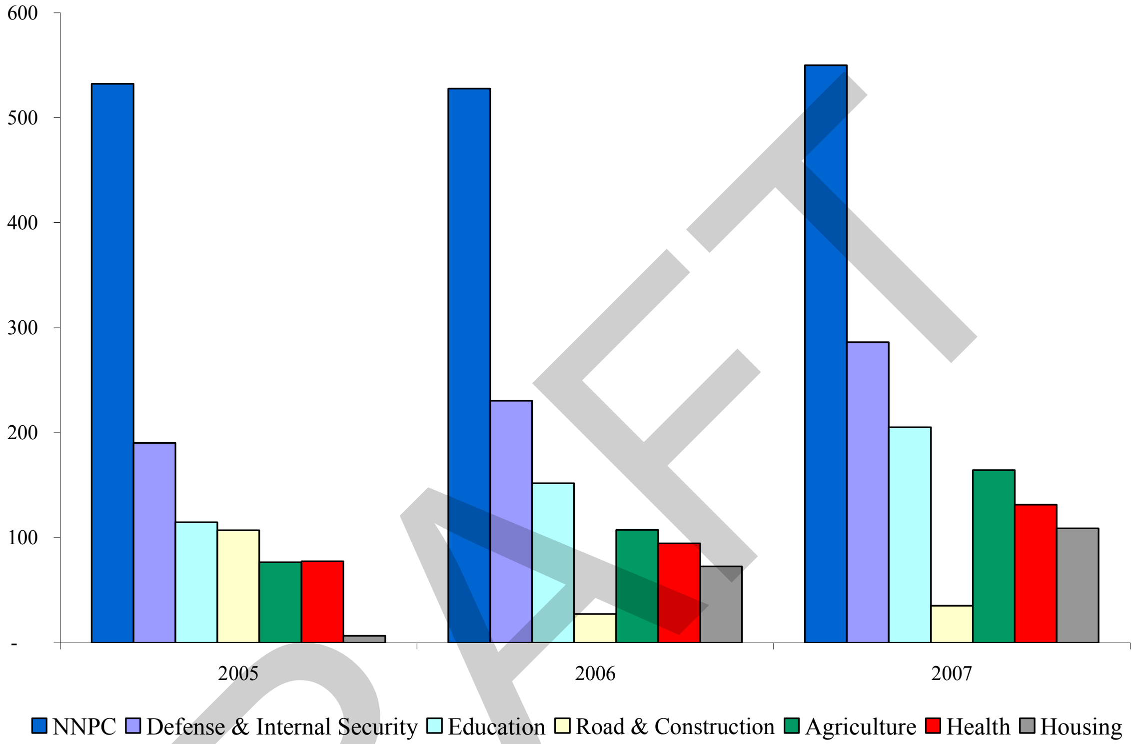
[15] Dutch Disease refers to the appreciation in real exchange rate of the resource rich country which erodes the competiveness of non-resource tradeable commodities and as a result the diversity of the country's economic base.

Figure 3. Competing Budgetary Allocations in Nigeria, FYs 2005-2007
(In billions of Naira)

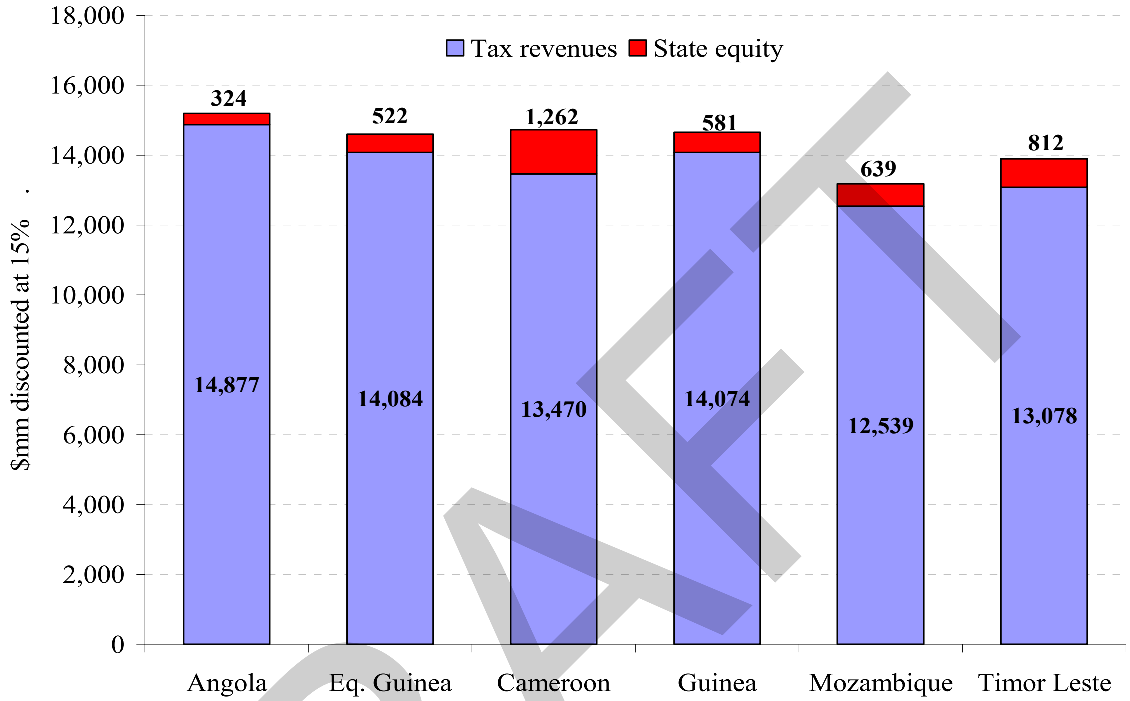


Source: Central Bank of Nigeria and IMF staff estimates. Funding for social programs and infrastructure is for federal spending (current and capital) only. An unknown amount of funding also occurs at the state level.

The funding issue is particularly worthy of debate because, under appropriate fiscal and legal conditions, resource–rich countries should be able to replace state funding with private sector investment. This would not only relieve tensions over budget allocations, but also avoid putting public funds at risk. Even where exploration risks are side-stepped through partial carries of the type described above, risks remaining at the development stage can be substantial and, not unreasonably, many have questioned the appropriateness of exposing public funds to such risks.

A counter-argument to the case made for withdrawal of state participation on an equity funding basis and its replacement by private sector funding is that withdrawal of state equity funding will reduce state revenues. While equity participation may result in higher revenues to the state than taxation alone might provide, the gains are likely to be small, particularly where modern efficient fiscal systems are applied, as Figure 4 suggests. Each bar shows

Figure 4. Tax Revenues and Equity Returns
(In millions of USD discounted @ 15%)



the discounted value of the fiscal revenues received from a hypothetical oil development project under the fiscal regimes for each of the 5 countries shown, together with the after tax return to state equity participation at the indicated level. The latter represents the assumed revenue gain attributable to participation. While the charts show this to be an overall revenue gain, albeit small, the gain may be overstated. To the extent that equity participation has a fiscal equivalent, as it does under carried interest formulations, its introduction may require offsetting adjustments to other fiscal terms in order to maintain investor interest.[16] In such cases, the overall net fiscal gain from participation becomes debatable.

Figure 4 illustrates the argument for efficient taxation as an alternative to participation for oil. The argument is weaker for mining where to date fiscal regimes have been less successful in capturing rent. Figure 5 compares government take from a hypothetical oil project in three oil producing countries to take from a hypothetical copper project in three mining countries. The government take achieved through the fiscal regime is typically significantly higher for oil than for mining.

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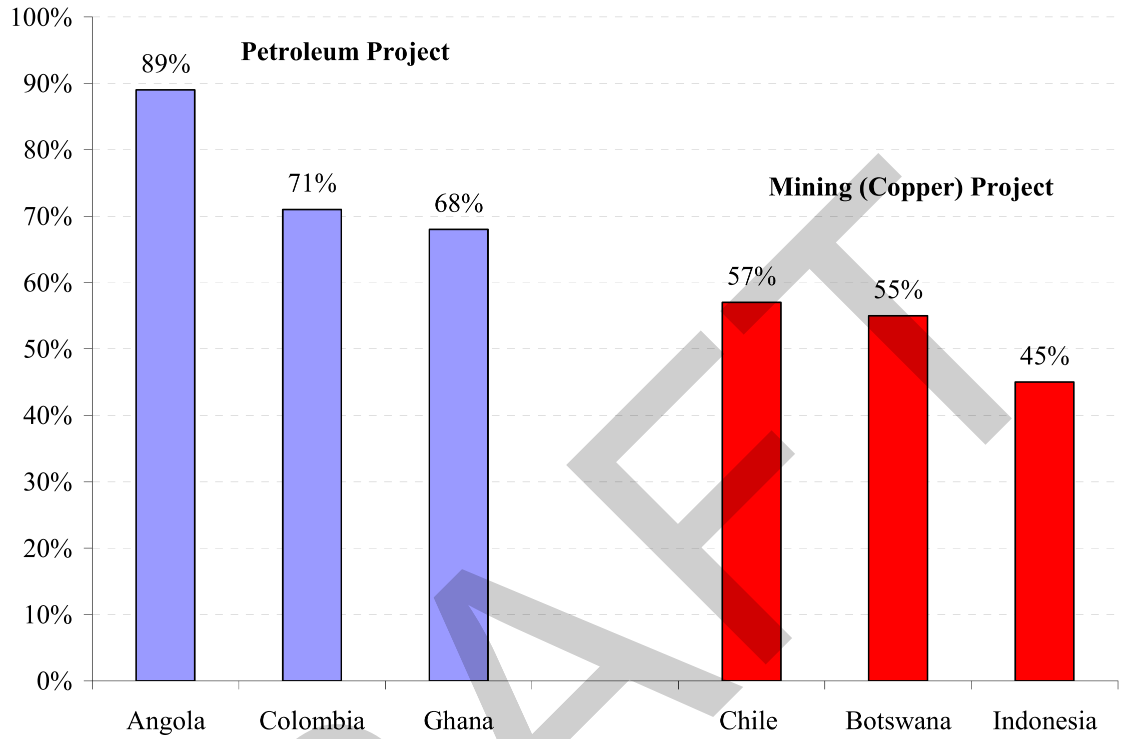
[16] Daniel, *op.cit*.

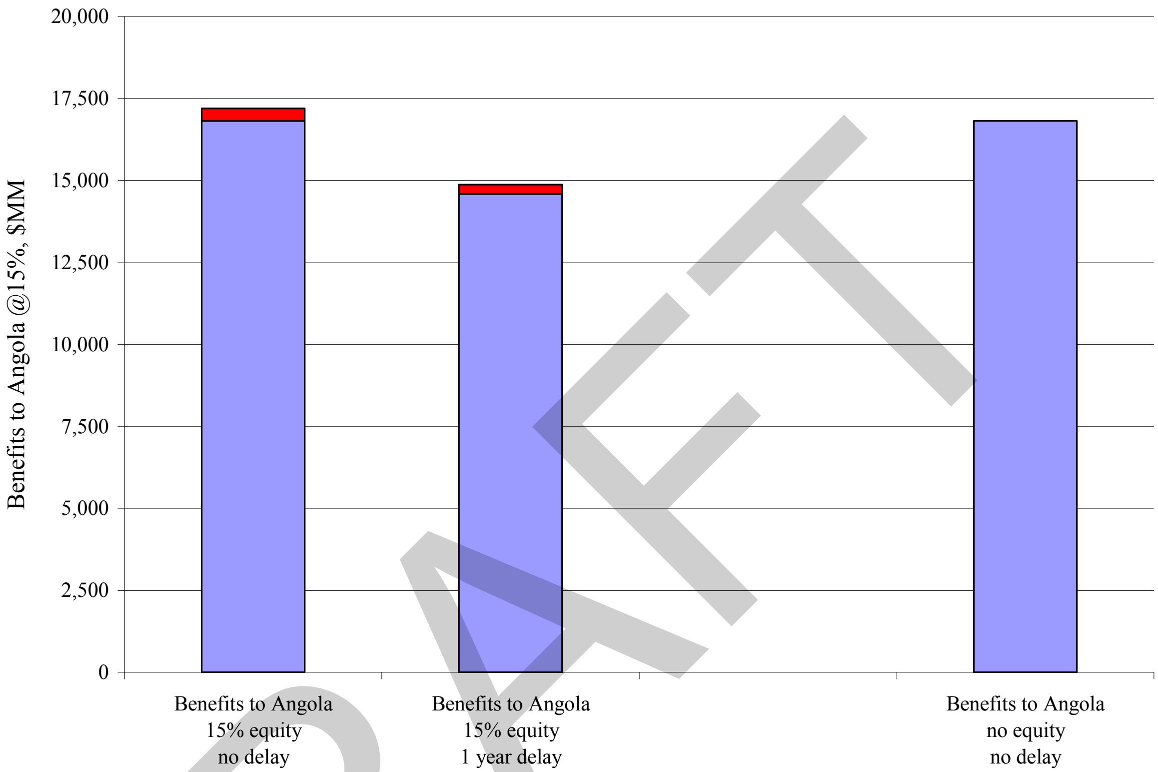
Figure 5. Government Take from Oil and Mining Projects Compared (%)



Source: IMF staff estimates

The potentially substantial financial demands of participation raise issues at the sector as well as the economy-wide level. Serious debate over budget allocations often leaves the NRC short of funds to meet project "cash calls" from its private sector partner, delaying project implementation, deferring revenue, and reducing project value. Where this is a real possibility, as it frequently is, the state may find the potential revenue gains from participation versus the no-participation, tax-only case erased by the induced delay. Efficient taxation, without participation, can produce more revenue for the state than state participation where participation results in even a one year delay in project start-up. Figure 5 illustrates the issue for as hypothetical oil development project in Angola. The bars on the left show the discounted value of total fiscal revenues including equity returns from the 15 percent participation of Sonangol, Angola's NOC . Should difficulties in meeting Sonangol's funding obligations delay project start-up by one year the value of Angola's fiscal revenues inclusive of its equity return would fall significantly relative to the no delay case and even relative to the no equity, no delay case shown on the right. It is probably fair to say that the no equity 100 percent private investor case, for the reasons discussed above, is less likely to result in delay.

Figure 6. Impact of Project Delays on State Revenues, Angola
(Millions of USD discounted at 15%)



Source: IMF staff estimates

While the Angola case is hypothetical, meeting cash calls has been a very real and persistent problem in Nigeria, where NNPC's inability to come up with funds has frequently delayed projects. The response has been to convert NNPC's full equity obligation into a carried equity interest with NNPC's private partners lending NNPC the cash to meet its obligations and being repaid out of NNPC's share with interest. NNPC has entered into such arrangements, on one occasion or another, with nearly all the major private sector operators in Nigeria. Unfortunately, these so-called "alternative finance" deals are confidential, making it very difficult to assess the cost and risk exposure to Nigeria.

A number of countries, Angola among them, have sought to avoid the funding delay risk by, together with their private sector partners, arranging non-recourse project finance. This is not always possible but where it does occur and the finance is truly non-recourse and cannot be regarded as sovereign debt, it has the additional advantage of reducing fiscal risk.

Commercial Efficiency

With few exceptions, NRCs to date have not scored well on commercial efficiency or profitability. Obstacles to improved performance are traceable to the other issues identified in this paper. An overall context of weak governance, pervasive government interference, lack of transparency and accountability, and the extensive assignment of non-commercial tasks are systemic factors. Under-funding or erratic funding also plays a major role. Where state participation excludes or limits competition that, too, can be expected to adversely affect performance. Competition is considered a major driver of efficiency.

Conflicts of Interest

Conflicts of interest arise when the NRC participant finds itself simultaneously cast in the role of partner to a private investor, or indeed acting on its own commercial interest, and of a regulator and/or fiscal agent. As noted above, this is especially common under production sharing. Wearing its commercial hat the NOC or NMC may take positions which are opposite to those expected of a protector of the state's interest. That this risk exists is made obvious when private investors, normally ambivalent about state participation, are found to favor modest participation on the grounds that its NOC or NMC partner is likely to protect its (the private investor's) operational or fiscal interests vis-à-vis the state's.

Sector Responsibilities and Institutional Capacity

A further concern raised by the formal assignment or practical assumption of regulatory or fiscal functions to or by the NRC is that the NRC to often soon usurps the authority of the government ministry which is nominally and ought actually to be in charge – the sector ministry or the ministry of finance. In doing so, it will also erode any institutional capacity those ministries might have established or hoped to establish, attracting and retaining essential talent through higher salaries and access to greater influence. This tendency is all part and parcel of the overall governance issue.

NRCs being typically closer to or partnered with private investors are better placed than ministries or government agencies to take advantage of private sector contractual obligations to provide training and otherwise assist in the transfer of managerial and technical skills. The same may be the case with respect to the provision of technical, operational and financial information. While this is in part appropriate, it acts to further strengthen the NRCs relative to those oversight ministries and agencies. Legal and contractual provisions can be written, and usually are, to extend these obligations to ministries and agencies as well, but to be effective the ministries and agencies need to have been assigned, in practice as well as legislation, the authority and the staffing that creates an incentive to take advantage of the obligations.

VI. Policy Responses

It is difficult to take exception to many of the objectives set out in Section III above. However, as the preceding discussion suggests, there is reason to question the appropriateness of participation as the delivery mechanism, certainly as it has been practiced to date.

Over the past several years, a number of positive policy responses to the specific issues raised by state participation have been discernible:

- A greater reliance on, or confidence in, well structured laws and regulations as alternatives to direct participation. Ownership is no longer viewed as essential to protection of the national interest. Of course, laws and regulations can be abused as well, but on accountability and transparency grounds they are generally preferable to participation.[17]

- Increased clarity on roles and responsibilities of government ministries and agencies charged with sector oversight. The trend towards transferring non-commercial, quasi-fiscal activities and regulatory or fiscal functions from NRCs back to appropriate ministries or independent agencies, thus removing obstacles to commercial efficiency and reducing or eliminating the potential for conflicts of interest, has been particularly important in this regard. This re-assignment of roles is typically paralleled by efforts to build capacity in the receiving ministries and agencies.

- A global movement in support of greater transparency and accountability in natural resource sectors in which transparency of NRC operations and finances features prominently. Credible audits and regular public reporting and other assurances of integrity are heavily emphasized.[18] Macroeconomic management concerns have increasingly stressed the importance of transparency in the resource sectors and in particular the explicit recognition in budgets and planning documents of the financial and fiscal costs and risks associated with state participation.

[17] See IMF (2007) for an extended review of policy recommendations on resource sector governance, many of which are reflected in the policy responses listed here.

[18] The Extractive Industries Transparency Initiative (EITI) has played a central role, supported by a number of civil society and bilateral government initiatives. Visit www.eitransparency.org. See also www.revenuewatch.org and www.publishwhatyoupay.org.

- An increased effort on the part on private sector investors to provide assurances and evidence of accountability.[19]

- A more cautious approach towards exercise of state participation options and a trend towards lower levels of maximum participation. In some cases, the state has wholly or partially withdrawn from sector participation. Elsewhere an increased emphasis on forms of participation which reduce state exposure to funding obligations, e.g., carried interests, non-recourse finance and/or production sharing, can be observed. At the same time many countries have provided more space for private sector participation and competition.

- Increased sophistication in resource tax design, and a growing recognition of the advantages of efficient taxation over equity participation as a means of raising revenue.

It should be emphasized that these are not universal or consistent trends. There is no shortage of exceptions, however. Both are reflected in the selection of country experiences contained in the next Section.

VII. Selected Country Experiences

The summaries given below each illustrate a variety of experiences with state participation. Norway's experience, and that of its neighbor Denmark of what is widely viewed as best practice, but as the examples show, that view is not universal.

Norway[20]

Norway's first petroleum licensing rounds were conducted in the 1960s. No state participation was involved at first, but awards soon after entailed a net profits interest for the state, minority state interest and then, following the creation of Statoil, Norway's NOC, in 1972, majority participation. It is noteworthy that al through this period, Norway consciously encouraged participation by the foreign private sector, on the grounds of expected benefits from competition, risk sharing, and the transfer of technology and petroleum management skills.

[19] [REFERENCE EITI BUSINESS GUIDE]

[20] See Al Kasim (2006)

In its early days, Statoil was granted preferential status in the sector. Its initial 50 percent interest increased to a 51 percent majority on commercial discovery and was carried through the exploration phase by the private partners. In some licenses there was provision for a higher initial share and/or progressive participation as a function of production. Statoil developed rapidly as a commercial enterprise. From the outset commercial efficiency was Statoil's primary objective. The institutional structure of the sector was very clear. The sector ministry was in charge of policy, reporting to the Storting or Parliament, the Norwegian Petroleum Directorate was established to provide technical and regulatory oversight, while Statoil occupied itself with commercial operations. This approach, and all major subsequent policies affecting the state's role in the sector, were subject to extended public discussion and debate, affording key stakeholders an opportunity to make their views known.

In the 1980's Norway's sector policies evolved further, based on Statoil's demonstrated commercial strengths, an appreciation of the benefits of privatization and the influence of European Union initiatives on competition. In 1985, Statoil's portfolio was split in two, part remaining with Statoil and part going to a new vehicle of participation called the State Direct Financial Interest (SDFI) . All vestiges of Statoil's preferred status were removed and Statoil became a normal commercial company competing with other companies on the same terms. The exploration carried interest was abolished. No non-commercial operations were assigned to Statoil. In 2001 Statoil was partially privatized. The state continued to hold an 80.8 percent interest in Statoil, but without Board participation and without interference in the company's operations.[21] The SDFI was set up to hold the state's direct participation in licences. The SDFI was initially managed on behalf of the state by Statoil, but management was later passed to Petoro, which was established as a non-profit state owned agency. While some of the participation interests inherited by Petoro were as high as 56 percent, a more modest level of 20 percent has become the norm in current license rounds. The SDFI's revenues and expenditures are included in the government's budget and the implications of state participation are explained in the budget documents, identifying any associated fiscal risks. The SDFI's budget is approved by the Storting on an annual basis in the context of debate on overall budget priorities.

The Norwegian political, social and economic context – a long tradition of good governance, transparency and public debate, sound economy and a high level of education and skill – suggest that its experience is not easily transferable, yet it is clearly reflected in the aspirations of a number of developing countries, exemplified by the three discussed below.

[21] In 2007 Statoil merged with another Norwegian oil company Norsk Hydro. The government's stake in the merged company fell to 62.5 percent.

Denmark

Before turning to those countries, it is worth noting the very close parallels between the Norwegian approach and that adopted by it close neighbor, Denmark. Current arrangements in Denmark call for the state to hold a mandatory 20 percent working interest (no carry) in all licences. The state interest is held by the Danish North Sea Fund. Separately, DONG, the Danish NOC, can hold an interest in any license on the same basis as a private investor. DONG itself is scheduled for partial privatization.

The next three countries—Brazil, Colombia ad Indonesia—have all made significant progress over the past several years towards the best practice exemplified by Norway and Denmark.

Brazil[22]

The early history of Brazil's petroleum sector was strongly nationalistic. The popular phrase "O Petroleo e Nostro"—the oil is ours—supported Petrobras, Brazil's NOC, in a monopolistic role and invited extensive government interference in the petroleum sector.

By 1995, however, the country's deepening financial crisis and a growing global interest in privatization led to fundamental and sweeping reforms in the Brazilian economy and society. As part of this, Brazil's monopoly was ended in 1997 and opened up to foreign private participation and competition. Petrobras could either compete with other companies on the same footing or partner with them in joint ventures. Petrobras was partially privatized, reducing the state interest to 51 percent, and the company was subjected to the same fiscal regime as the private companies. On top of taxes Petrobras pays a 25 percent dividend to its owners, public and private. All regulatory functions which had previously been the responsibility of Petrobras were transferred to a new independent agency, the Agencia National de Petroleo (ANP). Petrobras received no subsidies and was not assigned any non-commercial activities.

Petrobras is now incorporated in the state budget process and its investment and operating plans are subjected to rigorous scrutiny. A high degree of transparency applies not only to the overall budget process but also to Petrobras in particular, which must conform to not only the disclosure requirements of its own code of conduct, but also those of the stock exchanges on which it is listed. Responding to critics of his privatization reforms, then President Cardosa noted that the soft budget constraints and opaque accounting which had previously applied to Petrobras had essentially privatized the company in a different way, sheltering the transfer of

[22] See Lewis (2007)

its economic benefits to privileged groups in the Brazilian society – managers, employees and political patrons.

Since 1997, Petrobras has flourished, doubling its oil production in 10 years. Debate over participation has re-opened, however, following in the footsteps of two enormous oil discoveries offshore. At the core of the debate is the appropriate division of expenditure and revenue. If Petrobras participates in development of these finds under existing arrangements it will be exposed to massive funding obligations, and further it is felt by many that private shareholders should not benefit to the extent current arrangements would allow, and finally that fiscal returns to government from the anticipated development projects are too low. Possible policy responses now under consideration in Brazil include raising taxes and royalties, addressing the revenue issues, or establishing a new 100 percent government – owned company, allowing it to enter in to production sharing contracts with private investors over the new highly prospective areas. The latter would relieve Petrobras and the state of funding obligations, while retaining a considerable measure of control and adding to tax and royalty revenues through the production share.

Colombia

As has been the case with the Scandinavian neighbors, Norway and Denmark, Colombia and Brazil have shared similar petroleum sector participation experiences. Colombia's NOC, Ecopetrol, was created as early as 1951. It combined the role of regulator, administrator and investor. It entered into a limited number of 50/50 contracts with foreign oil companies on a preferential or concessional basis, being carried through to commercial discovery.

Change came later than in Brazil, but was ushered in 2003 in response to economic difficulties and the need to attract foreign investment to reverse rapid production declines. Contract terms were improved, and institutional structures were overhauled. Ecopetrol remained at first a 100 percent state-owned company but its regulatory and administrative roles were transferred to the Ministry of Mines and Energy to be implemented through a new government agency, the National Hydrocarbons Agency (ANH). Ecopetrol's exploration carry was dropped, and it is expected to perform as any other company. In late 2007, a 10 percent stake in Ecopetrol was sold to the public and was oversubscribed. A further 10 percent will be offered in 2008.

Indonesia

The third important oil producer in this trio of recent reformers is Indonesia.

In the 1950s and 60s, very quickly after independence, Indonesia moved to assert control over its oil and gas sector. This was done through government-owned companies and tougher terms, and culminated in the creation of Pertamina in 1970. The law establishing Pertamina set out its duties which included significant obligations to act as an agent of government, including licensing, procurement, supply of the domestic market, etc.

The PSC, an Indonesian innovation, was introduced at that time, emphasizing participation in management, training and technology transfer, but also creating large regulatory roles for Pertamina, related to approvals of procurement and costs, cost control, collection and marketing of the government's production share and key operational decisions.

Initially, Pertamina had a degree of independence from government, but it soon came under the control of ruling elites and was treated as a "cash cow" for channeling funds to those elites and/or their pet projects. The company's portfolio expanded to include golf courses, aircraft, ships, foreign property holdings and hospitals. The powerful cost approval process and local content rules were abused to steer business towards political bosses and their cronies. One of the most onerous responsibilities assigned to Pertamina was to assist in the so-called national unity effort by distributing petroleum products at substantially subsidized prices. As a consequence of these pressures, Pertamina became involved with massive corruption and took its eye off the ball of efficient performance in the petroleum sector. A 1999 audit of Pertamina by PricewaterhouseCoopers identified losses of $ 2 billion annually in corruption, waste and inefficiency. Funds leakages from Pertamina had several sources. Pertamina's direct role in revenue collection often siphoned off cash before it made it to the Indonesian Central Bank. Pertamina's own operations were notoriously inefficient.

As long as prices were high, Pertamina's corruption and inefficiencies were affordable. There was enough money for everyone—"all boats were rising." The collapse of prices, first in the mid-eighties and then again in the mid-nineties, however, forced a serious re-think of the state's and Pertamina's roles. In the late 1990s, increasing dissatisfaction with the corruption and waste, and the Asian financial crisis, gave the technocrats in government—the "Berkeley Mafia"—an upper hand in the management of Indonesia's affairs. Helped by the end of censorship, and increased public awareness of abuses, a new Oil and Gas Law was passed in 2001. Pertamina's previous special status under law was abolished. The company's regulatory and administrative functions were transferred to a new agency MIGAS, inside the Ministry of Energy and Mines. Government production shares were forwarded directly to the Indonesian Central Bank by-passing Pertamina. Contracting and revenue accounting were all to be made more transparent and accessible to the public. Financial flows related to Pertamina's remaining exploration and production operations were to be subjected to the same standards as applied to the IOCs in their PSCs.

Pertamina's experience contains important lessons for other NOCs and governments placing similar demands on their participation in the petroleum sector. The next three countries—Venezuela, Bolivia and Russia—which might be characterized as returning resource nationalists, are perhaps cases in point.

***Venezuela*[23]**

Venezuela first nationalized its oil industry in 1975. All rights to hydrocarbons were vested in the state. The Ministry of Energy and Mines was made responsible for sector policy and oversight and PDVSA was established as the NOC with a monopoly over petroleum operations to implement policy on the Ministry's behalf. PDVSA's President and Board were appointed by the President of Venezuela. Taxes and royalties from PDVSA were to be used .for the economic and social development of the country while PDVSA itself was to focus on development of the oil and gas sector. The participation of foreign or private investors required Congressional approval and was not welcomed.

By the 1990s the country's economic position remained poor and it became evident that if PDVSA would not be able on its own to undertake the investments required to grow the oil sector and provide the revenues needed for development. This led to the introduction of the "Apertura Petrolera", an initiative which provided more favorable terms to investors and opened new areas for private sector participation. PDVSA retained operational control but reduced its financial exposure to less then 50 percent. The initiative was generally regarded as a success. New private sector investment increased reserve additions and reversed the downward trend in production. Production increased from 2 million barrels per day to 3.4 million barrels per day.

The benefits of oil were not widely distributed, however, and poverty remained pervasive, providing an opening for the populist politician Hugo Chavez who was elected President of Venezuela in 1998 by a significant margin. Chavez was highly critical of the "Apertura" , charging that it was to generous to the foreign companies and had eroded Venezuelan control. His conflict with PDVSA led to an oil industry strike in 2002. Chavez responded by firing 25 percent of PDVSA's work force which was largely professional and their replacement at a senior level by political allies with little or no petroleum expertise. Under Chavez's subsequent nationalization policy taxes and royalties were increased by a large margin Venezuela's stake in joint ventures was increased from 20 percent to 60 percent and the state took over ownership of some thirty small oil fields.

When Chavez came to the Presidency the price of oil was $ 7.50 per barrel. The dramatic price increase which followed funded a massive expansion of state spending on social and physical infrastructure. A high percentage of this spending depended on revenues from taxes and royalties on PDVSA, however a significant percentage was also channeled through PDVSA directly. PDVSA was regarded as more efficient than government bureaucracy but equally important was the fact that channeling funds through the NOC made it easier to

[23] [REFERENCES]

target favored recipients and gave the Presidency and executive branch a competitive advantage over Congress in the control of funds. PDVSA's social spending in 2006 was over $ 13 billion, up from $ 7 billion in 2005.[24] Spending on social programs, including product price subsidies was 40 percent more than spending on oil and gas operations. The scale of this spending led some to question PDVSA's finances. These have proved difficult to assess however since PDFVSA has released no audited accounts since 2005. PDVSA is borrowing heavily. Foreign investment dropped by 55 percent in 2006, and production is estimated to have declined to 2.3 million barrels per day. Costs are high in Venezuela because of the maturity of a number of producing oil fields and the challenges of producing the heavy oil from Venezuela's Orinoco Belt region.

Venezuela may represent an extreme example of the response of many oil-rich countries to the oil price boom. As a result of the dramatic increase in oil prices, most have been able to record overall budget surpluses At the same time many are significantly increasing the size of their non-oil spending and non-oil deficits, exposing several of them to serious fiscal risks should the oil price drop sharply.[25]

Bolivia

In the mid-1990s, Bolivia, like Venezuela, responding to poor performance in its oil sector and an urgent need for new investment, embarked on a privatization and liberalization program. The country's NOC, YPFB, was partially privatized and in 1994, and a new Hydrocarbons Law was passed in 1996 which improved terms for private investors and allowed them to enter into Risk Service Contracts with YPFB which granted them ownership and free disposition of oil at the wellhead.

Investment in the sector surged, but by the mid-2000s growing discontent surfaced among indigenous peoples over perceived inequities in revenue sharing and a perceived return to the days of foreign domination. A national referendum in 2004 showed a majority in favor of state ownership In 2005, a new Hydrocarbons Law reclaimed wellhead ownership of all production and called for conversion of existing contracts to new forms deemed more acceptable from a national point of view. YPFB was re-nationalized. A newly elected populist President, Evo Morales, launched a campaign of resource nationalism under the slogan that "hydrocarbon wealth must go back to the people", and issued a Nationalization Decree in 2006 setting a time limit for contract renegotiation.

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[24] [REFERENCE]

[25] See Ossowski (2008)

The process was slowed by the evident lack of institutional capacity at YPFB and by funding shortfalls, but by late 2007 all foreign operators had signed new Operations Contracts with YPFB. Similar in structure to PSCs, but with sharing expressed in revenue rather than production terms, these put the state squarely back in the sector. YPFB is responsible for collecting revenues owed government and for the marketing of all production and for a wide range of approvals. It is too early to assess results. A statement by President Morales however harkens back to a classic challenge for state participation. Morales called for a restructured YPFB that would be “efficient and socially controlled.”

Russia

After the break-up of the Soviet Union and years of central planning, the Russian economy went through a period during the 1990s of rapid privatization. This occurred without the benefit of a coherent or defined legal and fiscal structure and handed the oil sector over to a few so-called oligarchs. Foreign capital was at first courted but few major deals resulted. The transfer of major national assets to the oligarchs generated deep resentment.

Under a new President , Vladimir Putin, the state began to re-assert itself in the energy sector and state-owned or influenced oil and gas companies have been obtaining controlling interests in previously foreign-led projects. Further state presence or control of critical export facilities has grown rapidly, while private projects have met with obstacles put up by state-owned enterprises and/or government agencies. [26]

The “new frontier” that appeared to have been opened up in the 1990s gave way to revived centralist and nationalist policies. President Putin has explicitly stated that Russia’s vast natural resources should be used to rebuild the country’s world prestige and status. The political elite has entrenched itself in the oil and gas industrial complex and recent developments in the oil sector appear to be driven by political rather than economic considerations.[27] This has been the case not only internally but also internationally where Russia has become a major player as an exporter and as an investor.

An alternative response the excesses of the early privatizations might have been to put in place a proper legal and fiscal framework including appropriate oversight and continue to encourage private sector participation with or without direct state participation. Russia claims that this is still its approach, but actions seem to suggest otherwise. It remains to be seen whether the direction Russia has taken will be sustainable or will bring back some of the problems of its past.

[26] See EIA (2008)

[27] See Helm (2006)

The next two countries, reviewed Saudi Arabia and Mexico, have both opted to run their petroleum sectors through wholly-owned state monopolies.

Saudi Arabia[28]

The Saudi approach to the nationalization was very different from that of other countries. Saudi Arabia's oil and gas sector had been run for years by a consortium of major IOCs, the Arabian American Oil Company, or Armco. Nationalization of Armco in the 1970s was gradual and non-acrimonious. Saudi Armco, the NOC, replaced Armco, but many of the Aramco companies continued as advisers to Saudi Aramco ensuring continuity of management strengths and technical skills.

Policies since nationalization have been similarly unique. Under strict instructions from the king, the new Aramco has been left very much to itself on operational matters. Aramco reports to the Supreme Petroleum Council, a body made up of senior government ministers, but the Council's approvals are largely perfunctory except in major policy or strategic issues such as production levels. This history has resulted in a high degree of professionalism and internal accountability in the company. Saudi Aramco's budgets and operations are scrutinized carefully within the company and higher levels of government within the context of a running 5 year economic planning horizon.

The major concern with the approach Saudi has taken towards participation in its oil sector relates to the external availability of critical financial and other data. Internal transparency exists but external transparency on key topics is non-existent.

There has been only one internal challenge to Saudi Aramco's monopoly. That occurred during the late 1990s and early 2000s when focused re-opening of the oil and gas sector was considered with a view primarily to providing a competition or bench-marking check on Aramco's operational performance and commercial efficiency. While IOC interest in the initiative was understandably high, it died without results after protracted negotiations.

Mexico

In contrast to Saudi Arabia's experience, the nationalization of Mexico's petroleum sector in 1938, provoked by a deep resentment of foreign domination, was dramatic and very confrontational. Foreign assets were taken over by Pemex, the NOC, which became and remains an extraordinarily important national symbol. Pemex's monopoly position was enshrined by constitutional provisions which rule out private participation in the petroleum sector.

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[28] See Marcel (2006) and World Bank (2007).

Over the years, Pemex also became highly politicized and political interference was the rule rather than the exception. Corruption, inefficiency and waste were rumored to be rife. At the same time draconian taxes made Pemex highly dependent on non-transparent negotiations with government for funding of its operational and investment budgets.

In recent years, it has become very evident that a major crisis is looming in the sector, with significant implications for the economy overall, given that oil accounts for some 30 percent of budget revenues. Reserves and production have begin to decline rapidly and without new investment Mexico could cease to be a net exporter of oil within the next 5 years. Investment requirements to reverse this trend, however, are enormous as are technical challenges since new reserves will have to come mostly from frontier deep water areas in the Gulf of Mexico. These prospects have brought a number of positive changes. Mexico’s new government which took office in late 2006, is committed to a major reform of the country’s energy sector, which is expected to include a package of fiscal, governance and budgetary reforms for Pemex designed to enhance performance and the ability to raise finance and ultimately grant greater operational and budgetary independence within existing constitutional constraints.

This review closes with selected experiences of two important mining countries, Zambia and Chile.

Zambia

In the mid-1990s Zambia retreated from nationalist, state-ownership agenda for its mining sector and launched with new legislation a program of privatization. Various divisions of its NMC, the Zambia Consolidated Copper Mine (ZCCM), were sold to private investors over the period 1997 to 2000, and ZCCM was converted from an operating company to an investment holding company, ZCCM-IH, with a minority interest in most successor companies, typically in the 10 to 20 percent range. The Government, through its 87.6 percent interest in ZCCM-IH holds an equity interest in the same mines.

When ZCCM was privatized, the price of copper was depressed, with no certainty as to when or by how much it might recover. One way for Zambia to share in any potential future upside profitability as a result of a price recovery was to take a passive equity interest in the new mining companies. This equity interest, which was granted as part of the purchase price for the mines, took two forms. The first was a free carried interest, and the second a carried interest repayable with interest out of ZCCM-IH’s income from the equity stake concerned. In addition to the equity interest, Price Participation Agreements (PPAs) were signed which provided ZCCM-IH with a share of revenues earned above an agreed price threshold. Each of these mechanisms had an approximate fiscal equivalent had they been paid to Government rather than ZCCM-IH. The free carried interest equates to a dividend withholding tax and the reimbursable carry resembles a resource rent tax. The PPAs were similar to price-related royalties. The approach represented a classic use of participation to share in rents or windfalls without changing the existing tax regime.

Unfortunately, significant price increases in copper notwithstanding, the detailed conditions of these equity participation formulas are such that the Government has seen only negligible revenues from them. This is attributable partly to the fact that payments are triggered by the declaration of a dividend by the mining companies, which they have successfully avoided by reinvesting earnings, and partly to ZCCM-IH's costs and liabilities which have limited any pass-through to Government. As a result of the failure of these schemes to deliver an increased revenue share, the Government announced its intent to "explore the scope for raising the taxation of mining" and in fact has recently acted to increase taxes and royalties.

Chile

Chile has a long mining history which was for years dominated by foreign firms mostly from the United States. In the 1950s, the Government began to assert more authority over the mines through taxes and the creation of a Copper Department to oversee and participate in mining operations. The process of "Chileanization" began in earnest in 1966 when legislation was passed to create mixed societies with foreign companies under which the state would own 51 percent of the deposit and take a direct role in the production and commercialization of copper.

In 1971, a constitutional amendment nationalized all major mines "as demanded by the national interest and in exercise of the sovereign and inalienable rights of the state to freely use its wealth and natural resources". The Corporation National de Cobre de Chile (Codelco) was formed by decree in 1976 to take charge of the state's mining interests. Codelco is the world's largest copper mine and is one of Chile's largest companies accounting for 5 percent of GDP, 25 percent of exports and 17 percent of the budget. It is 100 percent state-owned and its Board is named by the President of Chile.

Codelco has benefited from the policies applied in general to Chile's state-owned enterprises. These include limited government interference, and a high degree of transparency. Its operational flexibility is hindered at times by the required transfer of close to all of its income to the state in the form of taxes, royalties and dividends. Ten percent of its export income is ear-marked for Chile's military. The tight rein on Codelco's revenues facilitates government control. Chile's Minister of Mines has been quoted as saying: "Codelco is an unsubstitutable resource that is necessary to the Chilean Government to fund its social programs".

Lately Codelco's future has become a matter of public debate. Costs are rising, output is falling and the resources required to make needed investments are substantial. The company is increasingly challenged in markets by smaller, more agile mining companies' mergers and growth. Private sector presence in non-Codelco mines in Chile has grown importantly and been successful. This has led to calls for Codelco's privatization. So far, the Government's response has been draft legislation to improve Codelco's governance and make it more efficient and competitive.

Codelco may in many ways be a model in adopting a number of the elements of best practice in its own operations and in its relations with Government. That said, the core issues of state participation are ever present – demands on funds, tensions between commercial and social functions, and efficiency.

VIII. Conclusion

State participation in the oil, gas and mining sectors of resource-rich countries has been, and is likely to remain, a globally significant phenomenon. In its various forms, it has raised serious issues and has too often been abused. These issues and abuses are now well recognized. Where they persist, their continuation is surely in good part due to a political economy that tolerates or even encourages them. Where governments have a serious commitment to reform and development, policy responses to the challenges of state participation have been positive and a growing body of best practice is emerging. In most countries, policy responses are likely to stop well short of full withdrawal of the state from the resource sectors, but those responses can be expected to not only significantly reduce the risks of adverse consequences, but also substantially increase the likelihood of achieving looked-for benefits. Policies focused on enhanced governance – clarity of roles and responsibilities, transparency, accountability – and the active scrutiny and support of all stakeholders, domestic and global, will be central to the process.

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