

# Precept 6. Nationally-owned resource companies

## *Technical Guide*

### **1. Introduction: Objectives, Trade-offs and General Principles**

Nationally-owned Resource Companies (NORCs) play an important role in many petroleum and mineral-rich developing countries. Their performance is often critical to overall sector performance and its contribution to the economy as a whole.

Nationally-owned resource companies are very widely used by resource rich countries. They have proved highly effective and successful in some cases, such as Statoil in Norway, Petrobras in Brazil and Petronas in Malaysia. Successful NORCs share several key traits which have allowed these organizations to become effective and avoid conflicts of interest or elite capture.

Despite these successes, there are significant risks associated with NORCs. If these risks are managed carefully NORCs have the potential to make a long-lasting positive contribution to sector performance and the wider economy. Where no NORC exists, these risks may be sufficiently large to deter a country from creating an NORC altogether, or significantly restricting the scope and function of any newly created entity.

National Oil Companies exist in 33 of the 41 countries described by the IMF as 'petroleum-rich'. At least half a dozen countries not yet in the petroleum-rich category have also planned to create NORCs. Statistics on the control of petroleum resources are even more revealing when it comes to illustrating the continuing significance of NORCs. They control 90 percent of the world's oil reserves and 70 percent of production. Twenty-five of the world's top 50 oil companies are NORCs. Statistics on the incidence of National Mining Companies in minerals-rich countries are less dramatic; however, state participation in mining through outright ownership or share participation, usually involving an NORC, remains common practice.

#### ***Potential Benefits of NORCs***

NORCs can be utilized to pursue a variety of objectives, for government and for citizens.

As Precept 1 and 3 explain, a key characteristic of extractive industries is the super profits, or 'rent', that can be generated by extraction. It is an essential objective of the country to capture this rent. However, effective rent capture typically requires a good understanding of the operations of the business, and private companies are likely to have better access to this information than government – creating an informational asymmetry.

NORCs have often been seen as an opportunity for governments to get access to this information on the operations and finances of the extractive industry. NORCs such as Norway's Statoil, was in part, created as a 'window into the oil industry', and Botswana's Debswana as a joint venture between the government and the privately-owned DeBeers.

NORCs may be utilized as an opportunity to build local technical and commercial capacity, not only within their own organizations, but also in ancillary services and supply sectors.

In addition to this role, NORCs from their earliest days have been presented as national champions essential to the protection of sovereignty and the national interest whether at the negotiating table or in the conduct of operations<sup>1</sup>. They were expected to counterbalance the influence of international resource companies which had traditionally dominated host country petroleum and mining sectors. More recently, a number of countries have sent their NORCs abroad to represent their national interests. The direct and highly visible involvement of the NORCs in such critical sectors as petroleum and mining has met a deeply felt national need to show that the country is sharing in the benefits of resource extraction.

### ***Potential Costs from NORCs***

While NORCs can be highly successful, they also present the potential for high costs to the country. Without the incentives that exist in a commercial enterprise, there is a significant risk of large, and long-term losses. Government can be easily drawn into funding such losses, draining public finances and perpetuating the incentives problem. Secondly, without a clear distinction between NORC and state, the quality of governance in both institutions can suffer as the interests of the two combine and conflict.

These challenges are now widely recognized, and, together with emerging policy responses, are discussed in this precept. One of the purposes of this Precept is to

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<sup>1</sup> The movement towards the creation of NORCs gained real traction in the late 1960s and early 1970s on the back of an international wave of nationalist sentiment, enthusiasm for state intervention and resentment of past foreign domination and exploitation.

alert governments and other stakeholders to these risks when deciding to create, or when operating NORCs.

## **Objectives**

With regard to the establishment of a Nationally-owned Resource Company, the correct course of action depends on the circumstances of the country and the time horizon of the decision.

The creation of an NORC should be considered carefully in light of the issues discussed above. In the event that an NORC is created, or already exists, the *long-term* the aim should be for NORCs to emulate the commercial efficiency of the international resource companies and generate profits for the country. Where possible this should be by treating the NORC as an independent commercial enterprise; or at least ensure the company has incentives to behave efficiently.

However, in the *short-term* it might be suitable to follow a different path to this final outcome, particularly in countries that are new to the oil or mineral sector and/or lack deep human or institutional expertise in the sector.

Where a country does not have sufficient regulatory capacity there is a significant risk that profits from extraction will not be captured correctly by the country, or the extractive process may damage the country through the impact on the environment. As explained above, authorities can, in some cases, concentrate resources in one institution, often an NORC, to boost its capacity and reduce these risks.

## **Trade-offs**

A country aiming for the long-term objectives shown above will need to face a number of policy options or trade-offs in both the long- and the short-term. These are summarized here.

### ***Trade-offs to face when following long-term objectives***

The country faces risks whether or not an NORC exists, these should be considered when judging whether an NORC is appropriate. If the government decides against using an NORC, there is a danger of less rent capture, capacity not developing, and a potential lost opportunity to develop industrial linkages between the NORC and domestic businesses. On the other hand, the establishment of an NORC risks renewed state involvement and deterioration of efficiency and governance.

### ***Trade-offs made in short-term***

***Maximization of profits versus social returns.*** The maximization of profits of a commercially efficient entity may involve the minimization of local costs, including labour and local inputs. There may be significant pressures on the NORC to purchase local inputs or hire local labour. While local suppliers can be competitive (see Precept 10 for industrial policy in this area) it may be the case that these may not be the best choice from a commercial perspective.

***Government support versus governance quality.*** There can be a good case to provide some initial government support in the early stages of a NORCs operations. However, where links with government are maintained to achieve some of the non-commercial objectives, there is a significant risk that the governance structure of the NORC will be damaged.

***Financial support versus commercial incentives.*** Government ownership presents the opportunity to undertake large investment in the NORC at lower than market costs of capital. While this can still help company profitability, it also risks increasing the detrimental influence of government in the NORC. It can also reduce the incentive for the NORC to maintain efficient operations, using the potential of further government funding to plug its losses.

***Capture of super-normal profits versus commercial incentives.*** Finally, while NORCs can be a useful way for the government to capture the super profits that may otherwise be difficult to tax, this action may remove the potential benefits from undertaking risky initiatives, and so limit the incentive for management to be entrepreneurial.

## **Guiding Principles<sup>2</sup>**

Governments face a variety of choices concerning the creation, design, function and governance of NORCs. The most effective configuration may vary from country to country.

However, there are some guiding principles that are generally applicable across different country circumstances and can help mitigate risks associated with NORCs. Unfortunately, these too can present certain trade-offs governments must consider carefully.

- ***Separation of state and NORC.*** A primary tool used to achieve long-run commercial efficiency is to maintain a clear separation between the state and the NORC itself to avoid governance and regulatory problems.

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<sup>2</sup> The OECD Guidelines for Corporate Governance of State-owned Enterprises (OECD, 2005) provide an excellent reference to best practice, well suited to NORCs.

Complete independence can prevent many of the risks of state owned enterprises, and effectively making the NORC a privately-owned company.

- ***Separation of regulatory function or ring-fencing of regulatory function within an NORC.*** In the shorter-term, subject to building the required regulatory capacity, regulatory functions should generally be separated from operation functions of the NORC. This is particularly important where the NORC bears principal responsibility for operational decision-making in exploration and production. This may imply separate institutional arrangements, or, in the case of lower capacity contexts, consolidation of function within the NORC. Such activities should have clear checks and balances to protect both NORC and the regulatory wing.
- ***Competition.*** Subject to building the required regulatory capacity, NORCs should undergo progressive exposure to competition. This can act as a discipline on costs, as a precaution against monopoly behavior, and set the company on a trajectory towards international competitiveness.
- ***Private investor shareholding.*** Allow private investment interest in the NORC. This can support the adoption of private-sector management and operational standard and efficiencies, in addition to knowledge and technology acquisition.
- ***Accountability and transparency.*** No matter what policy route is chosen, NORCs should be made accountable to the ultimate shareholders – the country’s citizens. Transparency in financial and operational management is a key instrument to provide this.
- ***Identify, communicate and consult over conflicts of interest.*** Conflicts over the objectives and roles that NORCs might be asked to follow should be explicitly identified and addressed through the articulation of a vision for the NORC, confirmed in policy statements and legislation. The public should be credibly consulted in this process whether it relates to the first time establishment of an NORC or reform of an existing NORC. Failure to clarify the roles expected of the NORC and resolve trade-offs, not only in policy but also in practice, will create confusion and seriously undermine accountability and performance.
- ***Avoid non-commercial operations.*** NORCs should avoid conducting non-commercial functions given the likely conflict of interest. If required to carry out non-commercial activities, such as regulatory functions, or quasi-fiscal service delivery, NORCs should seek to administer, account for, and report on these separately from commercial activities.

## 2. Multiple Roles: Issues and Responses

Historically NORCs have had to assume one or more general roles: commercial, regulatory and quasi-fiscal. The principal economic reason for first establishing a NORC has often been as a ‘window into the extractive industry’ (typically taking the form of both a *Commercial* and a *Regulatory role*). Having established an NORC and built the regulatory capacity need to administer taxes, etc. many NORCs have then shifted to a solely *Commercial role*. For NORCs in a mature regulatory environment this is typically the best configuration; the country can benefit from returns from the NORC, alongside an independent regulator overseeing a well-governed sector. In countries with particularly low capacity, a NORC may be the only part of government capable of providing services outside the core tasks of extraction, such as promoting upstream or downstream activities in the extractive industry, or social service provisions. In these much rarer cases, the NORC may usefully play a *quasi-fiscal role*.

All three roles, if mis-managed, have the potential to seriously damage the ability of the country to benefit from its natural resource wealth; particularly the regulatory and quasi-fiscal roles. All three roles are reviewed here, together with recommendations as to how governments might navigate through the challenges associated with each. The Objectives set out above show a strong bias in favor of a commercial focus, the reasons for which will become apparent in the discussion which follows.

First we consider how the choices faced by governments may be shaped by context and country-specific characteristics.

### **Objectives with regard to country specific considerations**

Governments must be mindful of the context-appropriate configuration of an NORC to ensure maximum effectiveness. The choices faced by a government in the creation, design, operation and governance of an NORC depend on a range of criteria, including the nature of the resource reserves, the likely time-profile of extraction, the objectives for the country and the institutional environment.

Thurber et al. (2011) analyze the effectiveness of NORCs in light of the ‘Norwegian model’ of clear separation of function in NORC design. They find that effective NORCs take different forms in different capacity contexts, with low capacity environments necessitating some consolidation of function (including regulation) within the NORC, at least in transition towards building external institutional capacities.

	Low Political Competition	High Political Competition
High Institutional Capacity	<p><b>Quadrant III</b></p> <p><u>Suggest:</u></p> <ul style="list-style-type: none"> <li>- Consolidate functions initially</li> <li>- Consider separating functions upon signs that politics is becoming more pluralistic</li> </ul> <p><u>Examples:</u></p> <p>MALAYSIA (under Mahathir)</p>	<p><b>Quadrant IV</b></p> <p><u>Suggest:</u></p> <ul style="list-style-type: none"> <li>- Separate functions</li> </ul> <p><u>Examples:</u></p> <p>NORWAY, BRAZIL, MEXICO</p>
Low Institutional Capacity	<p><b>Quadrant I</b></p> <p><u>Suggest:</u></p> <ul style="list-style-type: none"> <li>- Consolidate functions</li> </ul> <p><u>Examples:</u></p> <p>ANGOLA</p>	<p><b>Quadrant II</b></p> <p><u>Suggest:</u></p> <ul style="list-style-type: none"> <li>- Develop technical and institutional capacity</li> </ul> <p><u>Examples:</u></p> <p>NIGERIA</p>

Figure 1 - NORC function and country characteristics (from Thurber et al. 2011)

The rest of this section presents the objectives and policy trade-offs that must be faced to mitigate such risks and provide some guidance over which route to take.

Where a NORC does not yet exist, weigh the potential benefits for regulatory capacity against the opportunity costs of funding, the inefficiency of a NORC, and the damage to governance in the regulators, the NORC and the government in general.

Before establishing a NORC, a country should ask itself two questions:

- Does the country have a sufficiently diversified economy, and sufficient quantity of capital to be able to invest in a NORC?
- Does the country have the capacity to regulate the extractives industry and, in particular, capture a large proportion of the rents?

A NORC requires a substantial funding commitment from the government.<sup>3</sup> This forces the government to consider an important trade-off: to use public funds to invest in a NORC, or use those funds to provide public goods and services that support the overall growth of the economy. For resource-rich, low-income countries who should aim to diversify their economy away from the extractive

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<sup>3</sup> Precept 4 shows that there are a number of ways state shares can be funded. For instance, carried- or free-interest. While some of these options may appear to sidestep the problem of the government having to provide cash to fund its investment, none of the options are a free lunch. The government must pay for the NORC one way or another.

industry (see Precept 10) the best practice choice is likely to be to use public funds for other purposes and refrain from establishing a NORC.

Where a country already owns a NORC, or had made the decision to establish one, a country faces a second trade-off when considering vesting the company with regulatory authority. As explained above, a NORC may be able to bolster regulatory capacity or generate other long-term benefits. However, a NORC that is not run as a commercially viable company independent of government can be inefficient in itself (potentially losing the rent that improved regulatory capacity might have captured) and damaging to the quality of governance in the country in general. The policy choice a country faces in this respect is the following: operate a separate set of institutions with the risk of not capturing enough of the rents from extraction, or use a NORC to help in a regulatory role but risk damaging the operational efficiency of the NORC, and the governance structures of both the regulatory institutions and government in general.

For countries with particularly poor institutions that face the possibility of losing substantial value through tax avoidance, and poor company behavior, the second choice may sometimes be preferable. However, the costs of this strategy are likely to be so high that it is essential that it is seen as a temporary solution, with a transition to separate regulatory institutions in the longer-term. This points to the next consideration for countries.

In the case that a NORC is given a regulatory role, build in appropriate checks to mitigate the risks of operating a NORC, and plan for a transition to a separate set of regulatory bodies and a commercially viable NORC

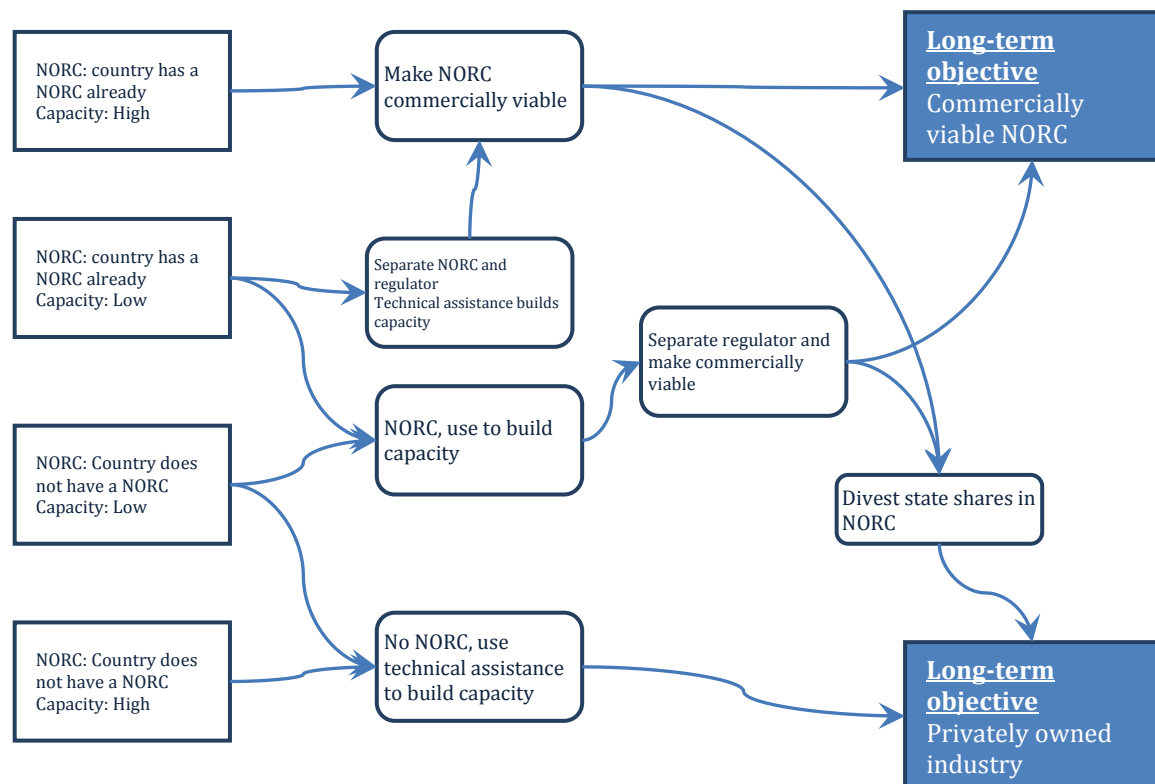
While it is not impossible for a NORC to be both commercially viable and a regulator, this situation is unlikely, particularly in environments of poor governance. A NORC in the role of a regulator therefore usually precludes it from performing a commercial role properly. Without commercial viability, a NORC will be a burden on the country. It is therefore in the interests of the country to plan to build strong independent regulator institutions as quickly as possible, and allow the NORC to become commercially viable.

Planning for such a transition to follow the long-term objectives outlined above should be done as early as possible. This is because, if it is believed that such a transition plan is not likely to be successful (perhaps because of damage it can do to governance), the country should consider refraining from establishing a NORC in the first place and focus on other means of building regulatory capacity.

### ***Summary of Objectives***

The diagram below illustrates the possible routes that a country might take to reach the final long-term objectives.





## Roles of the NORC

### *The Regulatory Role*

As explained above, NORCs can often be used as ‘windows’ in to the extractive industry, providing information and/or expertise for regulatory functions. In many cases, these functions are actually conducted by the NORC itself, or a semi-autonomous department within the company.

There are three functions that a NORC can be involved in: policy making, operational oversight, and tax administration.

**Operational oversight.** It is not at all uncommon to find an NORC exercising sector operational oversight. Even where other government ministries or agencies nominally exist to perform this function, they frequently lack the expertise, resources and even political support necessary to carry it out.

Since the NORC is itself involved in sector operations, simultaneously acting a sector regulator represents a clear conflict of interest. Wearing its commercial hat, the NORC may take positions which are favorable to the commercial

interests of itself and possibly its partners, but are opposite to those expected of a protector of the state's interest.

Governments are conscious of this conflict and have in some cases acted to resolve it. For example, petroleum sector reform packages adopted in several countries, including Brazil, Colombia, Indonesia and Algeria, have transferred the regulatory role from the NORC to an independent or quasi-independent regulatory agency. This is widely regarded as best practice. The NORC may sometimes resist the transfer where it has found the oversight role working to its benefit, but typically the greater obstacle to successful reform is the need to build capacity in the independent agency to effectively perform its duties. Until such capacity exists, there may be an argument for leaving the role with the NORC provided it is separately staffed, ring-fenced from commercial operations, and subject to maximum transparency.

Another way to mitigate this risk is to reduce the NORC's role in the commercial sphere, recognizing in low-capacity contexts a prioritization of regulatory and other state functions, ahead of commercial and operations activities. This is a trade-off however, which implies limitations on the commercial activities of the NORC, where it undertakes more extensive regulatory responsibilities.

***Fiscal agent.*** As a result of their sector-specific commercial and technical expertise relative to revenue authorities, NORCs are very often assigned the task of assessing and collecting royalties. For the same reason, NORCs in the petroleum sector may be charged with marketing of physical crude to which the state is entitled, either via equity participation, production shares, or payments made in kind. That this should happen is understandable. Nevertheless, given the notorious opacity of NORC operations, it can be damaging, resulting in weakened accountability and possible revenue losses. If practical considerations dictate the assignment of fiscal agent roles to the NORC, best practice would recommend building complementary expertise within the ministry of finance or revenue authority, close inter-agency coordination, regular audits, and, once again, maximum transparency.

### ***The Quasi-Fiscal Role***

NORCs, almost from the outset, have been assigned a range of roles perhaps better suited to a development agency or government itself. This assignment has been a reflection of their access to funds, often superior management skills, and lack of certain civil service working structures (such as enhanced salaries in NORCs) that can restrict the performance of the rest of government.

***Job creation.*** The resource sectors, especially petroleum are capital- not labor-intensive. Yet most developing countries have looked to their NORCs to provide employment, apparently on the assumption that they can afford it. Where

positions are needed, and necessary training can be provided, this is clearly beneficial. Too often, however, hiring goes well beyond what is required, recruitment is not based on merit and training is inadequate. Not surprisingly, staffing issues feature prominently in virtually all NORC corporatization initiatives.

It is important to realise that superfluous employment in NORCs hurts the government by reducing the revenues it receives in taxes and dividends. It can also lower the morale and effectiveness of those employees who should be employed. While creating employment in a NORC appears an easy solution for governments, it can often be more effective to use the savings on resource revenue to create other employment schemes outside the company.

***Supply chain capacity.*** Beyond building their own capacity, NORCs can be expected to promote the development of local value added capacity across a wide range of sector service and supply businesses. NORCs are normally not well equipped to do this because of their limited direct operational experience.

The development of local supply chain capacity is a worthwhile objective, however, and best practice suggests that NORCs can play a valuable role as lead coordinators working closely on implementation with private sector companies (see Precept 10).

***Social and physical infrastructure.*** NORCs in developing countries are often asked to fund and even directly support investments in social and physical infrastructure – schools, hospitals, roads, bridges, airports, and telecommunications. NORCs do not normally have any real advantage over government in addressing these tasks. More importantly, when this role is assigned to NORCs, their significance notwithstanding, they are usually conducted off-budget, prejudicing effective macro-economic management and making forward planning exceptionally difficult.

Where the capacity exists, these functions should be transferred back to government. Where capacity is lacking, and they stay with the NORCs, they should, as suggested above for regulatory activities, be ring-fenced, separately audited and reported, and, importantly, explicitly recognized in the government's budget.

***Subsidies.*** Many petroleum-rich countries require their NORCs to sell petroleum products locally at well-below market prices. Politically popular, these policies can be enormously costly, initially to the NORC, but ultimately to the government.

Once again, where such subsidies are chosen, best practice is to ring-fence these costs in the NORCs accounts and record them in the national budget.<sup>4</sup> One key requirement is that any fiscal activities be clearly budgeted for and paid for out of central government budget, rather than the NORC revenues.

### ***The Commercial Role***

In principal, there is no reason why a government shareholder cannot ensure a NORC aims to be commercially viable in the same manner as a private company. However, there are significant obstacles that often prevent NORCs and their state shareholder from achieving such an objective. NORCs, with few exceptions, have historically scored poorly under the heading of commercial efficiency. A variety of factors have contributed to this poor track record. Identifying and working to solve these problems represent opportunities to turn it around. The following section provides some guidelines to ensuring good performance from a NORC.

### **Getting the NORC working towards the interests of the country**

The key to good performance is to ensure management and government agents face the right incentives. The following are guidelines on how to provide those incentives through a variety of means:

- Market competition
- Private shareholder discipline
- Accountability to the public
- Checks against rent-seeking elites
- Corporate structures and internal capacity.
- Government funding

It is likely that no one method is sufficient to provide the correct incentive structure for a NORC. At least a combination, if not all, the methods shown here may be required to ensure good performance. For instance, subjecting the NORC to market competition will not produce the right outcome if the government funds the NORCs losses unconditionally.

### ***Market competition***

Absence of market discipline is generally regarded as one of the key explanatory factors for poor performances amongst NORCs. Government protection or preferential treatment of NORCs dulls the drive for efficiency and should be avoided, or strictly time-bound wherever it does exist.

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<sup>4</sup> Precept 7 discusses the efficiency and equity considerations of subsidies.

Commercial results have been shown to be enhanced by the introduction of competition on a limited or unrestricted basis. Partial privatization through sale of a part of the NORC to private investors brings the discipline of the stock market to bear on the NORC's commercial performance. The closer the legal and fiscal environment of a NORC is to its private sector competitors, the more it can benefit from efficiency gains. The degree of protection given to a NORC can provide policy makers with a useful lever in which to slowly introduce competition as the NORC moves closer to commercial viability.

In cases where a NORC is following a non-commercial role, market competition may be less appropriate as the NORC will by definition not be aiming to maximise its shareholder returns. However when certain departments with the NORC are commercially orientated, competition can still provide a useful yardstick to assess performance.

NORCs do not have to compete with other resource firms in all areas of the extractive industry. For instance, a country may want the NORC to avoid risky activities, or activities in which it does not yet have sufficient expertise. Private sector firms can be invited to operate in these particular areas of the industry, while the NORC operates in safer or simply areas of the business. This can mitigate some of the potential efficiency problems with NORCs by ensuring they only operate in areas in which they have a good chance of being successful.

### ***Private sector participation***

As well as competing against private sector players, a NORC can partner with the private sector. Allowing private sector to participate either as shareholders or in an operational capacity can provide both a disciplining mechanism and chance for knowledge transfer.

Private sector capital can relieve some of the funding constraints on the government budget. Of course this must come at a price in the form of dividend payments to the minority shareholder. Furthermore, it might open up opportunities for various forms of abusive practices.

A NORC can also use private sector skills to build its operational capacity. The extreme version of this are service contracts (described in Precept 4), however this type of partnership can also include smaller scale consultancy projects.

### ***Public accountability***

Where government is the sole shareholder, NORCs face little pressure to be transparent in their operations. Few publish accounts that are either consistent with International Accounting Standards or independently or externally audited.

As noted in Precept 2, transparency is a critical ingredient of good governance and in the case of NORCs should start with regular and accessible publication of properly prepared and audited accounts. One particular instrument in this regard is the Extractive Industries Transparency Initiative (EITI). Ensuring the EITI standards apply to a country's NORC can help. Transparency is also important in those non-operating activities, particularly where the NORC is engaged in the regulatory and/or quasi-fiscal role.

### ***Interference by 'elites'***

With access to significant financial flows and exercising considerable influence over economic activity both inside and outside the resource sectors, NORCs are natural targets for control by elites in pursuit of their own political or personal agendas, eroding governance and hampering the achievement of commercial efficiency. Reluctance to relinquish political influence over NORCs has led politicians to (1) deliberately avoid clarity concerning the NORCs relationship to government; (2) put in place politically constituted Boards of Directors without requisite professionalism or independence; and (3) obstruct the formation of adequately capitalized or independent enterprises with incentives to act commercially.

Best practice calls for a clear and consistent government ownership policy towards NORCs and a de-politicized, arms-length relationship. Governments should not interfere with day-to-day management of NORCs.

### ***Corporate structures and internal capacity.***

In good part as a result of the interference just described, NORCs may lack, not only the governance structures to incentivize commercial success, but also the internal organization and staffing required to achieve it.

Commercialization implies a Board of Directors capable of providing independent and objective oversight and direction. It also means profit-oriented internal structuring. This implies moving away from cost pass-through approaches typical of government departments towards the creation of business units that are adequately capitalized, independent yet accountable, rewarding good performance and sanctioning poor performance. Strong internal financial oversight and corporate planning are equally important. Building capacity requires serious attention to recruitment, training (often a requirement in contract with investors), remuneration (typically outside standard civil service norms) and supporting resources (IT etc.).

***Funding.*** Funding can be a serious obstacle to commercial performance where an NORC's own operations or partnerships with others require it to come up with substantial amounts of cash. Typically, NORCs have turned to government

for funding, but this is often problematic, given competing demands on the budget. Resulting under-funding may either cause sub-optimal investments, costly delays in project implementation, or force the NORC into very expensive alternative financing arrangements. Of course, dependency on government funding may adversely affect NORC efficiency more directly to the extent that government funding criteria are lacking in economic rigor or introduce non-economic considerations. The funding issue is especially worthy of debate because, under the right terms and conditions (see Precepts 3 and 4), most resource-rich countries should have no difficulty in attracting private investors, obviating the need to invest themselves. Foregone equity returns to NORC investment are typically insignificant relative to the revenues that a well-designed tax can generate.

Many governments have addressed the funding issue by relying on contracts with the private sector structured to delay or avoid altogether NORC equity contributions to operations, while maintaining a role for the NORC in the management of operations. In the petroleum sector, “carried interest” provisions, production sharing and risk-service contracts provide examples (Precepts 3 and 4). In the mining sector, NORC participation usually comes in the form of a minority interest in an incorporated joint venture with the private sector. While this structure may be less flexible with respect to financing than the just mentioned petroleum arrangements, it can often be adjusted to achieve similar results. A number of countries have left their NORCs exposed to funding obligations but have sought to escape possible demands on the budget by requiring the NORCs to raise non-recourse project finance, possibly together with their private sector partners. This is not always achievable, but where it does occur it exerts desirable market discipline on the NORC and where it is truly non-recourse and cannot be regarded as sovereign debt it has the additional advantage of reducing fiscal risk.

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