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7.2 Fiscal Systems

Given the multiple objectives of fiscal design, fiscal regimes invariably are constructed to include several elements. The principal classifications of system that have typically resulted from this are the tax and royalty system with licensing of areas, and contractual systems such as production sharing or service agreements. Both may include state equity participation, and both are found in the petroleum industry. Tax and royalty systems are dominant in mining. The alternative approaches can be designed so that economic outcomes can be virtually the same but operational structures are likely to differ. However, the overriding consideration here is that fiscal regimes have to be analysed as a whole and not only feature by feature.

Tax and Royalty Systems Tax and royalty fiscal regimes may involve a corporate income tax, a modest royalty, and an additional charge to achieve progressivity and capture rent. Typically, these have been popular in North America and Europe.

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Production Sharing Systems Production sharing fiscal regimes may include many of the same types of fiscal design as tax and royalty systems; the major difference between the two packages is that production sharing packages typically give the state a percentage of actual production in addition to any taxes or royalties that may be collected (see **Chapter 5**). Since the state receives a percentage of production, the taxes and royalties will typically be lower than under a tax and royalty system. These regimes are common in the hydrocarbons sector. Usually, they are found in developing countries where the host governments retained a strong interest in attracting foreign investment, but where there is a preference for sovereignty over natural resources to be expressed in the form of a contractual regime.

Service Agreement Systems A third system, less common but contract-based, and also confined to the hydrocarbons sector, involves payments by government to the contractor rather than payments by the contractor to government. Under these risk service contracts (RSCs), companies perform a specific task in exchange for an agreed fee which may be a fixed sum or a fixed return on investment in a project. RSCs have become more popular in recent years for political as well as economic reasons, although they are far from widespread.[1] They are

[1] Baunsgaard, T. (2001). *A Primer on Mineral Taxation,* Working Paper WP/01/139. Washington, D.C.: IMF Media Services Division, p. 12.

typically found in countries with large known reserve bases and low geological risk, such as Mexico, Venezuela and certain Middle Eastern states such as Iraq. Usually, the existing industries have been fully nationalized. Governments using RSCs see them as transferring maximum rents to the state.

There are a number of downsides associated with RSCs. They transfer substantial risk to the state and, given the lack of performance incentives they contain, they may result in significant efficiency losses. RSCs are not popular with investors because of the limited upside return allowed. This may explain why they are found only in states with resource bases that are substantial enough to offset the perceived disadvantages of the arrangement.[2]

Infrastructure Deals Another possible approach is for payments to be made from the construction of physical infrastructure. Although these are commonly associated with investments made by Chinese companies, particularly in sub-Saharan Africa, they have a longer history. The calculation that such approaches requires from the host government is along cost-benefit lines: do the infrastructure contributions – given a value with risk attached - offer a payment that is equivalent to the likely take from any foregone royalty or tax? If not, does the manner of infrastructure delivery provide benefits that offset the difference? The calculation is not an easy one to make[3].

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In practice, the choice of system will turn on contextual considerations such as tradition, political preferences and existing institutions. Experience suggests that many companies are willing to work with the above systems. There is a notable lack of enthusiasm however for contractual systems that do not permit them to 'book' reserves under stock exchange rules.

A crucial policy decision is for the government to make sure that the complexity of the design of its fiscal regime does not outstrip the assessment, collection, and audit capabilities. Three broad approaches are possible. The first is to grow domestic capacity. The second is to limit the complexity of design to the capacity of its tax authority. Finally, the country's own tax staff may be supplemented with highly experienced international professionals who are fully able to administer a complex regime. In this regard, the tax audit capacity is all too often the Achilles heel of the tax administration. Above all, clear and detailed fiscal rules dealing with the specificities of the EI sector have to be issued to limit fiscal uncertainties.

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[2] Johnston, D. (2003). *International Exploration Economics, Risk, and Contract Analysis.* Tulsa: PennWell Publishing, pp. 41, 62.

[3] IMF, 'Fiscal Regimes for Extractive Industries (2012), p.18.