

# CHAPTER 7 – [www.eisourcebook.org](http://www.eisourcebook.org)

## 7.1 Fiscal Objectives

Ideally, the design of an EI sector fiscal regime should reflect objectives stated in a government policy document which sets out the overall strategic objectives for development and management of the sector. The proposed elements of any new fiscal regime or proposed changes to an existing fiscal regime should be presented clearly in that public document, offering stakeholders an opportunity to comment. Once a final decision is reached, it should be reflected in any resulting legislation. In practice, it is *not* usually the case that a fiscal regime can be designed with a clean slate, and some treatment of its predecessor in the policy document is likely to be necessary.

From the government's perspective, the core objectives are likely to be focused on revenue-raising: maximizing the present value of net government revenues from EI. This is a goal best served by taxes which are explicitly targeted on rents<sup>1</sup> (defined as the excess of revenues over all costs of production, including those of discovery and development, as well as the normal return to capital). There are of course various policy objectives that have implications for fiscal regime design, such as broad-based sector development; ensuring that revenue arrives early and is dependable; limiting exposure to the risk of uncertainty and volatility in fiscal flows; ensuring the international competitiveness of the fiscal regime; minimizing opportunities for tax evasion; and an administrative simplicity (or complexity) that is in line with the institutional capacity of the tax authority regarding the EI sector<sup>2</sup>.

The precise weight attached to the above objectives will vary according to country-specific characteristics. This can include varying degrees of reliance (actual and potential) on extractive industry revenues, as well as development needs, capital scarcity and absorptive and institutional capacity. In many developing countries, capital stock is low, partly because investment has been low but also because there has been limited institutional capacity to transform investment into capital. Standards of governance will vary considerably. Moreover, a change in resource reserves estimates could well extend the number of years that natural resources can

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<sup>1</sup> IMF (2012) Fiscal Affairs Department, 'Fiscal Regimes for Extractive Industries: Design and Implementation': <http://www.imf.org/external/np/pp/eng/2012/081512.pdf> (last visited 31 December 2013).

<sup>2</sup> A helpful sketch of the five most important characteristics of a good fiscal policy is as follows: it should be 'neutral' (not distort investment and production decisions); it should reserve the major portion of possible resource rents for the government; it should assign risk to government and investors according to their abilities to bear risk; it should be progressive (higher payments to government as the underlying profitability increases), and it should be flexible or adaptable to changing circumstances, increasing the potential for long-term stability: *Managing Natural Resource Wealth*, IMF (2010), pp.18-19.

be expected to generate revenues (the resource horizon) and even the fiscal objectives themselves. Technological changes can also affect the market value of natural resources making them easier to extract or increasing the portion that can be recovered. Different constraints can arise from past agreements made for existing projects, which make changes in fiscal objectives slow to implement and which require mutual agreement.

From the investor's perspective, key objectives will be the maximization of profits, and an early return on investment. Of particular importance, will be a positive indication that the fiscal regime will remain stable over time. However, in resource-rich countries with weak governance, these considerations are likely to have a greater priority.

### 7. 1.1 Rent Capture

Rents are the excess returns from EI sector projects over and above what is required to justify investment, arising from the relative fixity in supply of the underlying resource, at least once it is discovered.<sup>3</sup> Most governments will incline to the view that the major share of these rents should go to the state: the owner of the resource. It is also widely accepted, and has increasingly become a political imperative, that as underlying project profitability increases, a state's percentage share in rents should also rise. However, the government share in the rents has to provide private investors with an adequate incentive to explore, develop and produce. An IMF study concluded that in mining, governments commonly retained one third or more of the rents, while in petroleum the share was higher at around 65 to 85 per cent.

An increase in underlying project profitability is either the result of an increase in market prices and/or of a decrease in project costs. A fiscal system that produces these results – the share in rents rises as profitability rises – is called progressive<sup>4</sup>. It is positively responsive to changes in circumstances affecting underlying project profitability. So, a system with a zero share when profitability is low and a low share when profitability is high is progressive, as is a system with a high share where profitability is low and an even higher share when profitability is high. A system that produces the opposite result (a regime where a government's share or 'take'

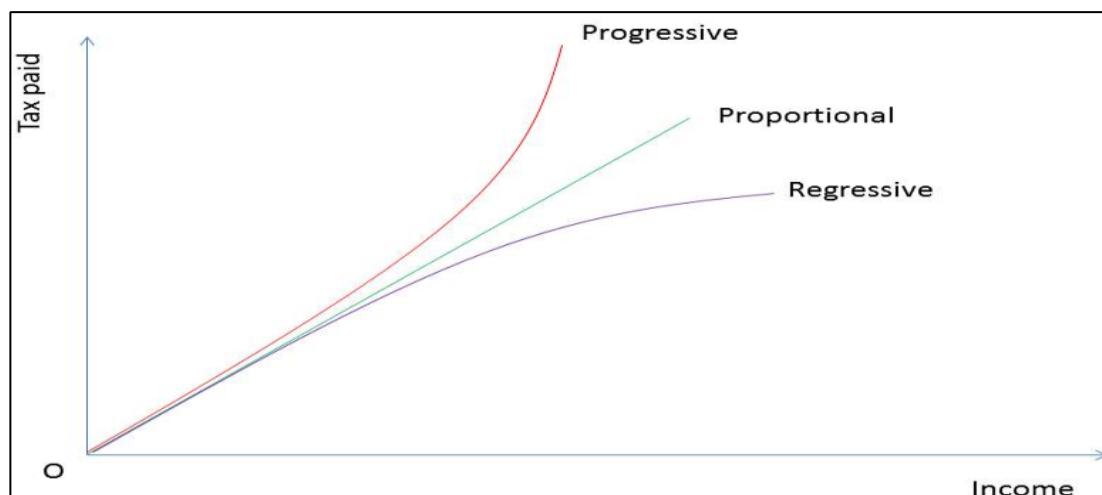
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<sup>3</sup> Costs included in this calculation should reflect any negative externalities that may be associated with the project (such as collateral environmental or social damage). For a discussion of the principles behind rent taxes see Boadway and Keen (2010), pp. 31-37.

<sup>4</sup> There is no standard definition of 'progressivity'. Some define it in terms of how the present value (PV) of taxes varies with the lifetime PV of a project. The IMF defines it as "the extent to which revenue increases as the price of the commodity rises or production costs fall": IMF (2012), p.14.

decreases as profitability increases) is called regressive. It is inversely responsive to changes in underlying profitability (see **Figure 7.1** below).

*Figure 7.1: Progressive, Proportional and Regressive Fiscal Regimes*



Source: Manon's Econ Blog website:

<http://11cresma.wordpress.com/2010/08/30/progressive-and-regressive-taxes/> (last accessed 9 July 2012).

## CEPMLP 7.1.2 Broad-Based Sector Development Centre for Energy, Petroleum and Mineral Law and Policy

While understandably interested in a high rate of take from any one petroleum or mining project, governments are, at the same time, interested in their overall take from the EI sector as a whole. This means that they are also interested in maintaining a broad tax base. A government can maximize the tax base by, as far as possible, ensuring that new EI sector projects or ongoing resource-producing operations which are profitable pre-tax remain profitable post-tax. A fiscal regime that accomplishes this is going to make the more profitable pre-tax project less attractive on an after-tax basis, in the sense that it does not impact or distort the decision to invest or produce (such a system never takes more than 100 percent of the rent or profit available pre-tax).<sup>5</sup> Those neutral fiscal regimes can be expected to encourage new investment across a wide range of opportunities and extend the producing life of existing operations (see **Figure 7.2** below).<sup>6</sup> Neutrality is achieved when the tax system does not distort investment decisions.

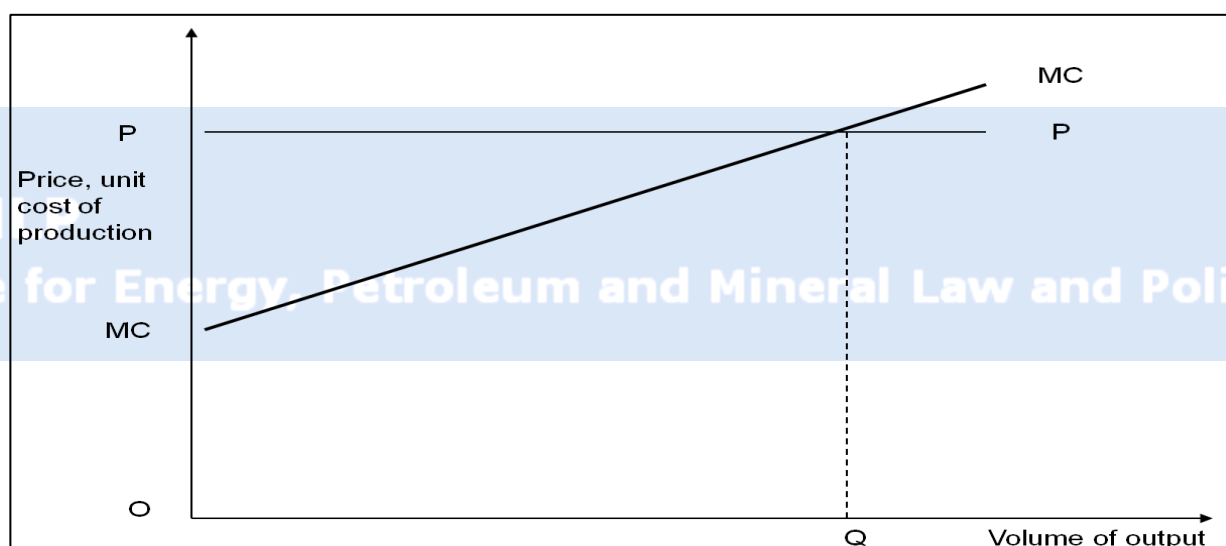
<sup>5</sup> Tordo, Silvana (2007). Fiscal Systems for Hydrocarbons: Design Issues. World Bank Working Paper No 123, at p. 14.

<sup>6</sup> Of course, the government's interest in broad-based sector development is not based solely on fiscal considerations, but also on expected spinoffs in terms of employment, regional development, and expanded infrastructure.

### 6.1.3 Early and Dependable Revenue

In the EI sector it is the prospect of substantial rents that makes these resources a particularly attractive source of revenue. Particularly where their petroleum or mining sectors are either new or only narrowly developed, governments will place a premium (often politically driven) on early and dependable income from the EI sector. The emphasis on early revenue may be driven by urgent needs or may simply be driven by public expectation of revenues once a petroleum field starts production or a mine is opened. Dependable revenue (such as revenue that is assured as long as a project is in operation) is clearly beneficial to budgetary planning. However, once an EI sector becomes more fully developed and a regular and steady stream of fiscal revenues is being generated from a variety of projects, this objective becomes less important.

Figure 6.2: Neutral Fiscal Regimes and the Tax Base



The socially optimal level of production is Q, where price just equals cost<sup>7</sup>.

Neutral tax regimes encourage production towards Q.

**Source:** Ajayi, O. (2009). *Resource Taxation as a Tool for Development*. International Energy Law Review, Vol. 2, p. 60.

<sup>7</sup> However, the price should include externalities, and one is of course in principle the opportunity cost of foregone future extraction. This is complicated however by discovery and the relationship between exploration, extraction and discovery.

### 7.1.4 Limited Exposure to Risk

Governments are, not surprisingly, adverse to uncertainty and volatility in fiscal flows (as suggested in the preceding paragraph), and to the risk of loss or failure where public funds are involved.

### 7.1.5 International Competitiveness

Petroleum and mining companies operate on a global scale and compare fiscal terms in deciding where to invest. With this in mind, governments also show a great interest in how competitive their fiscal regimes are in terms of attracting investor interest. At the same time, governments will also be mindful about not being more generous than the terms being offered in comparable states. Comparable states are those with similar geological potential, cost and operating environments, track record, institutional capacity, and perceived and actual political risk. These elements can be as, or even more, important than fiscal regimes in determining the level of investor interest.

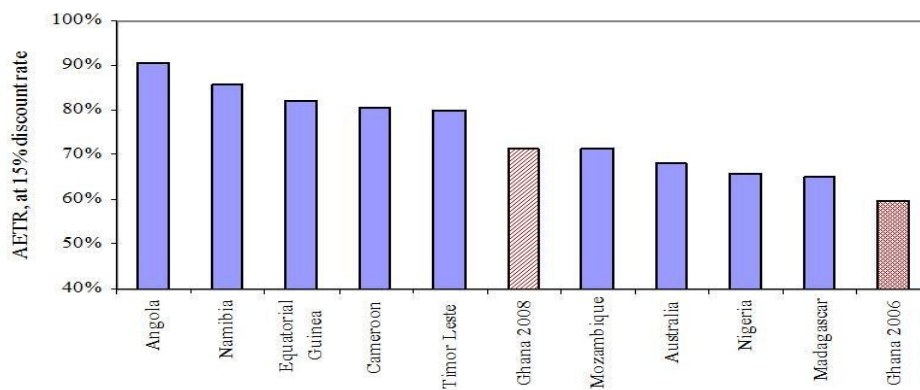
Fiscal competitiveness may depend on matters such as the level and behaviour of the government take. This will normally be measured by rates of take (see **Figure 7.3** below), responsiveness to production, price and cost changes, the time and risk profile of the investor, and government revenues. However, fiscal competitiveness will also likely depend on legal constructs which determine the (un)availability to investors of foreign tax credits<sup>8</sup> (see Foreign Tax Credits under Special Fiscal Topics in **Section 7.4** below). The investor will seek to avoid double taxation: that is, taxation in both the host and the home country, while meanwhile the state should prevent any possible double no taxation situation.

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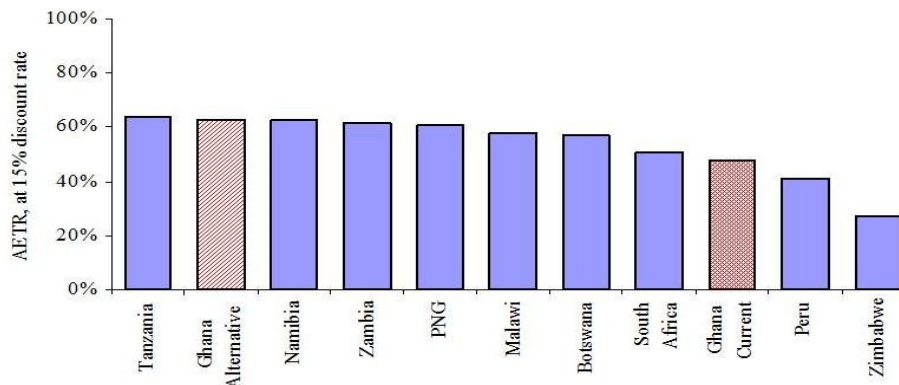
<sup>8</sup> For example, home country tax credits for taxes paid in host countries.

Figure 7.3: International Competitiveness

### International Competitiveness (Oil) - Selected States



### International Competitiveness (Mining) AETR Selected States



Standard international comparisons of Average Effective

Tax Rates (AETR)<sup>9</sup> or 'take' for hypothetical oil and mining projects.

**Source:** IMF Fiscal Analysis of Resource Industries (FARI) Model Hypothetical Simulations.

<sup>9</sup> AETR means the government's share of pre-tax net present value, usually measured at the government's assumed discount rate. IMF research on 16 petroleum and 11 mining regimes suggests that most petroleum regimes have a higher AETR and include more progressive elements than do mining regimes: see IMF (2012) at page 26.

## 7.1.6 Mitigation of Adverse Environmental and Social Consequences

While other provisions in laws, contracts, or regulations may more importantly and directly address environmental and social concerns related to resource operations (see **Chapter 9**), fiscal terms play a role as well.

## 7.1.7 Administrative Clarity and Simplicity

Administrative capacity is an issue in most developing states, but fiscal design in the EI sectors often supplemented by insufficiently detailed fiscal rules is not necessarily tailored to the perceived capacity to administer a fiscal regime, as one would expect and indeed wish it to be; this is one of the reasons that many states struggle to administer their regimes.<sup>10</sup>

## 7.1.8 Trade-Offs

In practice, it is not possible to achieve all of these objectives simultaneously. Clearly, trade-offs are almost always required. For example, efficient rent capture mechanisms may not satisfy a government's objective of limiting exposure to revenue volatility, or of administrative simplicity. Many of these trade-offs will become more apparent when fiscal instruments are discussed below.

The trade-offs, which governments face, derive not only from inherent conflicts among the different objectives established by government, but also from the fact that investor objectives – with respect to any fiscal regime – may be at odds with the government's own objectives. For example, an investor will always want to maximize its return and minimize its risk while the government is trying to do the same on its own behalf. Fortunately, both parties are now beginning to recognize what constitutes an equitable fiscal regime and that a well-designed regime can go a long way toward addressing each party's concerns.

## 7.1.9 Stability of Fiscal Regime

An investor concern or objective that deserves particular attention relates to the stability of the government's fiscal regime. A long-standing investor fear is that at the end of a long and expensive exploration period, and after the expenditure of

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<sup>10</sup> See an argument for simplicity in fiscal regime design in the evidence presented by Rio Tinto before the British Parliament. UK Parliament (2012). *Tax in Developing Countries: Increasing Resources for Development*. Available at: <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmintdev/writev/1821/tax14.htm> (last accessed 9 July 2012).

very significant sums on EI sector development, it will become a ‘captive’ of the host state and vulnerable to unilateral, unfavourable revision of fiscal terms, especially where circumstances have unexpectedly changed in the investor’s favour through resource price increases or the discovery of unanticipated large or rich reserves. The overall process in which this can occur has been described as the ‘obsolescing bargain’<sup>11</sup>. It will encourage some caution in assessing a fixed mining or oil investment which is large relative to the size of the host economy, especially in states which do not have a well-established track record for foreign investment. This objective of stability can (and often has) been addressed through legal or contractual assurances of stability (see **Chapter 5.8**), but recent writing on this topic<sup>12</sup> suggests that contractual assurances are unlikely to be entirely effective at addressing this investor concern. The government needs to be able to make credible commitments to maintain predictability in its fiscal regime and to ensure the smooth operation of a process by which the fiscal regime can be modified. This finding is one of the reasons for a newer emphasis upon a “responsive” approach in the design of a fiscal regime: a responsive or progressive fiscal system could be one that automatically adjusts the government take to actually achieved profitability and would, therefore, tend to reduce pressures to renegotiate.<sup>13</sup>

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<sup>11</sup> The ‘obsolescing bargain’ refers to the changing nature of relations between multinational enterprises and host-states, for a full analysis of this term, see Vernon, R. (1971). *Sovereignty at Bay*. New York: Basic Books.

<sup>12</sup> Daniel, P. and Sunley, E. (2010). ‘Contractual Assurances of Fiscal Stability’, in P. Daniel, M. Keen and C. McPherson (eds), *The Taxation of Petroleum and Minerals: Principles, Problems and Practice*, 405-424; Osmundsen, P in Daniel et al (2010), pp. 425-444.

<sup>13</sup> For more information, see the section on Fiscal Stability under Special Fiscal Topics below.