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Research Report

Taxation of non-renewable natural resources: what are the key issues?

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Taxation of Non-Renewable Natural Resources – What are the Key Issues?

Summary

Financing for development requires developing countries to step up their domestic revenue mobilisation. Such key international players as the Organisation for Economic Co-operation and Development (OECD), G20 and International Monetary Fund (IMF) are calling on the developing countries to increase their tax collection. A major issue in this context is the taxation of non-renewable natural resources. Recent DIE publications suggest that many low-income and lower-middle-income countries may be failing to tap the full revenue potential of these resources. Public opinion in resource-rich countries is pressing for the renegotiation of investment agreements and tax regimes in the light of soaring commodity prices.

As extractive industries are characterised by a unique combination of properties, governments should treat them differently from the rest of the economy.

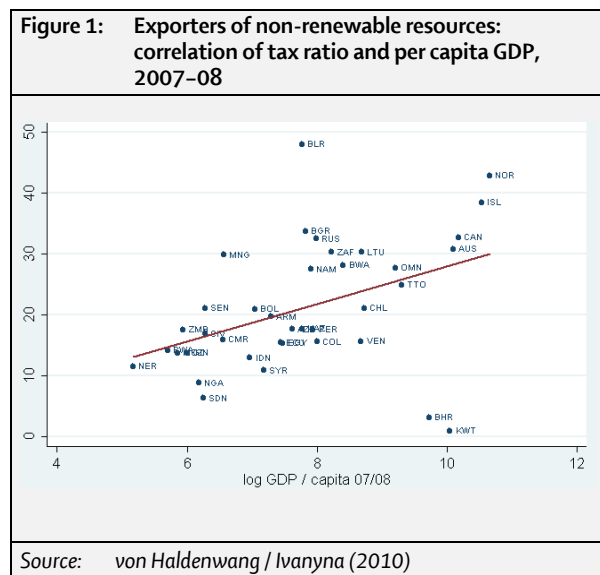
- From the perspective of sustainable asset management, the declining stock of finite resources should be offset by investments in produced capital so that a society's total wealth and future welfare may be preserved. This is known as "Hartwick's rule".
- Hartwick's rule underestimates the necessary investments in produced capital because it does not consider negative externalities arising from substantial environmental degradation as a consequence of resource extraction. A broader concept of sustainability would take account of these externalities, including compensatory payments, for instance.
- Most countries regard sub-soil assets as the state's inalienable property. Companies should therefore pay a fee (royalty) for the right to exploit deposits owned by the public.

- Extractive industries often generate high benefits or *rents*, either in the longer term (owing to market entry barriers encountered by new firms) or the short term (in the form of windfall profits due to global price hikes). Some of these rents are appropriated by the state, which poses challenges in terms of revenue volatility, economic development and governance.
- International firms usually play an important role in the extractive sector, since they are key holders of capital and technical expertise. Further, they are often liable to tax in their own countries, exposing them to the risk of double taxation.
- Finally, extractive activities require high initial investments ("sunk costs") in exploration and development and have long production periods. Their profitability tends to be uncertain at the beginning, and it can be quite difficult to determine the actual rent to be taxed later on.

These arguments indicate that taxing non-renewables is more complex than may appear at first glance. Governments must take account of a number of technicalities. More importantly, however, taxing non-renewables is a highly political matter, involving powerful domestic as well as international actors, in both the private and the public sector. A key government resource in this context is the credibility that arises where the rules and regulations governing the sector are clear and the funds collected are used transparently in the common interest. If these conditions are not met, public revenue from extractive industries may be a curse rather than a blessing.

1. Technical issues: What to tax – and how?

Following the global commodity price boom of the last decade, many resource-rich countries substantially increased their public revenues from the extractive industries. According to IMF data, average resource-related tax revenues in Africa tripled to almost 15 per cent of GDP between 1998 and the outbreak of the financial crisis. It is difficult, however, to determine whether a government actually achieves adequate levels of revenue collection from extractive industries. Apart from sector-specific factors including geography, access to markets and natural endowments, such aspects as administrative capacity, public infrastructure and long-term political commitment play their part. As for tax collection in general, it makes little sense to expect a low-income country to attain the revenue levels of OECD member countries. Nonetheless, tax collection differs significantly between countries, even within one and the same income group (see Figure 1), and there appears to be considerable potential, especially for the taxation of minerals.



There are three major ways for the state to skim off a portion of the rents generated by extractive industries, but none of them is without its problems:

- (i) The first option is to have *state-owned enterprises* transfer some or all of their profits to the treasury or to specific trust funds. Revenues may be categorised as taxes by some countries, while appearing as “other revenues” in others. Many governments of resource-rich countries appear to believe that this is the best way for the public to benefit from non-renewables. The countries with significant public-sector participation in non-renewables range from Norway and Chile to Venezuela and Libya. In a weak governance framework, however, state-owned enterprises often respond to the particular interests of powerful groups, affecting (among other things) the sector’s productivity and future investment levels.

- (ii) Where private-sector companies exist, a basic procedure consists in levying taxes on corporate income, profits or cash flow. Extractive industries may be treated like any other economic activity, but many governments create specific tax regimes that reflect the particularities of this sector (resource rent taxes or windfall taxes) or the project (profit-based royalties). In theory, such taxes should not affect investment or production, since the activity does not cease to be profitable.
- (iii) The state also has the option of benefiting from extractive activities by charging production-based taxes, such as royalties levied as a share of produced value or as a fixed amount per product unit. Royalties are sometimes treated as non-tax revenues in fiscal accounts. Their main advantage from a public finance perspective lies in their ability to generate revenue regardless of company profits. The disadvantage is that they may affect investment or production levels by reducing the present or future profitability of projects. Royalties of this kind are usually regressive: the less productive an extractive activity, the higher the tax burden. Other production-based taxes are sales taxes and foreign trade duties.

More specific or less relevant sources of revenue include production-sharing contracts in the oil and gas sector, auctions of exploration or extraction rights and various kinds of joint ventures. In general, governments wishing to implement a progressive tax regime while minimising investment disincentives mostly rely on profit-based taxes. While they are also favoured by private-sector companies, they are rather difficult for the state to design and monitor, harbour many opportunities for tax avoidance and generate little revenue in the initial years of production. Governments interested in a rapid inflow of revenues tend to focus on auctions and production-based taxes (royalties, etc.), which are less demanding administratively, but may lead to market distortions and lower investments in the future. In most cases, a combination of tax instruments is used, but this combination does not always reflect the real capacity of the state or the common interest.

2. Political economy

Building an effective tax regime for the extractive industries in developing countries involves bargaining between the state and the private sector (often including major transnational corporations) at various stages of the process, with shifting actor constellations and power resources brought into play. This aspect tends to be neglected if the subject is approached from an OECD member country perspective. OECD governments usually have the political leverage and administrative capacity to enact encompassing legal frameworks that regulate the entire sector. This allows stakeholders to participate in a public process involving political actors, the public administration and the judiciary. Bargaining takes place to factor in specific investment conditions, but it does not characterise the development of the sector as such.

The picture is different in many developing countries where the institutional setting is much more fluid and less constrained by formal regulation. Instead of laws or sector-wide approaches, individual project arrangements prevail, many of them negotiated behind closed doors. Existing legal frameworks are not fully implemented or properly monitored, creating opportunities for all kinds of illicit behaviour. The flexibility inherent in case-by-case bargaining benefits individual actors rather than the public sector and puts an additional strain on the public administration. At the same time, a general lack of predictability increases the financing and insurance costs of projects and causes private companies to press for further safeguards during the bargaining process.

In previous decades, developing countries often found themselves in a weak bargaining position at the outset of extraction projects, owing to high investment needs, underexploration and poor domestic capacities in finance, infrastructure, technical know-how and project management. With the tax base rather elastic, governments had an incentive to offer generous treatment to avoid scaring off private capital. Given the long amortisation periods of extractive projects and the high initial investment costs, companies would strive to safeguard their investments against sudden future political changes, by inserting “frozen law” clauses in their contracts, for instance.

This situation has changed considerably, commodity markets today being more demand-driven and competition between companies (and, indeed, between national economies) keener. In these circumstances, governments are presumably in a better position to impose conditions on private firms. Basically, companies have three choices: (i) they can refrain from investing in a particular project; (ii) they can accept higher risks or lower profits by offering better deals than their competitors; and (iii) they can try to externalise risks and costs. A weak governance setting encourages firms to choose the last of these options.

The externalisation of risks and costs is achieved through such legal action as political risk coverage (public export credit guarantees), investment protection (bilateral investment treaties) and international contract enforcement. However, it can also be based on illegal action: bribing politicians or government officials enables firms to change the rules of the game by transferring risks (back) to the public or obtaining a better deal than would have been possible in a situation of functioning markets.

Once a project has passed the exploration and development phases and production has begun, the game changes again. Having incurred considerable sunk costs, individual companies have less leeway to defend themselves against unilateral governmental action. This situation is referred to in the literature as “obsolete bargaining”. Governments, in turn, may be inclined to change the rules unilaterally – especially if they feel that the original arrangement does not benefit the ruling elites or that it has not been fair from a common interest perspective. The ensuing renegotiation of agreements may lead to an immediate revenue boost, but it may also create serious disincentives for future investments. Transnational corporations are often in a better position to fend off government interventions than na-

tional companies, thanks to investment treaties or direct political intervention by their home states.

Government decisions today are most likely to affect private-sector investment decisions tomorrow. Thus a present lack of transparency and predictability translates into higher financing costs, lower levels of investment and fewer opportunities for tax collection in the future. Transparency in particular is a key feature of effective sectoral regulation, since it limits opportunities for illicit behaviour and improves the functioning of the markets. This is one of the reasons why the European Commission and the OECD are pressing for country-by-country reporting by multinational companies. But transparency alone is not enough to ensure that the taxation of extractive industries is geared to the common interest.

A related issue concerns competing short-term and long-term perspectives of the political game. To give an example, democratic orders with limits on re-election, weak political collectivities and high degrees of personalism create rather fewer incentives for political leaders to engage in counter-cyclical spending and long-term revenue maximisation. This institutional setting is quite typical, for instance, of many Latin American countries. In contrast, governments with a longer-term political perspective have a strong incentive to reduce the “country risk” of investment decisions, regardless of regime type. For private investors, this longer-term perspective may be more important than the actual level of taxation.

Figure 2: Two political economy dimensions

		Political perspective	
		short-term	long-term
Transparency	high	<i>e. g. democratic rule of law with weak political collectivities</i>	<i>e. g. democratic rule of law with strong political collectivities</i>
	low	<i>e. g. autocratic rule in a fragile political setting</i>	<i>e. g. autocratic rule in a stable political setting</i>

Source: Author's own design

3. A role for development cooperation?

For many developing states, mobilising and managing revenues from the extractive sector is a key development concern. Given the fiscal and economic relevance of the sector, the social and ecological impacts of extraction and the number of powerful actors involved, development cooperation needs to adopt a broad approach to this issue, with the focus on upstream technical assistance. What does this mean in detail?

- **Strengthening regulation:** Governments should be encouraged to enact encompassing sectoral rules wherever possible, rather than relying on case-by-case bargaining. This will entail working on tax policy reforms and strengthening tax administration, but it may also include revisions of bilateral investment treaties

and double taxation agreements. Overly generous conditions at one specific point in time may trigger unilateral governmental action at a later stage, undermining credibility and creating disincentives for investments – which would then, in turn, have to be counterbalanced with specific conditions. Donors and international organisations would be well advised to help partner countries to overcome this vicious circle.

- Promoting both transparency and long-term perspectives: Development cooperation should support partner governments in raising revenue from the extractive industries in a transparent way and with a long-term perspective of sectoral development. This is especially important in a situation of increased global competition for raw materials and weak governance. Importance should be attached to information disclosure, and governments should be encouraged to open the political process to stakeholders from civil society in order to gain legitimacy for their sector policies and to widen the political time frame. This is an issue that clearly exceeds the confines of tax policy.
- Improving fiscal management: Besides the amount of revenue raised, a central issue is how taxes are spent. The acceptance of extractive activities depends not least on the ability of citizens to hold governments accountable for spending on investment and consumption. Governments also need to address the problem of volatility with anti-cyclical asset management and fiscal responsibility provisions. One particularly successful example of such an approach is Chile.
- Addressing equity concerns: In many countries, those who benefit most from resource rent are to be found in a small group of national elites and multinational en-

terprises (the “winning coalition”). Extending benefits to broader sections of society is difficult, but not impossible. Game-theoretical approaches show that under certain conditions elites engage in redistribution out of pure self-interest. There are various ways to broaden the winning coalition. For instance, in terms of territorial equity, local communities affected by mining or drilling activities should be compensated, but not over-compensated: revenue-sharing arrangements which do not take poverty levels and absorption capacities into account may even increase social polarisation. This is a problem in Peru and Indonesia, for example. Finally, in the context of non-renewable resources, intergenerational equity acquires a specific relevance, since resources extracted today cannot be extracted tomorrow. In this context, investing in a society’s future assets (such as human resources) would be a promising approach.

- Linking bilateral cooperation to international action and to improved regulation at home: Given the international dimension of many investment projects, the issue of fair taxation must be raised in international fora as well as with the large mining and drilling enterprises. Development cooperation must be related to such other policy fields as foreign trade, investment promotion and environmental protection.

A number of these challenges are already being taken up by such international organisations as the OECD and by such non-governmental initiatives as the Natural Resource Charter and the Extractive Industries Transparency Initiative (EITI). Bilateral action alone will most probably fail to produce the desired results in terms of revenue mobilisation and sustainable sector development.

Literature

Daniel, P. / M. Keen / C. McPherson (eds.) (2010): *The taxation of petroleum and minerals: principles, problems and practice*, New York: Routledge (Explorations in Environmental Economics)

Stürmer, M. (2010): *Let the good times roll? Raising tax revenues from the extractive sector in sub-Saharan Africa during the commodity price boom*, Bonn: Deutsches Institut für Entwicklungspolitik (Discussion Paper 7/2010)

Haldenwang, C. von / M. Ivanyina (2010): *Assessing the tax performance of developing countries*, Bonn: Deutsches Institut für Entwicklungspolitik (Discussion Paper 20/2010)



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