

CHAPTER 8 – www.eisourcebook.org

8.1 Why Revenue Management is Difficult

Good practice in resource revenue management is increasingly recognized, yet the experience of most resource-rich states in this area has not been especially encouraging (see **Chapters 2 and 8** of the *Source Book*). This suggests that there are continuing problems in the implementation of resource revenue management good practice. As always, the lessons from good practice for avoiding common pitfalls have to be understood in a contextual manner. Where they appear relevant, they need to be adapted to fit the particular circumstances of the country concerned. Those circumstances will include: the level of development; nature of the resources and their size; fiscal dependence on resource revenues; institutional capacity, fiscal federalism, budget rigidities, transparency levels and capital scarcity. So, there can be no such thing as combining the best lessons into a ‘standard model’ that a single government can blindly follow¹. Recent research has underlined this.² Indeed, many resource-rich countries will have to overcome underlying constraints in capacity before they can align themselves with the more successful examples of revenue management in the extractives sector.

It is worth recalling the kind of starting point that is likely to be typical for a country that has recently discovered large-scale natural resources in the developing world. At least three important constraints are likely to be present:

- (1) a scarcity of capital, with an interest rate higher than the global rate, and limited access to international capital markets, possibly as a result of the country’s credit rating;
- (2) an undersupply of public infrastructure, and
- (3) an investment climate that has depressed private investment.

In a number of African countries for example, this starting point is likely to be compounded by their landlocked status. To make the starting point even more challenging, there is likely to be a

¹ For case studies of resource revenue management, various sources are available: for example, there are Papers available from a joint project of the University of Oxford Centre for the Analysis of the Resource Rich Economies and the Revenue Watch Institute, covering the experiences of Cameroon, Chile, Kazakhstan, Malaysia, Nigeria and Zambia: <http://www.oxcarre.ox.ac.uk/index.php/Projects/revenue-watch.html> (last visited 12 April 2016); the International Monetary Fund (IMF) Fiscal Affairs Department has produced a series of Working Papers and several collections of papers in book form over the past ten years. A recent example is: Arezki, Rabah, Gylfason, Thorvaldur, and Sy Amadou (eds). (2011), *Beyond the Curse: Policies to Harness the Power of Natural Resources*, IMF, Washington DC. References to IMF Working Papers can be found throughout this Chapter in the Notes.

² For example, the work of the Natural Resource Governance Institute and Columbia Center for Sustainable Investment: www.resourcegovernance.org/natural-resource-funds (last visited 12 April 2016).

difficult issue with managing expectations, both of the public and of the government. Inflated expectations tend to exert pressure for overly rapid spending. The problems that contribute to depressed private investment, or a poor credit rating, are mainly institutional and political, and will not be solved in any direct way by the injection of resource funds.

From these inauspicious circumstances, the country with new discoveries has the prospect of making high return investments and putting its economy on a growth path that will involve capital deepening with the rate of return converging to the world rate. At the same time, wages, consumption and income will move on an upwards trajectory. As two leading development economists, Collier and Venables, have noted, the question for government in such circumstances is then: “what is the optimal consumption profile: i.e. what maximizes the present value of the utility of consumption given available investment opportunities?”³

The Four Main Challenges The importance of managing these revenues cannot be exaggerated: since revenues from oil, gas and mining are to a large part concentrated in the public sector, the question of how this revenue should be spent and distributed across present and future generations will become the key to any economic development.

Four areas of sensitivity underline this:

- Volatility and uncertainty

*This is by far the greatest challenge for a resource rich economy. Any design of revenue management rules is complicated by the volatility and uncertainty of resource receipts, which affect resource wealth estimates as well as the government’s cash flow. The literature on the resource curse finds that much or all of the negative effect (where there is one) can be attributed to increased volatility, which studies show to be very costly (see **Chapter 2**)⁴. This is exacerbated by the unimpressive record of price forecasts and the limited information in futures prices. There is also the uncertainty about assessments of future reserves and prices to contend with as well as of current prices.*

- *Absorptive capacity*

There are externalities between spending decisions: if all is spent at once, this drives up the price of investment goods and imposes stress on transport systems, for example. Future non-resource sectors with good prospects may also be crowded out, reducing learning and

³ Collier, P and Venables, AJ (2008). Managing Resource Revenues: lessons for low income countries, 1 (Oxcarre Research Paper No 2008-12).

⁴ The literature is summarized in Chapter 2 of the *Source Book*.

future growth. The problem is associated with volatility since absorptive capacity constraints are most tested when revenues and spending are high but can also apply over a longer cycle.

- *Exhaustion*

In theory, the exhaustibility of oil, gas and other mineral resources raises inter-generational issues and also reveals a need for balance between government consumption and saving for the long term. Policy makers therefore need to strike a balance between spending today and saving for tomorrow. In practice, this is often less clearly a problem. Apart from the island of Nauru, no country has actually run out of mineral (or hydrocarbons) resources.

- *Undetermined ownership*

Resource rents belong to the 'nation' but what does that mean? Does it mean the government or municipalities in producing areas or something wider like 'the people'? If so, what about unborn citizens? These questions go to the heart of the accountability problem, and go beyond questions of whether revenue should be shared among today's citizens.

Responding to Volatility Policies have to be designed in ways that avoid transmitting volatility (which is outside the control of policy-makers) into the macro-economy, achievable by smoothing spending flows; promoting long-term fiscal sustainability and inter-generational equity; enforcing measures to mitigate Dutch Disease (see the discussion of overall resource policy in **Chapter 2**). In principle, decisions on current versus future consumption and on the form of investment can all be derived on the basis of some inter-temporal optimization model. Volatility is a complication.

Experience suggests that success is often elusive: "(c)apital flows, fiscal policy, monetary policy, and sectoral allocation each tend to be more pro-cyclical in commodity producing countries than economists' models often assume. If anything, they tend to exacerbate booms and busts instead of moderating them".⁵ Formal fiscal rules and resource funds are not a panacea. A study of increased revenues from oil production concluded that "implementation of quantitative fiscal rules has proved very challenging, mainly due to the characteristics of oil revenue and political economy factors... Many countries have had difficulty managing funds with rigid operational rules, as tensions have often surfaced in situations of significant

⁵ Frankel, Jeffrey (2011). 'How can Commodity Exporters Make Fiscal and Monetary Policy Less Procyclical?', in Arezki, Rabah, Gylfason, Thorvaldur, and Sy Amadou (eds). (2011), *Beyond the Curse: Policies to Harness the Power of Natural Resources*, IMF, Washington DC, 167.

exogenous changes or with shifting policy priorities”⁶. Large SWFs can also be raided by future governments, who may also seek to divert resource rents outside the budget. For example in Venezuela, almost 70 percent of oil rent flows through funds that are outside the budget⁷. This undermines fiscal rules as well as transparency.

No option is free from risks.

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⁶ IMF (2007). The Role of Fiscal Institutions in Managing the Oil Revenue Boom, Washington DC, p.3.

⁷ Pedro L Rodriguez, Jose R Morales and Francesco J Monaldi, Direct Distribution of Oil Revenues in Venezuela: A Viable Alternative? (2012) Center for Global Development, Working Paper 306 (<http://www.cgdev.org/publication/direct-distribution-oil-revenues-venezuela-viable-alternative-working-paper-306>) (last visited 1 April 2016).