

CHAPTER 8 – www.eisourcebook.org

8.2 Consume or Save?

The basic question for a country facing the prospect of significant resource revenues is how it should plan the time path of spending and saving from this revenue flow (inter-temporal optimization). *How much of the resource wealth should a government consume and how much should it save?*

- if consumption is the priority, it will involve decisions to increase public consumption or transfer funds to citizens; and
- if investment is the priority (and investment is an option for the use of savings), the decisions required will be to make domestic public investments or to invest abroad in financial assets (sovereign wealth funds)¹. Investment in human capital can be done by training or education and in intellectual capital through investment in R&D. Rather than investing itself the government can offer investment incentives to private firms.

In either case, the choice could lead to waste and may generate unfair outcomes. *Whatever decision is made for the use of rents, it will be made under high levels of uncertainty about resource revenue flows.* For example, sudden slumps in demand can follow euphoric booms, and the persistence of either will be unknown.

Some kind of fiscal framework is required to address these issues. Given the inevitable fluctuations in revenues, it needs to smooth revenue flows and perhaps involve the use of stabilization funds. The fiscal framework may also wish to introduce a statutory instrument called *fiscal rules*, as a means of addressing stabilization or savings.

Other factors and policy choices have to be taken into account in making such fiscal choices, including the factor of absorptive capacity, and choices such as tax reduction, increases in expenditure, debt reduction or savings of 'windfall' revenues.

¹ One caveat here is that the inclusion of all public investment as savings carries the risk that fiscal discipline will be undermined.

8.2.1 Fiscal Rules

Fiscal rules are multi-year formal constraints on government spending or public debt accumulation, that rely upon standing statutory commitments to the achievement of certain numerical values for selected and targeted fiscal variables, such as the fiscal balance, public expenditure, or the public debt. The IMF has defined them as “institutional mechanisms that are intended to permanently shape fiscal policy design and implementation”². Hence there is a tendency to enshrine them in legislation or even in a constitutional document. Some countries like Peru and Colombia have fiscal rules in this sense and some like Trinidad and Tobago do not. Those that do have them use various types of rules or combinations of them, but essentially a set of fiscal rules will comprise numerical rules designed to guide and benchmark performance against quantitative indicators (such as the fiscal balance of debt), and procedural rules intended to establish transparency, coverage and accountability requirements³.

The five kinds of fiscal rules found in practice⁴ are:

- the *balanced budget rule* (sometimes called ‘hand to mouth’), meaning that all annual oil receipts are spent while the government’s overall financial position is kept in balance. For example, in Mongolia the structural deficit may not exceed more than two per cent of GDP. In Norway the non-oil structural deficit may not exceed four percent (the disadvantages are that it tends to privilege current over future generations in terms of their share of consumption of extractives wealth and it may subject governments to ‘boom-bust’ cycles in the international markets);
- the *debt rule*, which sets a limit on public debt as a percentage of GDP. For example, in Indonesia there is a requirement that total and local government debt should not exceed 60 percent of GDP. Mongolia sets the ceiling of public debt at 40 percent of GDP;
- the *expenditure rule*, which sets a limit on spending, in absolute terms or terms linked to the level of growth rate or percentage of GDP. For example, Botswana has a ceiling on the expenditure-to-GDP ratio of 40 percent, and Peru has a statutory limit on real growth current expenditure of four percent;
- the *revenue rule*, which sets a ceiling on overall revenues or revenues from oil, gas or minerals. For example, in Ghana a statutory limit is set on the amount of oil and gas revenues that may enter the budget: this may not exceed 70 percent of revenue

² IMF (2007), p.17.

³ Ibid.

⁴ The typology is used in N Budina, T Kinda, A Shaechter, and A Weber, Fiscal Rules at a Glance: Country Details from a New Dataset’ (2012), IMF Working Paper WP/12/273, Washington DC, and in ‘Managing the Public Trust: How to Make Natural Resources Funds work for Citizens’ (2014), Revenue Watch Institute/Vale Columbia Center for Sustainable Investment, New York, p. 50. There are other kinds of fiscal rule but these ones are the most common by far.

- averaged over a seven-year period. The rest of the revenue has to be saved in a stabilization fund or a fund for future generations; and
- the *Permanent Income Hypothesis* (PIH) or ‘bird-in-hand’ rule, where spending decisions are predicated only on the return on the assets already in hand; only the interest income that accrues from accumulated revenues may be spent consistently over time (this ‘precautionary saving’ avoids the shortcomings of some other rules but may create social tensions, since public expenditure may be low while revenues are accumulated during production, and there may be a lost opportunity in terms of social and infrastructure spending in the early years at the expense of future spending).

None of the above rules is likely to prove sufficient in itself or in combination. Debate has been robust about their benefits⁵. For many years the PIH rule was influential, emphasizing the need to preserve resource wealth and avoid the instability that can arise from spending resource revenues (in other words, addressing the familiar challenges of exhaustibility and volatility characteristic of EI and discussed in **Chapter 2** of the *Source Book*). That view has been largely superseded by a more development-oriented approach to fiscal rules. After all, resource revenues can be used beneficially to finance public investments in infrastructure, especially where such infrastructure has been physically damaged following conflict, or government institutions, where these are characterized by a weak civil service, for example. Even if no ‘one size fits all’ principle applies, and some fiscal rules may suit an advanced economy better than a capital-scarce resource-rich country, the existence of fiscal rules in one form or another “can provide helpful and transparent benchmarks for policy”⁶. They can play a role in providing robust checks and balances on public spending, and at the same time factoring in the kind of uncertainty that will always be present in resource markets. However, fiscal rules are neither necessary nor sufficient for the achievement of sound fiscal outcomes. Arguably, this conclusion also applies with respect to fiscal discipline at the sub-national level⁷. The decision to consume or save does not need a fiscal rule to be determined.

⁵ Various IMF papers have been produced which illustrate how its own views on this subject have evolved in recent years: “Since the mid-2000s, calls for reconsidering the conventional advice (i.e. based on the PIH formula) and prompting investment spending of resource revenue in developing countries have emerged”: A Berg, R Portillo, S-C S Yang and LF Zann, *Public Investment in Resource-Abundant Developing Countries* (2012), IMF Working Paper WP/12/274. Examples of literature that supports the use of fiscal rules include: P Collier, R van der Ploeg, M Spence and T Venables (2010), *Managing Resource Revenues in Developing Countries*, IMF Staff Papers, Vol 57, No. 1, pp.84-118; Revenue Watch Institute/Columbia Center for Sustainable Investment, *Managing the Public Trust* (2014), Policy Brief: Fiscal Rules for Natural Resource Funds: How to Develop and Operationalize an Appropriate Rule (A Bauer), pp.47-58; T Lassourd, A Bauer, *Fiscal Rule Options for Petroleum Management in Uganda* (2014), Revenue Watch Institute, New York.

⁶ A Gelb, ‘Should Canada worry about a Resource Curse?’, p.23.

⁷ T Ter-Minassian, *Fiscal Rules for Subnational Governments: Can They Promote Fiscal Discipline?* (2007) 6 OECD Journal on Budgeting, pp.1-11.

In the extractives sector, fiscal rules are less commonly used than the fund instrument (discussed in **Section 8.2** and **8.4** below), at least in the oil-exporting countries. However, some funds, such as those in Chile, Ghana, Kazakhstan and Norway, are governed by fiscal rules. The volatility of revenues in the EI sector plays a large part in the variation in approaches. Some fiscal rules target overall or primary balances or particular debt ratios to Gross Domestic Product (GDP), but they can transmit oil fluctuations to expenditure and the non-oil balance.

Experience with fiscal rules has shown the difficulties of implementing effective and durable rules, partly due to design weaknesses and political economy factors⁸. Essentially, the rules, often resulting from fiscal policies oriented to short-term constraints, can be found to be too rigid to adapt to economic fluctuations and lack reliable support among political elites. During a boom, liquidity pressures can ease and governments may find it very difficult to contain spending pressures.

There is no shortage of examples of fiscal rules being weakened over time or ignored. Equatorial Guinea has an expenditure rule, which requires current spending not to exceed non-oil revenue; it has been repeatedly breached and even interpreted as a medium-term goal. Expenditure in this case has even grown substantially faster than EI revenue, rendering the fiscal rule largely irrelevant as an instrument to benchmark fiscal policy⁹. By contrast, Chile changed the target for its structural balance to permit slightly more expansive spending when copper prices and the reserves in the stabilization fund were high. The benefit of this approach is that the spending adjustment, while significant in the longer run if maintained, is gradual. This reduces pressure for a more radical change in the rules.

The considerable successes of Botswana and Chile with resource revenue management are well known. In both cases, the fiscal 'rules' have considerable flexibility, in contrast to those countries that opt for rigid fiscal rules. They have achieved stable macroeconomic environments and high growth rates. Given the importance of their natural resource sectors (mainly diamonds in Botswana and copper in Chile), and their use of fiscal rules, they present worthwhile lessons for petroleum producing countries. This is explained in **Box 8.1**.

⁸ IMF Fiscal Affairs Department, 'The Role of Fiscal Institutions in Managing the Oil Revenue Boom' (2007), p. 18-19.

⁹ IMF (2007), p. 19.

Box 8.1. Botswana and Chile: Experiences with Fiscal Rules

Country	Brief Description
Botswana	<p>Botswana has implemented medium-term national development plans (NDP) closely linked to the budget process for decades. The six-year NDP sets broad fiscal objectives and associated policy actions. It has contributed to the implementation of a longer-term strategy that has helped contain spending during periods of revenue buoyancy and led to overall surpluses for most of the last two decades. The framework has incorporated goals for the overall balance and a type of “golden rule,” where non-mineral revenue should at least cover non-investment recurrent spending. This rule has been adhered to in most years, except for a few years in the early 2000s, when fiscal deficits emerged.</p> <p>Due to the global financial and economic crisis, the mining sector contracted by 46.2 percent in 2009, while the non-mining sector grew at 4.9 percent, with the net effect on overall GDP of minus 7.9 percent. In the subsequent years of 2010 and 2011, real mining GDP recovered only partially, and is still well below the pre-recession levels, while growth in the rest of the economy resumed at rates which yield overall GDP growth similar to the rates leading up to the global financial crisis (<i>NDP 10 Towards 2016 - Ministry of Finance and Development Planning June 2013</i>).</p> <p>Their Sustainable Budget Index rule in the NDP10 reserves mineral revenue for capital spending, leaving only non-mineral revenue to finance recurrent spending (<i>IMF Country Report No. 12/234</i>).</p> <p>While the fiscal position has been under some strain, continued commitment to prudent fiscal policies and medium-term planning put Botswana in a strong position to face important medium-term challenges.</p>

Chile	<p>Chile introduced an informal fiscal rule in 2001. The rule calls for maintaining a structural central government surplus over the economic and copper price cycles. It is seen as a useful signal to financial markets, indicating sensitivity to the risks of pro-cyclical spending. The successful implementation of the rule is seen in large measure as due to low debt and high policy credibility, themselves the result of past prudent policies and good institutions.</p> <p>The rule enshrined in law by approval of the Fiscal Responsibility Law in 2006. This law adopted a target of 1% of GDP positive surplus, which was reduced in May 2007 to 0.5% effective in 2008 and further to zero percent of GDP in 2009. This has advantages for business cycle stabilization, because further asset accumulation would require higher taxes and/or lower spending today relative to the future, which would induce intertemporal effects in consumption and investment. (<i>WP/09/88, IMF Working Paper, Chile's Structural Fiscal Surplus Rule: A Model-Based Evaluation by Michael Kumhof and Douglas Laxton</i>)</p> <p>However, the implementation of the rule in recent years has revealed certain challenges, and in May 2010, the government established a high-level commission to recommend reforms that could make the rule even more effective (<i>WP/11/17, IMF Working Paper, Strengthening Chile's Rule-Based Fiscal Framework by Teresa Dabán</i>). Further, the current administration (2010-14) has specified a target path (to converge to 1 percent of GDP structural deficit by 2014). A second generation structural balance rule was published in 2011 (<i>available in Spanish via http://www.dipres.gob.cl/594/w3-article-81713.html last visited 12 April 2016</i>).</p>
-------	--

While fiscal rules have been useful to the conduct of sound fiscal policies in Botswana and Chile operationally, the evidence suggests that they were not critical elements—the key has been political commitment and good institutions. Both countries' economic success mostly points to strong overall institutional quality, willingness to adopt key structural reforms, and political commitment to ensure fiscal discipline¹⁰. According to World Bank and Transparency International governance indicators, both countries have significantly higher levels of governance and institutional quality than most resource-rich countries.

¹⁰ For example, Atsushi Iimi, 'Did Botswana Escape from the Resource Curse?' (2006), IMF Working Paper WP/06/138. The author concludes that in developing countries in particular, "the quality of regulation, such as the predictability of changes of regulations, and anticorruption policies, such as transparency and accountability in the public sector, are most important for effective natural resource management and growth", p.3; for Chile, see the references in Box 8.1 above.

8.2.2 Absorptive Capacity

While in many circumstances it may be desirable to make a significant allocation of EI sector revenues to spending, and especially to domestic investment¹¹, the effectiveness of that spending will depend to a large degree on the absorptive capacity of the resource-rich economy and the government's institutional capacity. A rapid build-up of spending in response to a revenue windfall could be inefficient if countries do not have adequate absorptive capacity, creating supply bottlenecks and reductions in the quality of administration and implementation. The spending path needs to be set at a rate that is efficient for the economy.

Experience of both expenditure smoothing to address volatility concerns and a gradual expenditure build-up in the face of absorptive capacity constraints suggests that part of any resource revenue windfall should be allocated to saving. However, this depends on a number of factors including the size of the windfall relative to budget expenditure and the potential to increase absorptive capacity. Saving of resource revenues may also be justified on other grounds, such as a precaution against unforeseen negative events or to generate wealth for future generations anticipating of the eventual resource depletion. The next section discusses savings funds, an institutional mechanism to put aside gross public financial resources.

Good practice in response to absorptive capacity issues involves credible commitments to improvements in public expenditure management and a gradual build-up in expenditure. The literature provides some indicators as to what institutional features are required for a well-functioning system of public investment. Anand Rajaram and his colleagues have identified eight 'must-have' features that would address the major risks and provide an effective systemic process for managing public investments¹². These do not represent 'best practice', as might be exemplified in a high-level OECD or Chile-like system, but rather the bare-bones institutional features that would minimize major risks and provide an effective systemic process for managing public investments. They include several features that would require long-term

¹¹ It will not be desirable if the fiscal position is unsustainable, or if inflation is high, or if the external current account of the balance of payments is in a non-financeable deficit, or if public spending is of poor quality and resources are wasted, or if the public capital stock is decent. So, the specific circumstances will be a crucial determinant here of what is desirable.

¹² A Rajaram, T Minh Le, N Biletska, J Brumby (2010), 'A Diagnostic Framework for Assessing Public Investment Management', Policy Research Working Paper 5397, The World Bank: Washington DC. The eight features are: investment guidance, project development and preliminary screening; formal project appraisal; independent review of appraisal; project selection and budgeting; project implementation; project adjustment; facility operation, and project evaluation. Core weaknesses are also identified by the study team to encourage reforms to focus resources where they are likely to have the greatest impact. These include: poor project selection including wasteful 'white elephant' projects; delays in design and completion of projects; corrupt procurement policies; cost over-runs; incomplete projects; and a failure to operate and maintain assets effectively so that the benefits are less than they should be.

investment in administrative capacity to improve project implementation and making credible commitments.

Institutional Strengthening Absorption difficulties of a different kind often arise at the institutional level in many developing states as a result of limited capacity, which can constrain government in its ability to identify and implement policies and projects that are a cost-effective use of resources. If investments are badly chosen or badly executed, the state will have wasted a unique opportunity for transformative development. White elephant projects and half-completed investments are all too common. However, absorption is not only a capacity issue. The flow of revenues tends to undermine the incentives to build the institutions designed to manage investments in the first place: if you are able to obtain ‘cheap’ money, then you may not have to think very hard about the efficiency with which you are spending it.

The quality of government institutions and public financial management is critical to the fiscal discipline (and focus on sustainability) needed for successful resource revenue management.¹³ The institutions that are of particular importance to this are, in the first instance, the central bank and the ministries responsible for finance and planning. These are critical for the setting of aggregate annual and medium-term expenditure ceilings and also the overall budget for different agencies. However, as Barma, Kaiser et al (2012) note, “(l)egislative bodies are likely to pay particular attention to sectoral capital budget envelopes as part of the annual budget process, especially in systems with single-district plurality system” (such as Mongolia)¹⁴. Clearly, *technical assistance can make an important contribution in this area, but political will may prove as or more important*, especially where political economy factors place great emphasis on short-term horizons and early spending of resource revenues. Moreover, there is a dynamic created by resource in-flows. With opportunities for rent-seeking by established groups, an undermining of efforts at institutional strengthening and accountability can be expected from increasingly entrenched interests. A more complex variant of this phenomenon is where some groups anticipate such a strengthening of one set of interests and act to forestall it even if it undermines a collective benefit.¹⁵

¹³ Bacon and Tordo (2006), Experiences with Oil Funds: Institutional and Financial Aspects, Report 321/06, The World Bank/ESMAP, Washington DC, at pp. 13-15.

¹⁴ Barma, Kaiser et al (2012), 184-185.

¹⁵ Taking the case of Mongolia, one study has concluded that members of parliament have an incentive to over-spend on smaller projects that bring benefits to specific geographical localities and to under-spend on large infrastructure that would bring economic benefits to Mongolia as a whole. Large infrastructure projects carry a political risk because the political faction in control of that particular ministry would have access to very large rents and become politically too powerful. Anticipating this risk, members of parliament are reluctant to fund these projects, even though they are essential for national growth: Hasnain, Zaid (2011). Incentive Compatible Reforms: the Political Economy of Public Investments in Mongolia, Policy Research Working Paper 5667, The World Bank East Asia and Pacific Region, Poverty Reduction and Economic Management Unit.