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Managing the Oil Revenue Boom: The Role of Fiscal Institutions

Rolando Ossowski, Mauricio Villafuerte, Paulo A. Medas, and Theo Thomas

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- In tables, a blank cell indicates "not applicable," ellipsis points (. . .) indicate "not available," and 0 or 0.0 indicates "zero" or "negligible." Minor discrepancies between sums of constituent figures and totals are due to rounding.
- An en dash (–) between years or months (for example, 2005–06 or January–June) indicates the years or months covered, including the beginning and ending years or months; a slash or virgule (/) between years or months (for example, 2005/06) indicates a fiscal or financial year, as does the abbreviation FY (for example, FY2006).
- "Billion" means a thousand million; "trillion" means a thousand billion.
- "Basis points" refer to hundredths of 1 percentage point (for example, 25 basis points are equivalent to ¼ of 1 percentage point).

As used in this publication, the term "country" does not in all cases refer to a territorial entity that is a state as understood by international law and practice. As used here, the term also covers some territorial entities that are not states but for which statistical data are maintained on a separate and independent basis.

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Abbreviations and Acronyms

DSA	Debt Sustainability Analysis
FAD	Fiscal Affairs Department (of IMF)
FRL	Fiscal responsibility legislation
ICRG	International Country Risk Guide
IMF	International Monetary Fund
MTBF	Medium-term budget framework
MTEF	Medium-term expenditure framework
MTF	Medium-term framework
MTFF	Medium-term fiscal framework
NDP	National development plan
OLS	Ordinary least squares
PFM	Public financial management
PIH	Permanent income hypothesis
PR	Index of political risk
SFIs	Special fiscal institutions

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Preface

This Occasional Paper examines the fiscal responses of oil-producing countries to the recent oil boom through to 2005 and the role of special fiscal institutions—oil funds, fiscal rules and fiscal responsibility legislation, and budgetary oil prices—in fiscal management in oil-producing countries, and draws some general lessons. The paper was prepared by Rolando Ossowski, Mauricio Villafuerte, Paulo Medas, and Theo Thomas while they were in the IMF's Fiscal Affairs Department (FAD). (An abridged version of the paper was circulated to the Executive Board of the International Monetary Fund in early 2007.)

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Executive Summary

Oil-producing countries have benefited from the rise in oil prices in recent years, with important implications for their external and fiscal balances. This paper examines the fiscal responses of oil-producing countries to the recent oil boom, through 2005, and the role of special fiscal institutions (SFIs)—oil funds, fiscal rules and fiscal responsibility legislation (FRL), and budgetary oil prices—in fiscal management in oil-producing countries, and draws some general lessons.

The paper first describes the fiscal responses of oil producers to the recent oil boom through 2005.

- On average, through 2005 governments used close to half of the additional fiscal oil revenue to increase non-oil primary spending and/or lower non-oil primary revenue. The average non-oil primary fiscal deficit relative to non-oil GDP rose by one-half. Oil-producing countries turned overall fiscal deficits in the late 1990s into growing fiscal surpluses. The variance across countries, however, was significant.
- Higher oil revenues allowed oil-producing countries an opportunity to increase public spending on priority economic and social goals, which can be an appropriate response to rising oil prices. At the same time, many oil-producing countries that increased spending rapidly show low indices of government effectiveness, which may raise questions about their ability to use the additional resources effectively. This also highlights the trade-offs between pressing developmental needs and the institutional ability to address these needs effectively and efficiently.
- Assessed on the basis of a sustainability benchmark, the long-term fiscal sustainability of a number of oil-producing countries improved between 2000 and 2005, but sustainability deteriorated in others mainly owing to an expansion in non-oil primary deficits. These results, however, are subject to a few caveats. By 2005, some oil-producing countries were vulnerable to oil shocks and the possible need for large adjustments.

A number of oil-producing countries have established SFIs aimed at enhancing fiscal management and helping to achieve broader fiscal policy objectives.

- *Oil funds.* Many countries have had difficulty managing funds with rigid operational rules, as tensions have often surfaced in situations of significant exogenous changes or with shifting policy priorities. Earmarking the resources of oil funds for specific uses and allowing extrabudgetary spending by the funds can complicate fiscal and asset management and reduce efficiency in the allocation of resources. Funds that finance the budget and oil-revenue management frameworks that are fully integrated with the budget process have avoided these problems. Transparency and accountability practices for funds differ across oil-producing countries. There have been growing efforts to better integrate funds with budget systems.
- *Fiscal rules and FRL.* The experience of oil-producing countries with fiscal rules and FRL has been relatively limited. The evidence suggests that implementing quantitative fiscal rules has proved very challenging, mainly owing to the characteristics of oil revenue and political economy factors. Procedural FRL may hold more promise for improving fiscal management.
- *Quantitative evidence.* An econometric analysis of the impact of SFIs on the policy response of oil-producing countries to the oil revenue boom (using panel regressions and controlling for relevant factors) shows no evidence that their introduction has had an impact on fiscal outcomes.

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The experience with the recent oil boom highlights the importance of sound institutions and public financial management (PFM) systems, and of lengthening fiscal horizons to ensure the quality of spending and the sustainability of fiscal policies.

- *The evidence suggests that the quality of institutions matters for fiscal outcomes.* This result confirms earlier findings that broader institutions (e.g., accountability and the quality of public administration) have a positive impact on economic policy. In a number of oil-producing countries it will be important to strengthen institutional quality and promote fiscal transparency.
- *Priority should be given to enhancing PFM systems where appropriate.* Increases in spending associated with higher revenues are likely to put pressure on PFM systems. Depending on the circumstances, emphasis may need to be placed on reforms to enable PFM systems to perform at the level necessary to achieve desired policy objectives.
- *A medium-term framework (MTF) can help link annual budgets to longer-term policies and fiscal sustainability objectives, and enhance risk analysis.* The budgets of many oil-producing countries are characterized by short-term horizons, with little reference to longer-term policies and objectives. MTFs that explicitly incorporate a longer-term perspective can help promote predictability, improve resource allocation, and enhance transparency and accountability. MTFs can be specifically designed to help address the fiscal risks posed by volatile, unpredictable, and exhaustible oil revenues. However, the implementation of MTFs should be gradual and consistent with institutional capacity.

Under appropriate institutional frameworks, well-designed SFIs may help support sound fiscal policies, though they are not a panacea. Successful SFIs require strong institutions and political commitment. The development of SFIs should not detract from other more fundamental PFM and governance reforms as appropriate. In addition, international experience suggests the advisability of adopting some specific principles for the design and implementation of effective SFIs.

- *Oil funds* should be integrated with the budget to enhance fiscal policy coordination and public spending efficiency. They should not have the authority to spend. Financing funds should be preferred to funds with rigid rules. Mechanisms to ensure transparency, good governance, and accountability should be in place.
- Although the implementation of *quantitative fiscal rules* remains challenging in oil-producing countries, *FRL with comprehensive procedural and transparency requirements* may work better to sustain the credibility of the fiscal framework. Success, however, hinges on proper design, consistency with PFM capacity, and enforcement of the provisions.

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I Introduction

Oil-producing countries have benefited from rising oil prices in recent years, with important implications for their external and fiscal balances. The average price of oil tripled from US$18 a barrel in 1999 to US$53 a barrel in 2005, and rose further in 2006–07. The associated increase in oil exports and fiscal oil revenues had major macroeconomic and fiscal implications for oil-producing countries heavily dependent on oil revenues. External current accounts and fiscal balances have strengthened in many oil-producing countries. Moreover, policymakers conducted fiscal policy in a context where markets and observers increasingly came to expect a significant portion of the rise in oil prices to be long-lasting.

These developments have brought to the fore how governments of oil-producing countries have managed their fiscal policies in light of changing oil market conditions and the role of special fiscal institutions (SFIs) in fiscal management. In particular, there is a need to look into how fiscal policies have responded to the positive oil revenue shock and favorable oil price outlook, and the use of various SFIs to help fiscal management.

- Rather than relying solely on standard budget processes, a number of oil-producing countries have turned to SFIs to help address the challenges posed by the volatility of oil export revenues and the nonrenewable nature of the resource, and manage the additional fiscal revenues arising from higher oil prices (and in some countries, higher oil output). In some cases, the creation of SFIs may also have been motivated by transparency and political economy considerations, and by the desire to engage in more active management of public financial assets.
- SFIs include oil funds, fiscal rules, and fiscal responsibility legislation. In addition, the surge in oil prices in recent years has highlighted the role played by budgetary oil price forecasts for fiscal policy formulation and implementation.

This paper examines the fiscal response of oil-producing countries to the oil boom and the role of SFIs in fiscal management in these countries, and draws some general lessons. Section II provides an overview of the fiscal responses of oil producers to the recent oil boom.[1]

Sections III and IV review recent experience with SFIs in selected oil-producing countries to help fiscal management, both qualitatively and quantitatively. Based on the evidence, Section V draws some general lessons for fiscal management in oil-producing countries. In doing so, it links findings on best practice regarding the design of SFIs with broader fiscal management advice to oil-producing countries.

[1]The analysis covers the following oil-producing countries where fiscal oil revenue accounted for at least 20 percent of total fiscal revenue in 2004, and for which sufficient information was available: Algeria, Angola, Azerbaijan, Bahrain, Brunei, Cameroon, Chad, Republic of Congo, Ecuador, Equatorial Guinea, Gabon, Indonesia, I.R. of Iran, Kazakhstan, Kuwait, Libya, Mexico, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, Sudan, the Syrian Arab Republic, Timor-Leste, Trinidad and Tobago, United Arab Emirates, Venezuela, Vietnam, and the Republic of Yemen.

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