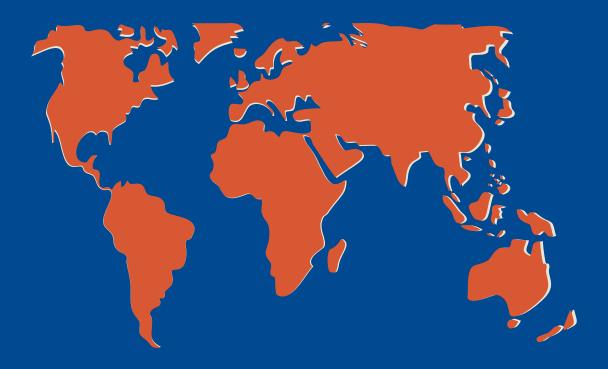
Designing Monetary and Fiscal Policy in Low-Income Countries

Abebe Aemro Selassie, Benedict Clements, Shamsuddin Tareq, Jan Kees Martijn, and Gabriel Di Bella



INTERNATIONAL MONETARY FUND Washington DC 2006

Designing Monetary and Fiscal Policy in Low-Income Countries

Abebe Aemro Selassie, Benedict Clements, Shamsuddin Tareq, Jan Kees Martijn, and Gabriel Di Bella © 2006 International Monetary Fund

Production: IMF Multimedia Services Division Typesetting: Choon Lee Figures: Theodore F. Peters, Jr.

Cataloging-in-Publication Data

Designing monetary and fiscal policy in low-income countries / Aemro Selassie . . . [et al.] — Washington, D.C. : International Monetary Fund, 2006.

p. cm. — (Occasional paper ; 250)

Includes bibliographical references. ISBN 1-58906-496-8

 Monetary policy — Developing countries.
 Fiscal policy — Developing countries.
 Poverty Reduction and Growth Facility (International Monetary Fund)
 Inflation — Developing countries.
 Abebe Aemro Selassie.
 Series : Occasional paper (International Monetary Fund) ; no. 250
 HG1496.D37 2006

> Price: US\$28.00 (US\$25.00 to full-time faculty members and students at universities and colleges)

Please send orders to: International Monetary Fund, Publication Services 700 19th Street, N.W., Washington, D.C. 20431, U.S.A. Tel.: (202) 623-7430 Telefax: (202) 623-7201 E-mail: publications@imf.org Internet: http://www.imf.org



recycled paper

Contents

Preface Abbreviations		
II	Stylized Facts of PRGF-Supported Programs in Mature Stabilizers	6
	Growth and Inflation Fiscal Developments External Viability	6 8 11
111	Monetary Policy Issues in PRGF-Supported Programs	14
	Inflation and Economic Growth Financial Programming Is Private Sector Credit Being Crowded Out?	14 17 23
IV	Fiscal Policy Issues in PRGF-Supported Programs	27
	Fiscal Stance and Economic Growth Public Expenditure Tax Policy	27 29 32
v	Conclusions	37
Ар	pendixes	
	I. The Accuracy of Consecutive Updates of Monetary ProjectionsII. The Efficiency of Monetary ProjectionsIII. Measuring the Fiscal Stance and Accounting IssuesIV. NPV of Debt-Stabilizing Primary Balances	38 40 41 42
References		44
Box	es	
	 1.1. The PRGF 1.2. Why the "Mature Stabilizer" Moniker? 2.1. Targets and Projections in IMF-Supported Programs 2.2. Social and Poverty-Reducing Spending 3.1. Seigniorage Income 3.2. Monetary Programming in IMF Program Design 4.1. Treatment of Concessional Loans in Fiscal Accounts 4.2. Public Debt Sustainability: The Case of Ethiopia 4.3. Absorptive Capacity Constraints and Policies to 	3 4 7 10 16 18 29 30
	Ameliorate Them	31

Tables

1.1.	Economic and Social Indicators in PRGF-Eligible and	
	Other Developing Countries	2
2.1.	Inflation Targets in Original PRGF-Supported	
	Programs	7
2.2.	Inflation Targets in Consecutive Program Updates	8
	Fiscal Targets and Performance	9
	External Targets versus Outcomes in the Mature	
	Stabilizer Sample	12
3.1.	Empirical Studies on Kinks in the Relationship between	
	Inflation and Growth	15
3.2.	De Facto Exchange Regimes, 2001	19
	Monetary Projections and Projection Deviations	20
	Credit to the Private Sector	24
4.1.	NPV of Public Sector Debt for Selected Poststabilization	
	Countries	28
4.2.	Evolution of the Revenue Structure of Poststabilization	
	Countries in the 1990s	34
4.3.	Selected VAT and Corporate Income Tax (CIT) Indicators	35
	Accuracy of Program Updates	38
	Test of the Accuracy of Program Projections (Theil's U-Statistic)	39
A2.1.	Test of the Weak Efficiency of Program Projections	40
	Average Augmented Primary Balance, 2000–03	43
Figures		
0	Real GDP Growth: 1980–2003	6
	Projected Real GDP Growth	6
	Expenditure Targets in PRGF Programs, 2000–03	9
	Revenue Targets in PRGF Programs, 2000–03	9
	External Development Indicators in the Mature Stabilizers	11
	Actual and Debt-Stabilizing Current Account Balances	11
	Ratio of Private Investment to GDP	12
	Inflation: One-Year-Ahead Projections and Outcomes	12
	Dispersion of Monthly Exchange Rate Changes to the	1/
5.2.	U.S. Dollar—Kernel Density Diagram	19
2 2	Deviations from Previous-Year Projections for CPI and	19
5.5.	Deviations from Flevious-fear Flojections for CFT and	

21

21

22

22

23

24

25

Broad Money Growth

Money Multiplier

Countries

3.4. Projected and Actual Percentage Change in Velocity

3.8. Cumulated Growth in Credit and GDP, 1995–2002

3.9. Domestic Debt and Private Sector Credit in Low-Income

3.5. Projected and Actual Percentage Change in the Reserve

3.6. Deviations from the Programmed Levels of NDA and NFA3.7. Exchange Rate Variability and Deviations from Previous-Year Broad Money Projection The following conventions are used in this publication:

- 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 ¹/₄ 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.

Preface

In 1999, the IMF established the Poverty Reduction and Growth Facility (PRGF) to make the objectives of poverty reduction and growth more central to lending operations in its poorest member countries. Against this backdrop, in this study, the IMF staff takes a close look at the IMF's monetary and fiscal policy advice, as well as program design in the context of PRGF-supported programs. In view of the marked improvement in macroeconomic outcomes in many low-income countries in recent years, the analysis focuses, in particular, on those countries that have established a certain level of macroeconomic stability—the so-called mature stabilizers.

Designing Monetary and Fiscal Policy in Low-Income Countries was prepared by a team comprising staff members from the Policy Development and Review (PDR) and Fiscal Affairs (FAD) departments. In PDR, the team included Abebe Aemro Selassie, Jan Kees Martijn, Gabriel Di Bella, and Zaijin Zhan. In FAD, the team consisted of Michael Keen, Benedict Clements, Shamsuddin M. Tareq, Kevin Fletcher, Mario Mansour, Todd Mattina, and Alejandro Simone. Qiang Cui of FAD and Luzmaria Monasi of PDR provided valuable research assistance. Overall supervision was exercised by Mark Plant and Peter S. Heller.

This paper was originally prepared as background for the IMF Executive Board discussion of the 2005 review of PRGF program design. The views expressed are those of the authors, however, and do not necessarily reflect the views of national authorities, the IMF, or IMF Executive Directors.

Abbreviations

CPI	Consumer price index
CIT	Corporate income tax
DSA	Debt sustainability assessment
EU	European Union
FAD	Fiscal Affairs department
FDI	Foreign direct investment
HIPC	Heavily Indebted Poor Countries
IEO	Independent Evaluation Office
IFS	International Financial Statistics
MDG	Millennium Development Goal
NDA	Net domestic assets
NFA	Net foreign assets
NIR	Net international reserves
NPV	Net present value
PDR	Policy Development and Review Department
PRGF	Poverty Reduction and Growth Facility
PRSP	Poverty Reduction Strategy Paper
PSCG	Private sector credit growth
PEM	Public expenditure management
RMSE	Root mean squared error
VAT	Value-added tax
WEO	World Economic Outlook

I Introduction

Acroeconomic outcomes in low-income countries have improved markedly in recent years. Reflecting improvements in policy implementation, increased official financial support, and a relatively benign international environment, economic growth in the poorest countries has increased from 2½ to 3 percent in the 1980s and early 1990s to some 4 percent since the mid-1990s. These higher growth rates have been associated with lower inflation rates, healthier public finances, and higher international reserves (Table 1.1). Although these growth outturns remain short of the rates required to achieve the Millennium Development Goals (MDGs), they nonetheless represent the best performance for low-income countries since the late 1970s.

However, important questions remain regarding the appropriate focus of macroeconomic policies for the next generation of IMF-supported programs in low-income countries:

- First, the large buildup of international reserves in recent years is indicative of possible tensions between exchange rate and monetary objectives, including inflation—how much scope is there for noninflationary monetary growth? What is the appropriate target range for inflation in shockprone low-income countries?
- Second, notwithstanding the gains in other areas, progress toward external viability—a critical objective of IMF-supported programs—has been more limited, raising questions about the appropriate focus for monetary and fiscal policies.
- Third, with macroeconomic imbalances receding, an increasing number of low-income countries face a wider range of viable policy options. Should they use any fiscal space to cut excessive tax burdens, reduce high levels of domestic debt, or raise public spending to improve the provision of public services? To what extent do risks of crowding out private investment limit the scope for domestic government borrowing?
- Fourth, with more aid and debt relief in prospect in the coming years, improving the effectiveness of

public expenditures is going to be a major challenge for low-income countries.¹ What steps do countries need to take to improve absorptive capacity?

This paper considers possible adjustments in the design of IMF-supported programs, drawing on the experience of low-income countries that have successfully addressed the most apparent domestic macroeconomic imbalances. The paper, including the discussion of stylized facts and various empirical assessments, focuses on a group of 15 mature stabilizers that had achieved positive output growth at the start of their PRGF arrangements and in which inflation and the domestic government deficit had been brought under control (Box 1.1). An additional 5 or 6 other countries could have made this group, but the final sample was chosen with broad geographical representation in mind (Box 1.2) and limited to 15 to keep the analysis tractable. Importantly, the criteria used here do not include measures of external viability, which remains a serious concern in most of the countries in the sample.

Although the focus of this paper is on mature stabilizers, the paper also addresses some issues that are of relevance to other PRGF-supported programs. For example, both mature stabilizers and other countries with PRGF-supported programs face the challenge of increasing their capacity to absorb foreign aid and improving the efficiency of public spending. As such, some of the analysis is applicable to lowincome countries more generally.

Section II presents the stylized facts of program design in the 15 mature stabilizers during 2000–03. Against this backdrop, Sections III and IV take up monetary and fiscal issues, respectively. Section V concludes.

¹The implications of the recent Multilateral Debt Relief Initiative, in particular for the countries that have been part of the enhanced Heavily Indebted Poor Countries (HIPC) Initiative are not considered in this paper.

Table I.I. Economic and Social Indicators in PRGF-Eligible and Other Developing Countries (In percent a year, unless indicated otherwise)

PRGF-Eligible Countries Mature Stabilizers 1985-89 1990-94 1995-99 2000-04 1980-89 1990-94 1995-99 2000-04 Real GDP growth 4.19 4.92 3.36 2.51 4.52 2.89 1.27 4.85 Median 3.54 -0.03 3.73 4.43 2.96 -1.285.44 4.99 Mean Real GDP per capita growth -0.85 179 2.08 0.86 1.87 0.78 -1.242.38 Median Mean 1.01 -2.31 1.40 2.13 0.72 -2.84 2.94 2.74 Inflation 17.94 8.30 21.76 15.56 4.99 Median 8.87 4.60 5.29 127.57 355.40 5.47 Mean 26.53 10.36 22.16 108.15 18.44 Gross national saving (percent of GDP) 11.46 10.25 12.53 13.72 12.05 10.35 11.80 14.93 Median 11.79 11.88 11.78 13.47 12.01 9.00 13.17 16.05 Mean Gross fixed capital formation (percent of GDP) Median 16.49 18.18 18.41 19.58 16.47 19.08 19.99 21.90 28.75 22.87 20.68 20.28 19.80 21.00 22.78 Mean 21.15 Central government balance (percent of GDP) -5.23 -5.69 -3.67 -3.96 -4.19 -5.57 -2.67 -4.62 Median -6.40 -7.09 -4.67 -4.54-6.46 -3.83 -4.5 I Mean -6.24Export volume growth 1.87 6.75 7.18 6.02 1.94 5.15 10.84 7.23 Median Mean 8.22 10.65 6.72 8.44 5.53 7.76 9.90 8.96 Debt-service ratio (actual percent of GDP) 14.92 14.62 15.30 14.73 14.29 23.59 17.89 15.12 Median Mean 17.21 26.66 21.45 16.46 16.82 25.61 25.78 14.28 External debt (face value, percent of GDP) 57.39 76.10 81.49 78.85 40.11 61.83 74.98 69.29 Median Mean 87.95 116.19 116.03 102.24 67.64 109.35 86.97 73.33 Gross reserves (months of imports) 3.80 6.40 Median 1.96 2.33 3.73 4.22 1.12 5.00 4.07 4.21 6.00 4.31 6.29 7.61 Mean 5.22 3.15 Population growth 2.57 2.90 2.10 Median 2.67 2.48 2.32 2.96 2.63 2.84 2.20 2.30 2.55 1.74 2.28 2.02 Mean 2.10 Life expectancy (years at birth) Median 51.12 51.92 52.31 52.58 52.26 52.86 53.36 55.06 53.50 54.31 54.53 54.11 55.45 55.61 55.72 55.41 Mean Infant mortality (per thousand, under age 5) 148.00 140.00 134.50 148.00 143.00 137.00 Median Mean 149.60 141.14 130.72 138.27 130.40 118.00 . . . Literacy (percent of population age 15+) Median 58.15 62.89 68.04 55.98 62.89 67.96 53.84 62.00 Mean 57.82 62.36 53.26 57.76

Sources: IMF, World Economic Outlook; IMF, International Financial Statistics; World Bank, World Development Indicators; and IMF staff estimates.

Box I.I. The PRGF

In September 1999, the IMF established the PRGF to make the objectives of poverty reduction and growth more central to lending operations in its poorest member countries. PRGF-supported programs are framed around comprehensive, country-owned Poverty Reduction Strategy Papers (PRSPs) prepared by governments with the active participation of civil society and other development partners. As of September 2005, 78 lowincome countries were eligible for PRGF assistance, of which 31 had a PRGF arrangement. Loans under the PRGF carry an annual interest rate of 0.5 percent and are repaid over a 10-year period.

Key Features

Experience with the PRGF highlights a number of distinctive features:

- Broad participation and greater ownership—the main features of PRGF-supported programs are to be drawn from the country's PRSPs. This ensures that civil society and development partners are involved in the design of the program and that country authorities are clear leaders of the process.
- Embedding the PRGF in the overall strategy for growth and poverty reduction—key policy measures and structural reforms supported under the program reflect each country's poverty reduction and growth priorities.
- Budgets that are more pro-poor and pro-growth programs supported under the PRGF are expected to increase poverty-reducing spending, improve the efficiency and targeting of such spending, and include tax reforms that simultaneously enhance efficiency and equity, thereby generating more resources for poverty reduction strategy.
- Ensuring appropriate flexibility in fiscal targets fiscal targets in PRGF-supported programs should

respond flexibly to changes in country circumstances and pro-poor policy priorities while ensuring that the strategy can be financed in a sustainable, noninflationary manner.

- *More selective conditionality*—conditionality in PRGF-supported programs should be more selective and focus on a few measures that are critical to the success of the program.
- Emphasis on measures to improve public resource management and accountability—PRGF-supported programs focus on strengthening governance to assist countries' efforts to design targeted and well-prioritized spending. Measures to improve public resource management, transparency, and accountability are of particular importance.
- Social impact analysis of major macroeconomic adjustment and structural reforms—PRGF-supported programs also give more attention to the poverty and social impact of key macroeconomic policy measures.

IMF-World Bank Cooperation

PRGF-supported programs are designed to cover only areas within the primary responsibility of the IMF, unless a particular measure is judged to have a direct, critical macroeconomic impact. Areas typically covered by the IMF include advising on prudent macroeconomic policies and related structural reforms such as exchange rate and tax policy, fiscal management, budget execution, fiscal transparency, and tax and customs administration.

When appropriate, the IMF draws on World Bank expertise in designing PRGF-supported programs, and the staffs of the IMF and Bank cooperate closely on program conditionality.

Box I.2. Why the "Mature Stabilizer" Moniker?

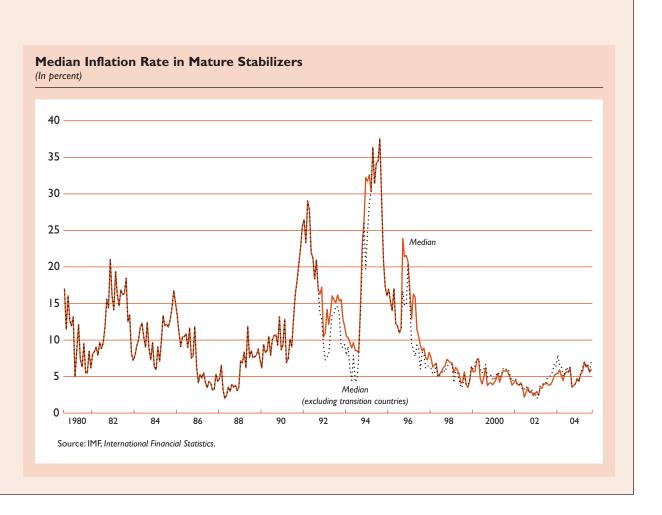
There is no accepted definition of a mature stabilizer. Previous IMF documents have identified such a country as one where "political and economic institutions are in place and macroeconomic stability is reasonably well established." The criteria developed in this paper are meant to capture those low-income countries thatafter a period of protracted macroeconomic instability, manifested among other things in high levels of inflation (see the figure)-have achieved some degree of internal macroeconomic balance and a manageable fiscal position. Countries were selected on the basis of their performance on a number of macroeconomic criteria, including positive output growth, inflation less than 10 percent, and domestic financing of the budget deficit under 1 percent of GDP in the year before the start of the PRGF arrangement.1

Another label that has been used to refer to lowincome countries with similar traits is "poststabilization" countries. Gupta, Verhoeven, and Tiongson (2002) and Adam and Bevan (2004) referred to similar countries as poststabilizers. The criteria used in this paper are more comprehensive. In Gupta, Verhoeven, and Tiongson (2002), poststabilization countries are defined as those with deficits under 2 percent of GDP, inflation less than 10 percent during the preprogram year and projected to remain under 10 percent during the two subsequent years, and positive growth during the preprogram year. Adam and Bevan (2004) define a successful stabilization (and by extension, a poststabilization country) as one in which inflation declines from "high levels" to rates under 15 percent for at least two years. The World Bank (2001) suggests that a primary surplus of 3 percent of GDP would qualify a country as being in a poststabilization state.

The criteria used in this exercise do not cover external debt sustainability. Although external debt sustainability has been promoted under the PRGF and the HIPC Initiative, PRGF-supported programs have not aimed at ensuring full sustainability, as demonstrated in the 2004 review of program design.

On the basis of the criteria, 15 countries that also had PRGF-supported programs during the 2000-03 period were selected, although a few more could have qualified. The exclusion of some countries was based on the expiration of PRGF eligibility (Macedonia FYR), the start of a qualifying PRGF program period only in 2003 (Armenia and Burkina Faso), political instability (Côte d'Ivoire), and the desirability of ensuring adequate geographical representation. The countries in the sample are Albania, Azerbaijan, Bangladesh, Benin, Ethiopia, Guyana, Honduras, the Kyrgyz Republic, Madagascar, Mongolia, Mozambique, Rwanda, Senegal, Tanzania, and Uganda. Data were drawn from IMF staff reports and the World Economic Outlook (WEO) database. Given fluctuations in macroeconomic and fiscal performance, most countries did not continuously meet all three conditions. For example, of the 51 annual IMFsupported programs in these 15 countries examined between 2000 and 2003, in only 29 cases did they meet all three conditions in the preprogram year.

¹This measure provides a proxy for the sustainability of domestic debt accumulation. As long as growth is positive, under most circumstances, such a low level of financing would result in no more than a moderate steady-state level of domestic debt as a share of GDP.



5