The IMF and Economic Development

Why do governments turn to the International Monetary Fund (IMF) and with what effects? In this book, James Raymond Vreeland examines this question by analyzing cross-national time-series data from throughout the world. Vreeland argues that governments enter into IMF programs for economic and political reasons, and he finds that the programs hurt economic growth and redistribute income upward. By bringing in the IMF, governments gain political leverage – via conditionality – to push through unpopular policies. For certain constituencies, these policies dampen the effects of bad economic performance by redistributing income. But IMF programs hurt doubly the least well-off in society: They lower growth and exacerbate income inequality.

James Raymond Vreeland, Ph.D., New York University, 1999, is Assistant Professor of Political Science at Yale University and Director of Undergraduate Studies for the International Studies Program. His research has appeared in the Journal of Development Economics, Political Analysis, and World Development. He teaches courses on political economy, quantitative methods, and the IMF.
To Mom, Dad, and Kristen
The IMF and Economic Development

JAMES RAYMOND VREELAND

Yale University
Contents

List of Tables and Figures  page vii
Acknowledgments xi

1 Introduction 1
   A New Approach and New Findings 4
   Where Do IMF Programs Come From? 8
   Why Do Governments and the IMF Enter into Agreements? 12
   The Data 17
   Plan of the Book 19

2 Analytically Significant Cases 20
   Tanzania 25
   Nigeria 33
   Summary 38
   Uruguay 39
   Conclusion 51

3 An Analytical Approach to the Politics of IMF Agreements 53
   Preferences over Loans and Conditions 55
   The Logic of Using IMF Conditionality 62
   Extensions 73
   Why Do Agreements Continue? 74
   Conclusion 76
   Appendix: The Decision of the Executive under Uncertainty 77

4 Testing the Selection Story 83
   A Statistical Model of Bilateral Cooperation 84
   Filling in the Story 87
   The Results 89
   Loans Versus Conditions 93
   The “Stripped” or “Large Sample” Model 100
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusion</td>
<td>103</td>
</tr>
<tr>
<td>Appendix: Dynamic Bivariate Probit with Partial Observability</td>
<td>105</td>
</tr>
<tr>
<td>5 The Effect of IMF Programs on Economic Growth</td>
<td>107</td>
</tr>
<tr>
<td>Previous Methods</td>
<td>108</td>
</tr>
<tr>
<td>Estimating the Counterfactual</td>
<td>114</td>
</tr>
<tr>
<td>The Intuition Behind the Model</td>
<td>115</td>
</tr>
<tr>
<td>Correcting for Selection Effects</td>
<td>118</td>
</tr>
<tr>
<td>The Effect of IMF Programs on Growth</td>
<td>121</td>
</tr>
<tr>
<td>Other Samples and Specifications</td>
<td>126</td>
</tr>
<tr>
<td>The 1990s</td>
<td>129</td>
</tr>
<tr>
<td>Appendix: Correcting for Selection Bias</td>
<td>130</td>
</tr>
<tr>
<td>6 Distributional Consequences of IMF Programs</td>
<td>134</td>
</tr>
<tr>
<td>Background on the IMF and Distribution</td>
<td>135</td>
</tr>
<tr>
<td>Empirical Approaches</td>
<td>137</td>
</tr>
<tr>
<td>The Effect of IMF Programs on Labor Share</td>
<td>139</td>
</tr>
<tr>
<td>Are the Owners of Capital Better Off?</td>
<td>147</td>
</tr>
<tr>
<td>Conclusion</td>
<td>151</td>
</tr>
<tr>
<td>7 Conclusions</td>
<td>152</td>
</tr>
<tr>
<td>Selection Findings – Why Governments and the IMF Enter into Agreements</td>
<td>152</td>
</tr>
<tr>
<td>Performance Findings – The Effect of IMF Programs on Growth and Distribution</td>
<td>153</td>
</tr>
<tr>
<td>New Questions</td>
<td>154</td>
</tr>
<tr>
<td>Policy Implications</td>
<td>160</td>
</tr>
<tr>
<td>Appendix 1 Variables Used in This Study</td>
<td>166</td>
</tr>
<tr>
<td>Appendix 2 Country-Years in Samples</td>
<td>169</td>
</tr>
<tr>
<td>Countries grouped by region: Africa, North America, South America, Asia, Europe, and Oceania and Pacific Islands. 4,126 Observation-sample: 135 Countries 1951–90</td>
<td>169</td>
</tr>
<tr>
<td>1,024 Observation-sample: 79 Countries 1971–90</td>
<td>176</td>
</tr>
<tr>
<td>2,095 Observations of Labor Share of Income from Manufacturing for 110 Countries</td>
<td>179</td>
</tr>
<tr>
<td>References</td>
<td>181</td>
</tr>
<tr>
<td>Index</td>
<td>193</td>
</tr>
</tbody>
</table>
Tables and Figures

**TABLES**

2.1 Participation in IMF agreements according to need for an IMF loan .......................... page 21
2.2 Participation in IMF agreements according to lagged foreign reserves ............. 21
2.3 Typical and extreme levels of foreign reserves ....................................................... 23
3.1 Size of IMF loan according to foreign reserve position ........................................ 61
4.1 Government objectives ................................ ......................................................... 88
4.2 IMF objectives ...................................................................................................... 88
4.3 Determinants of participation in IMF programs ..................................................... 90
4.4 “Loans” and “conditions” assigned to both actors .................................................. 94
4.5 “Conditions” matter to governments, “loans” matter to the IMF ....................... 95
4.6 The effect of the number of veto players ................................................................. 99
4.7 “Stripped” or “large sample” model of selection ..................................................... 101
5.1 Effect of IMF programs on growth controlling for observable conditions ......... 111
5.2 Effect of IMF programs on growth controlling for observable determinants of selection ................................................................. 112
5.3 Participation and political will (hypothetical) ......................................................... 115
5.4 Growth regression by participation status ............................................................... 119
5.5 Hypothetical rates of growth if selection were random ......................................... 123
5.6 Growth according to transition type ..................................................................... 124
5.7 Experience of countries that participated in IMF programs ................................. 125
5.8 Robustness checks ................................................................................................. 128
6.1 Labor share of manufacturing income (percentage) according to IMF experience ................................................................. 139
6.2 Labor share of income from manufacturing regression by participation status ................................................................. 142
6.3 Labor share of income from manufacturing regression by participation status (with the natural log of GDP per capita) 144
6.4 Labor share of income from manufacturing regression by participation status (without per capita income) 145
6.5 Hypothetical labor share of income from manufacturing according to IMF experience (selection-corrected estimates) 146

**Figures**

2.1 Tanzania 1970–88: Foreign reserves (in terms of monthly imports) 26
2.2 Tanzania 1980–6: Investment (percentage of GDP) 29
2.3 Total number of countries under IMF agreements 30
2.4 Tanzania 1982–8: Government budget deficit (percentage of GDP) 32
2.5 Nigeria 1970–90: Overall balance of payments (percentage of GDP) 34
2.6 Nigeria 1970–90: Current account (percentage of GDP) 34
2.7 Nigeria 1970–90: Foreign reserves (in terms of monthly imports) 35
2.8 Uruguay 1961–93: Overall balance of payments (percentage of GDP) 39
2.9 Uruguay 1967–95: Current account (percentage of GDP) 40
2.10 Uruguay 1970–95: Foreign reserves (in terms of monthly imports) 40
2.11 Uruguay 1951–95: Inflation (percent change in consumer price index) 41
2.12 Uruguay 1970–95: Debt and debt service (percentage of GNP) 41
2.13 Uruguay 1951–90: Real gross domestic investment, private and public (percentage of GDP) 42
2.14 Uruguay 1972–94: Government budget deficit (percentage of GDP) 42
2.15 Uruguay 1983–93: Labor share of income from manufacturing 49
3.1 Conventional understanding of agreements 55
3.2 Governments may prefer to have some level of conditions imposed upon them 57
3.3 Indifference curves of four governments with different ideal levels of conditions 58
3.4 Two separate negotiation postures the IMF may adopt 59
3.5 Governments that prefer more conditions get higher loans 60
3.6 A simple logic of bringing in the IMF 66
3.7 The logic of using IMF conditionality 68
3.8 The condition for $G$ to proceed 70
3.9 Situation I, where $d_G < m$ 77
3.10 In Situation I, $G$ “approaches” for values of $m$ and $s$ below this curve 78
3.11 Situation II (a), where $d_G > m$ and $d_G \leq 0.5$ 79
3.12 Situation II (b), where $d_G > m > 2d_G - 1$ and $d_G > 0.5$ 79
3.13a In Situation II, $G$ “approaches” for values of $m$ and $s$ below this curve 80
3.13b In Situation II, $G$ “approaches” for values of $d_G$ and $s$ below this curve 80
3.13c In Situation II, $G$ “approaches” for values of $m$ and $d_G$ below this curve 80
3.14 Situation III, where $m < 2d_G - 1 < d_G$ and $d_G > 0.5$ 81
3.15 In Situation III, $G$ “approaches” for values of $d_G$ and $s$ below this curve 81
4.1 Illustration of dynamic bivariate probit model with partial observability 85
5.1 Economic growth before and after programs 109
5.2 Growth by participation status 125
6.1 Labor share of manufacturing income by IMF experience 140
6.2 Iso-income curves for different values of initial capital share 148
Acknowledgments

This study would not have been possible without the guidance and support of many colleagues and friends. Special thanks go to Adam Przeworski, who has been there every step of the way. Rare is the professor who takes on an apprentice and teaches his craft as Adam does. This book was born out of collaborative work with him, and I am fortunate to have him as both a teacher and a friend.

I began this project as a graduate student in the Department of Politics at New York University where I benefited from close personal interaction and great collegiality with my professors and fellow students. For specific suggestions in the early stages of this project I am grateful to Bill Clark, George Downs, Mike Gilligan, Stathis Kalyvas, Marek Kaminski, Carmela Lutmar, Bill Pink, and Sebastian Saiegh. I am especially grateful to Youssef Cohen, David Denoon, Jennifer Gandhi, Covadonga Meseguer, and Elisabeth Wood, who read a first draft of the manuscript, offering many detailed comments and much helpful advice.

Leaving NYU, I was fortunate to join the Department of Political Science at Yale University where I have been surrounded by a wonderful group of colleagues who make coming to the office a real pleasure for me. For reading drafts of chapters and offering helpful comments, I am grateful to José Cheibub, Keith Darden, Geoff Garrett, Bill Foltz, Tasos Kalandrakis, Fiona McGillivray, John Roemer, Susan Rose-Ackerman, Frances Rosenbluth, Bruce Russett, Nicholas Sambanis, Ian Shapiro, Alastair Smith, and Allan Stam. I would especially like to thank Greg Huber, who read a close-to-final draft of the entire manuscript and whose suggestions greatly improved the substance and style of the book. I have also benefited from fantastic students at Yale who took my seminar on the IMF while I was working on this project. They were a special group who offered helpful suggestions on various aspects of the study.

I received helpful comments from many colleagues outside of Yale and NYU. In particular, I thank Bob Albritton, Neal Beck, Sarah Brooks,
Acknowledgments

Tom Callaghy, Jon Elster, Barbara Geddes, Miriam Golden, Ira Katznelson, David Lake, Martin Edwards, Louis Pauly, Beth Simmons, George Tsebelis, and Tom Willett. Research for this project was presented at the Claremont-Fletcher Workshop on the Political Economy of the IMF, the Rockefeller Center at Dartmouth College, the International Relations Colloquium at the Institute of International Studies at the University of California at Berkeley, the Department of Political Science at Ohio State University, the Department of Political Science at Columbia University, the Department of Political Science at the University of California at San Diego, the Duke University Conference on International Institutions, and meetings of the American Political Science Association, the International Studies Association, the Midwest Political Science Association, the Latin American Studies Association, and the Public Choice Society. Numerous participants in these various forums have offered useful comments and suggestions for which I am grateful.

I also thank the anonymous reviewers of the manuscript for their excellent suggestions, and my editor at Cambridge, Lewis Bateman, for his interest in the project and his help throughout. For financial support, I thank Carnegie Corporation of New York and the Bradley Foundation.

On a personal note, I would like to acknowledge people whose influence much earlier in my life led me to this project. For first introducing me to the study of politics, I thank Donn Avallone, and for first introducing me to the study of the IMF, I thank Winsome Downie. Beyond academia, I am grateful to all of my friends and family who have taken an interest in my work.

Finally, I am grateful to my mother, father, and sister, who not only have provided loving support but also have contributed to the book by reading and commenting on several drafts. In addition, my sister Kristen generally took care of me while I was a graduate student, buying me clothes and providing me a place to stay when I needed it. My mother, an avid reader of The New York Times, scoured the newspaper on a daily basis, clipping articles for me to make sure that no news about the IMF would ever slip past her son. I thank my father for his undivided attention to my manuscript, his many suggestions, and his countless hours of meticulous editing. He is a great teacher, both as a father and as an academic, and my decision to enter into academia has been due to his influence. It is to my family that this book is dedicated.