Rethinking Fiscal Policy after the Crisis

Before the financial crisis, fiscal policy often played a secondary role to monetary policy, with the manipulation of interest rates to hit inflation targets being the main instrument of macroeconomic management. However, after the financial crisis and the subsequent euro crisis, fiscal policy has been brought back to the fore. In the past, the limited understanding of the effects of fiscal policy, neglect of monetary-fiscal interactions, faulty institutional set-ups or ignorance of market expectations often led to bad policies. This book, written by a team of leading economists, seeks to address the current oversight of fiscal policy and to upgrade our understanding and conduct of fiscal policy, presenting a well-balanced diagnosis and offering several important lessons for future fiscal analysis and policy-making. It is an essential read for academics and graduate students focused on the current debate over fiscal policy, as well as policymakers working on day-to-day policy issues.

ĽUDOVÍT ÓDOR is a member of the Council for Budget Responsibility in Slovakia and Vice Chair of the Network of EU Independent Fiscal Institutions. In the past, he has served as a member of the Bank Board and Executive Director responsible for research at the National Bank of Slovakia, as an advisor to the Prime Minister, and as Chief Economist at the Ministry of Finance of the Slovak Republic. His book with Miroslav Beblavý and David Cobham, The Euro Area and the Financial Crisis, was also published by Cambridge University Press.
Rethinking Fiscal Policy after the Crisis

Edited by
Ľudovít Ódor
Council for Budget Responsibility, Slovakia
# Contents

<table>
<thead>
<tr>
<th>List of Figures</th>
<th>page vii</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables</td>
<td>xii</td>
</tr>
<tr>
<td>List of Boxes</td>
<td>xiv</td>
</tr>
<tr>
<td>List of Contributors</td>
<td>xv</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>xvii</td>
</tr>
<tr>
<td>1 Introduction and Overview</td>
<td>1</td>
</tr>
<tr>
<td>Ludovít Ódor</td>
<td></td>
</tr>
<tr>
<td>Part I Frontiers of Fiscal Policy</td>
<td>21</td>
</tr>
<tr>
<td>2 Fiscal Analysis Is Darned Hard</td>
<td>23</td>
</tr>
<tr>
<td>Eric M. Leeper</td>
<td></td>
</tr>
<tr>
<td>3 Fiscal Implications of Central Bank Balance Sheet Policies</td>
<td>71</td>
</tr>
<tr>
<td>Athanasios Orphanides</td>
<td></td>
</tr>
<tr>
<td>Part II Better Institutions for Better Fiscal Policy</td>
<td>101</td>
</tr>
<tr>
<td>4 Fiscal Rules in the World</td>
<td>103</td>
</tr>
<tr>
<td>Klaus Schmidt-Hebbel and Raimundo Soto</td>
<td></td>
</tr>
<tr>
<td>5 Fiscal Councils: Rationale and Effectiveness</td>
<td>138</td>
</tr>
<tr>
<td>Roel W. M. J. Beetsma and Xavier Debrun</td>
<td></td>
</tr>
<tr>
<td>6 Fiscal Discipline in a Monetary Union without Fiscal Union</td>
<td>167</td>
</tr>
<tr>
<td>Charles Wyplosz</td>
<td></td>
</tr>
<tr>
<td>7 Lost in Complexity: Towards a Decentralised and Depoliticised Fiscal Framework in Europe</td>
<td>189</td>
</tr>
<tr>
<td>Ludovít Ódor and Gábor P. Kiss</td>
<td></td>
</tr>
</tbody>
</table>
Contents

vi

8 Partial Fiscalization: Some Historical Lessons on Europe’s Unfinished Business 232
   Michael Bordo and Harold James

9 Managing the Euro-Area Debt Crisis 258
   George Kopits

Part III New Analytical Perspectives 301

10 Problems with Deficit Accounting 303
   Jerry R. Green and Laurence J. Kotlikoff

11 Fiscal Policy and Financial Distress: A Balance Sheet Perspective 323
   John Fitzgerald and Philip R. Lane

12 Financial Cycles and Fiscal Cycles 356
   Agustín S. Bénétrix and Philip R. Lane

13 Fiscal Sustainability and the Financial Cycle 384
   Claudio Borio, Marco Lombardi and Fabrizio Zampolli

14 Calibrating the Cost of Defaulting in Models of Sovereign Defaults 414
   Juan Carlos Hatchondo and Leonardo Martinez

Part IV The Comeback of Discretionary Fiscal Policy 441

15 What Do We Know about Fiscal Multipliers? 443
   Carlo Favero and Madina Karamysheva

16 Government as Borrower and Innovator of Last Resort 483
   Richard C. Koo

17 Fiscal Consolidation Strategies 516
   Christian Kastrop, Boris Cournéde, Falilou Fall and Annabelle Mourougane

18 Discretionary Fiscal Policy and Recessions 540
   Fabrizio Coricelli, Riccardo Fiorito and Francesco Molteni

Appendix 1 571
Appendix 2 577
Index 579
Figures

2.1 US Congressional Budget Office long-term projections, 2010–85 page 28
2.2 Latvian government debt and spending growth, 2000–14 30
2.3 Real GDP index, USA, euro area, and Baltic states, 2007–15 31
2.4 Swedish and Swiss consumer price inflation and central government debt, 2000–15 34
2.5 Japanese real GDP and consumer price inflation, 2011–16 36
2.6 Spanish inflation, government debt and sovereign spread, 2000–16 39
2.7 Old-age dependency ratios and voting distance between US political parties 43
2.8 Fiscal limit cumulative density functions calibrated to Greek data 50
2.9 Actual and projected Japanese fertility rates and life expectancy, 1960–2060 57
3.1 FED vs. ECB: Inflation, 1999–2015 77
3.2 FED vs. ECB: Core inflation, 1999–2015 78
3.3 FED vs. ECB: Overnight interest rate, 1999–2015 78
3.4 FED vs. ECB: Balance sheet size, 2004–15 79
3.5 Effectiveness of unconventional policy easing in the United States and Germany, 2007–16 80
3.6 The balance sheet of the Federal Reserve, 2004–16 82
3.7 Effectiveness of unconventional policy easing in Germany and Spain, 2007–16 88
3.8 The distribution of crisis costs 89
4.1 Number of countries with fiscal rules in place, 1985–2014 104
4.2 Change in the probability of adopting a fiscal rule 128
viii

List of Figures

5.1 Frequency of fiscal deficits over 0.5 percent of GDP in advanced countries 141
5.2 Public debt in G7 and selected emerging market economies, 1880–2020 141
5.3 Number of countries with fiscal rules and fiscal councils 143
5.4 Fiscal council’s signal-enhancing capacity: An index 162
5.5 Independence and signal-enhancing functions of fiscal councils 163
6.1 Lowest observed budget balances, 1991–2014 169
6.2 Public debts in the euro area 180
7.1 Two possible arrangements of fiscal discipline 200
7.2 Proposal for a new European fiscal framework 203
7.3 Separation of fiscal responsibilities in the euro area 203
8.1 Yield of ten-year US federal bonds, 1790–1914 239
9.1 General government balance and output gap in euro-area countries, 2000–13 263
9.2 Sovereign risk premia in euro-area countries, 2007–15 269
9.3 Net contribution to the general government balance in euro-area countries, 1998–2005 270
9.4 General government balance forecast errors in euro-area countries, 2000–8 274
9.5 Actual and projected public debt in Greece, Ireland and Portugal, 2007–14 281
10.1 Historical US fiscal gaps, 2003–14 317
10.3 US consumption per capita by age, 1960, 1981 and 2003 318
11.1 General government currency and deposit holdings, 2005–14 327
11.2 Irish gross debt-to-GNP ratio, 1970–2014 331
11.3 Composition of Irish gross debt, 2007–14 335
11.4 Irish government holding of cash and deposits, 1975–2014 341
11.5 Irish funding needs and holdings of cash, 1975–2014 343
11.6 Maturity structure of government debt, 2014 345
11.7 Irish government debt holdings, 1970–2014 346
List of Figures

11.8 Long bond yields, 2000–14 350
11.9 Irish national debt interest payments, 1980–2014 351
11.10 National debt interest payments in selected countries, 2000–14 352
12.1 General government balance response to domestic credit shock 363
12.2 General government balance response to current account shock 365
12.3 Revenue and expenditure responses to domestic credit and current account shocks 365
12.4 Robustness of impulse-response functions 367
13.1 Government net lending ratio and debt, 2007–8 387
13.2 Credit and residential property prices growth, 1970–2011 397
13.3 Ex post and real-time estimates of output gaps in the United States, 2001–11 399
13.4 Finance-neutral and HP-filter output gaps, 2001–14 400
13.5 Cyclically adjusted fiscal balances, 1990–2014 402
14.1 Debt ratio and annual spread as functions of income cost parameters 429
14.2 Income cost parameters that match target values for debt and spread 430
14.3 Default regions and bond price menus for different values of λ0 431
14.4 Default regions and bond price menus for different values of λ1 433
14.5 Average debt-to-income ratio as a function of income cost parameters 435
14.6 Spread and relative consumption-volatility ratio with one-period bonds 436
15.1 Long-run and deficit-driven tax changes in the United States, 1945–2007 456
15.2 Estimated impact of tax and expenditure shocks in the SVAR model 474
15.3 Estimated impact of tax and expenditure plans on output growth in the MA model 476
16.1 Historical economic growth, 0–2008 486
16.2 Four combinations of borrowers and lenders 488
16.3 House prices in the United States and Japan 491
<table>
<thead>
<tr>
<th>Figure Number</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.4</td>
<td>Housing bubbles in Europe, 1991–2015</td>
<td>491</td>
</tr>
<tr>
<td>16.5</td>
<td>Private sector saving in Europe, 2003–15</td>
<td>492</td>
</tr>
<tr>
<td>16.6</td>
<td>Liquidity injections and consumer spending deflator in the United States, 2007–15</td>
<td>493</td>
</tr>
<tr>
<td>16.7</td>
<td>Liquidity injections and consumer spending deflator in the United Kingdom, 2007–15</td>
<td>494</td>
</tr>
<tr>
<td>16.8</td>
<td>Liquidity injections and consumer spending deflator in the euro area, 2007–15</td>
<td>495</td>
</tr>
<tr>
<td>16.9</td>
<td>Liquidity injections and consumer spending deflator in Japan, 1985–2015</td>
<td>495</td>
</tr>
<tr>
<td>16.10</td>
<td>QE and international exchange rates</td>
<td>496</td>
</tr>
<tr>
<td>16.11</td>
<td>Japan’s fiscal cliff, 1990–2015</td>
<td>498</td>
</tr>
<tr>
<td>16.13</td>
<td>Spanish household sector borrowings, 1995–2015</td>
<td>500</td>
</tr>
<tr>
<td>16.14</td>
<td>Irish household sector borrowings, 2002–15</td>
<td>500</td>
</tr>
<tr>
<td>16.15</td>
<td>Greek household sector borrowings, 2003–15</td>
<td>501</td>
</tr>
<tr>
<td>16.16</td>
<td>German household sector borrowings, 1991–2015</td>
<td>502</td>
</tr>
<tr>
<td>16.17</td>
<td>The Neuer Markt collapse in 2001</td>
<td>503</td>
</tr>
<tr>
<td>16.18</td>
<td>Germany–Eurozone competitiveness gaps, 2000–15</td>
<td>504</td>
</tr>
<tr>
<td>16.19</td>
<td>German balance of trade, 1995–2015</td>
<td>504</td>
</tr>
<tr>
<td>16.20</td>
<td>Greece’s nominal GDP, 2006–15</td>
<td>505</td>
</tr>
<tr>
<td>16.21</td>
<td>Euro-area periphery bond yields, 2007–15</td>
<td>507</td>
</tr>
<tr>
<td>16.22</td>
<td>US interest rates, 1919–60</td>
<td>510</td>
</tr>
<tr>
<td>17.1</td>
<td>Budget deficit and public debt in the euro area, 2000–14</td>
<td>517</td>
</tr>
<tr>
<td>17.2</td>
<td>Change in the underlying primary balance in OECD countries, 2012–17</td>
<td>518</td>
</tr>
<tr>
<td>17.3</td>
<td>Composition of consolidation in OECD countries, 2012–2017</td>
<td>519</td>
</tr>
<tr>
<td>17.4</td>
<td>Ranking of instruments of consolidation</td>
<td>524</td>
</tr>
<tr>
<td>17.5</td>
<td>Scope to use relatively favourable consolidation instruments</td>
<td>525</td>
</tr>
<tr>
<td>17.6</td>
<td>Estimated personal and corporate income tax expenditures in selected countries</td>
<td>529</td>
</tr>
<tr>
<td>17.7</td>
<td>VAT revenue ratio in selected countries, 1970–2014</td>
<td>530</td>
</tr>
<tr>
<td>17.8</td>
<td>The trade-off between counter-cyclicality and hitting the debt target</td>
<td>533</td>
</tr>
<tr>
<td>17.9</td>
<td>Illustration of a budget balance rule combined with a spending rule, France</td>
<td>535</td>
</tr>
</tbody>
</table>
List of Figures

18.1 Share of discretionary expenditure in selected countries, 1970–2014 554
18.2 Volatility of real expenditure in selected countries 556
18.3 Real expenditure during recessions 565
Tables

4.1 Number of countries with national and supranational fiscal rules, 1985–2014  

4.2 Baseline results for national fiscal rules, panel estimation, 1975–2013  

4.3 Marginal effects of the random-effects probit estimation  

4.4 Results for national fiscal rules by rule type, panel estimation, 1975–2013  

7.1 Comparing monetary and fiscal policy  

7.2 Weaknesses of currently used fiscal indicators in Europe  

7.3 Simple deficit decomposition  

7.4 Better flow indicators  

7.5 Basic roles for the European fiscal watchdog  

9.1 Fiscal adjustment in Greece, Ireland and Portugal, 2009–2014  

10.1 Percentage revenue increase or expenditure cut needed to eliminate the US fiscal gap  

10.2 Fiscal gaps in major developed countries, 2012  


11.2 Cross-country variation in fiscal dynamics  

11.3 Holdings of Irish government debt, 1980–90  

11.4 Irish government borrowing, 2007–14  

11.5 Actual and planned austerity measures in Ireland, 2008–15  

11.6 Stability programme updates in Ireland and Spain, 2010–13  

11.7 Change in Irish national debt and liquid assets, 2008–10
List of Tables

11.8 Government cash and deposits, 2005–14
12.1 Descriptive statistics and correlations
12.2 Regression results: general government balance in advanced countries
12.3 Regression results: general government revenues and expenditures in advanced countries
12.4 Regression results: cyclically adjusted general government balance in advanced countries
12.5 Regression results: general government balance in advanced countries, 1990–2007
12.6 Regression results: general government balance in emerging market economies
14.1 Benchmark parameter values
14.2 Business cycle statistics
17.1 Summary assessment of growth and equity effects of fiscal consolidation instruments
17.2 Synthesis of the effects of rules with respect to fiscal discipline and stabilisation
18.1 Primary balances and cyclically adjusted primary balances, 1980–2014
18.2 Government revenues, spending, and debt, 1980–2014
18.3 Discretionary and non-discretionary spending, 1980–2014
18.4 Persistence and volatility of spending categories
18.5 Cross-correlations between discretionary spending and real GDP
18.6 Cross-correlations between non-discretionary spending and real GDP
18.7 Cross-correlations between total government spending and real GDP
18.8 Granger causality test (a)
18.9 Granger causality test (b)
18.10 Growth of public expenditures and GDP in recessions
A1 List of countries
A2 Monetary unions
A3 Correlation matrix of regressors
A4 Data definition and sources
Boxes

17.1 Setting a Prudent Debt Level 532
Contributors

Roel W.M.J. Beetsma, University of Amsterdam

Agustín S. Bénétrix, Trinity College

Michael Bordo, Rutgers University and NBER

Claudio Borio, BIS

Fabrizio Coricelli, Paris School of Economics and CEPR

Boris Cournéde, OECD

Xavier Debrun, International Monetary Fund

Falilou Fall, OECD

Carlo Favero, Bocconi University and CEPR

Riccardo Fiorito, University of Siena

John Fitzgerald, Trinity College

Jerry R. Green, Harvard Business School

Juan Carlos Hatchondo, Indiana University

Harold James, Princeton University

Madina Karamysheva, Bocconi University

Chrsitian Kastrop, OECD
Acknowledgements

This volume is based on the ‘Rethinking Fiscal Policy after the Crisis’ conference organised by the Slovak Council for Budget Responsibility in Bratislava on 10–11 September 2015. Most of the chapters were presented and discussed at the conference. The book greatly benefited from contributions by the following discussants and session chairs: Balázs Égert, Daniele Franco, Július Horváth, Michal Horváth, Lucio Pench, Ivan Šramko and Michael R. Wickens.