

Empirical Macroeconomics for Interdependent Economies



RALPH C. BRYANT * DALE W. HENDERSON
GERALD HOLTHAM * PETER HOOPER
STEVEN A. SYMANSKY
EDITORS



THE BROOKINGS INSTITUTION
Washington, D.C.



Contents



PART ONE Introduction

1. *The Editors*
The Brookings Model Comparison Project: An Overview 3

Background to the Project 3
Summary of the Project 4
Guide to the Book 6
Macroeconomic Policies for a Healthier World Economy 9
References 13

PART TWO Comparison and Evaluation of Model Simulations

2. *Jeffrey A. Frankel*
Ambiguous Policy Multipliers in Theory and in Empirical Models 17

The General Two-Country Model 17
Fiscal Policy Multipliers in the Simulations 20
Monetary Policy Multipliers in the Simulations 23
References 25
3. *Ralph C. Bryant, Gerald Holtham, and Peter Hooper*
Consensus and Diversity in the Model Simulations 27

Contrasts among the Participating Models 27
Problems of Comparability 29
Fiscal Policy Actions 31
Monetary Policy Actions 38
Nonpolicy, Exogenous Depreciation of the U.S. Dollar 44
Comparative Evaluation of the Simulation Results 47
Further Observations on Model Diversity 53
References 60

4.	<i>Ralph C. Bryant, Dale W. Henderson, and Steven A. Symansky</i> Estimates of the Consequences of Policy Actions Derived from Model Simulations	63
	<hr/>	
	<i>Approximate Final-Form Equations for Nonlinear Models</i>	63
	<i>Derivation of Estimates of Underlying Coefficients for Final-Form Equations</i>	65
	<i>Sensitivity of Recovery Calculations to Computer Rounding Error</i>	68
	<i>Limitations</i>	69
	<i>Summary Tables for U.S. Fiscal and Monetary Actions</i>	71
	<i>An Illustration: Keeping U.S. Real GNP Unchanged with an Altered Fiscal- Monetary Mix</i>	72
	<i>The Illustration Extended: Achieving Budget and Growth Targets with Fiscal and Monetary Policies</i>	83
	<i>Appendix</i>	85
	<i>References</i>	91
5.	<i>Bert G. Hickman</i> The U.S. Economy and the International Transmission Mechanism	92
	<hr/>	
	<i>An Open Economy Model of Aggregate Demand and Supply</i>	93
	<i>An Overview of the Fiscal and Monetary Simulations</i>	98
	<i>Short-Run Responses to Fiscal and Monetary Shocks</i>	99
	<i>Dynamic Responses in the U.S. Models</i>	111
	<i>International Income and Price Multipliers: Fiscal Shock</i>	113
	<i>International Income and Price Multipliers: Monetary Shock</i>	120
	<i>Alternative Foreign Monetary Strategies</i>	125
	<i>Conclusions</i>	127
	<i>References</i>	130
6.	<i>John F. Helliwell</i> Empirical Macroeconomics for Interdependent Economies: What Next?	131
	<hr/>	
	<i>The Models</i>	131
	<i>Evidence of Interdependence</i>	134
	<i>Understanding Models Better</i>	137
	<i>Building Better Models</i>	141
	<i>Using Models Better</i>	142
	<i>References</i>	147
	<hr/>	
	Discussion of Part Two	149
	<hr/>	
	<i>Comment by Peter B. Clark</i>	149
	<i>Comment by Paul R. Masson</i>	151
	<i>Comment by Ralph W. Tryon</i>	152
	<i>Comment by Pete Richardson</i>	154
	<i>Comment by David Currie</i>	155

PART THREE
Issues of Theory and Model Specification

7. *John B. Taylor*
**The Treatment of Expectations in Large Multicountry
Econometric Models** 161
-
- Feasibility and Usefulness of Rational Expectations in Large Models* 162
Econometric Policy Evaluation 165
Comparison of Unanticipated and Anticipated Policies 169
Conclusions 172
Appendix: A Multicountry, Econometric Rational Expectations Model 173
Comment by Bennett T. McCallum 179
References 181
8. *Peter Isard*
**Exchange Rate Modeling: An Assessment of Alternative
Approaches** 183
-
- Lessons from Empirical Tests of Behavioral Models and Parity Assumptions* 184
*Approaches toward Integrated Models of Goods Market Equilibrium and Asset
Preferences* 189
Conclusions 197
References 198
9. *Stephen Nickell*
The Supply Side and Macroeconomic Modeling 202
-
- How Does the Supply Side Work?* 202
Overall Specification of the Supply Side 209
Firms' Prices, Factor Demands, and Inventories 210
Models of Wage Determination 215
Conclusions 217
Comment by Olivier Jean Blanchard 218
References 219

PART FOUR
Models and Policies

10. *Kenneth F. Wallis*
Empirical Models and Macroeconomic Policy Analysis 225
-
- Techniques for the Use of Models in Policy Analysis* 225
Model Comparisons 234
References 237
11. *Jeffrey A. Frankel*
**The Implications of Conflicting Models for Coordination
between Monetary and Fiscal Policymakers** 238
-
- The Theory of Coordination When Policymakers Disagree Only about the
Model* 240

Evidence from the Simulations 243

Extensions 253

References 254

12. *Richard N. Cooper*

U.S. Macroeconomic Policy, 1986–88: Are the Models Useful? 255

The U.S. Policy Problem in Late 1985 255

Responses of the Models 258

An Alternative Approach 263

Concluding Remarks 264

References 266

13. *Gerald Holtham*

Foreign Responses to U.S. Macroeconomic Policies 267

Recent Economic Policymaking in Europe and Japan 267

The Consequences of Different Policies 277

Conclusion: The Prospects for Cooperation 282

References 283

14. *Christopher I. Higgins*

Empirical Analysis and Intergovernmental Policy Consultation 285

Understanding International Economic Relations and Constraints 285

Developing Cooperative Policies 288

Easing the Constraints on Policymakers 292

Conclusions 295

Comment by Masaru Yoshitomi 297

References 301

Annexes

A. Christopher A. Sims	
Identifying Policy Effects	305
<i>Identifying Policy Disturbances</i>	305
<i>Ambiguities in the Theory</i>	310
<i>Some Empirical Explorations</i>	312
<i>Conclusions</i>	316
<i>Appendix</i>	317
<i>Model Notes</i>	319
<i>References</i>	321
B. Paul R. Masson	
Deriving Small Models from Large Models	322
<i>Obtaining an Aggregated Reduced-Form Model</i>	322
<i>Generating Small Structural Models</i>	323
<i>Using Regression Models to Summarize Lag Distributions</i>	326
<i>References</i>	327
Project Participants	329
Name Index	333
Subject Index	335