
Contents

1	Period Models, Continuous Time and Applied Macrodynamics	1
1.1	Introduction	1
1.2	The J2-Status of Macrodynamic Period Analysis	2
1.3	1D Equivalence: The Solow Model	9
1.4	2D Monetarist Baseline Analysis. Chaotic Attractors?	15
1.5	4D Complex Keynesian Macrodynamics	21
1.6	Concluding Remarks	25
	Appendix A: Indeterminacy for Large Periods h	28
	References	31

Part I The Closed Economy

2	The AS–AD Framework: Origins, Problems and Progress . .	35
2.1	Introduction	35
2.2	Traditional AS–AD with Myopic Perfect Foresight. Classical Solutions in a Keynesian Setup?	39
2.3	New Keynesian AS–AD Dynamics with Staggered Wage and Price Setting	44
2.4	Matured Keynesian AD–AS Analysis: A Baseline Model	50
2.5	Feedback-Guided Local Stability Investigation	59
2.6	Wage Share Error Corrections and Interest Rate Policy Rules	64
2.7	Downward Nominal Wage Rigidities	68
2.8	Conclusion	74

Appendix A: Rigorous Stability Analysis (Interest Rate Policy Case)	76
References	87
3 Wage–Price Dynamics: Basic Structural Form, Estimation and Analysis	91
3.1 Introduction	91
3.1.1 The Phillips Curve(s)	91
3.1.2 Basic Macro Feedback Chains. A Reconsideration	93
3.1.3 Outline of the Chapter	98
3.2 A Model of the Wage–Price Spiral	99
3.2.1 The Wage–Price Spiral	99
3.2.2 Technology	101
3.2.3 Aggregate Goods Demand	102
3.2.4 The Laws of Motion	103
3.2.5 The Effective Demand Function	105
3.2.6 Stability Issues	106
3.3 Estimating the U.S. Wage–Price Spiral	109
3.3.1 Data	110
3.3.2 The Money-Wage Phillips Curve	111
3.3.3 The Price Phillips Curve	114
3.3.4 System Results	116
3.3.5 Are There Adverse Rose Effects?	117
3.4 Wage Flexibility, Instability and an Extended Interest Rate Rule	119
3.4.1 Instability Due to an Unmatched Rose Effect	119
3.4.2 Stability from Blanchard–Katz Type “Error Correction”	120
3.4.3 Stability from an Augmented Taylor Rule	121
3.5 Conclusions	122
Appendix A	124
A.1 The Sectoral Budget Equations of the Model	124
A.2 Wage Dynamics: Theoretical Foundation	125
A.3 Price Dynamics: Theoretical Foundation	127
A.4 Routh–Hurwitz Stability Conditions and Hopf Bifurcations	128
A.5 Proofs of Propositions 3.2–3.7	129
References	133

4	Estimation and Analysis of an Extended AD–AS Model . . .	137
4.1	Introduction	137
4.2	Structural Models of the Wage–Price Spiral	140
4.3	New Keynesian Phillips Curves and the Wage–Price Spiral: A Brief Comparison	145
4.4	Real-Wage Dynamics: The Critical Stability Condition	151
4.5	Estimating the Wage–Price Spiral for the U.S. Economy	153
4.5.1	Data Description	154
4.5.2	Estimation Results	157
4.6	Keynesian Macrodynamics: Empirical Reformulation of a Baseline Model	161
4.7	5D Feedback-Guided Stability Analysis	169
4.8	Estimating the Model	175
4.8.1	Data Description	178
4.8.2	Estimation of the Unrestricted VAR	179
4.8.3	Estimation of the Structural Model	181
4.9	Stability Analysis of the Estimated Model	187
4.10	Instability, Global Boundedness and Monetary Policy	196
4.11	Conclusions and Outlook	206
	References	209
5	Linking Goods with Labor Markets: Okun’s Law and Beyond	213
5.1	Introduction	213
5.2	Foundations for Regressions with Time-Varying Coefficients	216
5.2.1	The Random Walk Approach	217
5.2.2	Deterministic Spline Functions of the Coefficients	222
5.2.3	A Comparison of the Stochastic and Deterministic Approach	224
5.3	Okun’s Law and the Natural Rate of Unemployment	229
5.3.1	The Problem of Detrending	230
5.3.2	Deriving the Natural Rate of Unemployment from the Data	238
5.4	Okun’s Law as a Time-Varying Statistical Regularity	244
5.4.1	Different Specifications of the Relationship	244
5.4.2	Time Variations in the Okun Coefficient	246
5.4.3	Comovements of the Components of Output and Employment	253

5.5	A Model of a Simple Recruitment Policy of Firms	259
5.6	Gradual Adjustments of Hours and Employment	262
5.6.1	Theoretical Framework	262
5.6.2	Estimation	269
5.7	Conclusion	279
References		281

Part II The Open Economy

6	Exchange Rate and Stock Market Dynamics in a Two-Country Model	287
6.1	Introduction	287
6.2	The Dornbusch Exchange-Rate Dynamics	290
6.3	Symmetric Two-Country Exchange Rate Dynamics	292
6.4	The Blanchard Stock-Market Dynamics	303
6.5	Interacting Blanchard Stock Market and Dornbusch Exchange Rate Dynamics: A Two-Country Framework	305
6.6	A Model-Oriented Reformulation of the Taylor Interest Rate Rule	307
6.7	Symmetric Countries: Stability Analysis	310
6.7.1	The Average Economy	310
6.7.2	The Difference Economy	311
6.7.3	Summary	312
6.8	Dornbusch Inflation Dynamics	312
6.9	Outlook: Imperfect Capital Markets	315
References		319

7	Macroeconomic Imbalances and Inflation Dynamics in a Mundell-Fleming-Tobin Framework	321
7.1	Introduction	321
7.2	The General Framework	323
7.2.1	Budget Equations and Saving/Financing Decisions	324
7.2.2	Real Disposable Income and Wealth Expressions	325
7.2.3	Temporary Equilibrium: Output, Interest and Exchange Rate Determination	327
7.2.4	Dynamics and the Steady State of the Economy	330
7.2.5	Local Stability Analysis	334

7.2.6	Real Twin Deficit Accumulation and Inflation Dynamics	335
7.3	Capital Account and Inflation Dynamics under Interest and Currency Pegs	338
7.3.1	Assumptions	338
7.3.2	The Model	339
7.3.3	Steady State Determination	340
7.3.4	Stability Analysis	341
7.3.5	Twin Deficit or Surplus Accumulation	345
7.4	Overshooting Exchange Rates and Inflation Dynamics for Perfectly Flexible Exchange Rate Regimes	345
7.4.1	Equilibrium Conditions	346
7.4.2	Dynamics and Steady State Determination	347
7.4.3	Dornbusch (1976) Exchange Rate Dynamics	349
7.4.4	Capital Account and Budget Deficit Dynamics	352
7.5	International Capital Flows in the MFT Model	353
7.5.1	Budget Restrictions	353
7.5.2	Real Disposable Income and Wealth Accounting	355
7.5.3	The Four Laws of Motion of the MFT Open Economy with International Capital Flows	357
7.6	International Financial Dynamics: Some Basic Results	363
7.6.1	Inflation Dynamics and International Capital Flows under Interest and Exchange Rate Pegs	363
7.6.2	The Case of Flexible Exchange Rates	367
7.7	Conclusions	369
	References	371
8	Currency Crises, Credit Rationing and Monetary Policy in Emerging Markets	373
8.1	Introduction	373
8.2	The General Framework	374
8.2.1	The Goods Markets	375
8.2.2	The Financial Markets	380
8.3	Dynamics under Fixed Prices and Flexible Exchange Rates ...	382
8.3.1	Local Stability Analysis	382
8.3.2	The Baseline Currency Crisis Scenario	384
8.4	Dynamics under Gradually Adjusting Prices in Fixed Currency Regimes	385

8.4.1	Local Stability Analysis	388
8.4.2	Dynamics with a Standard Phillips-Curve	390
8.4.3	Dynamics with a “Kinked” Phillips Curve	394
8.5	Dynamics under Gradually Adjusting Nominal Exchange	
	Rates and Prices	395
8.5.1	The Case of Total Liability Dollarization $v = 1$	397
8.5.2	The Case of Partial Liability Dollarization $0 < v < 1$	400
8.5.3	Short Term Policy Responses and Medium Term	
	Consequences: The Rules vs. Discretion Debate	403
8.6	Econometric Analysis	406
8.7	Concluding Remarks	411
	References	413
9	Keynesian Dynamics and International Linkages in a	
	Two-Country Model	417
9.1	Introduction	417
9.2	The Baseline Open-Economy Framework	418
9.2.1	The Goods and Labor Markets	419
9.2.2	The Wage-Price Dynamics	420
9.2.3	Monetary Policy	424
9.2.4	The Nominal Exchange Rate Dynamics	425
9.2.5	Local Stability Analysis: The Small-Open Economy	
	Case	428
9.3	The Two-Country Framework: Estimation and Evaluation	432
9.3.1	Stylized Facts of Monetary Policy	435
9.3.2	Data Sources and Descriptive Statistics	436
9.3.3	Structural Estimation Results	439
9.3.4	Dynamic Adjustments	443
9.4	Eigen-Value-based Stability Analysis	445
9.5	Concluding Remarks	449
	References	451
10	Outlook: Supply Constraints in Demand-Driven	
	Macromodels	455
10.1	Introduction	455
10.2	A Non-Walrasian Model of Monetary Growth	458
10.3	From Non-Walrasian to Keynesian Modeling of Monetary	
	Growth	464

10.4 Regime Switching in KMG Growth	470
10.4.1 Supply Bottlenecks with Positive Inventories	471
10.4.2 Exhausted Inventories and Excessive Aggregate Demand.....	485
10.4.3 Numerical Analysis	491
10.5 Summary.....	498
References	501
Mathematical Appendix: Some Useful Theorems	503
References	511



<http://www.springer.com/978-3-540-72541-1>

Topics in Applied Macrodynamic Theory

Flaschel, P.; Groh, G.; Proano, C.; Semmler, W.

2008, XX, 512 p. 94 illus., Hardcover

ISBN: 978-3-540-72541-1