Capitalism

Competition, Conflict, Crises

Anwar Shaikh

OXFORD
UNIVERSITY PRESS

CONTENTS

List of Figures xx
List of Tables xxix
Preface and Acknowledgments xxxv

Part I: Foundations of the Analysis
1. Introduction 3
I. The Approach of the Book 3
1. Order and disorder 3
2. Neoclassical response to the real duality 4
3. Keynesian and post-Keynesian response to the real duality 4
4. Different purpose of this book 4
II. Outline of the Book 7
1. Part I: Foundations of the analysis (chapters 1–6) 8
2. Part II: Real competition (chapters 7–11) 14
3. Part III: Turbulent macro-dynamics (chapters 12–17) 31

2. Turbulent Trends and Hidden Structures 56
I. Turbulent Growth 56
II. Productivity, Real Wages, and Real Unit Labor Costs 59
III. The Rate of Unemployment 61
IV. Prices, Inflation, and the Golden Wave 62
V. The General Rate of Profit 65
VI. Turbulent Arbitrage 66
VII. Relative Prices 69
VIII. Convergence and Divergence on a World Scale 70
IX. Summary and Conclusions 72

3. Micro Foundations and Macro Patterns 75
I. Introduction 75
II. Micro Processes and Macro Patterns 78
1. Representing individual human behavior 78
2. Representing aggregate behavior 84
3. Aggregate relations, micro foundations, and the question of rigor 87
III. Shaping Structures, Economic Gradients, and Aggregate Emergent Properties 89
1. Analytical framework for robust microeconomics 90
2. Downward sloping demand curves 91

3. Income elasticities and Engel's Law 92
4. Aggregate Consumption and Savings Functions 95
5. Simulations: Insensitivity of aggregate relations to micro foundations 96
IV. Methodology for Economic Analysis 101
V. Turbulent Gravitation 104
1. Equilibration as a turbulent process versus equilibrium as an achieved state 104
2. Statics, dynamics, and growth cycles 105
3. Differences in the temporal dimensions of key economic variables 105
VI. Summary and Central Implications 109

4. Production and Costs 120
I. Introduction 120
II. Production in Economic Theories 122
1. Circulating versus fixed investment 122
2. Classical and conventional national accounts 123
3. Production and non-production labor 128
III. Production Relations Versus Production Functions 130
1. Structural and temporal dimensions of production 130
2. Social and historical determinants of the length and intensity of the working day 131
3. Empirical evidence on the relations between work conditions and labor productivity 134
IV. Production at the Level of a Firm 135
1. Work conditions and "re-switching" along the microeconomic production possibilities frontier 135
2. Output and production coefficient under socially determined work conditions 141
V. Cost, Prices, and Profits 151
1. Assumed shapes of cost curves in neoclassical, neo-Ricardian, and post-Keynesian theories 151
2. Cost curves under general conditions of the labor process 153
3. Implications of general cost curves for various economic arguments 157
VI. Empirical Evidence on Cost Curves 160

5. Exchange, Money, and Price 165
I. Introduction 165
II. The origins of modern money 169
1. Money commodities 170
2. Coins 173
3. Money tokens 174
4. Inconvertible tokens, forced currency, and fiat money 175
5. Banks, credit, and money 180
6. Essential functions of money 182

i. Money as medium of pricing 183
ii. Money as medium of circulation 183
iii. Money as medium of safety 184
III. Classical Theories of Money and the National Price Level 188
1. Classical theories of money 189
2. The basic structure of Marx's theory of money 191
3. The key elements in Marx's theory of money 194
4. Empirical patterns with respect to Marx's theory of money 198
IV. Toward a Classical Theory of the Price Level Under Modern Money 200
1. The determination of relative prices with convertible tokens 200
2. The determination of relative prices with inconvertible tokens 203
3. Further issues 203

6. Capital and Profit 206
I. Introduction 206
II. The Two Sources of Aggregate Profits 208
III. Production, Labor Time, and Profit 212
1. No aggregate profit without surplus labor 213
2. Positive profits require surplus labor 216
3. General rule for measuring real economic profits 217
4. The puzzle of the effects of relative prices on aggregate profit 218
IV. Aggregate Profits and Transfers of Value: a General Solution to the Universal "Transformation Problem" 221
1. Transfers of value via changes in relative prices 224
2. The influence of output proportions on transfers of value and aggregate profit 226
V. Financial profits and profit-on-transfer 229
VI. Theories of Aggregate Profit in Various Schools 231
VII. Critical Review of the Literature on the Effects of Relative Prices on Aggregate Profit 238
VIII. Measurement of Profit and Capital 243

Part II: Real Competition

7. The Theory of Real Competition 259
I. Introduction 259
II. Real Competition within an Industry 261
III. Real competition between industries 264
IV. Real Competition and the Notion of Regulating Capitals 265
V. General Phenomena of Real Competition 267
VI. Evidence on Real Competition 272
1. The behavior of the firm 272
i. Oxford Economists Research Group (OERG) and Hall and Hitch 272
ii. Andrews and Brunner 274
iii. Harrod's revision of imperfect competition 278
iv. Price-cutting and entry in the business literature 282

2. Empirical evidence on operating costs of plants: Salter 284
3. Choice of technique under price-taking versus price-cutting 288
4. Empirical evidence on firm-level costs, capital intensity, and profits 290
5. Empirical evidence on equalization of regulating rates of profit 295
i. Defining measures of average and regulating rates of profit 298
ii. Empirical evidence for OECD countries 301
iii. Econometric tests of profit rate equalization 305
VII. Debate on Competition, Choice of Technique, and Profit Rate 313
1. The feasible range of competitive prices 316
2. Economy-wide implications of the choice of technique 317
3. Implications of the choice of technique for the time path of the general profit rate 322

8. Debates on Perfect and Imperfect Competition 327
I. Theoretical Views 327
1. Classical views 330
i. Smith 330
ii. Ricardo 331
2. Marx 333
i. Regulating capital 336
ii. Choice of technique 337
iii. Bias of technical change 339
3. The theory of perfect competition 340
i. Rise of the visions of perfect competition and perfect capitalism 340
ii. Walras and general equilibrium 341
iii. Walras and Marshall 343
iv. Walras and modern neoclassical economics 343
v. Crucial role of price-taking behavior 343
vi. Critiques of perfect competition 344
vii. Externalities and the Coase Theorem 345
4. Perfect competition requires irrational expectations 346
i. Perfect knowledge contradicts perfect competition 346
ii. The failure of the Quantity Theory of Competition 347
iii. The need for competitive firms to consider demand 347
iv. Keynes and Kalecki on macro implications 348
v. Patinkin on macro implications 349
5. Schumpeter's views 349
6. Austrian views 351
i. Hayek 351
ii. Von Mises 351
iii. Kirzner 352
iv. Mueller 352
v. General assessment of Austrian economics 352

7. Marxian monopoly capitalism theory 353
8. Rise of theories of imperfect competition 357
i. From perfect to imperfect competition 357
ii. Sraffa's early critique of the theory of the firm 357
iii. Chamberlin and Robinson 358
iv. The neoclassical counterattack 358
9. Kalecki and post-Keynesian views 359
i. Kalecki's price theory 359
ii. Post-Keynesian price theory 361
10. Modern classical views 364
i. Basic positions on the relation of market prices to prices of production 364
ii. Price-taking versus price-setting 366
iii. Firm size and the degree of competition 367
II. Empirical Evidence on Competition and Monopoly 367
1. Introduction 367
2. Traditional indicators of oligopoly and monopoly power 368
3. Price rigidity and monopoly power 370
4. Profitability and monopoly power 372
5. Empirical evidence on profit rates and monopoly power 373
6. Empirical evidence on profit margins and monopoly power 377
7. Collusion and Profitability 379

9. Competition and Inter-Industrial Relative Prices 380
I. Introduction 380
II. Simple Commodity Production 381
III. The Fundamental Equation of Price: Adam Smith's Derivation 385
1. Fundamental Equation applies to all prices 385
2. The Fundamental Equation for Relative Price 386
3. Damping effects of vertical integration 388
IV. Measuring the Distance Between Relative Prices and their Regulators 388
1. Numerical example of effects of changes in units 389
2. Deficiencies of regression analysis for cross-sectional analysis 389
3. Defining the appropriate measure of deviations 391
V. Evidence on Market Prices in Relation to Direct Prices 395
1. Cross-sectional evidence 395
2. Time-series evidence 396
3. The Schwartz–Puty tests of the Ricardian time-series hypothesis 398
VI. Prices of Production, Direct Prices, and Market Prices 400
1. Theoretical issues 400
2. Numerical example 404
VII. Evidence on Prices of Production as Functions of the Rate of Profit in Relation to Direct Prices and Market Prices 406
1. Circulating capital model 406
2. Implications of linear output–capital ratios 406
3. Fixed capital model 410
VIII. Empirical Distance Measures 413

IX. Empirical Evidence on Prices of Production at the Observed Rate of Profit in Relation to Direct and Market Prices 416
1. Cross-sectional evidence 416
2. Resolving the puzzle of the distance of market prices from production and direct prices 417
3. Time-series evidence 419
X. Wage–Profit Curves, 1947–1998 422
XI. Origins and Developments of the Classical Theory of Relative Price 424
1. Classical origins 424
2. Modern theoretical developments 426
i. Sraffa 426
ii. Sraffian branches 428
iii. Debate on the theory of relative prices 428
iv. The neoclassical theory of distribution and employment 429
3. Modern empirical evidence 433
XII. Summary and Implications of the Classical Theory of Relative Prices 438

10. Competition, Finance, and Interest Rates 443
I. Introduction 443
1. Interest rates 443
2. Net rate of profit 443
3. Term structure 444
4. Orthodox and heterodox theories of the interest rate 444
5. Bond prices 444
6. Equity prices 445
7. Financial arbitrage 445
II. Competition and Interest Rates 447
1. Competition and the banking sector 447
2. Profit rate of enterprise (r – i) 447
3. Relation of the interest rate to the price level and the profit rate 449
4. Implications of the classical theory of the interest rate 452
5. A structural theory of the yield curve 452
III. Competition and the Stock Market 454
IV. Competition and the Bond Market 456
V. Summary of the Classical Theory of Finance 458
VI. Empirical Evidence 461
1. Equalization of bank regulating rate of profit 461
2. Equalization of bank loan rate with corporate bond yield 461
3. Equalization of interest rates of similar financial assets 462
4. Interest rates do not reflect fixed markups on the base rate 462
5. Profit rate and the interest rate 464
6. Interest rates and prices 464
VII. A Critical Survey of Interest Rate Theories 475
1. Interest rate theories have two dimensions 475
2. Smith, Ricardo, and Mill 475

3. Marx 476
4. Neoclassical and Keynesian theories of the level of interest rates 480
i. Arbitrage equalizes rates of return 480
ii. Two further issues: Interest rate levels and term structure 480
iii. Neoclassical theory of the level of interest rates 480
iv. Keynesian and Hicksian theories of the level of interest rates 480
v. Post-Keynesian theories of the level of the interest rate 482
5. Neoclassical and Keynesian theories of the term structure of interest rates 483
i. Keynes and Hicks on the term structure 484
ii. Post-Keynesian theories of the term structure 485
6. Panico's synthesis of the classical and Keynesian approaches 485
VIII. Stock Market Theories 488
1. Arbitrage and modern finance theory 488
2. Arbitrage and equity valuation 488

11. International Competition and the Theory of Exchange Rates 491
I. Introduction 491
1. Theory of trade is a critical part of debates on costs and benefits of globalization 491
2. Neoliberalism theory and practice 492
3. Proponents of neoliberalism 493
4. Critics of neoliberalism 493
5. Debate appears to be about perfect versus imperfect competition 495
6. Real competition does not imply comparative costs: Resituating the debate 495
II. The Theoretical Foundations of Conventional Trade Policy 495
1. Conventional free trade theory 495
2. Two crucial premises: Comparative costs and full employment 496
3. Comparative costs 496
4. Full employment 497
5. Summary of standard trade theory 498
6. Problems with standard trade theory 498
III. Reactions to the Problems of Standard Trade Theory 500
1. Reaction 1 to problems of standard theory: Slow adjustment 500
2. Reaction 2 to problems of standard theory: Introduce imperfections 500
IV. Ricardo's Principle of Comparative Cost 502
1. Real competition 502
2. Ricardo also begins from profit-seeking firms 502
3. Ricardo on macroeconomic consequences of unbalanced trade 502
4. Fixed versus flexible exchange rates 503
5. Transformation of rule of absolute costs to rule of comparative costs 503

6. Ricardo's shift from trade undertaken by capitals to trade undertaken by nations 504
7. Numerical example of the Ricardian adjustment 505
V. Real Competition Implies Absolute Cost Advantage 508
1. Introduction 508
2. The first difficulty: Feedback from prices to cost 508
3. The second difficulty: Trade imbalances and balance of payments 509
4. The classical theory of free trade 509
5. Regulating capitals in an international context 510
i. Prices of production prior to trade 510
ii. Comparative costs 510
iii. Absolute costs 511
iv. Benchmark case of equal technical compositions but different efficiencies 511
v. Complete independence of comparative cost from relative prices in the benchmark case 512
vi. General case 512
vii. The Smithian decomposition 513
viii. Integrated comparative real costs 514
ix. Three possible outcomes in classical 2 x 2 case 514
x. The intermediate case is the general one 516
xi. Tradable and nontradable goods 516
xii. Purchasing Power Parity and the Law of One Price 517
xiii. Purchasing Power Parity and the compositional component of the real exchange rate 519
xiv. Actual costs as proxies for regulating costs 519
6. Trade balances, capital flows, and the balance of payments 520
7. Summary of the classical approach to free trade 522
VI. Empirical Evidence 522
1. The persistence of empirically weak theoretical models as a guide to policy 527
2. Empirical evidence on the relation between real exchange rates and real costs 528
3. Implications of the classical approach to long-run exchange rates 532

Part III: Turbulent Macro Dynamics

12. The Rise and Fall of Modern Macroeconomics 539
I. Introduction 539
1. Macroeconomics as the aggregate consequences of individual actions 540
2. Central tendencies versus idealized worlds 540
3. Macroeconomics, emergent properties, and turbulent laws 541
4. Neoclassical macroeconomics and representative agents 542

5. Ten critical issues in macroeconomic analysis 542
i. Microeconomic features need not carry over 542
ii. Macro has always grounded itself in micro behavior 542
iii. Many micro foundations are consistent with some given macro pattern 543
iv. Notion of turbulent equalization requires corresponding tools 543
v. Temporal dimensions differ: Fast and slow processes 543
vi. Growth is the normal state 544
vii. Expectations, actuals, and fundamentals are reflexively related 544
viii. Real competition implies downward sloping demand curves 545
ix. Real competition does not imply continuous market clearing 546
x. Say's Law and the split in the classical tradition on external demand and neutrality of money 546
6. Accounting for aggregate demand, supply, and capacity 548
i. Ex ante three balances 548
ii. Ex post balances 549
iii. Equilibrium balances 549
iv. Time dimensions 549
v. Basic savings–investment relation 550
vi. Output and capacity 550
vii. Normal capacity utilization does not imply Say's Law 552
II. Pre-Keynesian Macroeconomics 553
1. The displacement of classical economics by neoclassical economics 553
2. Walrasian roots of neoclassical economics 553
3. Pre-Keynesian neoclassical orthodoxy 554
i. Core orthodox propositions attacked by Keynes 554
ii. The neoclassical argument on full employment supply 555
iii. The neoclassical argument on aggregate demand and the interest rate 556
III. Keynes's Breakthrough 557
1. Keynes's practical experience after World War I 557
2. Keynes's new formulation 558
i. Production takes time so ruled by expected profit 558
ii. Aggregate demand has autonomous components 558
iii. Savings adjusts to investment 558
iv. Derivation of the investment–savings relation and the multiplier 559
v. Effects of profitability and interest rates on level of output 559
3. The Hicksian IS–LM representation of Keynesian economics 561
4. The rise and fall of Keynesian theory and policy 563
5. The rise and fall of the IS–LM/Phillips-Curve model 563

IV. The Return of Neo-Walrasian Economics 566
1. Monetarism 567
i. The old Quantity Theory of Money 567
ii. The new Quantity Theory of Money 568
iii. Friedman on the Great Depression 568
2. The natural rate of unemployment and inflation in the context of adaptive expectations 569
i. The problem facing macro theories in the 1970s 569
ii. Frictional employment in Keynesian and neoclassical theories 570
iii. Natural rates of employment and unemployment 570
iv. Short-run versus long-run effects of changes in aggregate demand 572
v. The link to inflation 573
vi. Non-accelerating inflation rate of unemployment 575
3. Rational expectations and the New Classical Theory 576
i. Role of expectations in Friedman and Phelps 576
ii. The New Classicals build upon this framework 576
iii. Hyper-rational expectations 577
iv. Lucas 578
4. Real Business Cycle Theory 580
i. Analytical structure of the Real Business Cycle Theory model 580
ii. Policy implications of the Real Business Cycle Theory 581
iii. Calibration for mimicking some real patterns versus econometric testing 582
iv. Further considerations on empirical relevance of the Real Business Cycle Theory 582
5. New Keynesian economics 583
6. Conventional behavioral economics 584
V. Kalecki 584
VI. Post-Keynesian Economics 587
1. Introduction 587
2. Davidson 588
3. The Kaleckian-Structuralist wing of post-Keynesian theory 588
i. Godley 589
ii. Taylor 591
4. General themes in post-Keynesian theory 594
i. Wage-led and profit-led growth: Alternate short-run outcomes or successive long-run phases? 596
ii. Long-run growth limits 596
iii. Unemployment can be eliminated through appropriate policy 597

13. Classical Macro Dynamics 598
I. Introduction 598
II. A Reconsideration of the Theory of Effective Demand 599

1. The micro foundations of effective demand 599
2. The temporal implications of the multiplier sequence 600
3. Credit as the fuel and debt as the consequence of the multiplier 603
4. The significance of a constant savings rate in Keynesian theory 604
5. The relation between actual and normal capacity utilization 605
6. The relation between expected and actual outcomes 607
7. Adjustment processes in a dynamic context 608
8. Exogenous demand in the Harrodian system and the so-called Sraffian Supermultiplier 610
9. Deterministic versus stochastic trends 612
10. Implications of the endogeneity of the money supply for interest rate theory 613
11. Aggregate demand and the price level 614
12. Underutilized resources as a normal phenomenon 614

III. Modern Classical Economics: The Centrality of Profit 615
1. Profit regulates both supply and demand 615
2. Endogeneity of the business savings rate 616
3. Profit, investment finance, and growth 618
i. Pure internal finance of investment by each firm 618
ii. Aggregate internal finance of investment by business as a whole 621
iii. Stability of aggregate internal finance 621
iv. Interest rate is not the key adjustment variable 622
v. Net rate of profit rises with the general rate of profit 623
vi. Modified interest rate adjustment process 624
vii. Household savings 624
viii. Interest rate sensitivity of household savings rate does not change the dynamic 625
ix. Private bank credit 625
x. Bank credit provides a foundation for cycles 626
xi. Government deficits and foreign demand 627
4. Summary of the classical dynamic 628
i. Classical equilibrium 629
ii. Properties of classical equilibrium 629
iii. Level of output 632
5. Summary of the classical theory of growth 636

14. The Theory of Wages and Unemployment 638
I. Introduction 638
II. Wages and Unemployment in Economic Theories 639
1. Neoclassical and post-Harrodian wage theory 639
2. Kaleckian and post-Keynesian wage theories 641
3. Goodwin and post-Goodwin approaches 641
i. Post-Goodwin post-Keynesian models 642
ii. Post-Goodwin classical models 644
iii. Object of this chapter 645

III. Dynamical Interactions between the Wage Share, Unemployment Rate, and the Harrodian "Natural Rate" of Growth 646
1. Theory of the real wage: From stochastic micro to macro 646
2. Responsiveness of labor strength to unemployment 648
3. The Classical Curve 648
4. Determinants of the unemployment rate 650
5. Effects of productivity and labor force growth 650
IV. Normal Versus "Natural" Rates of Unemployment 660
V. The Relation of the Classical Wage Curve to the Phillips Curve 661
1. The general Phillips curve 662
2. Three answers to Phillips's original question 662
VI. Empirical Evidence on Growth, Unemployment, and Wages 663
VII. Summary and Implications of Classical Macro Dynamics 672

15. Modern Money and Inflation 677
I. Money, Markets, and the State 677
II. Chartalist and Neo-Chartalist Visions of Money 680
1. Money, banking, and Babylonia 681
2. Innes 682
3. Knapp 684
4. Modern Chartalism 685
III. Modern Governmental Finance 688
IV. Growth, Profitability, and the Price Level 692
1. Classical competition theory only establishes relative prices 692
2. Pure fiat money in classical, Monetarist, Keynesian, and post-Keynesian approaches 693
3. Determinate versus path-dependent price levels 694
4. Maximum rate of growth 694
5. Labor is not the constraint 695
6. Growth-utilization rate 695
7. Determinants of the growth rate of real capital 696
V. Demand-Pull 697
1. Excess demand and injections of purchasing power 697
2. New purchasing power and the change in nominal output 698
VI. Supply-Response 699
VII. The Theory of Inflation Under Fiat Money 702
VIII. Empirical Evidence 703
1. United States 703
i. Growth in nominal GDP as a function of relative new purchasing power 703
ii. Real output growth, profitability, purchasing power, and growth utilization 705
iii. Inflation in the United States 705
2. Inflation in ten countries (Handfas) 712
3. Inflation on a world scale 712
4. Argentina 719

IX. Summary and Comparisons to the Non-Accelerating Inflation Rate of Unemployment 721

16. Growth, Profitability, and Recurrent Crises 724
I. Introduction 724
1. Depressions recur 726
2. Depressions are denied 728
3. Outline of the chapter 728
II. Profitability in the Postwar Period 729
1. Normal and actual profit rates 729
2. Productivity and real wages 730
3. Impact on profitability of the suppression of real wage growth 731
4. Rate of return on average capital versus new investment 731
5. The extraordinary postwar path of the interest rate 731
6. The rate of profit-of-enterprise and the great boom after the 1980s 734
III. The Global Effects of the Current Crisis 736
1. United States 736
2. Other developed countries 737
3. Global scale 739
IV. Policy Lessons and Possibilities: Austerity Versus Stimulus 740
V. On the Role of Economic Theory 745

17. Summary and Conclusions 746
I. Introduction 746
1. Perfection and imperfection 747
2. Internal critiques 747
II. Implications and Applications of Classical Competition 747
1. Lawful patterns despite heterogeneous behaviors 748
2. Equalization tendencies as a basis for stable distributions of wage and profit rates 749
3. From wage and profit rate distributions to the overall income distribution 751
4. Rising inequality and the class distribution of income 755
III. Wages, Taxes, and the Net Social Wage 755
IV. Piketty 756
V. Development and Underdevelopment 759

Appendices

Appendix 2.1. Sources and Methods for Chapter 2 763

Appendix 2.2. Data Tables for Chapter 2
(available online at http://www.anwarshaikhecon.org/)

Appendix 4.1. Production Flows and Stocks in National Accounts 767

Appendix 4.2. Numerical Calculations for Figures 4.1–4.18 772
(available online at http://www.anwarshaikhecon.org/)

Appendix 5.1. Citations of Key Points in Marx's Theory of Money 782

Appendix 5.2. Sources and Methods for Chapter 5 788

Appendix 5.3. Data Tables for Chapter 5
(available online at http://www.anwarshaikhecon.org/)

Appendix 6.1. Algebra of Profit and Surplus Labor 790

Appendix 6.2. The Rate of Profit as a Real Rate 796

Appendix 6.3. Gross and Net Capital Stocks 801

Appendix 6.4. Marx and Sraffa on Fixed Capital as a Joint Product 804

Appendix 6.5. Measurement of the Capital Stock 807

Appendix 6.6. Measurement of Capacity Utilization 822

Appendix 6.7. Empirical Methods and Sources 828

Appendix 6.8. Data Tables for Chapter 6
(available online at http://www.anwarshaikhecon.org/)

Appendix 7.1. Data Sources and Methods for Chapter 7 856

Appendix 7.2. Data Tables for Chapter 7
(available online at http://www.anwarshaikhecon.org/)

Appendix 8.1. Data Tables for Chapter 8
(available online at http://www.anwarshaikhecon.org/)

Appendix 9.1. Matrix Algebra of Classical Price Theory 861

Appendix 9.2. Sources and Methods for Chapter 9 867

Appendix 9.3. Data Tables for Chapter 9
(available online at http://www.anwarshaikhecon.org/)

Appendix 10.1. Sources and Methods for Chapter 10 873

Appendix 10.2. Data Tables for Chapter 10
(available online at http://www.anwarshaikhecon.org/)

Appendix 11.1. Data Sources and Methods for Chapter 11 875

Appendix 11.2. Data Tables for Chapter 11
(available online at http://www.anwarshaikhecon.org/)

Appendix 12.1. Sources and Methods for Chapter 12 881

Appendix 12.2. Data Tables for Chapter 12
(available online at http://www.anwarshaikhecon.org/)

Appendix 13.1. Stability of Multiplier Processes 882

Appendix 14.1. Dynamics of the Classical and Goodwin Models 889

Appendix 14.2. Data Sources, Methods, and Regressions 892

Appendix 14.3. Data Tables for Chapter 14
(available online at http://www.anwarshaikhecon.org/)

Appendix 15.1. Sources and Methods for Chapter 15 895

Appendix 15.2. Data Tables for Chapter 15
(available online at http://www.anwarshaikhecon.org/)

Appendix 16.1. Sources and Methods for Chapter 16 898

Appendix 16.2. Data Tables for Chapter 16
(available online at http://www.anwarshaikhecon.org/)

Appendix 17.1. Sources and Methods for Chapter 17 900

Appendix 17.2. Data Tables for Chapter 17
(available online at http://www.anwarshaikhecon.org/)

Note on Abbreviations 901
References 913
Author Index 951
Subject Index 961