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(book detailed structure with outlines and contents of the completed chapters)

PART I. MACROECONOMIC CONCEPTS AND THEORIES OF EXTERNAL ADJUSTMENT

Chapter 1. Basic Notions of Open-Economy Macroeconomics

The objective of this first chapter is to revise in a more or less systematic way the basic notions of open-economy macroeconomics and to introduce some initial notation (maintained uniform throughout the book, as far as this proved possible). Its structure is organised as follows. Section 1 delimits the subject of our book and distinguishes between the main approaches to it. Definitions and interpretations of the most essential concepts related to the exchange rate and the foreign exchange market are summarised in section 2; to the international interest-rate parity conditions in section 3; to the balance of payments and international reserves in section 4. Finally, section 5 presents a synthetic approach to national accounting in the open economy. As a technical complement underlying the chapter, some basic applications of logarithms are revised, the construction of effective exchange rate indexes is explained, and the principles of open-economy national accounting are illustrated with some detail in a self-contained framework.

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2 An Accounting Matrix of Open-Economy Real and Financial Flows

Chapter 2. Static Macroeconomic Approaches to the Balance of Payments and the Exchange Rate

In this chapter, we summarise the major theories of balance of payments (BoP) adjustment in use since the inter-war period and, particularly, during the Bretton-Woods era. These theories were mostly based on static partial equilibrium (PE) models of an aggregative nature. Since capital movements were not as important in those times as they are today, the BoP was essentially interpreted as equivalent to the current account (CA), and often even as the balance on goods and services only. Abstracting from capital flows is nowadays unrealistic. Nevertheless, it is worth here starting from the simplest, and chronologically earlier, models to progressively build upon them. Understanding the CA is thus a necessary first step to consider the BoP as a whole and the interactions among open economies. The early theories of the BoP focused on two alternative adjustment channels: exchange rate changes or changes in income, both under the ceteris paribus clause (i.e. in PE). The former would be operative under a flexible exchange rate system, whereas the latter under a peg. We begin in section 1 with a simple model that highlights BoP adjustment through exchange rate changes, also known as the elasticity approach. In section 2 we go on to look at the alternative mechanism of BoP adjustment through income changes, often termed the (foreign trade) multiplier approach. Section 3 then discusses the so-called transfer problem and its possible explanations based on the elasticity approach versus the multiplier approach, a major debate in the inter-war and post-war period. In section 4, we sketch an integrated approach to BoP adjustment which merges and nests — generalising rather than contrasting — the two earlier approaches, suggested in the Laursen-Metzler (1950) model. Section 5 finally presents one of the longestlived workhorses of international macroeconomics, especially at the policy-making level, the original (static) Mundell-Fleming model of the early 1960s. It is, in essence, an extension of the closed-economy IS-LM Keynesian sticky-price model of Hicks (1937) and Hansen (1953) to the case of the open economy. As a technical

complement underlying the chapter, dynamic stability of equilibrium, total differentiation, the chain rule and interpreting partial derivatives as impact effects in comparative statics exercises are illustrated with some detail in appropriate contexts, in addition to the basic algebra deriving the key results.

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- 1.2 Expenditure-Switching and Expenditure-Reducing Policies
- 1.3 The Marshall-Lerner Critical Elasticities Condition
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8 Mundell-Fleming Model — Fiscal Expansion under Peg
9 Mundell-Fleming Model — Fiscal Expansion under Float
10 Mundell-Fleming Model — Monetary Expansion under Float
11 Mundell-Fleming Model — Monetary Expansion under Float

List of Tables (none)

Chapter 3. Dynamic Macroeconomic Approaches to the Balance of Payments and the Exchange Rate

Having explored various implications of the comparative statics analysis in the preceding chapter, we now turn to deterministic (i.e., not stochastic) dynamic macroeconomic models of balance of payments adjustment and exchange rate determination. These models are based on postulated aggregate relationships in open economy environments and are dynamic insofar they are solved under perfect foresight, which is the strongest form of rational expectations. After briefly introducing the concept of rational expectations in section 1, we first review in section 2 the stock, or asset (market), model of the BoP and the NER under flexible prices. This is the monetary approach developed in the late 1960s and the 1970s. Section 3 then switches to sticky prices and presents in detail a very influential article, the Dornbusch (1976) model of exchange rate overshooting, in fact, a dynamic version of the static Mundell-Fleming framework studied in chapter 2. It is, certainly, due to the significant contribution made by each of these three authors that this general set-up and its extensions in the subsequent literature are sometimes called the Mundell-Fleming-Dornbusch tradition (or paradigm) in international macroeconomics. We conclude the chapter by reviewing, in section 4, some empirical implications of the exchange rate models discussed, considering in particular the random walk hypothesis of the exchange rate in Meese and Rogoff (1983 a, b) and later work. As a technical complement underlying the chapter, backward and forward solutions to stochastic difference equations as well as the general solution to deterministic homogeneous differential equations are illustrated with some detail in appropriate contexts; also, the difference among and the rationale for perfect foresight, static, adaptive and rational expectations as well as mean error (ME), mean absolute error (MAE) and root mean square error (RMSE) of forecasts are analytically clarified.

- 1 The Rational Expectations Revolution
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- 1.2 A Basic Analytical Taxonomy of Modelling Expectations in Economics
- 1.2.1 Perfect Foresight
- 1.2.2 Naive or Static Expectations
- 1.2.3 Adaptive Expectations
- 1.2.4 Rational Expectations
- 1.3 Muth (1961) and the Rational Expectations Revolution in Macroeconomics

- 2 Flexible-Price Stock Approach under Perfect Foresight: The Monetary Model
- 2.1 The Monetary Approach to the Balance of Payments (Peg)
- 2.1.1 Origins: The Classical (Humean) Price-Specie-Flow Mechanism
- 2.1.2 Main Assumptions
- 2.1.3 Set-Up and Derivation of Key Result
- 2.1.4 Analysis and Interpretation
- 2.2 The Monetary Approach to the Exchange Rate (Float): The Monetary Model
- 2.2.1 Set-Up and Derivation of Key Results
- 2.2.2 General Forward-Looking Solution
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- 3.3 Model Equilibrium and Transition Paths
- 3.3.1 Graphical Analysis
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- 3.3.3 Consistent Expectations
- 3.4 Model Main Result: Exchange Rate Overshooting
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- 4.1 Meese and Rogoff (1983): The Exchange Rate Disconnect Puzzle
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PART II. FOUNDATIONS OF INTERTEMPORAL TRADE, RISK SHARING AND THE REAL EXCHANGE RATE

Chapter 4. The Intertemporal Approach to the Current Account: Analytical Introduction of Time

All open-economy models we considered until now, in Part I of the book, were not "microfounded", in the sense that macroeconomic relationships were not derived from an explicit optimisation problem on the part of households and firms. With the present

chapter, we begin to introduce these microfoundations, as well as the corresponding structure of modern general equilibrium models. This chapter deals with the analytical introduction of time in models of the current account, while the next chapter adds uncertainty. We discuss how modern dynamic macroeconomic models of the open economy are built and their relevant empirical implications. These empirical implications are often examined by "agnostic", statistical methods with minimal economic theory restrictions, such as various types of vector autoregressions (VARs). We do this with the view that both theory and empirics are necessary elements in macroeconomic modelling, rather than contrasting approaches, as we argue in section 1. When employed together, these two approaches at the core of modern macroeconomics enrich our understanding of how open economies work. Section 2 introduces a basic, partial equilibrium (SOE) set-up, and section 3 extends it to (tworegion global economy) general equilibrium. Section 4 analyses the infinite horizons context and discusses the concept of current account solvency and debt crises. Section 5 presents an overview of empirical tests of the intertemporal model of the current account. We also discuss in that section a recently developed complementary mechanism for external adjustment that emphasises the valuation channel of net foreign assets. As a technical complement underlying the chapter, we illustrate the Lagrange method of constrained optimisation for solving intertemporal models, present-value tests used in VARs of the current account and linearization techniques to approximate the external constraint facing an open economy.

1 On Macroeconomic Methodology: DSGEMs and VARs

- 2 A Two-Period Small Open Economy Real Model: Partial Equilibrium
- 2.1 A Small Endowment Economy
- 2.1.1 Assumptions
- 2.1.2 Households: The Consumer's Problem
- 2.1.3 Equilibrium
- 2.1.4 Back to the Current Account: Analytical Reinterpretation
- 2.1.5 Temporary vs Permanent Endowment Changes, the RIR and the CA
- 2.2 Introducing Production, Investment and Government Spending
- 2.2.1 The Current Account Again: Saving Minus Investment
- 2.2.2 The Optimisation Problem and Interpretation

3 A Two-Period Two-Region World Economy Real Model: General Equilibrium

- 3.1 A Global Endowment Economy
- 3.2 Interest Rates and the Shape of the Savings Function
- 3.2.1 Elasticity of Intertemporal Substitution in Consumption
- 3.2.2 Substitution, Income and Wealth Effects
- 4 More Than Two Periods: Solvency of a SOE
- 4.1 Sovereign Solvency: Concepts
- 4.2 Sovereign Solvency: Empirics
- 5 Testing the Present-Value Model of the Current Account
- 5.1 Early Evidence: The Feldstein-Horioka Puzzle
- 5.2 VAR and SVAR Evidence
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Chapter 5. Asset Markets and Risk Sharing: Analytical Introduction of Uncertainty

This chapter continues to develop the analytical basics of open-economy models and international interdependence derived from explicit optimising agent behaviour. Having dealt with trade across time, we now turn to trade across states of nature. In the previous chapter we showed in a real model how world "capital" markets allow for intertemporal smoothing that isolates countries' consumption from temporary (idiosyncratic) shocks to income. Here we analyse a parallel role of asset markets as mechanisms to pool risks, hence providing insurance for uncertain future (idiosyncratic) income. These two problems have a common underlying structure, which we exploit further in the chapter. Section 1 introduces key notions and theories related to the role of financial instruments in general equilibrium with complete or incomplete markets. Section 2 derives a small open-economy real model with two periods and two states in the second period. Section 3 extends the setting to a twocountry two-period multiple-state global economy. Section 4, then, analyses the relationship between consumption smoothing and international risk sharing and their empirical consequences for consumption and the current account. Section 5 discusses available evidence on risk sharing in consumption at the international level as well as when and how capital market liberalisation has contributed to macroeconomic stability, pointing to some limitations of the basic framework, such as the existence of capital market imperfections. As a technical complement underlying the chapter, the modelling of expected utility and the method of transforming a constrained optimisation problem into a corresponding unconstrained one and solving it are illustrated with some detail in appropriate contexts.

1 Financial Contracts in General Equilibrium

- 2 A Stochastic Two-Period Real Model of a Small Open Economy
- 2.1 Assumptions
- 2.2 State-Contingent Consumption Plans
- 2.3 The Consumer's Problem under Uncertainty
- 2.3.1 Lifetime Expected Utility
- 2.3.2 Arrow-Debreu Securities and Complete Asset Markets
- 2.3.3 Budget Constraints with Arrow-Debreu Securities
- 2.3.4 Full Insurance: Optimal or Not?

2.3.5 Optimal Behaviour and Model Equilibrium

- 2.3.6 Creating Synthetic Assets from Primal Arrow-Debreu Securities
- 2.3.7 Actuarially Fair A-D Securities Prices: More on Optimal Insurance
- 2.3.8 The Role of the Coefficient of Relative Risk Aversion
- 2.3.9 Consumption Demands and the CA in the Log-Utility Special Case

3 A Stochastic Two-Period Real Model of a Two-Country Global Economy: The CRRA Case

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- 3.2 Model Solution Algorithm
- 3.2.1 Equilibrium Prices
- 3.2.2 Date 1 Prices of Contingent Securities
- 3.2.3 Equilibrium Consumption Levels
- 3.3 Model Interpretation: Consumption Risk Pooling
- 4 Consumption Risk Sharing and Consumption Smoothing
- 4.1 A Simple Model of Risk Pooling and Consumption Smoothing
- 4.2 Shocks and the Current Account Revisited
- 5 Empirics of International Consumption Risk Sharing
- 5.1 Evidence on International Risk Sharing
- 5.2 The Backus-Smith (1993) Puzzle
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Chapter 6. The Real Exchange Rate

We move on now to the third important building bloc of macroeconomic models of the open economy. The Real Exchange Rate (RER hereafter) determines the relative prices of goods and services between economies. As such, it is a central object of study in International Macroeconomics. The RER influences the relative cost of living, consumer choice between home and foreign produced goods, resource allocation between traded and non-traded sectors, inflation, and even the accumulation of foreign assets and liabilities. Many of the models we will study in the next part of the book will be concerned with, among other things, the determination of the RER. In fact, we have already discussed models of the RER in Chapters 2 and 3, albeit very simple ones. In this Chapter we will focus on the long-run determinants of the RER, leaving aside the possible existence of frictions and rigidities that may explain its short- to medium-run behaviour, which will be dealt with especially in Chapters 8 and 9. At this stage, we want to study the determinants of the equilibrium value of the RER. This is important for policy makers, as it represents a reference value to measure RER over- or under-valuations that have consequences for the evolution of output, employment, and inflation. When discussing the RER over a longer run, the core building bloc is the Purchasing Power Parity (PPP) theory. Discussing RER models is tantamount to discussing PPP or deviations from it. We start the chapter by explaining measurement issues and presenting some general stylised facts about the behaviour of the RER in Section 1. As discussed in Chapter 1, we can decompose RER changes into deviations from PPP for tradeables, and changes in the relative price of non-traded goods. Section 2 presents an overview of the PPP doctrine and empirical evidence. Sections 3 and 4 discuss the determination of the internal relative price of non-tradeables and tradables. The former studies the role of productivity, and the latter introduces more than one traded good to understand the effect of changes in the terms of trade. Methodologically, this will be important for modern open economy macro models, as it presents (static) consumer choice with more than one good and the construction of price indexes. These tools will be essential for the models presented in Chapters 8 and 9. Throughout the chapter we will also discuss some further important time-series econometrics issues.

1 Measuring the Real Exchange Rate: Stylised Facts

- 2 The Law of One Price and Purchasing Power Parity
- 2.1 Theory and Measurement
- 2.2 Evidence on the Law of One Price
- 2.3 PPP Empirics and the Random Walk Hypothesis
- 2.3.1 Breaks and Non-linear Mean Reversion
- 2.4 Aggregation Issues

3 Productivity and the Relative Price of Non-traded Goods

- 3.1 The Harrod-Balassa-Samuelson Model
- 3.1.1 Assumptions
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- 3.1.3 Harrod-Balassa-Samuelson Effect: The Real Exchange Rate
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- 6 Log Price Level against Log Real Income per Capita
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- 2 Power of the ADF Unit Root Test

3 Panel "Harrod-Balassa-Samuelson" Estimates. 1974-2004

PART III. OPTIMISING MODELS OF INTERNATIONAL MACROECONOMICS AND FINANCE

Chapter 7. Optimising Models of Exchange Rates, Asset Prices, and Business Cycles Under Flexible Prices

Having analysed the basis of intertemporal decisions and behaviour under uncertainty, we can now move on to optimising models of exchange rates and asset prices, as well as the analysis of business cycles in the open economy. In this chapter we focus on models that assume flexible prices, which is the benchmark case. We first analyse, in section 1, the Lucas (1982) dynamic stochastic general equilibrium (DSGE) model, an optimising consumption-based model of exchange rate determination and regimes under complete markets. The model is important not only because of its conclusions about our variables of interest, but also from a methodological point of view. It is a major example of the methodology followed in the build-up and analysis of microfounded models of open economy macro-finance and asset pricing that will occupy much of the next few chapters. Indeed, this methodology, incorporating individual behaviour and rational expectations in aggregate models, has been dominant in macroeconomics during the last 30 years. The Lucas (1982) model also nicely integrates many of the ideas we have dealt with in previous chapters. In section 2, we describe two other puzzles in macroeconomics and finance, the "equity premium puzzle" and the "equity home bias puzzle", which arise from some of the conclusions of the model and related literature. These puzzles will also help understanding some basic features of asset pricing models in financial economics and how they relate to open-economy macroeconomics. We conclude the chapter by discussing, in section 3, International (Real) Business Cycle (I(R)BC) theory, which in part extends the Lucas (1982) approach to more realistic settings, including production and capital accumulation. The model also adds to microfounded models the calibration method proposed by Kydland and Prescott (1982). I(R)BC models aim at reproducing key real world data moments related to output, consumption, investment and net exports. As a technical complement underlying the chapter, we illustrate the link between the DSGE and I(R)BC methodologies, combining theory and data to explain short-run fluctuations by means of calibration; we also develop basic concepts of asset pricing and the use of the properties of important statistical distributions.

1 The Lucas (1982) Open-Economy Asset Pricing Model

- 1.1 Two-Country Barter Exchange Economy
- 1.1.1 Assumptions
- 1.1.2 Constraints
- 1.1.3 Objective and First-Order Conditions
- 1.1.4 Market Clearing
- 1.1.5 Centralised Social Optimum
- 1.1.6 Decentralised Market Equilibrium
- 1.1.7 Solution under CRRA Utility

1.2 Two-Country Single-Currency Exchange Economy

- 1.2.1 Introducing Money through Cash-in-Advance Constraint
- 1.2.2 Timing of Events: The Worker-Shopper Family Split Metaphor

- 1.2.3 Constraints
- 1.2.4 Objective and First-Order Conditions
- 1.2.5 Market Clearing
- 1.2.6 Solution and Bond Pricing under CRRA Utility
- 1.3 Two-Country Two-Currency Exchange Economy
- 1.3.1 Flexible Exchange Rate Regime
- 1.3.2 Fixed Exchange Rate Regime
- 2 Two Puzzles on Equity
- 2.1 The Equity Premium Puzzle
- 2.1.1 Updating the Mehra-Prescott (1985) Findings
- 2.1.2 Suggested Explanations to the Equity Premium
- 2.2 The Equity Home Bias Puzzle
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- 3 International (Real) Business Cycle Models
- 3.1 Real Business Cycle Research in Closed Economy
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- 3.2.1 Assumptions
- 3.2.2 Technology
- 3.2.3 Preferences
- 3.2.4 Government
- 3.2.5 Asset Market Structure
- 3.2.6 Equilibrium with Complete (Contingent) Markets: GE Case
- 3.2.7 Equilibrium with Bond-Only (Noncontingent) Markets: SOE Case
- 3.2.8 Equilibrium with Bond-Only (Noncontingent) Markets: GE Case
- 3.2.9 Calibration
- 3.2.10 Measuring Productivity: Solow Residuals
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- 2 Home Bias in Equity Holdings
- 3 I(R)BC Stylised Facts
- 4 Complete vs Incomplete Markets under a Stationary Productivity Shock
- 5 Complete vs Incomplete Markets under a Random Walk Productivity Shock

Chapter 8. New Open-Economy Macroeconomics Models of Exchange Rates and Policy Coordination

The present chapter highlights developments in international macroeconomics that were aimed at constructing and analysing microfounded models of exchange rate and current account determination under sticky prices. The focus is on the genesis, ratio nale, characteristic assumptions and methodological features of quite an algorithmic, primarily analytical approach to modelling open economies that has become known as New Open Economy Macroeconomics (NOEM). It has been quite influential, although relatively short-lived, originating in the 'redux' model of Obstfeld and Rogoff (1995) and converging, by the mid-2000s, into a more general and richer paradigm that is usually referred to as the open-economy New Keynesian or Neo-Wicksellian DSGE policy framework. We begin, in section 1, by introducing the New Neoclassical Synthesis (NNS) literature in closed economy, which evolved over the 1990s in parallel with the New Keynesian closed-economy and the NOEM strands. Section 2 then takes up the originator of NOEM, the redux, and derives its key results. A discussion on subsequent extensions to the redux follows in section 3. Drawing on the Corsetti-Pesenti (2005) extension of the redux, section 4 provides an analysis of the international transmission of monetary policy under alternative assumptions on the currency of price setting and, hence, different degrees of exchange-rate pass-through. This is done within a baseline NOEM set-up in which optimal monetary policy and international policy coordination has been at the centre of interest, yet under the limitations of the typical way NOEM models price rigidity under monopolistic competition, by setting prices one period in advance. Section 5 concludes by outlining some empirical applications of NOEM as well as applications to policy analysis in a multicountry set-up involving simulations. On the methodological side, the chapter further develops our analysis of Dixit-Stiglitz (1977) quantity and price aggregators under alternative conventions on the currency of price setting and, thus, price fixity; it also adds NOEM context and examples of loglinearised or exact models of exchange rate dynamics in flexible-price and sticky-price symmetric equilibrium focusing on policy spillovers and cooperation and introducing a framework to study the international transmission of optimal monetary policy under commitment and discretion.

1 The New Neoclassical Synthesis in Closed Economy: Goodfriend and King (1997)

1.1 Main Principles, Elements and Policy Recommendations

1.2 The Average Markup at the Centre of Monetary Policy Transmission

2 New Open-Economy Macroeconomics: The Obstfeld-Rogoff (1995) Redux

- 2.1 Model Specification
- 2.2 Log-Linear Approximation to the Model
- 2.2.1 Flex-Price Equilibrium in the Linearised Redux Model
- 2.2.2 Sticky-Price Equilibrium in the Linearised Redux Model
- 2.3 Summary of the Main Insights and Limitations
- 3 Redux Extensions
- 3.1 Dynamic NOEM Redux Extensions
- 3.1.1 Betts-Devereux: Pricing to Market and Local Currency Price Stickiness
- 3.1.2 Corsetti-Pesenti: Unit Cross-Country Substitutability and the ToT
- 3.1.3 Devereux-Engel: PCP vs LCP and Exchange-Rate Regimes
- 3.2 Stochastic NOEM Redux Extensions
- 3.2.1 Bacchetta-van Wincoop: LCP, NER Regimes, Trade and Welfare
- 3.2.2 Obstfeld-Rogo¤: Exchange-Rate Risk and Stochastic NOEM Directions
- 3.3 Further NOEM Redux Extensions and Convergence with NNS

4 International Policy Coordination in NOEM: Corsetti and Pesenti (2005)

- 4.1 Model Specification
- 4.2 Equilibrium in the Model

- 4.3 Analysis of Monetary Policy in Open Economies
- 4.3.1 The Optimal Monetary Policy Problem Under Commitment
- 4.3.2 The Optimal Monetary Policy Problem under Discretion
- 4.4 Summary of the Main Insights and Limitations
- 5 Empirical and Applied Policy Implications of NOEM
- 5.1 Maximum Likelihood Estimation of a NOEM Set-Up
- 5.2 Simulation Findings in a Multicountry NOEM-DSGE Set-Up

Chapter 9. New Keynesian Theory and Empirics of Inflation, Monetary and Fiscal Policies in Open Economies

As we argued in the preceding chapter, the open-economy (OE) New Keynesian (NK) - or, almost synonymously, Neo-Wicksellian (NW) - policy framework originated from parallel developments and subsequent convergence of the NNS with the NOEM. This evolved over the 2000s into the main paradigm in international macroeconomics, at least up to the 2008 global financial crisis. It is founded on DSGE modelling using microfoundations and dominated by rational expectations. But it allows for market imperfections such as monopolistic competition enabling staggered price setting and causing nominal rigidity of the aggregate price level or for bounded rationality and learnability of equilibria. These features of the NK/NW paradigm provide a role for monetary policy in anchoring inflation expectations and ensuring determinacy or equilibrium stability. There is a focus on open-economy spillovers, interactions and coordinaton, simple instrument rules, optimal policy targeting criteria and, more recently, financial stability. We begin in section 1 by a summary of the convergence of the NNS and the NOEM into the OE NK or, in a narrower sense, NW macroeconomics, suggesting a distinction between these two related labels. We then continue, in section 2, by a typology of monetary policy reaction functions, from Wicksell (1898, 1907) through Taylor (1993) and Woodford (2001, 2003). Having thus introduced the policy instrument as a key ingredient of these models, we devote detail in section 3 on discussing the structure of its benchmark model in a SOE context, Gali and Monacelli (2005). Section 4 gives flavour for the most common empirical work based on the OE NK policy model, in particular on econometric estimation of Taylor-type interest rate rules and NK Phillips curves via GMM. In section 5 we analyse a two-country world economy model due to Benigno and Benigno (2006) which is a counterpart of the SOE NK model of Gali and Monacelli (2005). In particular, the Benigno-Benigno (2006) model derives targeting rules for optimal monetary policy under commitment in the context of the linear-quadratic approach introduced by Benigno and Woodford (2004). Some extensions and applications of the baseline set-up to fiscal policy spillovers and coordination are also briefly reviewed. We conclude, in section 6, by outlining the implications of this framework for the analysis of the role of monetary policy in ensuring determinacy and learnability of rational expectations equilibrium. On the methodological side, the chapter involves further understanding of optimisation problems within monopolistically competitive settings, dynamic systems of difference equations, and the use of GMM estimation methods.

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- 2.1.2 Monetary Rules in Rational Expectations Models
- 2.1.3 The Goodhart Rule
- 2.2 The Taylor Rule
- 2.2.1 The Original Taylor Rule
- 2.2.2 Classic Taylor Rules
- 2.2.3 Naive Taylor Rules
- 2.3 Generalised Taylor(-Type) Rules
- 2.3.1 Interest Rate Smoothing Taylor Rules
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- 2.3.4 Optimal Policy Rules: Instrument Rules vs Targeting Rules
- 2.3.5 Real GDP Growth Instead of Real GDP in Taylor Rules Gap
- 2.3.6 Exchange-Rate Augmented Taylor Rules
- 2.3.7 Nonstationary Taylor-Type Rules
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- 3.4 International Risk Sharing
- 3.5 Firms and technology
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- 3.6.1 Aggregate Demand and Output Determination
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- 5.1.4 General and Specific Targeting Rules, Policy Delegation and Institution Design
- 5.1.5 Summary of Main Results

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- 6.1 Determinacy and E-Stability in Linear Rational Expectations Models
- 6.1.1 `Sunspot' Shocks as Self-fulfilling Equilibrium Paths
- 6.1.2 General Framework: Blanchard-Kahn (1980)
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