

Interest Rates, Exchange Rates and World Monetary Policy

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This monograph presents an analysis of the workings of monetary policy in a world-wide setting where technological change and capital expansion results in substantial movements of real exchange rates and countries have to choose whether to adopt flexible or fixed exchange rates or currency union with their trading partners.

The technical exposition is pitched at a level which practitioners in the business community and government who have MA level training in economics will be able to easily understand, and will constitute a complete presentation of what all MA and PhD students in international monetary economics should learn before proceeding to work in the financial district or advancing to the complex mathematical analysis of macroeconomic models on which contemporary PhD courses focus.

The book consists of this introductory chapter followed by three parts, each containing several chapters. In Part I, the basic theoretical framework is rigorously developed and its reliability established with reference to currently widely accepted empirical evidence. It is expected that this framework will be acceptable to any well-trained international monetary economist. The exposition is intuitive and diagrammatic where possible with some very basic mathematics used, where necessary, to verify the logic and render the arguments acceptable to those who view economics from a mathematical perspective. A thorough and careful exposition of all theoretical arguments that will be used in the subsequent two parts of the book is presented. A conclusion from this theoretical analysis combined with open international capital markets is that, apart from large countries like the United States that are big enough to affect world interest rates, monetary policy operates through its effects on nominal and real exchange rates and their effects, in turn, on domestic output, employment and prices. Domestic interest rates relevant for current real investment are determined primarily by conditions in world markets rather than by the domestic central bank. Although this conclusion has a long history, going back to the important Marcus Fleming and R. A. Mundell in the early 1960s, it is still

inconsistent with the public statements of most business-sector economists that specialise in macroeconomics. This is probably due to the fact that economists in small-open-economies think primarily in terms of the closed-economy models that overwhelmingly dominate university macroeconomics courses the world over.

Part II presents empirical evidence on the behaviour of real exchange rates and interest rates in Canada, Japan, the United Kingdom, France and Germany (prior to the adoption of the Euro in the case of the latter two countries) relative to the United States. The theoretical issues involved in the analysis are re-exposed in shorter form, making this section of the book self-contained for readers who do not require the more detailed and persuasive development of the theoretical framework in Part I. The empirical relationships between forward exchange rates and future spot rates and forward premia and future rates of change of nominal exchange rates are examined and interpreted within the previously developed theoretical framework. The main conclusion of Part II is that real exchange rates have moved very substantially in response to number of plausible real forces such as changes in countries' real net capital inflows as fractions of their outputs, changes in world oil and commodity prices, and changes in countries' terms of trade, and that few substantive effects of monetary shocks on real exchange rates can be found in the data. Another conclusion is that interest rate changes, to the extent that they are correlated with real exchange rate changes, can be viewed as responses to those real exchange rate changes rather than as causes of them. And the virtual absence of effects of observed unanticipated money supply shocks on real exchange rates suggests that occasionally identified negative empirical relationships between interest rates and unanticipated money supply shocks must represent responses of the monetary authorities to world and corresponding domestic interest rate changes rather than effects of monetary policy on interest rates. The basis for this monetary response is the avoidance of overshooting movements of exchange rates, well-known in the literature and carefully explained in Part I, that would result if monetary policy were not accommodating in the face of domestic and world interest rate changes. The fact that no overshooting exchange rate changes in response to monetary forces can be observed in the data suggests that any monetary shocks that would lead to overshooting were of infinitesimal magnitude.

Part III develops the rationale for monetary policy of a sort consistent with the empirical evidence presented in Part II. It shows that the most sensible policies central banks in modern industrial countries other than the United States can follow will be to allow the domestic exchange rates to

float and create at home the same monetary conditions that exist abroad, subject to any desired difference between the underlying politically acceptable ‘core’ rate of domestic inflation and corresponding ‘core’ inflation rates abroad. This ‘even keel’ type of policy avoids the disorderly overshooting exchange rate movements that would result from money supply changes necessarily associated with attempts to pursue domestic monetary independence. To the extent that different domestic policies need to be followed, the appropriate procedure would be to adjust base money so as to press upon the exchange rate in the appropriate direction while maintaining an orderly market. Historical evidence that business cycle movements in output and inflation rates are highly correlated across countries and that policy makers act in a fashion predicted by the theory is then presented. And the viability of the alternative of adopting common currencies, with particular reference to Canada, the United States and the European Union, is also analysed. In developing the arguments in this part of the book, the essential features of the basic theoretical framework set out in Part I are again restated in simple form as needed, and the above-mentioned conclusions carefully derived from them. This means that readers who are willing to accept the empirical evidence presented in Part II and can understand the basic theoretical framework will be able to move directly from this introductory chapter to Part III.

In addition to the above conclusions, the analysis also provides a simple, systematic and thorough basic framework within which students and practitioners can understand the basics of international monetary economics. For students, this framework will provide a foundation for subsequent exploration of more specific mathematically rigorous models of dynamic adjustment that can suggest and evaluate more innovative policy measures for adoption by governments and central banks.

Finally, all the empirical work here is programmed using the freely available statistics and econometrics programs, Gretl and XLispStat, and in a few instances, R and in one case the commercial program Rats. Two programs are used for each operation as a check against mechanical errors.