International Finance

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INTERNATIONAL FINANCE

Second Edition

Keith Pilbeam

City University, London

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To the children and workers
SOS Tibetan Children's Village, Pokhara, Nepal

Contents

<i>List of Figures</i>	xv
<i>List of Tables</i>	xviii
<i>List of Boxes</i>	xxi
<i>Acknowledgements</i>	xxii
<i>Introduction</i>	xxiii

PART I BALANCE-OF-PAYMENTS THEORY AND POLICY

1 The Foreign Exchange Market	3
1.1 Introduction	3
1.2 Exchange-rate definitions	4
1.3 Characteristics and participants of the foreign exchange market	4
1.4 Arbitrage in the foreign exchange market	8
1.5 The spot and forward exchange rates	9
1.6 Nominal, Real and Effective Exchange Rates	11
1.7 A simple model of the determination of the spot exchange rate	16
1.8 Alternative exchange-rate regimes	20
1.9 The determination of the forward exchange rate	22
1.10 The interaction of hedgers, arbitrageurs and speculators	27
1.11 Conclusions	30
2 The Balance of Payments	31
2.1 Introduction	31
2.2 What is the balance of payments?	32
2.3 Collection, reporting and presentation of the balance-of-payments statistics	32
2.4 Balance-of-payments accounting and accounts	33
2.5 An overview of the sub-accounts in the balance of payments	34
2.6 Recording of transactions in the balance of payments	37
2.7 What is meant by a balance-of-payments surplus or deficit?	38
2.8 Alternative concepts of surplus and deficit	40
2.9 Some open-economy identities	43

2.10	Open-economy multipliers	48
2.11	Conclusions	53
3	Elasticity and Absorption Approaches to the Balance of Payments	57
3.1	Introduction	57
3.2	The elasticity approach to the balance of payments	58
3.3	Empirical evidence on import and export demand elasticities	62
3.4	The absorption approach	65
3.5	The effects of a devaluation on national income	67
3.6	The effects of devaluation on direct absorption	68
3.7	A synthesis of the elasticity and absorption approaches	71
3.8	Conclusions	72
4	Macroeconomic Policy in an Open Economy	75
4.1	Introduction	75
4.2	The problem of internal and external balance	76
4.3	The Mundell–Fleming Model	79
4.4	The derivation of the <i>IS</i> schedule for an open economy	79
4.5	The derivation of the <i>LM</i> schedule for an open economy	81
4.6	The derivation of the <i>BP</i> schedule for an open economy	83
4.7	Equilibrium of the model	86
4.8	Factors shifting the <i>IS–LM–BP</i> schedules	86
4.9	Internal and external balance	88
4.10	Internal and external balance under fixed exchange rates	91
4.11	Internal and external balance under floating exchange rates	92
4.12	A small open economy with perfect capital mobility	95
4.13	The principle of effective market classification	98
4.14	Limitations of the Mundell–Fleming model	101
4.15	Conclusions	103
5	The Monetary Approach to the Balance of Payments	105
5.1	Introduction	105
5.2	A simple monetary model	106
5.3	The monetarist concept of a balance-of-payments disequilibrium	111
5.4	The effects of a devaluation	112
5.5	A monetary exchange-rate equation	114
5.6	A money supply expansion under fixed exchange rates	117
5.7	A money supply expansion under floating exchange rates	119
5.8	The effects of an increase in income under fixed exchange rates	122

5.9	The effects of an increase in income under floating exchange rates	122
5.10	An increase in foreign prices under fixed exchange rates	125
5.11	A rise in the foreign price level under floating exchange rates	127
5.12	Implications of the monetary approach	127
5.13	Empirical evidence on the monetary approach	130
5.14	Criticisms of the monetary approach	131
5.15	Conclusions	133
 PART 2 EXCHANGE-RATE DETERMINATION: THEORY, EVIDENCE AND POLICY		
6	Purchasing Power Parity and Floating Exchange-Rate Experience	137
6.1	Introduction	137
6.2	Purchasing power parity theory and the law of one price	138
6.3	Absolute and relative PPP	138
6.4	A generalized version of PPP	140
6.5	Measurement problems in testing for PPP	142
6.6	Empirical evidence on PPP	143
6.7	Summary of the empirical evidence on PPP	150
6.8	Explaining the poor performance of purchasing power parity theory	151
6.9	The Balassa–Samuelson model	154
6.10	Conclusions	157
7	Monetary Models of Exchange-Rate Determination	159
7.1	Introduction	159
7.2	Asset prices	160
7.3	Uncovered interest rate parity	161
7.4	The monetary models of exchange-rate determination	162
7.5	The flexible-price monetary model	164
7.6	The Dornbusch sticky-price monetarist model	167
7.7	A simple explanation of the Dornbusch model	168
7.8	A formal explanation of the Dornbusch model	170
7.9	Derivation of the goods market equilibrium schedule	171
7.10	Derivation of the money market equilibrium schedule	173
7.11	A money supply expansion and exchange-rate ‘Overshooting’	175
7.12	Importance of the sticky-price monetary model	177
7.13	The Frankel real interest-rate differential model	178
7.14	Implications of the monetary views of exchange-rate determination	180
7.15	Conclusions	182

8	The Portfolio Balance Model	185
8.1	Introduction	185
8.2	The concept of a risk premium	186
8.3	Different types of risk	188
8.4	A portfolio balance model	190
8.5	The model	191
8.6	Derivation of the asset demand functions	194
8.7	Equilibrium of the model	196
8.8	The effects of a foreign exchange operation	197
8.9	The effects of an open market operation	198
8.10	The effects of a sterilized foreign exchange operation	199
8.11	A comparison of an FXO, OMO and SFXO	201
8.12	The dynamics of the model	202
8.13	The effects of a change in risk perceptions	204
8.14	Money versus bond financed fiscal expansion	205
8.15	The risk premium, imperfect and perfect substitutability	208
8.16	Conclusions	209
9	Empirical Evidence on Exchange Rates	213
9.1	Introduction	213
9.2	What is an efficient market?	214
9.3	Exchange market efficiency tests	215
9.4	Alternative tests of the efficient market hypothesis	221
9.5	Summary of findings on exchange market efficiency	223
9.6	Empirical test of exchange-rate models	225
9.7	Exchange-rate models: a forecasting analysis	227
9.8	Explaining the poor results of exchange-rate models	231
9.9	The 'news' approach to modelling exchange rates	234
9.10	Modelling exchange-rate expectations	237
9.11	Empirical tests of different expectations mechanisms	240
9.12	Alternative approaches to modelling exchange rates: the role of chartists and fundamentalists	241
9.13	Conclusions	243
10	Fixed, Flexible and Managed Exchange Rates	249
10.1	Introduction	249
10.2	The case for fixed exchange rates	250
10.3	The case for floating exchange rates	253
10.4	The modern evaluation of fixed and flexible exchange-rate regimes	256
10.5	The specification of the objective function	256
10.6	The model	257
10.7	Determining equilibrium	259
10.8	Money demand shock	261
10.9	Aggregate demand shock	262

10.10	Aggregate supply shock	263
10.11	Managed floating	267
10.12	Conclusions	272

PART 3 THE POSTWAR INTERNATIONAL MONETARY SYSTEM

11	The International Monetary System	277
11.1	Introduction	277
11.2	The Bretton Woods system	278
11.3	Features of the system	278
11.4	A brief history of the Bretton Woods system	280
11.5	Why did the Bretton Woods system break down?	285
11.6	The Post-Bretton Woods era	290
11.7	The Jamaica conference of 1976	291
11.8	The Snake and the EMS	297
11.9	The second oil shock	297
11.10	The dazzling dollar, 1980–85	297
11.11	From Plaza to Louvre and beyond	298
11.12	Currency turmoil in the 1990s	299
11.13	The present exchange-rate system	302
11.14	Reform of the international monetary system	302
11.15	The Williamson target zone proposal	302
11.16	The McKinnon global monetary target proposal	303
11.17	The Tobin foreign exchange tax proposal	307
11.18	Conclusions	308
12	The Eurocurrency and Eurobond Markets	311
12.1	Introduction	311
12.2	Participants in the Eurocurrency and Eurobond markets	313
12.3	The origins and development of the Eurocurrency market	313
12.4	The characteristics of the Eurodollar market	315
12.5	The competitive advantage of Eurobanks	317
12.6	The coexistence of domestic and Eurobanking	318
12.7	The creation of Eurodollar deposits and loans	319
12.8	The pros and cons of the Eurocurrency markets	321
12.9	Euromarkets and government regulation and policy	323
12.10	The international capital market and the Eurobond market	324
12.11	The origins and development of the Eurobond market	325
12.12	Typical features of a Eurobond	325
12.13	Control and regulation of the Eurobond market	327
12.14	The management of a Eurobond issue	329
12.15	Innovations in the Eurobond market	331
12.16	Conclusions	332

13	Currency Derivatives: Futures, Options and Swaps	335
13.1	Introduction	335
13.2	The growth of derivative markets	336
13.3	Exchange-traded futures and options contracts	337
13.4	Currency futures and currency forwards	338
13.5	The use of currency futures for hedging purposes	341
13.6	The symmetry of profit/losses on futures/forward positions	343
13.7	The pricing of currency futures	344
13.8	Currency options	346
13.9	A currency option versus a forward contract for hedging	347
13.10	A currency option versus a forward for speculating	350
13.11	The role of option contracts	352
13.12	Differences between options and futures contracts	352
13.13	The pricing of currency options	353
13.14	Intrinsic value and time value	355
13.15	The distribution of the option premium between time and intrinsic value	356
13.16	The Garman and Kohlhagen option pricing formula	360
13.17	A numerical example of the Garman–Kohlhagen formula	362
13.18	Problems with the currency option pricing formula	364
13.19	The over-the-counter market in options	365
13.20	The swaps market	365
13.21	Potential currency swap scenarios	366
13.22	A currency swap agreement	367
13.23	Distinguishing characteristics of the swap market from the forward and futures markets	370
13.24	Conclusions	371
14	International Policy Coordination	375
14.1	Introduction	375
14.2	What is meant by international policy coordination?	376
14.3	Why does the need for international policy coordination arise?	377
14.4	The benefits from international policy coordination	379
14.5	A game theory demonstration of the gains from coordination	384
14.6	Other potential benefits from coordination	385
14.7	The potential for coordination to make countries worse-off	386
14.8	Estimates of the benefits and losses from international policy coordination	388
14.9	Problems and obstacles to international policy coordination	391
14.10	Conclusions	394

15 International Debt	397
15.1 Introduction	397
15.2 The low- and middle-income less-developed countries	398
15.3 Characteristics of typical middle-income LDCs	399
15.4 The economics of LDC borrowing	401
15.5 Different types of capital inflows into LDCs	402
15.6 Measures of indebtedness	403
15.7 Background to the debt crisis	406
15.8 Origins of the debt crisis	406
15.9 The emergence of the debt crisis	407
15.10 The Mexican moratorium	409
15.11 The dimensions of the debt crisis	410
15.12 A supply and demand framework for analysing the debt crisis	412
15.13 The economics of default	414
15.14 The role and viewpoints of the actors in the debt crisis	416
15.15 The management of the debt crisis, 1982–94	419
15.16 An overall evolution of debt-crisis management	428
15.17 Conclusions	430
 16 The European Monetary System and European Monetary Union	 433
16.1 Introduction	433
16.2 The Snake in the tunnel	434
16.3 The background to the European Monetary System	436
16.4 Features of the European Monetary System	437
16.5 The exchange-rate mechanism and the European currency unit	437
16.6 Bilateral exchange-rate parities	437
16.7 The European currency unit	439
16.8 Calculation of the ECU	439
16.9 Monetary cooperation	443
16.10 An assessment of the European Monetary System	445
16.11 Intervention policy in the EMS	451
16.12 The economic performance of ERM and non-ERM countries	453
16.13 What is meant by monetary union?	453
16.14 Benefits of European monetary union	455
16.15 Costs of European monetary union	458
16.16 A history of the road to European monetary union	462
16.17 The Maastricht Treaty	465
16.18 An evaluation of the Maastricht criteria	466
16.19 The stability and growth pact	468

16.20	The changeover to the single currency	469
16.21	The European Monetary System 2 (EMS2)	472
16.22	Conclusions	472
 <i>General Texts in the Field of International Finance</i>		477
<i>Author Index</i>		481
<i>Subject Index</i>		483

List of Figures

1.1	The organization of the foreign exchange market	7
1.2	The evolution of the dollar–pound nominal and real exchange rate 1973–97	14
1.3	The evolution of the deutschmark–dollar nominal and real exchange rate 1973–97	14
1.4	The evolution of the yen–dollar nominal and real exchange rate 1973–97	15
1.5	The demand for pounds	18
1.6	The supply of pounds	19
1.7	Determination of the dollar–pound exchange rate	20
1.8	Floating exchange rate regime: (a) increase in demand (b) increase in supply	21
1.9	Fixed exchange rate regime: (a) increase in demand (b) increase in supply	23
1.10	The joint determination of the spot and forward exchange rate	29
2.1	The government expenditure/foreign trade multiplier	51
3.1	The <i>J</i> -curve effect	65
4.1	The Swan diagram	77
4.2	Derivation of the <i>IS</i> schedule	80
4.3	Derivation of the <i>LM</i> schedule	83
4.4	Derivation of the <i>BP</i> schedule	85
4.5	Equilibrium of the model	87
4.6	Surplus and deficit in the balance of payments	87
4.7	A monetary expansion under fixed exchange rates	90
4.8	Internal and external balance under a fixed exchange rate	91
4.9	A monetary expansion under floating exchange rates	93
4.10	Case 1: fiscal expansion under floating exchange rates	94
4.11	Case 2: fiscal expansion under floating exchange rates	95
4.12	Fixed exchange rates and perfect capital mobility	96
4.13	Floating exchange rates and perfect capital mobility	97
4.14	The assignment problem	99
5.1	The aggregate demand schedule	107
5.2	The aggregate supply schedule	108
5.3	The PPP schedule	109
5.4	The money supply and reserves	110
5.5	Equilibrium of the model	113
5.6	The effects of a devaluation	115
5.7	A monetary expansion under fixed exchange rates	118
5.8	A monetary expansion under floating exchange rates	121

5.9	An increase in income under fixed exchange rates	123
5.10	An increase in income under floating exchange rates	124
5.11	An increase in foreign prices under fixed exchange rates	126
5.12	An increase in foreign prices under floating exchange rates	128
6.1	The actual exchange rate and the PPP exchange rate	
(a)	The dollar–pound rate and PPP	144
(b)	The deutschmark–dollar rate and PPP	144
(c)	The yen–dollar rate and PPP	145
(d)	The yen–deutschmark rate and PPP	145
(e)	The French franc–deutschmark rate and PPP	146
(f)	The lira–deutschmark rate and PPP	146
(g)	The deutschmark–pound rate and PPP	147
7.1	The uncovered interest parity (UIP) condition	163
7.2	The dynamics of the Dornbusch overshooting model	169
7.3	The goods market equilibrium schedule	173
7.4	The money market equilibrium schedule	174
7.5	Equilibrium in the Dornbusch model	175
7.6	Exchange-rate overshooting	176
8.1	The operation of the portfolio balance model	191
8.2	Equilibrium of the model	196
8.3	The effects of a foreign exchange operation	198
8.4	The effects of an open market operation	199
8.5	The effects of a sterilized foreign exchange operation	200
8.6	Differing effects of an FXO, OMO and SFXO	201
8.7	The dynamics of the portfolio balance model	203
(a)	The exchange rate	
(b)	The current account	
8.8	Foreign bonds become more risky	204
8.9	Money-financed expenditure	206
8.10	Bond-financed expenditure	207
(a)	Exchange-rate depreciation	
(b)	Exchange-rate appreciation	
8.11	Perfect substitutability	209
9.1	The dynamics of unanticipated and anticipated monetary expansions	220
(a)	unanticipated monetary expansion	
(b)	anticipated monetary expansion	
10.1	Equilibrium of the model	260
10.2	Money demand shock	262
10.3	Aggregate demand shock	263
10.4	Aggregate supply shock. Case 1: Md schedule is steeper than the Yd schedule, i.e. $\eta(\theta + \beta) > \alpha$	264
10.5	Aggregate supply shock. Case 2: Yd schedule is steeper than the Md schedule, i.e. $\eta(\theta + \beta) < \alpha$	265

11.1	The nominal and real effective exchange rate of the dollar, 1980–97	298
12.1	Comparison of US certificate of deposit and Eurodollar interest spreads	317
12.2	The creation of Eurobanking activity	320
13.1	Typical open-interest profile	342
13.2	The profit/losses on a currency forward/futures contract	344
13.3	A log-normal distribution	356
13.4	Intrinsic value and time value	357
13.5	The distribution of a call premium between time and intrinsic value	360
13.6	A currency swap	369
14.1	The derivation of the Hamada diagram	381
14.2	Coordination and non-coordination in the Hamada diagram	382
15.1	Supply and demand for new loans	412
15.2	The supply and demand for new loans	413
	(a) 1973–82	
	(b) 1983–94	
16.1	UK and German Phillips curves	459
16.2	The road to EMU and the transition period	471

List of Tables

1.1	Foreign exchange market turnover	6
1.2	Foreign exchange cross rates on close of business 11 August 1997	10
1.3	Construction of nominal and real exchange-rate indices	12
1.4	Construction of a nominal effective exchange-rate index	13
1.5	Nominal effective exchange-rate indices	15
1.6	Real effective exchange-rate indices	17
1.7	The derivation of the demand for pounds	18
1.8	The supply of pounds	19
1.9	The deutschmark–pound (DM/£) forward exchange quotations and UK and German interest rates in January 1997	26
2.1	The balance of payments of Euroland	35
2.2	Examples of balance-of-payments accounting	39
2.3	IMF balance-of-payments summary: the United States, Japan, Germany, France, Italy, Canada and the United Kingdom in 1995 (in billions of US dollars)	44
2.4	Summary of key balance-of-payments concepts	45
2.5	Budget deficits/surpluses and current account balances	46
3.1	Devaluation and the balance-of-payments	60
3.2	The elasticity of demand for exports and imports of fifteen industrial and nine developing countries	63
5.1	Empirical estimates of the offset coefficient	131
6.1	Relative purchasing power parity test	148
6.2	Hamburgers and purchasing power parity	152
9.1	Risk premium/market efficiency tests	218
9.2	Risk premium/exchange market efficiency test with detrended data	219
9.3	Predictions of exchange-rate models	227
9.4	Test of Exchange Rate Models	228
9.5	Exchange-rate forecasts of different exchange-rate models	230
9.6	Test of the news exchange-rate model	237
9.7	Group averages of annual yields and standard deviations 1974–94	244
10.1	Summary of the results under fixed and floating rates	266
11.1	The US balance of payments 1959–73	283
11.2	Ratio of US reserves to liquid liabilities	286
11.3	The real price of OPEC crude oil	291
11.4	Global current account balances 1973–80	291

11.5	Current account balances of the major industrialized countries 1972–98	292
11.6	Inflation rates in the major industrialized countries 1972–98	293
11.7	Growth rates of real GDP/GNP in the major industrialized countries 1972–98	294
11.8	Standardized unemployment rates in the major industrialized countries 1972–96	295
11.9	Exchange-rate arrangements as at 30 June 1997	304
11.10	Summary of exchange-rate arrangements as at 30 June 1997	306
12.1	The gross size of the Eurocurrency market in selected years	312
12.2	International bond issue by currency	326
12.3	Features of a typical dollar Eurobond issue	328
12.4	Top international bond lead managers 1996	331
13.1	The growth of exchange-traded futures and options contracts	337
13.2	Sterling futures contract	339
13.3	Similarities and differences between currency forwards and futures contracts	340
13.4	Philadelphia Stock Exchange £/\$ Options £31 250 (cents per pound)	347
13.5	The profit/loss on an October call for different spot exchange rates on expiry of the contract	348
13.6	Comparison of hedging using futures and options	349
13.7	A currency option versus a currency forward for speculation	351
13.8	Table of factors affecting a currency call option's premium	354
13.9	In the money, at the money, and out of the money	355
13.10	Intrinsic value and time value	360
13.11	The values of $N(d1)$ and $N(d2)$ for different spot exchange rates	364
13.12	Currency composition of notional principal value of outstanding currency swaps	366
13.13	A currency swap	368
13.14	The cumulative standard normal distribution	373
14.1	Simulation effects of monetary and fiscal policy changes	380
14.2	A game theory pay-off matrix demonstration of the gains from coordination	384
15.1	Current account balance of the big-four debtors 1972–82	408
15.2	Total external debt of the big-four debtors 1972–82	411
15.3	US banks' exposure to five Latin American countries in 1982	411
15.4	External debt statistics of big-four debtors 1982–95	422

15.5	Inflation rates of the big-four debtor countries	423
15.6	Economic growth of big-four debtor countries	424
15.7	The secondary price of debt for the big-four debtors	425
15.8	Debt-restructuring agreements 1988–94	426
16.1	Central parity realignments in the Snake	435
16.2	Bilateral central rates and selling and buying rates in the ERM as from 25 November 1996	438
16.3	The composition of the ECU and central weights in the run up to EMU	441
16.4	Calculation of the deutschmark per ECU central rate	441
16.5	Maximum and actual divergences from ECU central rates	444
16.6	A chronology of events in the European Monetary System	446
16.7	Inflation in ERM and non-ERM countries	450
16.8	Economic growth in ERM and non-ERM countries	454

List of Boxes

1.1	Exchange rate quotations and the bid–offer spread	5
1.2	Bulls and bears in the foreign exchange market	8
2.1	Current accounts and government fiscal policies in the 1980s and 1990s	46
6.1	The Hamburger standard	151
7.1	The UIP condition and changes in exchange-rate expectations	163
9.1	Exchange market efficiency and the distinction between anticipated and unanticipated economic policy	220
11.1	The creation of special drawing rights	288
15.1	Some debt terminology	404
16.1	The practicalities of introducing the Euro	470

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KEITH PILBEAM

Introduction

■ *The Subject Matter of International Finance*

The subject matter of international finance is, broadly speaking, concerned with the monetary and macroeconomic relations between countries. International finance is a constantly evolving subject that deals very much with real world issues such as balance-of-payments problems and policy, the causes of exchange-rate movements and the implications of macroeconomic linkages between economies.

Many economists had predicted that the adoption of generalized floating in 1973 would lead to a demise of interest in the subject. They believed that exchange-rate adjustments would eliminate balance-of-payments concerns. As is the case with many economists predictions, they were proved wrong! Floating exchange rates have not eliminated balance-of-payments preoccupations as friction between the United States and Japan concerning the former's deficits and the latter's surplus throughout the 1980s and 1990s shows. Floating exchange rates have been characterized by high volatility and substantial deviations from purchasing power parities. Exciting new theories were developed to explain these phenomena and these theories have been subjected to close empirical scrutiny.

The quadrupling of oil prices at the end of 1973 and doubling in 1979 caused considerable turbulence to the world economy. There were dramatic divergences in economic performance; the United Kingdom and Italy experienced substantial rises in their inflation rates, while the Japanese and German economies managed to keep the lid on inflation. In such a turbulent world, a widespread desire to create a zone of currency stability between the currencies of countries belonging to the European Community led to the setting up of the European Monetary System in 1979. Contrary to much initial scepticism and the odd speculative attack the system survived into 1998 and became a vehicle for the attainment of EMU. The advent of European Monetary Union with the appearance of the Euro in the year 2002 is probably the most significant development in the international monetary system since the breakdown of the Bretton Woods system in the early 1970s.

A massive and sustained real appreciation of the dollar between 1981–85 was largely blamed on divergences in macroeconomic policies internationally. The United States had an ever-growing fiscal deficit with rising real interest rates while the European and Japanese economies were adopting much tougher fiscal policies. The resulting appreciation of the dollar led to trade frictions between the United States and its trading partners. To limit

these damaging policy divergences, there were calls for a greater coordination of macroeconomic policies and much discussion in the economic literature over the potential gains to be had from such coordination. In August 1982 the international debt crisis exploded on the scene with the announcement of the Mexican moratorium, and sparked off major concerns about stability of the international banking system. Resolving the worst of the crisis took up the best part of 15 years.

Another major development in the 1980s and 1990s was the exponential growth in trading in derivative instruments such as futures, options and swaps. These instruments have enabled firms to hedge risks but have also been the centre of concern in that some authorities, companies and banks have run up enormous losses either through lack of understanding of the instruments or the taking of unduly risky positions. The \$2 billion losses of Orange County (a local government in the United States) and the remarkable losses run up by Barings bank due to trading by the infamous Nick Leeson being just two of the well-publicized cases.

Not surprisingly, in response to many of the foregoing developments, the literature and the importance of the subject has mushroomed. Although there are a number of very good texts covering many of these topics it is extremely hard to find a core book to recommend. Some books are very strong on theory but pay little attention to empirical issues. Others are excellent on recent exchange-rate theory but presume a reasonable background in traditional exchange-rate and balance-of-payments theory. Older texts while good on traditional theories inevitably devote little space to much of the modern literature. The first edition of this book was designed to provide a single core book giving an accessible and up-to-date introduction to the field of international finance. The success of the first edition inevitably led to demands for a second edition which we present here.

■ *Distinguishing Features of this Text*

The main distinguishing features of this text can be summarized as:

- The text presents both traditional and modern theories in the field. To the extent possible, the presentation follows a chronological order that gives students an impression of the development of the literature.
- The text is not purely theoretical but presents students with a reasonable overview of the empirical evidence relating to the theories discussed.
- The technical expertise required of students is kept to a fairly low level. However, rather than exclude some important topics that require a more technical exposition, a basic knowledge of mathematics and statistics is assumed.

- Extensive use is made of diagrams, tables and graphs to illustrate the arguments in the text.
- A number of important recent developments and subjects are given extensive rather than cursory treatment. Most notably, there are entire chapters devoted to international policy coordination, European monetary union and the European monetary system and the international debt crisis. Among the issues discussed are *inter alia*, exchange-rate ‘overshooting’, the problem of time inconsistency and game theory. The addition of a new chapter on currency derivatives reflects the increased importance of these instruments to international financial markets.
- At the end of each chapter there is a selective list of further reading and references. It was felt that this would be considerably more useful to students and lecturers than a general bibliography at the end of the book. A list of very useful texts in the field is provided at the end of the book.

■ *Appropriate Courses for the Text*

The coverage and level of technical expertise expected of students makes the text suitable for use as a main text on a variety of degree courses. These include undergraduate and one-year postgraduate courses in international economics, international monetary economics and international finance. Much of the material covered makes the book particularly useful for the international finance component of MBA courses. Some of the chapters in the book are relevant to courses in intermediate macroeconomics and international relations.

■ *Presentation and Contents*

In writing the text, it soon became apparent that there are a bewilderingly wide range of models that could be presented. At the same time it is extremely difficult to present the various theories as a subset of some general model, since that model would quickly become intractable. In the end, it was decided to concentrate on the models that have dominated the literature, even though the assumptions underlying the models in different chapters can differ greatly. It is hoped that the clear statement of the different assumptions underlying the theories at the beginning of each chapter and the contrasts drawn between the various models will facilitate student understanding.

The book is divided into three parts. The opening part is concerned with balance-of-payments theory and policy. The second part is devoted to theories of exchange-rate determination and policy including an examination of the empirical exchange-rate literature. The final part of the book

traces the evolution and development of the post-war international monetary system; the major features of the current system are analysed.

Broadly speaking an attempt has been made to present each part of the book in a chronological order that will give students a perspective on the development of the literature. A brief overview of the chapters is contained below:

Part I: Balance-of-payments theory and policy

The opening chapter provides an introduction to the foreign exchange market and provides an essential background to the study of the remaining chapters in the book. Chapter 2 provides an introduction to balance-of-payments statistics and their interpretation. Chapter 3 presents some national income and balance-of-payments identities, and then examines the traditional elasticity and absorption approaches to devaluation that were developed in the 1930s to 1950s. Chapter 4 analyses macroeconomic policy in an open economy using the Keynesian *IS–LM–BP* model which dominated policy discussion in the 1960s. This framework is then used to examine the effectiveness of fiscal, monetary and exchange-rate policies in achieving internal and external balance. This is then followed in Chapter 5 by an examination of the distinctive monetary approach to the balance of payments which emerged in the late 1960s and early 1970s.

At the outset, it is worth noting that there are considerable differences between the Keynesian model of Chapter 4 and the monetary model of Chapter 5. The Keynesian model is based upon fixed domestic prices and assumes a horizontal aggregate supply schedule, so that variations in aggregate demand translate into changes in output and not prices. This contrasts with the monetary model which assumes a vertical aggregate supply schedule at the full employment level of output so that changes in aggregate demand translate into changes in prices rather than output. The Keynesian model also takes a flow view of capital movements and assumes imperfect goods substitutability, whereas the monetary model takes a stock view of capital movements and assumes perfect goods substitutability.

Part II: Exchange-rate theory, evidence and policy

Chapter 6 commences with the purchasing power parity (PPP) literature which is one of the earliest theories of exchange-rate determination. PPP

has not proved to be a reliable indicator of floating exchange behaviour, and some of the explanations that have been put forward to explain its failure are discussed. In Chapter 7 there is an exposition of the modern monetary theories of exchange-rate determination that were developed in the 1970s, these emphasise the importance of monetary factors in explaining exchange-rate behaviour. We deal first with the 'flexible-price' monetary model, followed by the 'sticky-price' Dornbusch model and finally with the Frankel 'real interest rate differential model'. The portfolio balance exchange-rate model which was developed at the same time as the monetary models is discussed in Chapter 8. The portfolio balance model emphasises that risk factors and current account imbalances may have an important role to play in exchange-rate determination.

In Chapter 9, the empirical literature on floating exchange rates which only really got underway at the end of the 1970s and mushroomed in the 1980s and 1990s is discussed. Three major empirical issues are examined: the first is whether or not the foreign exchange market can be regarded as efficient; the second concerns whether modern theories of exchange rates satisfactorily model observed exchange-rate behaviour; and the third concerns the formation of exchange-rate expectations. Chapter 10 concentrates on exchange-rate policy; it begins with a review of the traditional debate over the relative merits of fixed and floating exchange rates. This is then followed by an assessment using the more modern approach to analysing exchange-rate policy; this compares the stabilizing properties of the two regimes within the context of a formal macroeconomic model.

Part III: The post-war international monetary system

Chapter 11 provides an overview of the development of the post-Second World War international monetary system. It commences with the operation and eventual breakdown of the Bretton Woods system and then surveys the major developments since the adoption of generalized floating. Chapter 12 examines the Eurocurrency and Eurobond markets. Chapter 13 examines the basics of derivative instruments and explains the differences between options, futures and swaps as well as principles behind the pricing of these instruments. Chapter 14 provides an overview of the recent literature on international policy coordination, a topic of which there has been a great deal of research since 1985. Chapter 15 is devoted to an analysis of many of the issues raised by the international debt crisis; the chapter looks at the origins and management of the crisis. Chapter 16 looks at the functioning of the European Monetary System and issues raised by the transition to European Monetary Union.

■ *Use of the Book*

The scope of the book is sufficiently wide that there is considerable flexibility for lecturers to design courses that reflect their own interests. Chapters 1–5 probably provide the backbone to most courses in this field. Chapter 6 on purchasing power parity is a core chapter on exchange-rate theory and floating exchange-rate experience. Thereafter, the degree to which modern exchange-rate theory is covered will be dependent on the length and priority of the course. Chapter 7 covers the modern monetary models. There is no doubt that the Dornbusch model of exchange-rate overshooting represents such a significant contribution to our understanding of exchange-rate behaviour, that getting over its message is highly desirable. The problem is that a formal presentation is sometimes too advanced for some courses in international finance. For this reason I have split up the presentation of the Dornbusch model into two parts: one is a simple explanation of the model without recourse to the use of equations. This is followed by a more formal presentation for more advanced classes. I hope that this approach enables most students to gain at least an intuitive grasp of the ideas underlying modern exchange-rate theory, and at the same time satisfies the demands of more rigorous courses.

Chapter 8 on the portfolio balance model can easily be omitted if the course does not go into great detail on exchange-rate theory. With regard to the empirical evidence on exchange rates it is quite possible to omit the coverage of exchange market efficiency tests and just recommend sections 9.6 to 9.8 for an overview of how well modern exchange rate theories perform empirically. In Chapter 10 it is possible to cover the traditional debate on fixed and floating exchange-rate regimes without having to cover the more modern approach, although I have found the modern approach that compares the two regimes within an aggregate supply and demand framework to be very popular with students. Part III of the book offers a range of topics that can be chosen to reflect the emphasis of the particular course.