

MICHAEL MELVIN

International Money and Finance



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*To Cathy,
Jason, and Jeremy*

Preface

Only in the past decade has it become desirable to offer two distinct courses in international economics to undergraduates. Previously, schools in general had a one-semester course combining both international trade and international finance. As a result, authors wrote textbooks that offered both trade and finance information under one cover. In the 1970s, however, the literature addressing the monetary side of international economics grew dramatically. This increase in research activity resulted in an explosion of knowledge. Researchers developed many models or ways of viewing international monetary relationships, some of which sharply departed from the conventional wisdom in the field.

As an instructor called upon to teach both graduate and undergraduate courses in international monetary economics, I was shocked to find the lack of an adequate textbook that covered the current state of knowledge in this subject. For graduate courses, this was only a minor problem because graduate students can read professional journals to gather the required information. Yet even for such advanced students, a text that summarizes in one convenient source the results of the important research would be quite useful. For undergraduates there was no simple way to assign the original journal articles, which contain sophisticated mathematics and advanced discussions. Consequently, I began to assemble lecture notes for teaching undergraduate interna-

tional finance. These notes summarized the current literature in an intuitive manner with only elementary math as a prerequisite.

After consulting with colleagues at other schools, I soon realized that they, too, found existing books deficient in content. At the urging of several friends, I began to develop a textbook from my lecture notes that would fill the void existing in the market. Why have we not seen an up-to-date text on the monetary side of international economics? The answer, I think, is that there is a historically small market for such a text. Successful authors have produced books that serve many functions. Being all encompassing, these texts could be used for courses in international trade, international money, or courses combining both trade and money in one semester. If the market for international finance was small, sales in the other areas would still justify publication.

Today international monetary economics or international finance is a growth area. There is a bonafide need for a text that will provide an accessible version of the modern theory of international monetary economics. In this text I have presented the latest research in the field along with the established knowledge in a self-contained manner that is understandable to undergraduates. Although the text is written at the junior and senior levels of the undergraduate division, the material is suitable for MBA courses as well as providing background reading in advanced graduate level economics courses.

Is this text for finance or economics courses? It is for both, hence the title *International Money and Finance*. Much of our recent knowledge of international financial relationships is based on the modern theory of finance that was refined in the 1960s. Yet a glance at the Contents reveals a list of topics that obviously belongs in any economics course addressing the monetary side of international economics. The subject matter of this text will serve students well in both international finance and international monetary economics courses.

Finally, I am indebted to my former students, who motivated the original lecture notes from which this text developed, and to many colleagues for their advice and discussions. Like other textbook authors, my greatest debt is to the leading scholars in the field who produced the information contained in these pages. Although these "guiding lights" are too numerous to mention, their names are listed in the Index and their many works are cited throughout. I also extend my gratitude to those who served as reviewers; there is no question that the text has benefited greatly from their comments. Specifically, Michael Connolly, Sebastian Edwards, Dan Friedman, Tomotaka Ishimine, Phillip Moery, Gilbert Suzawa, and Marie Thursby offered advice on earlier drafts. My

work was made much easier as a result of the expert word-processing abilities of Mrs. Lynnette Winkelman and the editorial freedom allowed by Mr. David Forgione at Harper & Row.

Michael Melvin

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Introduction

WHY?

Why study the subject of international money and finance? One reason is that career goals are paramount to many people, and in this regard the topic of the text is related to a growth area in the labor market. It provides the international finance background for those who expect to obtain jobs created by international investment, international banking, and multinational business activity.

Other readers may have a more scholarly concern with “rounding out” their economic education by studying the international relationships between financial markets and institutions. Although principles of economics is the only prerequisite assumed for this text, many students may have already taken intermediate macroeconomics or money and banking courses. Such courses may often be lacking in their global orientation for those interested in international economic relationships. The economic models and discussions of the typical money and banking course focus on the *closed economy*, closed in the sense that the interrelationships with the rest of the world are ignored. Here we study the institutions and analysis of an integrated world financial community, thus giving a better understanding of the world in which we live. We will learn that there are constraints as well as opportunities facing the business firm, government, and the individual investor that only become apparent in a worldwide setting.

INTERNATIONAL TRADE AND INTERNATIONAL FINANCE

The subject of international economics is commonly split into international trade and international finance. This dichotomy has proven very useful, since the literature and knowledge associated with the monetary side of international economics has increased voluminously in recent years. It is, however, simply not possible to study both international trade and international finance comprehensively in the time allotted for one course.

Courses in international trade study the determinants of the pattern and volume of world trade—formally referred to as the theory of *comparative advantage*. If country *A* produces and exports shoes in exchange for country *B*'s food, we say that *A* has a comparative advantage in shoes and *B* has a comparative advantage in food. Besides comparative advantage, such courses also examine the movement of factors of production, labor, and capital goods between nations. Obviously, such subjects are very important and deserve careful study, but our purpose is to study the monetary consequences of such trade. Although we will not explicitly consider any theories of comparative advantage—such theories are usually developed without referring to the use of money—we will often consider the impact of monetary events on trade in real goods and services. Our discussions range from the effects of the currency used in pricing international trade in Chapter 7 to financing trade in the offshore banking industry of Chapter 11. We will find that monetary events can have real consequences for the volume and pattern of international trade.

THE ACTORS

This course is not simply a study of abstract theories of the international consequences of changes in money supply or demand, prices, interest rates, or exchange rates. We also discuss the role and importance of the institutional and individual participants. Most people tend to think immediately of large commercial banks as holding the starring role in the international monetary scene. Since the foreign exchange market is a market where huge sums of national currencies are bought and sold through commercial banks, any text on international finance will include many examples and instances in which such banks play a major part. In fact, Chapter 1 begins with a discussion of the role of banks in the foreign exchange market.

Besides commercial banks, business firms play a key part in our “story” as the goods and services they buy and sell internationally effect

a need for financing such trade. The corporate treasurer of any multinational firm is well-versed in foreign exchange trading and hedging and international investment opportunities. What is hedging? How are international investment opportunities related to domestic opportunities? These are subjects we address in Chapters 2, 3, and 4.

Finally, we examine the role of government. Central banks, such as the Federal Reserve in the United States, are often important actors in our story. Besides their role of buying, selling, lending, and borrowing internationally, they also act to restrict the freedom of the other actors. The policies of central governments and central banks are crucial to understanding the actual operation of the international monetary system, and each chapter will address the impact of government on the topic being described.

PLAN OF ATTACK

The text can be thought of in terms of three main sections: Chapters 1 to 5 identify the key institutions and relationships of the international monetary system. To aid our understanding of the relationships among prices, exchange rates, and interest rates, we will consider existing theories, as well as the current state of research that illuminates their validity. Although the discussion is kept at an intermediate level, several appendices are offered that intuitively discuss techniques used by researchers. For those students who choose to proceed professionally in the field of international finance, the relatively low-level study of this text should provide both a good reference and springboard to more advanced work, and ultimately employment.

Chapters 6 to 8 cover the next general area of the determinants of the balance of payments and exchange rates. To many readers this will be the “meat” of the text. Government and industry devote many resources in trying to forecast the balance of payments and exchange rates. The discussion in these chapters includes the most important recent developments. Although there is some disagreement among economists regarding the relative significance of competing theories, insofar as possible in an intermediate level presentation, the theories are evaluated in light of research evidence. Altogether, these chapters present a detailed summary of the current state of knowledge regarding the determinants of the balance of payments and exchange rates.

Chapters 9 to 11 give a fitting conclusion since they address the alternative ways in which the international monetary system could be organized and then discuss the role of the very important Eurocurrency market. Before considering potential alternatives and evaluating the

benefits and costs of various international monetary systems, we review the recent history of international monetary arrangements, beginning with the gold standard of the late nineteenth century. The final chapter on the Eurocurrency market covers the development, practices, and policy issues of offshore banking and international lending. What really goes on in the Cayman Islands? How do commercial banks evaluate the risks associated with lending money to the government of a Latin American nation? Are Eurodollars dollars in Europe? These questions are addressed in Chapter 11.

At the beginning of this chapter we asked: Why study international money and finance? It is hoped that the brief preview provided here will have motivated you further. International finance is not a dull, “ivory tower” subject to be tolerated or avoided if possible. Rather, it is a subject that involves dynamic real-world events. Since the material covered in this book is emphasized daily in the newspapers and other media, you will soon find that the pages in *International Money and Finance* seem to come to life.

chapter 1

The Foreign Exchange Market

Foreign exchange trading refers to trading one country's money for that of another country. The need for such trade arises due to tourism, the buying and selling of goods internationally, or investment occurring across international boundaries. The kind of money that is specifically traded is bank deposits or bank transfers of deposits denominated in foreign currency. The *foreign exchange market*, as we usually think of it, refers to large commercial banks in financial centers such as New York or London trading foreign-currency-denominated deposits with each other. Actual *bank notes* like dollar bills are relatively unimportant insofar as they rarely physically cross international borders. In general, only tourism or illegal activities would lead to the international movement of bank notes.

SPOT RATES

Table 1.1 gives *foreign exchange rate* quotations for a particular day. An exchange rate is the price of one money in terms of another. In the table we see that on Friday, May 25, 1984, British pounds were selling for \$1.3830. Note that this exchange rate is quoted at a specific time, 3 P.M., since rates will change throughout the day as supply and demand for the currencies change. Notice also that these exchange rates are quotes based on large scales (\$1 million or more), in what is essentially a wholesale market for money. For instance, if you were a U.S. importer