INTERNATIONAL FINANCE

Financial Management and the International Economy

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FINANCIAL MANAGEMENT AND THE INTERNATIONAL ECONOMY

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TO KATE

PREFACE

Courses in international finance are offered both in departments of economics and in schools of business. The topics covered and the levels of analysis are, however, very different. Instructors of students of economics tend to concentrate on the more macroeconomic issues of the balance of payments, the international financial adjustment process, the adequacy of international reserves, transfer problems, and impacts of economic policies in an open environment. These topics are not of direct interest to the student of business. The economist does, however, treat these topics in a relatively rigorous manner using tools that are familiar to a student who has taken a course in economics.

Students of business, whether concentrating in finance or concentrating in international business, often have a more practical interest. Consequently, courses offered in business programs are concerned with topics such as where to borrow and invest, what different types of bonds can be used to raise capital, how exchange rates affect cash flows, what can be done to avoid foreign exchange risk, and the general management problems of multinational enterprises. Despite adequate levels of preparation, generally including an introduction to economics and finance, the student of business often receives a rather descriptive treatment of these topics which fails to build on the foundations of previous courses. For this reason, many second-year M.B.A. students and undergraduate business majors with solid backgrounds in, for example, marginal revenue-cost analysis or the advantages of portfolio diversification feel they move sideways rather than forward into international finance.

In addition to proceeding from an appropriate background, the coverage of topics in a good international finance text written for business students should be from the perspective of business management. This book builds on an economics and finance background that should be common to every student of economics or business who moves into a course in international finance. Furthermore, since some students will be familiar with lower-level college mathematics, those topics which can be treated with calculus or involve what are primarily mathematical manipulations are covered in appendixes. However, no background in mathematics is required other than straightforward algebra to understand the main part of the text, and the appendixes can be ignored, since they are not necessary for understanding the text. Only the kernel of knowledge provided in an introduction to economics is required. Some degree of familiarity with the material covered in a conventional introduction to finance is valuable but not essential, and when "difficult" concepts are used, a short review is presented.

The topics in this text are covered from the perspective of a person who wishes to know how the international environment will affect the firm. However, it is important that managers also understand international financial developments on an overall macroeconomic level. Such an understanding enables managers to project economic changes and to adjust to what they expect to occur. Because of this double level of interest in the forces behind events and the consequences of these events for the firm, this book includes a section on the international finance of the economy. However, even at this macroeconomic level, a managerial perspective is taken.

In order for different instructors to have some flexibility in planning the contents of their course, a text is required which deals with the core of the theory and practice of international finance. This core can and perhaps should be augmented with readings that the instructor feels are appropriate. The text would then form the backbone of a course that involves an accompanying but short list of supplementary readings. The text should nevertheless provide sufficient material for a one-semester course. It is hoped that this book achieves the goal of providing a sufficient core for a full course in international finance while leaving room for some supplementary readings.

The more difficult sections of the book are marked with an asterisk. These can be avoided or left for a second reading, for they are not essential for understanding the subsequent material.

This book evolved over a number of years while I was teaching at the University of British Columbia and also at the School of Business Administration of the Hebrew University, Jerusalem, and the School of Business Administration of the University of California, Berkeley. Parts of the text were written while I was visiting the Department of Economics at the Massachusetts Institute of Technology.

An author's debts are a pleasure to acknowledge, and I have incurred many that I would find difficult to repay. The help that was offered by reviewers of the numerous different drafts was immensely important in improving the final product. Charles D'Ambrosio meticulously examined each chapter and provided wise advice on the presentation of material. Laurence D. Booth of the University of Toronto conscientiously and carefully checked voluminous portions of the manuscript and generously gave the benefit of his professional and critical judgment. His advice on the appropriate coverage of topics was of great value. Richard Brealey of the London Business School helped me avoid numerous errors and confusions and offered perceptive and valuable comments on virtually every aspect of the text. Detailed and valuable comments were also received from James Hugon of Portland State University and from J. Fred Weston of the University of California, Los Angeles. The coordination of reviews and numerous other editorial jobs involved in producing this book was most professionally handled by Bonnie E. Lieberman and the expert staff at McGraw-Hill.

I have had the good fortune of obtaining help from individuals at universities I visited while writing this book, especially from David Babbel at the University of California at Berkeley and from Donald Lessard at MIT. Alan Shapiro provided generous help while he was visiting and teaching at the University of British Columbia. Leonard Back of Citibank helped in obtaining material, and Thomas Campbell of the Federal Reserve Bank of New York offered generous advice.

I would like to thank my colleagues at the University of British Columbia—Gary Bortz, Michael Brennan, Robert Heinkel, Alan Kraus, and Peter Lusztig—who provided input at various stages. A vital contribution was made by my good friend and colleague Eduardo Schwartz; he gave constant and invaluable advice on numerous topics. I received superbly professional and indispensable help in improving the presentation of material from Barbara Brett. Too numerous to mention individually but of great importance were the students in my graduate and undergraduate courses in international finance at the University of British Columbia. Their comments and reactions were a crucial ingredient in various revisions of the text.

An immeasurable debt is owed to my teachers of international finance at the University of Chicago: Robert Z. Aliber, Arthur Laffer, Lloyd Metzler, Robert A. Mundell, and the late Harry G. Johnson. Financial assistance was provided by the Canadian Ministry of Industry, Trade, and Commerce and the Division of International Business Studies at the University of British Columbia. Their help is most gratefully appreciated. It is to Kate Birkinshaw, who helped in every stage of preparing this book, that I owe my greatest and sincerest thanks. She provided the input and environment that made this book a shared labor of love.

Maurice Levi

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CHAPTER 1

THE NATURE OF INTERNATIONAL RISKS AND THE PLAN OF THIS BOOK

THE SCOPE OF INTERNATIONAL FINANCE

It is difficult to escape being constantly confronted with the phenomenal impact of international trade on our standard of living and daily lives. In the department store we find cameras and electrical equipment from Japan and clothing from Hong Kong. On the street we find automobiles from Germany, Japan, Britain, Sweden, and France using gasoline from Venezuela, Saudi Arabia, Great Britain, Mexico, and Kuwait. At home we drink tea from India, coffee from Brazil, whiskey from Scotland, beer from Germany, and wine from France. It is sometimes difficult to believe that every item which has reached us from some other land has involved international investments and the movement of money along the channels of the payments network that is the subject of this book on international finance.

The network of payments and the international investments have elevated the study of finance to a multinational scale. Events in distant lands, whether they involve changes in the prices of oil and gold, election results, the outbreak of war, or the establishment of peace, have effects which instantly reverberate around the globe. We see the consequences of events in the stock markets and interest rates of an increasingly integrated and interdependent economic environment. The links between the money and capital markets have become so close as to make it almost futile to concentrate on any individual part. It is these developments which have made it imperative that every actual and aspiring manager of a business concern take a good look into the exciting and dynamic field of international finance.

BENEFITS OF STUDYING INTERNATIONAL FINANCE

A knowledge of international finance can help in two very important ways. First, it can help the manager decide how international events will affect a firm and which steps can be taken to insulate the firm from the more harmful effects. Second, it can help the manager to anticipate the path of events and to make profitable decisions before the events occur. Among the events that will affect the firm and which the manager must anticipate are changes in exchange rates, interest rates, inflation rates, and national incomes, as well as the prospects for change in different political environments. These events are intricately linked, and it is crucial that the links be understood if profitable decisions are to be made and harmful effects avoided.

We are concerned with the problems faced by any firm whose performance is affected by the international environment. Our analysis is relevant to more than the giant multinational corporations (MNCs) that have received so much attention in the media. It is just as valid for a company with a domestic focus that happens to export a little of its output or buys inputs from abroad. Even companies that operate only domestically but compete with firms producing abroad and selling in their local market are affected by international developments. For example, U.S. clothing or automobile manufacturers with limited or zero overseas sales will find U.S. sales and profit margins affected by exchange rates which influence the dollar prices of imported clothing and automobiles.

What makes international finance different from domestic finance are the additional risks of involvement in different currencies and in different political jurisdictions or countries. Dealing with different currencies gives rise to exchange rate risk, and dealing with different countries entails political risk.

We can do little more than indicate the nature of the risks in this introduction. The reader should not, therefore, be disturbed if some of what is stated in this introductory chapter is not immediately understood.

EXCHANGE RATE AND POLITICAL RISKS

There are frequent periods when each day we hear about the plight of the dollar or the currency of some other major trading country. Tensions in Europe or in other politically sensitive parts of the world, changes in the price of oil or gold, interest rate patterns, and the prospect of economic booms or busts all spill over into the foreign currency markets and influence the prices of foreign exchange.

Changes in exchange rates means changed fortunes for those who are *exposed to foreign exchange risk*. Exposure to exchange rate risk means that changes in the price of foreign currencies will affect either the value of existing foreign currency assets/liabilities or the value of foreign income not yet even earned.

Exposure on Existing Foreign Assets/Liabilities

Existing assets that are not sold and liabilities that are not repaid are affected by exchange rates as a result of being "denominated" in a foreign currency. By denomination in a foreign currency we mean that the asset or liability has a stated or market value given in a foreign currency. Foreign bank notes and bonds are generally denominated in a foreign currency. In addition, from a U.S. perspective, a pound sterling bank account in London or Canadian stocks that trade on the Toronto Stock Exchange are denominated in foreign currency. So, too, is any real