The Economics of Financial Markets

The Economics of Financial Markets presents a concise overview of capital markets, suitable for advanced undergraduates and for embarking graduate students in financial economics. Following a brief overview of financial markets – their microstructure and the randomness of stock market prices – this textbook explores how the economics of uncertainty can be applied to financial decision making. The mean-variance model of portfolio selection is discussed in detail, with analysis extended to the capital asset pricing model (CAPM). Arbitrage plays a pivotal role in finance and is studied in a variety of contexts, including the arbitrage pricing theory (APT) model of asset prices. Methods for the empirical evaluation of the CAPM and APT are also discussed, together with the volatility of asset prices, the intertemporal CAPM and the equity premium puzzle. An analysis of bond contracts leads into an assessment of theories of the term structure of interest rates. Finally, financial derivatives are explored, focusing on futures and options contracts.

Roy E. Bailey is a Reader in Economics at the University of Essex.

The Economics of Financial Markets

Roy E. Bailey

CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE
UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org
Information on this title: www.cambirdge.org/9780521612807

First published 2005
11th printing 2014

Printed in the United Kingdom by Clays, St Ives, plc.

A catalogue record for this publication is available from the British Library

ISBN 978-0-521-84827-5 Hardback
ISBN 978-0-521-61280-7 Paperback

The Theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions. It is not difficult in the sense in which mathematical and scientific techniques are difficult; but the fact that its modes of expression are much less precise than these, renders decidedly difficult the task of conveying it correctly to the minds of learners.

J. M. Keynes

When you set out for distant Ithaca,
fervently wish your journey may be long, –
full of adventures and with much to learn.

C. P. Cavafy

Contents in brief

Contents

Figures

Preface

How can yet another book on finance be justified? The field is already well served with advanced works, many of impressive technical erudition. And, towards the other end of the academic spectrum, an abundance of mammoth texts saturates the MBA market. For the general reader, manuals confidently promising investment success compete with sensational diagnoses of financial upheavals to attract attention from the gullible, avaricious or unwary.

Alas, no one can expect to make a fortune as a consequence of reading this book. It has a more modest objective, namely to explore the economics of financial markets, at an 'intermediate' level – roughly that appropriate for advanced undergraduates. It is a work of exposition, not of original research. It unashamedly follows Keynes's immortal characterization of economic theory as 'an apparatus of the mind, a technique of thinking'. Principles – rather than assertions of doctrine, policy pronouncements or institutional description – are the focus of attention. If the following chapters reveal no get-rich-quick recipes, they should at least demonstrate why all such nostrums merit unequivocal disbelief.

This book evolved, over more years than the author cares to admit, from lecture notes for a course in financial economics taught at the University of Essex. For reasons of space, one topic – corporate finance – has been omitted from the book, though its core insight – the Modigliani–Miller theorem – is slipped in under options (chapter 18, section 6). While the chapters are intended to follow a logical sequence, pedagogy may require a different order. Any such tensions should be straightforward to resolve. For example, chapter 2 (market microstructure) appears early but was covered later in the course. Other changes of the order in which the chapters are studied should be easy to implement. Several obvious groupings are, however, readily apparent: portfolio selection in chapters 4 and 5; asset pricing in 6 to 9; bond markets in 12 and 13; futures in 14 to 16; and options in 18 to 20.

Taxing though it may be, chapter 7, on arbitrage, is so fundamental that it deserves study as early as possible. The overused and commonly abused notion of 'efficiency' infects much of finance: here it is confronted in chapter 3, though its presence cannot escape notice elsewhere (especially in chapters 10 and 11). 'Behavioural finance' perhaps warrants greater attention than it gets. Rather than segregate the topic into a ghetto of its own, an attempt is made to disperse its message across chapters of particular relevance (especially 3, 4 and 10). No apology is offered for adhering to a conventional treatment of financial markets, eschewing as far as possible the caprice of academic fashion.

Students enrolled for the lecture course were absolved responsibility for the technical appendices, included to justify and amplify claims in the text. The appendices were much the most satisfying sections to write and, it is hoped, will interest at least those readers embarking on graduate study. Lest there be misconception that the coverage of any topic is definitive, each chapter includes brief suggestions for further reading. A student's work is never done.

The undergraduates to whom the lectures were addressed had a background in economics but most had not previously encountered the subject of finance. Consequently, while the book should be accessible to any moderately well-educated undergraduate, an acquaintance with microeconomics and quantitative methods is desirable. No more than the rudiments of differential calculus and probability theory, together with a smattering of statistics, are really necessary.

Successive generations of Essex students have contributed more to the final product than they can possibly have realized. Their toleration resembles that of opera audiences, which, in repeatedly shouting for an encore, imagine that the singer will eventually get it right. Individuals – too many to identify by name – have pointed out errors, queried obscurities and, most importantly, asked critical questions that revealed shortcomings. Attempts have been made to remedy the most glaring faults. Others undoubtedly lurk, as yet undiscovered.

A Website has been established at www.cambridge.org/0521612802. It is intended that this will form a repository for updates, feedback, exercises used in the lecture course and other supporting ancillary material. Given the unpredictable appearance, disappearance and revision of Web URLs, with a few exceptions these have been omitted from the text. The book's Website should – notwithstanding the vicissitudes of the Web – enable rapid access to relevant locations via the links listed there.

The author's procrastination in completing the manuscript would have exhausted the patience of a saint. But not of Patrick McCartan and Chris Harrison, at Cambridge University Press, the forbearance of whom has been remarkable. Persistent encouragement from Marcus Chambers and Abhinay Muthoo nudged the project back to life on countless occasions when the author would have

cheerfully abandoned it. Without their unwavering support, the entire enterprise would surely have been aborted. They must, therefore, be rendered partially culpable for the appearance of the book, though they are innocent of its remaining blemishes, infelicities and errors. For these, the author accepts exclusive responsibility.

R. E. Bailey
Wivenhoe Park
November 2004