D (JARDNER NTERNATIONAL CAPITAL WARKETS

A Complete Introduction to U.S. and World Markets in Equity, Debt, and Off-Balance-Sheet Instruments

The DC Gardner Guide to International Capital Markets

DC GARDNER GROUP PLC



John Wiley & Sons, Inc.

New York • Chichester • Brisbane • Toronto • Singapore

In recognition of the importance of preserving what has been written, it is a policy of John Wiley & Sons, Inc., to have books of enduring value printed on acid-free paper, and we exert our best efforts to that end.

Copyright © 1993 by DC Gardner Group plc

Published by John Wiley & Sons, Inc.

All rights reserved. Published simultaneously in Canada.

Reproduction or translation of any part of this work beyond that permitted by Section 107 or 108 of the 1976 United States Copyright Act without the permission of the copyright owner is unlawful. Requests for permission or further information should be addressed to the Permissions Department, John Wiley & Sons, Inc.

This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert assistance is required, the services of a competent professional person should be sought. From a Declaration of Principles jointly adopted by a Committee of the American Bar Association and a Committee of Publishers.

Library of Congress Cataloging-in-Publication Data

The DC Gardner guide to international capital markets / by DC Gardner Group.

p. cm. — (Wiley finance editions) Includes index.

ISBN 0-471-58567-X

1. Capital market. 2. International finance. I. DC Gardner Group. II. Title: Gardner guide to international capital markets. III. Title: Guide to international capital markets. IV. Series. HG4523.D53 1993 332'.042—dc20

93-2790

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

Preface

Welcome to the first book by John Wiley & Sons and DC Gardner. DC Gardner's self-study workbooks are the recognized route to success in the financial sector. They are written by market practitioners and training experts and feature realistic examples, case studies, and exercises. In only a few hours, you should be able to understand the key issues and techniques.

Success in the capital markets requires a thorough understanding of the concepts and procedures that exist in this, the most dynamic and global of markets. The DC Gardner Guide to International Capital Markets provides an overview of all concepts, products, and practices of the capital markets to enable you to recognize and exploit borrowing, lending, and trading opportunities. The workbook also features a glossary that explains any terms with which you may be unfamiliar. The DC Gardner user-friendly style lets you learn at your own pace and you can always use the workbook as a reference tool for the future.

Read each chapter carefully. The interactive nature of the workbook lets you test your understanding as you go along by completing the exercises at the end of each chapter. You can check your progress with the answers that are provided at the back of the book. Once you have completed this workbook you should have achieved a good understanding of the basic concepts of the international capital markets.

DC Gardner has an excellent reputation worldwide for its financial training consultantcy which has offices in New York, London, Amsterdam, and Sydney. Its consultants research, design, and implement training programs and have provided tailored seminars to more than 350 major financial institutions, corporations, and government agencies throughout the world.

Should you have any comments about this book or require more information about the group's training or publishing activities, please contact us at DC Gardner, 51 East 42nd Street, Suite 1202, New York, NY 10017.

Contents

	rt I Introduction to Capital	1	23	Establishing a Commercial Paper Program 124	
			24	,	
1	What Is a Capital Market? 3			Characteristics 132	
2	Basic Instruments and Terminology 5		25	Advanced Uses of Commercial Paper 139	
3	The US Capital Markets 10		Ap	pendix to Part III 144	
4	The International Capital Markets 15		Par	rt IV International Bond	
5	Participants in the Capital Markets 23		Ma	arkets	147
6	The Issuer's Viewpoint 27		26	What Is a Bond? 149	
7	The Investor's Viewpoint 31		27	The Primary Market 157	
8	The Intermediary's Viewpoint	38	28	The Secondary Market 167	
9	Off-Balance Sheet Instruments	42	29	Bond Valuation 174	
10	Regulation 47		30	Determinants of Interest Rates	179
11	Documentation, Procedures and		31	Yield Curves 185	
	Clearing 53		32	The Eurobond Market 189	
Ap	pendix to Part I 55		Ap	pendix to Part IV 205	
Pa:	rt II International Equity		Par	rt V Government Bonds	207
M	arkets	57	33	US Government Bonds 212	
12	The Nature of Equity 59		34	Japanese Government Bonds 22	20
13	How Shares Are Traded 63		35	UK Government Bonds 223	
14	The Primary Market 75		36	German Government Bonds 222	7
15	Deregulation in the US and UK	83	37	French Government Bonds 230	
16	Equity Market Indices 87		38	Risk Management Applications	233
17	The Valuation of Equities 93		Ap	pendix to Part V 242	
18	Derivative Products 102				
Ap	pendix to Part II 109		Paı	t VI Interest Rate Swaps	243
Pai	t III Commercial Paper	111	39	What Is an Interest Rate Swap? 245	
19	What Is a Commercial Paper Program? 113		4 0	Swap? 247	
20	The Commercial Paper Market	115	41	Who Uses Interest Rate Swaps? 249	
21	The Issuer 119		42	Understanding an Interest Rate	

43 Swap Terminology 257	56 Calculation of Interest 329
44 Calculation of Interest 261	57 Asset Swaps 335
45 Asset Swaps 266	58 Swap Administration 337
46 Swaps Administration 272	Summary of Features and Benefits 340
47 Innovative Uses of the Swap 275	Appendix to Part VIII 341
Summary of Features and Benefits 276	
Appendix to Part VI 277	Part IX Capital Markets Mathematics 343
Part VII Asset-Backed	50 D 1 G
Securities 279	59 Basic Concepts 345
48 The Concepts 285 49 Evolution of the Market 295 50 Participants 302 51 Collateral Credit Risk 306 Appendix to Part VII 311	 60 Simple Interest Calculations 347 61 Simple Yield Calculations 352 62 Compound Interest Calculations 356 63 Present Value Calculations 360 64 Worked Example 367 65 Cash-Flow Analysis and Internal Rate
Part VIII Currency Swaps 313	65 Cash-Flow Analysis and Internal Rate of Return 369
52 What Is a Currency Swap? 315 53 Why Use a Currency Swap? 319	66 Practical Points 375 Glossary 377
54 Who Uses Currency Swaps? 320	Answers to Exercises 385
55 How Currency Swaps Work 322	Index 404

I

Introduction to Capital Markets

Markets exist to facilitate the purchase and sale of goods and services. A capital market provides a means for borrowers to raise capital, at a price, from investors who have money available.

Like other markets, an efficient capital market requires intermediaries who match the needs of sellers and buyers. These operations can be conducted only with the market research, distribution and support systems essential to any successful business. The difference in the capital markets is that money itself becomes the basis of every product or 'instrument' sold. Domestic and international capital markets are in a constant state of evolution, with new instruments emerging and existing instruments changing in response to the needs of market participants. Those instruments that cannot adapt to shifting patterns of demand and regulation will soon disappear from the markets.

The capital markets draw their dynamism from the technical skills and spirit of innovation of the participants. These professionals are the major assets of financial institutions and their clients, carrying on a lively and continuous interchange to communicate the needs of all parties. Few hard-and-fast theoretical rules apply in such a rapidly changing, people-intensive business. Indeed, in the lightly regulated international capital markets, exceptions can exist to almost every rule or procedure. As in any business, however, sound commercial disciplines provide the foundation for all operations and innovations.

Capital markets instruments may differ in name and definition around the world, but their underlying concepts are broadly similar. The following chapters discuss the basic instruments in international use, the impact of regulation on the markets, and the considerations that guide issuers, investors and intermediaries in selecting the instrument most appropriate to their needs. This workbook also reviews the evolution of the US and international capital markets in recent years, and the most important issues confronting participants in these markets during the 1990s.

Success in the capital markets requires a thorough understanding of the basic concepts and practices that supersede language barriers and surface differences in national market operations. Over the past 20 years, this trend towards globalization has made the capital markets the most dynamic arena of financial activity in the world – and this process will produce changes and innovations no less dramatic in the years ahead.

A capital market is any domestic or international market in which governments, banks, multilateral organizations (like the World Bank or the European Community) and companies can borrow or invest large amounts of money for medium- to long-term periods.

The role of a capital market is to facilitate efficient use of capital, offering a vehicle for investors to make surplus funds available to borrowers seeking to raise finance.

A domestic capital market operates within the financial system of a single country and is subject to regulation by the national government, generally through the central bank. As global capital flows have expanded exponentially in the post-war period, traditional domestic markets have been complemented by an explosion of international capital markets outside the control of any single national authority or regulatory regime. Most have developed their own procedures for self-regulation, however, and participants are still subject to the control of regulatory authorities in their own countries.

Capital markets have several distinguishing features. The most important are:

Negotiability of Instruments

In the capital markets, borrowing and investing is generally done through the use of financial instruments that are 'negotiable'. This means that their ownership can be transferred from one party to another, giving the investor the possibility of selling the instrument before maturity.

Non-Bank Funding

Capital markets instruments offer the borrower a means to raise money from sources other than banks. An issuer in the capital markets does not borrow directly from a commercial bank on-lending its depositors' funds, but rather taps alternative sources of funds through the issue of instruments for sale directly to investors. The process of raising capital through instruments other than direct bank loans is commonly known as 'disintermediation'. Commercial paper, which allows a given company to lend surplus funds directly to another on a short-term basis, demonstrates how the traditional banking role can be eliminated.

Securities

Instruments in the capital markets are often called 'securities'. This refers to the 'security' received by the investor, in the form of a certificate signed by the issuer that states the terms of the issuer's contract with the purchaser. The terms 'securities market' and 'capital market' are sometimes interchangeable. A stricter traditional definition of a 'security' is a share or bond listed with a recognized exchange.

Longer Maturities

The distinction between a capital market and a money market is generally made on the basis of the length of time for which money is raised. Typically, a capital market is one in which money (capital) is borrowed for more than two years. Money markets are used to finance short-term needs and invest short-term cash surpluses, generally with bank intermediation.

Basic Instruments and Terminology

Capital markets instruments can be divided broadly between those that affect the balance sheet of the issuer and those that do not. Instruments with an impact on the bottom line fall into three basic categories:

- Debt: Instruments issued with a defined life, final maturity date, and agreed terms for payment to the investor.
- Equity: Instruments that grant the investor a specified share of ownership and rights to a proportionate part of any dividend declared.
- Hybrids: Instruments that include features of both debt and equity, such as bonds with equity warrants.

We focus in this section on the most important aspects common to instruments in each of these three categories. Off-balance sheet instruments, such as swaps, futures and options are discussed in detail in a separate section.

Debt Instruments

A debt instrument is issued by a borrower in the form of a certificate that states the terms and conditions of the borrowing. The certificate:

- establishes the debt of the borrower (issuer) and his obligation to repay the lender (investor) a fixed amount (the principal) on a specified future date (the maturity or redemption date); and
- specifies the interest (income) to be paid to the investor at stated intervals during the life of the instrument.

Interest

The interest payable is usually expressed as a percentage of the principal (also called 'face value' or 'denomination') of the instrument.

One of two basic methods is used to determine the rate of interest paid to maturity:

- A fixed-rate instrument pays the same rate of interest on the specified date(s) each year to maturity.
- A variable-rate or floating-rate instrument pays interest at a rate adjusted on specific dates or at regular intervals in accordance with a pre-agreed formula.

The rate of interest to be paid is often called the 'coupon.' The term refers to the customary practice of issuing bond certificates with attached coupons showing the interest rate, which are presented for payment at the end of each interest period.

Risk and guarantees

The investor who holds the debt instrument of a given company has precedence over holders of equity in claims against the borrower in the event of liquidation. The primary risk to the debt investor is that the borrower may be unable to pay the coupon, and/or to repay the principal at maturity.

Companies, governments or public sector institutions viewed as relatively high-risk borrowers can improve the marketability of their debt by offering the guarantee of an entity with a stronger credit rating. In such circumstances, the investor relies on the creditworthiness of the guarantor, not that of the actual borrower. Guarantees are commonly required for borrowers dependent on income from parent companies or governments to service their debts. A more recent trend has been for lesser known companies to issue debt guaranteed by third parties, such as major banks and insurance companies. Heavily indebted countries have adopted a similar approach, issuing debt guaranteed by a government or multilateral organization. Such issues are referred to as 'credit enhanced'.

Status of the debt

The debt may be either secured or unsecured. The distinction is important for the investor:

- Secured debt offers the investor protection in the form of a legal claim on specific assets such as factories or buildings, just as a home mortgage is secured on the house itself.
- Unsecured debt leaves the investor with no security save the issuer's (or guarantor's) promise to pay.

Governing law

The terms and conditions on which the borrower raises money are written in full on the back of the debt instrument certificate and constitute a legally binding agreement. Legal claims are adjudicated in the jurisdiction of the country under whose law the instrument was issued.

Bearer or registered form

Debt instruments may be issued in bearer or registered form. In bearer form, possession alone by the bearer or owner of the instrument is sufficient evidence of ownership (title) and therefore the right to receive interest and principal. The owner of a registered instrument is listed on a register maintained by the borrower, and this listing must be amended before the instrument can legally change hands. As a result, transfer of ownership is executed more swiftly for bearer than for registered instruments.

Bonds or notes

The certificate may be called either a bond or a note. There is little practical difference; traditionally, bonds have maturities of more than seven years, while notes carry shorter terms.

Summary of Main Terms and Conditions of a Standard Fixed-Rate Bond Issue

- Issue Amount
- Name of Issuer
- Name of Guarantor (if any)
- Form, Denomination and Title
- Status of the Bond
- Coupon/Interest
- Interest Payment Date
- Maturity Date
- Governing Law

Equity

Companies raise equity capital through the issue of two basic types of stock: common shares and preferred shares.

Both common and preferred shares differ from debt instruments in that the share:

- has no maturity date;
- assures the right to a dividend if declared;
- offers greater potential for profit if a stock appreciates significantly due to strong performance by the company and/or the market; but also
- carries greater risk, since no dividend is paid in the event of a loss and also because shareholder claims on corporate assets in the event of bankruptcy are paid only after obligations to bank creditors and bondholders have been settled.

Terms for common and preferred shares differ in several key respects:

- Common share dividends, if any, are paid at the discretion of the company; preferred shares receive priority in payment of dividends at a fixed rate, provided profits permit distribution of dividends in a given year.
- Common shareholders have the right to nominate the company's board of directors and to vote on major decisions affecting the management and legal form of the company; preferred shareholders do not have voting rights.
- Preferred shareholders have priority over common shareholders for settlement of claims in the event of bankruptcy.

Hybrids

Hybrid instruments offer a combination of debt and equity features. The two most common hybrids, convertible bonds and bonds with equity warrants, give the investor the option to acquire shares on pre-established terms. In exchange for this greater flexibility, the investor receives a lower rate of interest on the hybrid bonds than that for a comparable bond issue on conventional terms.

Convertible bonds

A convertible bond, like a conventional bond, is issued at a fixed maturity and interest rate. But the holder of a convertible bond can exchange the fixed-rate bond for shares of the issuer at a specific price (the conversion price) in accordance with the terms of the contract. For example, the holder of a US\$1,000 bond convertible into shares of a company at US\$5 per share could acquire 200 shares in the company under the specified terms. The conversion price is set at a premium above the market price of the outstanding shares at the time of issue. The premium varies with market conditions, and average levels differ significantly between markets. A lower premium generally heightens the probability that the right of conversion to equity will be exercised.

Bonds with equity warrants

These bonds are issued with another certificate, or warrant, attached. A warrant is essentially an option which allows the holder to buy a set number of the issuer's shares at a pre-determined price (the exercise price) at any point during a specified period of time. Warrants are generally attached to a fixed-rate bond with the aim of sweetening the attraction of the issue to the investor. They can often be detached from the original bond and traded separately.

Exercise 1

1.	Which of the following would you classify as capital markets instruments?								
	 a) Fixed-rate bonds issued by banks; b) Bank loans; c) Shares in a bank; d) Fixed-rate securities that are convertible into shares in a bank; e) Bank deposits. 								
	Circl	e your choice of correct answer(s)	а	ь	с	đ	e		
2.	Which of the following features are common to most capital markets instruments?								
	 a) Their ownership gives a right to appoint directors to the board of the issuer. b) They are traded or listed on a stock exchange. c) Ownership can be transferred easily from one party to another. d) They entitle the purchaser to a fixed amount of income. e) They are sold directly to investors. 								
	Circl	e your choice of correct answer(s)	а	b	c	d	e		
3.	Whic	th of the following statements are true?							
	 a) Bonds are negotiable debt instruments. b) The interest payable on debt instruments is always specified at the outset of the loan. c) Holders of debt instruments usually take precedence over holders of equity in a liquidation. d) Bondholders are paid out after shareholders if the issuer is bankrupt. e) Debt instruments have a face value of the principal amount to be repaid at maturity. 								
	Circl	e your choice of correct answer(s)	а	b	c	d	e		
4.	What is a convertible security?								
	 a) A kind of equity convertible into a bond. b) A certificate which expires valueless unless used but entitles you to buy shares in the company at a pre-fixed price. c) A bond which can be converted on pre-fixed terms into equity. d) A bond secured on assets which may be converted into other, better quality assets. e) A fixed-rate bond which continues to exist after its option to buy shares has been exercised. 								
	Circl	e your choice of correct answer(s)	а	b	c	d	e		

3 The US Capital Markets

The history of the capital markets can be traced back to the 17th century, when governments began to issue bonds to wealthy domestic investors. In more recent times, companies have also sought to tap the investment resources of domestic markets to raise the capital required for current operations and long-term expansion. During the 20th century the flow of capital across national boundaries has increased as regulatory barriers have diminished. As a result, government, corporate and multilateral issuers have complemented traditional domestic issues with an increasingly diverse array of borrowings in the emerging international capital markets.

The explosive growth and innovation of the Euromarkets has changed the face of the capital markets over the past three decades, and we devote Chapter 5 to a more detailed look at the globalization of the securities markets. That discussion, however, must proceed from an understanding of the continuing importance of the domestic markets in the leading industrialized countries, and of these none is more important than the capital markets of the United States. The New York Stock Exchange (NYSE) still has the power to influence share prices from London to Tokyo, and the US bond market remains by far the largest in the world with more than US\$4 trillion in federal, municipal and corporate debt outstanding.

Overview

The dominant story on Wall Street in the 1980s was the stock market's move into one of its longest sustained rallies ever, from mid-1982 until the party came to an abrupt end in the crash of October 1987. The NYSE absorbed the shock, and commenced a gradual recovery of confidence that within two years had returned the Dow Jones Industrial Average (DJIA) to pre-crash levels. But the crash shook many small investors from the market, and securities firms flush with high-paid talent at the height of the 1987 rally slashed salaries and laid off some 17,000 employees in the wake of 'Black Monday'. The 190-point 'mini-crash' of October 1989 and lingering volatility in subsequent months served to remind investors that the market remained vulnerable, particularly in the event of a US recession.

Against this backdrop, the US government securities market has proved a steady, if less spectacular performer, though supply of debt at times has been well ahead of investor demand. A driving force behind the expansion of the Treasuries market was the explosion of the federal deficit in the 1980s. During 1990 marketable US Treasury debt exceeded US\$2 trillion.

The government's soaring debt requirement has far outstripped growth of investment capital in the domestic market. The end result has been a significant expansion of foreign investment in US Treasuries, as part of a broader trend towards increased foreign participation in the US capital markets. Foreign investors were estimated to hold some 20% of outstanding government bonds in 1990; with about 20% of outstanding US corporate bonds and some 8-10% of US equities also in foreign hands.

United States Treasury obligations comprise a little more than a third of total outstanding US dollar debt, with federal agencies, local governments and corporations

accounting for the balance. The past decade has seen steady expansion and growing sophistication in the debt instruments available to prospective issuers. At the same time, securities firms – hard pressed by diminished profit margins on traditional business, and facing the prospect of growing competition from US and foreign banks – have moved aggressively to develop and refine new products in the capital markets. We discuss the most important instruments currently in the US capital markets below.

Stock Market

After a long bull run in the 1980s, the crash of 1987 diminished the NYSE's lustre, with seats on the exchange selling during 1990 for less than half the extraordinary peak of just over US\$1 million on the eve of the crash. The market has shown resilience in its recovery from the 1987 crash, but its lingering volatility continues to raise serious questions of confidence and regulatory control.

The shakeout on Wall Street provides stark testimony that the securities industry has undergone a painful post-crash adjustment, exacerbated by the evaporation of lucrative alternative income sources such as junk bond issues. Two prominent casualties of the industry's shakeout have been Drexel Burnham Lambert and Thomson McKinnon, firms that ranked among the top 20 US securities houses in terms of total capital during the mid-1980s. Even the most successful brokerages have not gone unscathed; Merrill Lynch, for instance, took a record reorganization charge of US\$470 million against 1989 earnings, resulting in a net loss of US\$213 million for the year.

While most houses have had to work harder to keep up profit margins since the October 1987 crash, the stock market's recovery to pre-crash levels confirms that – though some small investors have not returned to stocks – the market's base of institutional and corporate support remains solid.

But even the most bullish houses on Wall Street recognize that the market's volatility, underscored by the 190-point plummet in October 1989, can produce abrupt shifts in investor psychology. Three factors bear particular relevance to the market outlook for the 1990s:

- The economic outlook. Continuation of the market's gradual, if choppy, upward climb since the 1987 crash will depend in part on the success of the Bush administration and the Federal Reserve in sustaining economic growth.
- Program trading and arbitrage. The stock market's recovery has failed to dispel criticism of the NYSE and the securities industry for the practice of program trading, in which arbitrageurs trade stock index futures and options against a basket of stocks representative of that index. To be profitable, program trading requires frequent and generally computerized transactions triggered when contract and index levels breach pre-established targets. The complaint is that such automatic trading in large blocks of stock can exacerbate a market decline and ultimately produce a crash. The Bush administration has sought to dissuade Congress from imposing legislative restrictions on program trading, and some firms have indicated they will phase out such business voluntarily in the wake of the October 1989 mini-crash. It is doubtful that the practice will fade, however, so