The Economist

GUIDE TO FINANCIAL MARKETS

Why they exist and how they work

Sixth edition

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THE ECONOMIST IN ASSOCIATION WITH
PROFILE BOOKS LTD

Published by Profile Books Ltd
3a Exmouth House
Pine Street
London EC1R 0JH
www.profilebooks.com

Typeset in EcoType by MacGuru Ltd
info@macguru.org.uk

Printed in Great Britain by Clays, Bungay, Suffolk

A CIP catalogue record for this book is available from the British Library

Hardback ISBN: 978 1 78125 106 5
Paperback ISBN: 978 1 78125 107 2
e-book ISBN: 978 1 84765 953 8

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1 Why markets matter

THE EURO IS SLIGHTLY HIGHER against the yen. The Dow Jones Industrial Average is off 18 points in active trading. A Chinese airline loses millions of dollars with derivatives. Following the Bank of England's decision to lower its base rate, monthly mortgage payments are set to fall.

All these events are examples of financial markets at work. That markets exercise enormous influence over modern life comes as no news. But although people around the world speak glibly of "Wall Street", "the bond market" and "the currency markets", the meanings they attach to these time-worn phrases are often vague and usually out of date. This book explains the purposes different financial markets serve and clarifies the way they work. It cannot tell you whether your investment portfolio is likely to rise or to fall in value. But it may help you understand how its value is determined, and how the different securities in it are created and traded.

In the beginning

The word "market" usually conjures up an image of the bustling, paper-strewn floor of the New York Stock Exchange or of traders motioning frantically in the futures pits of Chicago. These images themselves are out of date, as almost all of the dealing once done face to face is now handled computer to computer, often with minimal human intervention. And formal exchanges such as these are only one aspect of the financial markets, and far from the most important one. There were financial markets long before there were exchanges and, in fact, long before there was organised trading of any sort.

Financial markets have been around ever since mankind settled down to growing crops and trading them with others. After a bad harvest, those early farmers would have needed to obtain seed for the next season's planting, and perhaps to get food to see their families through. Both of these transactions would have required them to obtain credit from others with seed or food to spare. After a good harvest, the farmers would have had to decide whether to trade away their surplus immediately or to store it, a choice that any 21st-century commodities trader would find familiar. The amount of fish those early farmers could obtain for a basket of cassava would have varied day by day, depending upon the catch, the harvest and the weather; in short, their exchange rates were volatile.

The independent decisions of all of those farmers constituted a basic financial market, and that market fulfilled many of the same purposes as financial markets do today.

What do markets do?

Financial markets take many different forms and operate in diverse ways. But all of them, whether highly organised, like the London Stock Exchange, or highly informal, like the money changers on the street corners of some African cities, serve the same basic functions.

- **Price setting.** The value of an ounce of gold or a share of stock is no more, and no less, than what someone is willing to pay to own it. Markets provide price discovery, a way to determine the relative values of different items, based upon the prices at which individuals are willing to buy and sell them.
- **Asset valuation.** Market prices offer the best way to determine the value of a firm or of the firm's assets, or property. This is important not only to those buying and selling businesses, but also to regulators. An insurer, for example, may appear strong if it values the securities it owns at the prices it paid for them years ago, but the relevant question for judging its solvency is what prices those securities could be sold for if it needed cash to pay claims today.

- **Arbitrage.** In countries with poorly developed financial markets, commodities and currencies may trade at very different prices in different locations. As traders in financial markets attempt to profit from these divergences, prices move towards a uniform level, making the entire economy more efficient.
- **Raising capital.** Firms often require funds to build new facilities, replace machinery or expand their business in other ways. Shares, bonds and other types of financial instruments make this possible. The financial markets are also an important source of capital for individuals who wish to buy homes or cars, or even to make credit-card purchases.
- **Commercial transactions.** As well as long-term capital, the financial markets provide the grease that makes many commercial transactions possible. This includes such things as arranging payment for the sale of a product abroad, and providing working capital so that a firm can pay employees if payments from customers run late.
- **Investing.** The stock, bond and money markets provide an opportunity to earn a return on funds that are not needed immediately, and to accumulate assets that will provide an income in future.
- **Risk management.** Futures, options and other derivatives contracts can provide protection against many types of risk, such as the possibility that a foreign currency will lose value against the domestic currency before an export payment is received. They also enable the markets to attach a price to risk, allowing firms and individuals to trade risks so they can reduce their exposure to some while retaining exposure to others.

The size of the markets

Estimating the overall size of the financial markets is difficult. It is hard in the first place to decide exactly what transactions should be included under the rubric "financial markets", and there is no way to compile complete data on each of the millions of sales and purchases occurring each year. Total capital market financing was approximately

$6.5 trillion worldwide in 2011, excluding purely domestic loans that were not resold in the form of securities (see Table 1.1).

TABLE 1.1 **Amounts raised in financial markets**
Net of repayments, $bn

	2000	2004	2006	2008	2011
International bank loans	714	1,343	2,816	–1,279	185
International bonds and notes	1,148	1,560	2,617	2,436	1,212
International money-market instruments	87	61	168	82	–6
Domestic bonds and notes	865	2,461	2,322	2,282	2,566
Domestic money-market instruments	377	774	983	1,462	–611
International equity issues	318	214	371	392	485
Domestic equity issues	901	593	717	999	617
Total excluding domestic loans	**4,410**	**7,006**	**9,994**	**6,374**	**4,448**

Sources: Bank for International Settlements; World Federation of Exchanges; Thomson Reuters

The figure of $4.5 trillion for 2011, sizeable as it is, represents only a single year's activity. Another way to look at the markets is to estimate the value of all the financial instruments they trade. When measured in this way, the financial markets accounted for $180 trillion of capital in 2011 (see Table 1.2). This figure excludes many important financial activities, such as insurance underwriting, bank lending to individuals and small businesses, and trading in financial instruments such as futures and derivatives that are not means of raising capital. If all of these other financial activities were to be included, the total size of the markets would be much larger.

Cross-border measure

Another way of measuring the growth of finance is to examine the value of cross-border financing. Cross-border finance is by no means new, and at various times in the past (in the late 19th century, for example) it has been quite large relative to the size of the world economy. The period since 1990 has been marked by a huge increase

TABLE 1.2 **The world's financial markets**
Year end, $trn

	2000	2004	2006	2008	2011
International bonds and notes	6.1	13.2	18.4	23.9	28.5
International money-market instruments	0.3	0.7	0.9	1.1	1.0
Domestic bonds and notes	23.8	35.9	49.7	59.7	69.6
Domestic money-market instruments	6.0	8.2	10.1	12.8	11.5
International bank loans	8.3	13.9	18.9	22.5	22.3
Equities	31.1	37.2	50.7	32.6	47.4
Total value outstanding	**75.6**	**109.1**	**148.7**	**152.6**	**180.3**

Sources: Bank for International Settlements; World Federation of Exchanges

in the amount of international financing broken by financial crises in Asia and Russia in 1998, the recession in the United States in 2001, and the financial meltdowns of 2008–09 in the United States and 2008–13 in Europe. The total stock of cross-border finance in 2013, including international bank loans and debt issues, was more than $52 trillion, according to the Bank for International Settlements.

Looking strictly at securities provides an even more dramatic picture of the growth of the financial markets. A quarter of a century ago, cross-border purchases and sales of securities amounted to only a tiny fraction of most countries' economic output. Today, annual cross-border share and bond transactions are several times larger than GDP in a number of advanced economies – Japan being a notable exception.

International breakdown

The ways in which firms and governments raise funds in international markets have changed substantially. In 1993, bonds accounted for 59% of international financing. By 1997, before the financial crises in Asia and Russia shook the markets, only 47% of the funds raised on international markets were obtained through bond issues. Equities became an important source of cross-border financing in 2000, when share prices were high, but bonds and loans regained importance in the low-interest-rate environment of 2002–05. In 2008, syndicated lending fell off as lack of capital forced banks to restrain their lending activities. Issuance of international bonds was relatively flat in the years following 2008, as non-financial companies increased their bond issuance even while banks reduced their outstanding bond indebtedness. Table 1.3 lists the amounts of capital raised by the main instruments used in international markets.

TABLE 1.3 **Financing on international capital markets**
Type of instrument, $bn

	2000	2004	2008	2012
Bonds and money-market instruments	1,241	1,621	2,416	705
Equities	317	214	392	630
Syndicated loans	1,485	1,807	1,682	1,841
Total	**3,043**	**3,642**	**4,490**	**3,176**

Source: Bank for International Settlements

Turn-of-the-century slowdown

By all these measures, financial markets grew rapidly during the 1990s. At the start of the decade, active trading in financial instruments was confined to a small number of countries, and involved mainly the same types of securities, bonds and equities that had dominated trading for two centuries. By the first years of the 21st century, financial markets were thriving in dozens of countries, and new instruments accounted for a large proportion of market dealings.

The expansion of financial-market activity paused in 1998 in response to banking and exchange-rate crises in a number of countries. The crises passed quickly, however, and in 1999 financial-market activity reached record levels following the inauguration of the single European currency, interest-rate decreases in Canada, the UK and Continental Europe, and a generally positive economic picture, marred by only small rises in interest rates, in the United States. Equity-market activity slowed sharply in 2000 and 2001, as share prices fell in many countries, but bond-market activity was robust.

Trading in foreign-exchange markets fell markedly at the turn of the century. Credit and equity markets around the world were buoyant in 2006–07, but then contracted abruptly as financial crisis led to the failures of several major financial institutions and a dramatic reduction in lending. Although credit markets began to recover in 2009, their expansion was subdued because of the prolonged financial crisis affecting the euro zone, recession or sluggish growth in a number of major economies, and new regulatory requirements that constrained bank lending and discouraged use of certain financing methods, notably securitisation. By making large-scale purchases of bonds in 2010–13, the major central banks played a significant role in supporting credit-market expansion to meet the needs of businesses and households.

The long-run trends of increased financial-market activity can be traced to four main factors:

- **Lower inflation.** Inflation rates around the world have fallen markedly since the 1980s. Inflation erodes the value of financial assets and increases the value of physical assets, such as houses and machines, which will cost far more to replace than they are worth today. When inflation is high, as was the case in the United States, Canada and much of Europe during the 1970s and throughout Latin America in the 1980s, firms avoid raising long-term capital because investors require a high return on investment, knowing that price increases will render much of that return illusory. In a low-inflation environment, however, financial-market investors require less of an inflation premium, as they do not expect general increases in prices to devalue their assets.
- **Pensions.** A significant change in pension policies occurred in many countries starting in the 1990s. Since the 1930s, and even earlier in some countries, governments have operated pay-as-you-go schemes to provide income to the elderly. These schemes, such as the old age pension in the UK and the social security programme in the United States, tax current workers to pay current pensioners and therefore involve no saving or investment. Changes in demography and working patterns have