

CHAPTER 1**Fundamental Concepts**

Figure 1.1 encapsulates the typical flow of the global securities market and serves as a framework for review. Although this chapter is elementary in approach, the educated professional should enjoy the chapter because it provides rich context and a solid foundation for the material that follows.

At the bottom of the chart (the Earth if you will) are the issuers of securities—corporations, sovereigns, and all of the many legal entities that comprise the debt and equity market worldwide.

The investor is at the bottom-left-hand corner of the great pentagram in the chart. The investor decides to buy a security using a broker. The broker needs to locate a security so the broker seeks out a place where there is a market—an exchange. The exchange provides liquidity—an active, readily available market in those securities. The exchange members are linked to a clearing system whereby the seller of the security (via a broker) ratifies an order with the buyer (via the buyer's broker). The clearing system is linked to a central securities depository through which the two market participants deliver securities and settle payment. At the central custodian, the investor's securities are held in safekeeping through the intermediation of a broker or bank. And as neatly and as quickly as one could draw a star, the securities pentagram is made manifest.

Overlooking the securities universe, like the sun, are the regulators. Like the moon driving the inexorable tides, the transfer agent reconciles—day in and day out—the securities' positions among the depositories and the issuers of securities.

With this overview graphically embedded in our minds, we examine the features of the global securities firmament in greater detail.

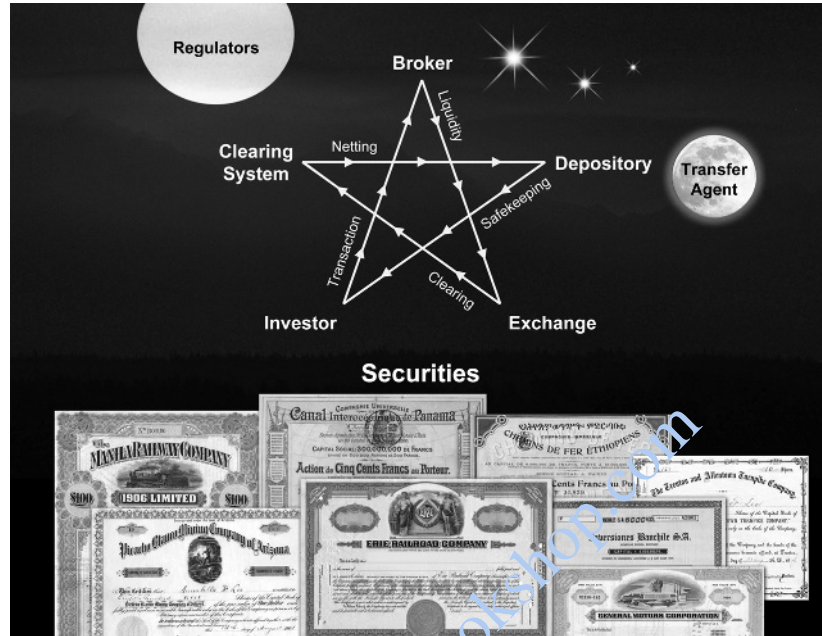


FIGURE 1.1 The Global Markets Pentagram

LEGAL DEFINITION OF SECURITY

A security, unlike goods or land, has no utilitarian value. A security is simply a manifestation of a promise by an issuer to pay interest and return capital in the case of bonds, or share in the ownership of a company in the case of stock. In truth, a security is hard to define. It is not a check; but it can be a note.¹ In many cases, the law resorts to a list in order to define what a security actually is.

¹*Reves v. Ernst & Young*, 494 U.S. 56 (1990). What is and is not a security has meaning, particularly in the United States, because the definition may dictate what body (for example, the Commodity Futures Trading Commissions [CFTC] or the Securities and Exchange Commission [SEC]) regulates the activity in the financial instrument. For example, only some derivatives, notably options, are deemed to be “securities” in the United States. As a matter of statutory definition in the United States, other derivatives (such as interest rate swaps and credit default swaps) escaped traditional securities regulation because they were largely thought to be purchased by sophisticated investors. The failure to regulate derivatives is thought by many to be one of the causes of the 2008–2009 recession (see Chapter 10). Although interests in investment partnerships are most often considered securities, the offering of these investment instruments also follows a regulatory path designed for sophisticated investors.

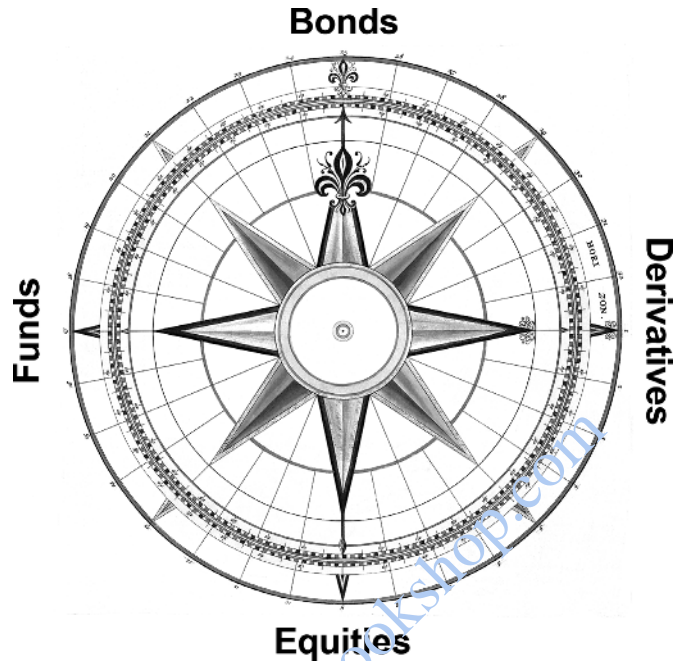


FIGURE 1.2 The Securities Compass

Conceptually, a security can be defined as an investment pooled with others and managed by third parties with whom the investors participate in the economic fate of a common enterprise (whether it be a sovereign nation or a corporation). Securities include equities, options on securities, warrants, preferred shares, depository receipts, bonds, debentures, collateralized debt and mortgage obligations, and mutual funds. A hallmark feature of a security is transferability in a readily available market. In order to further orient ourselves, a comparison to a compass may prove helpful as shown in Figure 1.2.

Imagine the four points of a compass. North are bonds and South are equities. East are derivatives (such as listed options or credit default swaps) and West are investment funds. Anywhere on the compass, depending on the characteristics of the security, one can array a financial investment because they all tend toward one coordinate or another. Although the precise feature of every security is beyond the scope of this book, we will examine the principal coordinates on the compass.

NORTH VERSUS SOUTH (DEBT VERSUS EQUITY)

Issuers of debt securities induce suppliers of capital (*rentiers*² in the language of the French economist) to part with their money in the exchange for the promise of payment of a complete return of capital plus interest³ at some future point in time. This is the essence of a debt security.⁴ Although colloquially referred to as bonds, there is a legal difference between a bond (which guarantees payment of the debt with a pledge of property) and a debenture (another French word), which has only a corporation's future profits as security for future payment.

With the adoption of the law merchant into the English common law by Lord Mansfield in the 1700s, a vibrant and international debt market emerged.⁵ Currently, the debt market (including government and quasi-government debt, but not including loans by banks) is approximately

²The French via a group of economic writers known as the *Physiocrats* gave us many of the words of modern finance. Arguably the first school of political economic thought, the Physiocrats placed an emphasis on protecting and developing a nation's agriculture. Later, Adam Smith, in *The Wealth of Nations*, articulated the benefits of manufacturing and free trade. It is interesting to note, however, the protectionist doctrine of the Physiocrats (and their predecessors, the Mercantilists) still manifests itself in national policy (such as exchange controls, discussed in Chapter 13).

³"I do not know what the seven wonders of the world are, but I do know the eighth: compound interest," said Baron Rothschild (1840-1915). Compound interest is easily described as adding interest to interest at some agreed periodic time frame. For a detailed explanation of future value, present value and yield calculation as well as an in-depth explanation of various fixed income securities and bond portfolio management, one can review Frank J. Fabozzi, *The Handbook of Fixed Income Securities* 5th ed. (Irwin Professional 1996).

⁴The Islamic world views charging interest as morally reprehensible. Many Christians (St. Augustine being a notable example) have taken the same view (although usually limited to not charging extortionate rates). *Exodus* 22:25-27. All people must evolve legal structures in order to advance, so Muslims developed the "Sukuk," which is akin to a repurchase agreement in which a putative borrower sells an item in return for cash and then the borrower agrees to buy it back at some future time, only at higher price, thereby effectively paying the lender for the use of the money. A similar practice emerged among money changers in Lombard, Italy after a papal decree prohibited interest-bearing loans between Christians. In time, "Lombards," as these new money changers came to be known, developed collateralized loan techniques that spread throughout Europe. A vocation among Jews and, later, Quakers, a nascent banking diaspora spread throughout Europe and then to the United States. Even today, many major European cities have a Lombard Street and some still refer to collateralized loans as "Lombard loans." Quakers and Jews were not the only religious groups with an impact on the markets. For an interesting perspective on the Puritans' impact on business and finance from the 1630s to the present day refer to, Kenneth and William Hopper, *The Puritan Gift* (I. B. Tauris 2007).

⁵See C.H.S. Fifoot, *Lord Mansfield* (Oxford University Press 1899). The "law merchant" refers to the customs developed among merchants concerning their dealings in goods and negotiable instruments. Justice Joseph Story, in promoting legal precepts that aided the development of

\$91 trillion. Compare this figure to the equity market of \$52 trillion (market value of issued shares) and one can see why the efficient trading of debt has been a principal focus of efficient trading, clearance, settlement, and custody. In fact, the two largest international central securities depositories, Euroclear in Belgium and Clearstream in Luxembourg, were first developed as custodians of debt securities.

Interest, of course, is the amount of money paid to the rentier for the use of his capital, usually expressed as a percentage, calculated in a variety of ways, but spelled out in a contractual document binding on the borrower. The document is an indenture. The corporate trust department of a bank typically acts as indenture trustee, collecting the issuer's bond interest payments and paying them to the bondholders in accordance with the indenture's terms. Under this scenario, the debt holder is a secured creditor of the debt issuer. In contrast, the equity owner (or ordinary shareholder, as the English would say) holds a claim to corporate assets subordinated to the bondholder and relegated to a residual claim on corporate property.

EAST VERSUS WEST (DERIVATIVES VERSUS FUNDS)

Investment funds come in various forms—mutual funds (open-end companies investing in liquid securities), exchange-traded funds (ETFs), closed-end funds (listed funds that are similar to ETFs), hedge funds, private equity funds, venture capital funds, and real estate funds. The primary features of all of these investment funds are the diversification of risk, limitation of liability, and third party management. Investment funds can be organized in many ways and in many different countries. The form of organization is often determined by the nature of the investments. For example, U.S. mutual funds are typically organized as Delaware, Maryland, or Massachusetts corporations or business trusts permitting daily redemptions and subscriptions and are transparent (by election with the IRS) for tax purposes—meaning that income, gains, and losses are deemed to be received by the investor rather than the fund. The European equivalent of the U.S. mutual fund, UCITs, are organized along similar lines. On the other hand, private equity

commerce, did the same thing for the United States that Lord Mansfield had done for England. See, e.g., *Charles River Bridge v. Warren Bridge*, 36 U.S. 420 (1837). By the 1830s the London market was awash with U.S. corporate debt (canals, railroads, turnpikes, and other enterprises), which competed with sovereign debt for the rentier's capital. "The barometer of the American money market hangs up at the Stock Exchange in London," said one congressman in 1833. See Ron Chernow, *The House of Morgan* (Simon & Schuster 1991).

funds and hedge funds, which typically invest in less liquid securities and are not offered to the public, are typically structured as Delaware limited partnerships (or LLCs) or companies with limited liability in the Cayman Islands, Luxembourg, or Ireland. This structure also provides for a tax transparency (in the case of partnerships) or tax exemption (in the case of funds organized in tax havens). Venture capital funds and real estate funds are structured along similar lines because they are also typically privately offered, do not have a need to provide short-term liquidity and benefit from the flexible capital account allocation opportunities available in the limited partnership structure. Many hedge funds are formed in offshore jurisdictions in order to exploit available tax exemptions; however, they generally do not want to be tax transparent for European and U.S. income tax purposes. This is important for non-U.S. investors in hedge funds with U.S. equity investments, as it provides a shield against U.S. estate taxes (inheritance taxes) and trade or business taxes. The structure is also useful for shielding U.S. tax-exempt investors from taxable income—specifically, unrelated business taxable income—that is generated by the fund using margin loans to purchase securities (rendering a portion of income derived from securities purchased with leverage subject to tax).

Given their popularity with retail investors, it is useful to spend a few moments on mutual funds. Mutual funds are in essence a claim to the portion of an investment fund based on the fund's net asset value. Particularly attractive to an investor seeking diversification because mutual funds typically invest across an array of securities, the amount of money in mutual funds has grown tremendously since they came on the scene in Massachusetts in the 1920s. However, the growth was relatively small from the 1930s through the 1970s, in part due to a loss of investor confidence in mutual funds after the collapse in the 1960s of a high-profile fund called International Overseas Services. In the mid-1990s in the United States, the average annual growth rate was 22.4 percent. Similarly, in Europe the average annual growth rate in the same time period was 17.7 percent. This growth, in part, stems from their inclusion as investment vehicles for defined contribution systems in the United States, Australia, New Zealand, and South Africa, among others. Hong Kong, Ireland, Singapore, Switzerland, and Luxembourg have a large number of nonresident mutual fund investors, in part, attracted to the low tax regime in those countries. Mutual fund investments stand in contrast to derivative securities whose values are derived from the value of another security based on a contract without a claim, however, to any underlying collective investment fund assets. Derivatives, conceptually, are much closer to bilateral contracts. Derivatives are discussed in greater detail in Chapter 10.

INVESTORS

Investors can be divided into two groups: retail investors and institutional investors. Retail investors—individuals investing in stocks for speculation or investments—are but a small fraction of the marketplace. Institutional investors—banks, insurance companies, pension funds, hedge funds, mutual fund companies—are by far the lion's share of the market. Particularly in Europe, but also around the world, the tendency is for law and regulation to protect the uninitiated but let the sophisticated investor fend for himself. For example, the British Virgin Islands allows an international business corporation to contract as it pleases with little regulation under the theory that it is a sophisticated corporate structure. In Germany, some courts treat derivatives investors with sophisticated prior investment experience differently than retail investors with no experience, mandating extensive disclosure to the latter and affording monetary relief to the unsophisticated investor if that disclosure was not made.

The scope of freedom of contract afforded to an investor also turns on whether the investor was solicited by a broker or whether the investor took the initiative and reached out to the broker. If the latter—and if the brokerage firm where the broker works has no physical presence in a country—then both investor and broker may escape financial regulation. In Chile, for example, where there is no public offer of securities in country, Chilean investors are free to contract with whomever they like and accept the application of laws governing their contracts that are outside of Chile. It is these dual-related concepts—solicitation and sophistication—on which the international regulation of dealings between brokers and their customers turns.⁶

BROKERS, BANKS, AND ADVISORS

Once known as a *customer's man*, a broker intermediates between his customer and the market. Typically, a broker is a licensed professional employed by an investment firm. The investment firm will provide him with an order management system, access to exchanges, and books and records

⁶Jurisdiction-by-jurisdiction analysis of solicitation of customers, conduct of business rules, and other cross-border legal and compliance issues can be found in Barnabas Reynolds, *International Financial Markets Guide* (Lexis Nexis Butterworths, 2003).

functionality (such as the issuance of confirmations of transactions to the broker's customers and the publication of periodic statements to the broker's customers of their holdings and transactions). In a classic investment firm model, the firm would provide investment banking⁷ services for the issuers of securities and distribute those securities through the brokers. The investment firm would give the brokers research about the issue being distributed as well as research on other stocks from which the brokers could select suitable investments for their customers. Brokers are paid a commission on a per-transaction basis.

In some jurisdictions, brokers are distinguished from investment advisors. Investment advisors provide investment advice for a set fee. In the United States, advisors are held to a slightly higher standard of care with their customers than brokers. For example, where brokers must recommend suitable transactions and must not act unjustly or inequitably, advisors are held to a fiduciary standard, meaning they must always put the customers' interests ahead of their own.

Banks and bank officers (whether trust officers or private bankers) may recommend securities transactions as well, but (as a general rule) they employ brokers to execute those transactions. Banks play a much larger role in the securities industry as custodians for institutional investors or indenture trustees or as sponsors for depositary receipts.

PHYSICAL SECURITIES

When securities take a physical form, possession of a certificate in bearer form (or possession of the certificate with a lawful assignment) is the key to establishing successful legal ownership. A quick review in this chapter of fundamental concepts establishes the context for the more complicated issues of perfected liens and electronic ownership through securities intermediaries discussed in Chapter 7. Examine this Hungarian governmental obligation (shown in Figure 1.3).

⁷It is interesting to note that just as the rise of securitized mortgages has replaced the role of the savings banks, private equity firms have replaced the role of investment banks in marrying investment capital with firms that need capital. Gone are the days of "3-6-3" when the small-town savings banker paid depositors 3 percent, lent homeowners money at 6 percent, and was on the golf course by three o'clock. Gone, too, are the major investment banks, which are now banks themselves or are owned by banks.



FIGURE 1.3 Bearer Bond and Coupon

This bond, of course, represents a promise by the government of Hungary, backed by the government's ability to collect taxes, to pay the principal amount owed and the stated interest amount. In this case, the government's agent, a bank, pays the interest due upon presentation of a coupon that has been clipped from the bond and delivered to the bank for payment (a coupon is shown under the bond). Ownership is evidenced by possession of the bond and coupon.

AGENCY

An agent is someone with whom a principal contracts to perform a service for the principal at the principal's direction. An agent is frequently someone who can commit his principal (e.g., bind the principal to a contract). When you ask your broker to obtain 100 shares of Underwater Aircraft stock for you, the broker acts as your agent and you are the principal. An attorney-in-fact (as opposed to an attorney-at-law) is the principal's appointed agent. An example of the appointment of an attorney-in-fact is embedded in the stock power presented in Figure 14. A stock power is a physical piece of paper typically attached to the physical certificate used to legally transfer ownership of the certificate from one person to another. In the day of paper certificates, this power of assignment was required by the transfer agent to transfer all physical stock certificates after the original issuance by the corporation. When presented to the transfer agent, the records as to securities ownership of the company were changed, the old certificate was cancelled and a new one was issued, and the new owner became a registered holder with all the rights of ownership, including the right to vote and receive dividends (in the case of a stock) or to receive interest payments (in the case of bonds).

PURCHASE AND SALE OF SECURITIES AND THE DEVELOPMENT OF EXCHANGES

In the first instance, the purchase and sale of a security can be purely a private affair between two individuals. Theoretically, nothing legally stops

IRREVOCABLE STOCK OR BOND POWER

FOR VALUE RECEIVED, the undersigned does (do) hereby sell, assign and transfer to _____

IF STOCK, _____ shares of the _____ stock of _____
 COMPLETE
 THIS represented by Certificate(s) No(s) _____
 PORTION inclusive, standing in the name of the undersigned on the books of said Company.

IF BONDS, _____ bonds of _____
 COMPLETE
 THIS in principal amount of \$ _____, No(s) _____
 PORTION inclusive, standing in the name of the undersigned on the books of said Company

The undersigned does (do) hereby irrevocably constitute and appoint _____
 _____ attorney to transfer the said stock or bonds (s),
 as the case may be, on the books of said Company, with full power of substitution
 in the premises.

Dated _____

IMPORTANT - READ CAREFULLY
 The signature(s) to this Power must correspond with the name(s) as written upon the face of the certificate(s) or bond(s), in every particular without alteration or enlargement or any change whatever. Signature guarantee should be made by a member or member organization of the New York Stock Exchange, members of other Exchanges having signatures on file with transfer agent or by a commercial bank or trust company having its principal office or correspondent in the City of New York.

 (PERSON(S) EXECUTING THIS POWER SIGN(S) HERE)
SIGNATURE IS GUARANTEED

C133- Irrevocable Stock or Bond Power

FIGURE 1.4 Sample Stock Power

the private sale of the Hungarian bond in the earlier example or the private sale of stock accompanied by a valid stock power.⁸

Trading markets emerged when people gathered to trade stocks and bonds, and soon buyers and sellers started employing agents (brokers) to buy and sell stock for them. The brokers themselves banded together to buy and sell, moved their operations out of the coffeehouses and alleyways, and created the exchanges.⁹ A principal feature of the new exchanges was that brokers would only trade with each other and they would charge specified fixed commissions.

Markets in shares really burst onto the world stage in the early eighteenth century. As European governments looked to new ways to finance the debt of wars and extravagant kings, they granted exclusive charters to companies to exploit the New World in exchange for the new companies assuming government debt. The new companies issued securities to raise capital, which attracted investors who began to actively trade the securities. Thus were born the stock exchanges. Today these exchanges need not be physical places, but can be electronic communications networks with their own sets of trading rules binding on participants.¹⁰

⁸Practically, however, a transfer agent in the United States is going to request a medallion guaranteed signature on the stock power in order to prove that the signature by the person making the assignment is not forged. Brokerage houses possess the medallions and will not guarantee a signature unless the transferor has an account with them. Application of the medallion stamp to the power makes the brokerage firm liable in the event of forgery. This requirement ensures that the identity of the signer has been verified and provides a source of recourse to the transferee should there turn out to be a problem with the signature.

⁹The story of the development of these markets is entertaining and informative. See Malcolm Balen, *The Secret History of the South Sea Bubble: The World's First Great Financial Scandal* (HarperCollins 2002), in which one of the world's greatest scientific minds, Sir Isaac Newton, lost a fortune, and Janet Gleeson, *Millionaire: The Philanderer, Gambler and Duelist Who Invented Modern Finance* (Simon & Schuster 1999), a biography of John Law, who popularized paper money issued by a bank; see also John Prebble, *The Darien Disaster*, published in paperback in 1970 by Penguin Books, which documents the story of entrepreneurial Scots who attempted to develop Panama as a trading route in the late seventeenth century—they were wiped out along with the financial capital of Scotland, thereby precipitating the union of Scotland with England in 1707. More than any others, it is really the Dutch to whom we can give credit for the development of modern banking and markets. For a compilation of excellent scholarship on the development of markets, see *The Origin and Development of Financial Markets and Institutions from the Seventeenth Century to the Present*, edited by Jeremy Atack and Larry Neal (Cambridge University Press 2009). For entertaining historical fiction about the Dutch market in the seventeenth century and the London market in the eighteenth century enjoy *The Coffee Trader* and *A Conspiracy of Paper*, both by David Liss and published by Random House.

¹⁰For information on the development of electronic exchanges and multilateral trading facilities, see Joseph Rosen, *The Electronic Trading Handbook* (Capital Markets Media 2008).



Clearing and settlement is the good delivery securities in return for the good delivery of payment.

Just as with a private sale of securities, the completion of an exchange-based securities transaction must be accompanied by the good delivery of the security in return for the good delivery of payment. This is the classic definition of clearing and settlement. As can be readily understood from the description of the roles of certificates and assignments and transfer agents, the execution, clearing and settlement process consumed a vast amount of paper.¹¹ The entire market cried out for a new way forward.

¹¹ See David Weiss, *After the Trade Is Made: Processing Securities Transactions* (Penguin Books 2006), which provides a readable description of post-trade processing.

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