

CHAPTER 5

Investment Funds, Intermediate Securities, and Global Equity Markets

Introduction

The intermediary financial market consists of commercial banks, savings and loans, insurance companies, investment funds, and other financial intermediaries. These intermediaries sell financial claims to investors, and then use the proceeds to purchase debt and equity claims or to provide direct loans. Commercial banks, for example, obtain funds from investors by providing deposits and money market accounts, selling securities, and borrowing and then use these funds to provide loans and make investments. Life insurance companies, pensions, trust funds, and investment funds offer financial instruments

in the form of insurance policies, retirement plans, and shares in stock or bond portfolios. The proceeds from their premiums, savings plans, and fund shares are used by these institutions to buy stocks, corporate bonds, Treasury securities and other debt instruments, as well as provide corporate, residential, and commercial loans. A major segment of the intermediary market is the market for the intermediary shares created by investment funds. These funds offer financial instruments in the form of shares in portfolios. The proceeds from their fund shares are used by these institutions to buy the stocks, corporate bonds, Treasury securities, and other debt instruments that comprise the portfolios.

In general, financial institutions, by acting as intermediaries, control a large amount of funds and thus have a significant impact on financial markets. For borrowers, intermediaries are an important source of funds; they buy many of the securities issued by corporations and governments and provide many of the direct loans. For investors, intermediaries create a number of securities for them to include in their portfolios. These include negotiable certificates of deposit, banker's acceptances, mortgage- and asset-backed instruments, investment fund shares, annuities, and guaranteed investment contracts. In this chapter, we examine the types and markets for investment funds and intermediate securities.

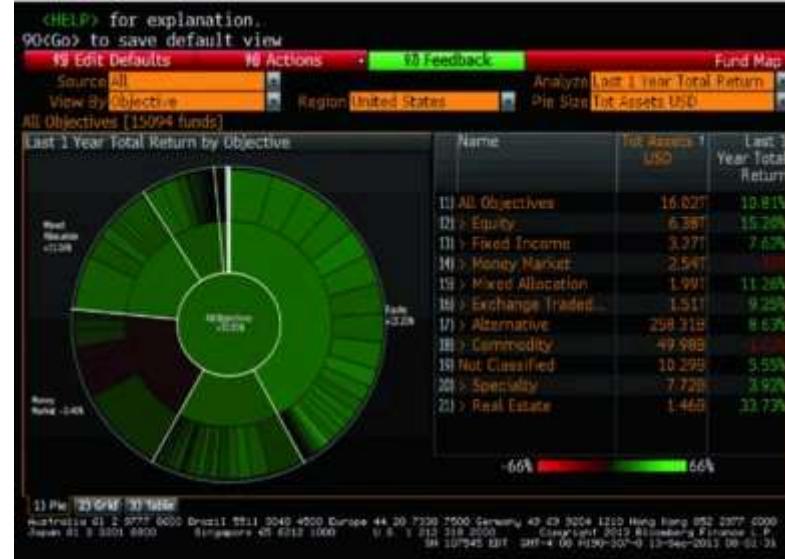
Investment Funds

Major investment firms and investment banks offer a wide variety of investment funds. For many investors, shares in these funds are an alternative to directly buying stocks and bonds. Fund investment provides several advantages over directly purchasing securities. First, investment funds provide divisibility. An investment company offering shares in a portfolio of negotiable, high-denomination CDs, for example, makes it possible for small investors to obtain a higher rate than they could obtain by investing in a lower yielding, small-denomination CD. Second, an investment in a fund consisting of a portfolio of securities often provides an investor more liquidity than forming his own portfolio; that is, it is easier for an individual investor to buy and sell a share in an investment fund than it is to try to buy and sell a number

of securities. Third, the investment companies managing funds provide professional management. They have a team of security analysts and managers who know the markets and the securities available. They buy and sell securities for the fund, reinvest dividends and interest, and maintain records. Finally, since investment companies often buy large blocks of securities, they can obtain lower brokerage fees and commission costs for their investors. In summary, funds provide investors the benefits of divisibility, diversification, and lower transaction costs.

The Markets for Funds

From the end of World War II to the late 1960s, investments in funds grew substantially, boasting as many as 40 million investors in the 1960s. Most of the investment funds consisted of stocks, with their popularity attributed primarily to the general rise in stock prices during that period. In the 1970s, investments in funds declined as stock prices fell due to rising energy prices, inflation, and economic recessions. During this period, a number of funds specializing in debt securities were introduced. In the mid-1980s and in the 1990s, however, the popularity of equity fund investments rebounded. The growth in this period can be attributed to not only the bull market of the 1990s, but also to financial innovations. In addition to the traditional stock funds, investment companies today offer shares in bond funds (municipal bonds, corporate, high-yield bonds, and foreign bonds), *money market funds* (consisting of CDs, commercial paper [CP], Treasury securities, etc.), *index funds* (funds whose values are highly correlated with a stock or bond index), funds with options and futures, *global funds* (funds with stocks and bonds from different countries), and even *vulture funds* (funds consisting of debt securities of companies that are in financial trouble or in Chapter 11 bankruptcy). [Exhibit 5.1](#) displays the Bloomberg Fund Heat Maps (FMAP <Enter>) for the United States and world as it appeared on September 13, 2013. The maps break down the total funds and show their total returns for the past year by type: equity, debt (bond), asset allocation (balanced), money market, and others.



(a)



(b)

EXHIBIT 5.1 Fund Heat Map, 9/13/2013

A number of investment companies, such as Fidelity and Vanguard, manage a family of funds. From this family (sometimes referred to as a complex), these investment companies are able to offer investors dif-

ferent funds based on the investor's risk-return preferences. Currently there are over 8,500 funds in the United States—a number that exceeds the number of stocks listed on the major exchanges. Contributing to this large number is the increased percentage of fund investment coming from retirement investments such as individual retirement accounts (IRAs) and 401(k) accounts.

Structure of Funds

There are three types of investment fund structures: open-end funds (also called mutual funds), closed-end funds, and unit investment trusts (UITs). The first two can be defined as managed funds, whereas the third is an unmanaged one. [Exhibit 5.2](#) shows the Bloomberg Fund Heat Map screen for U.S. funds by type as of September 13, 2013.



EXHIBIT 5.2 Investment Funds by Types, 9/13/2013

Fund Heat Map, by type: FMAP <Enter>

Open-End Fund

Open-end funds (mutual funds) stand ready to buy back shares of the fund at any time the fund's share-

holders want to sell, and they stand ready to sell new shares any time an investor wants to buy into the fund. Technically, a mutual fund is an open-end fund. The term *mutual fund*, however, is often used to refer to both open- and closed-end funds. With an open-end fund, the number of shares can change frequently. The price an investor pays for a share of an open-end fund is equal to the fund's *net asset values* (NAV). At a given point in time, the NAV of the fund is equal to the difference between the value of the fund's assets (V^A_t) and its liabilities (V^L_t) divided by the number of shares outstanding (N_t): $\text{NAV}_t = (V^A_t - V^L_t) / N_t$. For example, suppose a balanced stock and bond fund consists of a stock portfolio with a current market value \$100 million, a corporate bond portfolio with a current market value of \$100 million, liquid securities of \$8 million, and liabilities of \$8 million. The current net worth of this fund would be \$200 million. If the fund, in turn, has 4 million shares outstanding, its current NAV would be \$50 per share: $\text{NAV} = (\$208 \text{ million} - \$8 \text{ million}) / 4 \text{ million} = \50 . This value, though, can change if the number of shares, the asset values, or the liability values change.

Open-end funds can be classified as either *load funds* or *no-load funds*. Load funds are sold through brokers or other intermediates; as such, the shares in load funds sell at their NAV plus a commission. The fees are usually charged up-front when investors buy new shares. Some funds charge a redemption fee (also called an exit fee or back-end load) when investors sell their shares back to the fund at their NAV. No-load funds, however, are sold directly by the fund and therefore sell at just their NAV. The fund does charge fees for management and for transferring individual investments from one fund to another.

[Exhibit 5.3](#) shows the Bloomberg description screen and price graph (GP) of the Putnam Global Equity Fund. The fund is an open-end fund that focuses on global equity investment in mid- to high-cap companies. The fund charges a 4 percent back load fee, a 0.75 percent management fee, and on September 13, 2013, the fund's NAV was at \$10.38 per share.



(a)



(b)

EXHIBIT 5.3 Open-End Fund: Putnam Global Equity Fund, 9/13/2013

(a) Putnam: PEQBX US <Equity> <Enter>. (b) Price Graph, GP.

Closed-End Fund

A *closed-end fund* has a fixed number of nonredeemable shares sold at its initial offering. Unlike an open-end fund, the closed-end fund does not stand ready to buy existing shares or sell new shares. The number of shares of a closed-end fund is therefore fixed. An investor who wants to buy shares in an existing closed-end fund can do so only by buying them in the secondary market from an existing holder. Shares in existing funds are traded on the exchanges and the over-the-counter market. Interestingly, the prices of many closed-end funds often sell at a discount from their NAVs.¹ [Exhibit 5.4](#) shows the Bloomberg description screen and price graph (GP) of the Dividend and Income Fund. The fund is a closed-end fund that focuses on high current income, with 50 percent of its holdings in stock and the balance in corporate bonds. On September 13, 2013, the fund's shares were trading at \$15.26 per share.



(a)



(b)

EXHIBIT 5.4 Closed-End Fund, Dividend and Income Fund, 9/13/2013

(a) Dividend and Income Fund. (b) Price Graph, GP.

Unit Investment Trust

Although the composition of open- and closed-end funds can change as managers buy and sell securities, the funds themselves usually have unlimited lives. In contrast, a *unit investment trust* has a specified number of securities that are rarely changed, and the fund usually has a fixed life. A unit investment trust is formed by a sponsor, such as an investment bank, who buys a specified number of securities, deposits them with a trustee, and then sells claims on the security, known as *redeemable trust certificates*, at their NAV plus a commission fee. These trust certificates entitle the holder to proportional shares in the income from the deposited securities. For example, an investment company might purchase \$20 million worth of corporate bonds at an average price of \$1,000 per bond, place them in a trust, and then issue 20,000 redeemable trust certificates at \$1,025 per share: $\text{NAV} + \text{Commission} = (\$20 \text{ million} / 20,000) + \$25 = \$1,025$. If the investment company can sell all of the shares, it will be able to finance the \$20 million bond purchase and earn a 2.5 percent commission of \$500,000.

Unit investment trusts are formed with government securities, corporate bonds, municipal bonds, preferred stock, and common stock (often of the firms in a particular sector). The trustee pays all the interest and principal generated from the bonds or dividends from the stocks to the certificate holders. Unlike open- and closed-end funds, the fund has a termination date when the investment trust ceases and the fund is liquidated, with the holders receiving a liquidation dividend. Depending on the types of securities, the maturity on a unit investment trust can vary from 6 months to 20 years. The holders of the securities, however, usually can sell their shares back to the trustee prior to maturity at their NAV plus a load. To finance the purchase of the certificate, the trustee often sells a requisite amount of securities making up the trust. The description screen and dividend screen (DVD) for the First Trust Unit Investment Trust are shown in [Exhibit 5.5](#). The UIT consists of corporate investment-grade bonds, has a termination date of 7/01/2015, a NAV of \$920.32 on 9/12/2013, and has paid monthly dividends for the 2011-2013 period ranging between \$3.32 and \$4.23.



(a)



(b)

EXHIBIT 5.5 Unit Investment Trust, First Trust Corporate Investment Grade, 9/13/2013

(a) First Trust: FCIOCX <Equity> <Enter>. (b) Dividend Screen, DVD.

Dual-Purpose Funds

When the tax laws allow capital gains to be taxed at a different rate than income, investors in higher-income tax brackets often prefer stocks that generate more of their return in the form of capital gains, whereas other investors prefer more of their return in the form of dividends and interest income. Given these different objectives, a number of investment companies create *dual-purpose funds*. These funds sell two different shares from the same portfolio of stocks: an income share, entitling the holder to the dividend income from the portfolio, plus cash equal to the initial value of the share, and a capital share, entitling the holder to any accumulated capital gains (or losses).

Types of Investment Funds

A board of directors elected by the fund's shareholders determines the general investment policies of the investment fund. Typically, a management or investment advisory firm, often consisting of those who originally set up the fund, does the actual implementation and management of the policies. Some funds are actively managed, with fund managers aggressively buying stocks and bonds, whereas others follow a more passive buy-and-hold investment strategy.

One way of grouping the many types of funds is according to the classifications defined by Weisenberger's *Annual Investment Companies Manual* for growth funds, income funds, and balanced funds. *Growth funds* are those whose primary goal is in long-term capital gains. Such funds tend to consist primarily of those common stocks offering growth potential. Many of these are diversified stock funds, although there are some that specialize in certain sectors. *Income funds* are those whose primary goal is providing income. These funds are made up mainly of stocks paying relatively high dividends or bonds with high coupon yields. Finally, *balanced funds* are those with goals somewhere between those of growth and income funds. Balance funds are constructed with bonds, common stocks, and preferred stocks that are expected to generate moderate income with the potential for some capital gains. Similar to balanced funds are *asset allocation funds* (or *flexible funds*). These funds consist of both stocks and

bonds but are more actively managed, changing the bond and equity allocation over time in anticipation of changes in the market or interest rate conditions.

A second way of classifying funds is in terms of their specialization. There are four general classifications: equity funds, bond funds, hybrid funds (stocks and bonds), and money market funds. As shown in [Exhibit 5.6](#), each of these fund types can be broken down further by their specified investment objectives. Equity funds consist of index funds, sector funds, and funds based on style. An index fund tries to match the performance of an index (indexes are discussed in the next section). For example, the Vanguard 500 Index Fund is an open-end fund that tries to replicate the performance of the Standard & Poor's (S&P 500). Sector funds, in turn, focus on a particular sector, such as telecommunications or energy. Finally, style funds form portfolios that reflect a certain type of investment such as investments in growth stocks or value stocks or investments based on size, such as large-cap, mid-cap, or small-cap stocks. Bond funds can be classified as corporate, municipal, government, high-yield, global, mortgage-backed securities, and tax free. Each category reflects a different investment objective. Municipal bond funds, for example, specialize in providing investors with tax-exempt municipal securities; corporate bond funds are constructed to replicate the overall performance of a certain type of corporate bond, with a number of them formed to be highly correlated with a specific index; money market funds are constructed with money market securities in order to provide investors with liquid investments. [Exhibit 5.7](#) shows examples of the policy statements of an equity fund and bond fund accessed from the Bloomberg description screens.

Equity Funds:

- Value funds
- Growth funds
- Sector funds
- World equity funds
- Emerging market funds
- Regional equity funds
- Small-cap, mid-cap, and large-cap funds

Taxable Bond Funds (short, intermediate, and long term):

- Corporate bond funds
- High yield funds
- Global bond funds
- Government bond funds
- Mortgage-backed securities

Tax-Free Bond Funds (short, intermediate, and long term):

- State municipal bond funds
- National municipal bond funds

Hybrid Funds:

- Asset allocation funds
- Balanced funds
- Income-mixed funds

Money market funds:

- Taxable money market funds
- Tax-exempt money market funds

EXHIBIT 5.6 Categories of Investment Funds



(a)



(b)

EXHIBIT 5.7 Examples of Investment Funds, September 13, 2013—Bloomberg Description Files

(a) Blackrock Small Cap. (b) Pimco Global Bond Fund.

International Mutual Funds

Instead of buying foreign stocks or bonds, an investor looking for an internationally diversified portfolio may find a more practical alternative is to buy shares in one of many international mutual funds or to invest in a commingled international portfolio offered by a bank trust department or insurance company. Most of these funds provide expertise in foreign security selection and management, and many use currency-hedging tools to minimize exchange-rate risk. The funds differ in terms of the degree of their diversification. Some, for example, offer investments only in certain countries or areas (e.g., Latin American funds), whereas others provide worldwide diversification. For an example, see the description of Pimco Global Bond Fund in [Exhibit 5.7](#).

Accumulation Plans

Typically, most fund investors buy shares and receive cash from the fund when it is distributed. For investors looking for different cash flow patterns, investment funds also provide voluntary and contractual *accumulation plans* with different types of contributions and withdrawal plans. Included here are automatic reinvestment plans in which the net income and capital gains of the fund are reinvested, with the shareholders accumulating additional shares, and fixed contribution plans in which investors contribute (either contractually or voluntarily) a fixed amount on a regular basis for a set period.

Taxes and Regulations

Most mutual funds make two types of payments to their shareholders: a net income payment from dividends and interest and a realized capital gain payment. If an investment fund complies with certain rules, it does not have to pay corporate income taxes. To qualify for this favorable tax treatment, the company must have a diversified portfolio and it must pay out at least 90 percent of the fund's net income to shareholders. As a result, most investment companies distribute all of the net income from the fund to their shareholders. Investment companies can either distribute or retain their realized capital gains. Most

investment companies distribute capital gains. If they retain the gain, they are required to pay a tax equal to the maximum personal income tax rate; the shareholders, in turn, receive a credit for the taxes paid.

Investment funds are regulated under a number of federal laws: The Security Acts of 1933 and 1934 require disclosure of funds and specifies antifraud rules; the Security Act of 1940 requires that all funds be registered; the Investment Advisers Act of 1940 regulates fund advisers. In addition, the Securities and Exchange Commission (SEC) rules require that funds publish detailed information on directors and that there be independence of the directors.²

BLOOMBERG INVESTMENT FUND SCREENS

- **FUND <Enter>**: Funds and Holdings Menu.
- **FSRC <Enter>** Fund Search: The FSRC screen searches and screens investment funds by general investment criteria, such as asset class (stock, bonds, or balance), by type (open, closed, unit investment trust, or exchange-traded product), by country, by asset holding criteria (industry, market cap, maturity, and ratings), and by adding fields.
- **PSRT <Enter>**: PSRT searches for companies with specific public portfolio/holder information. You can search by keyword and perform advanced searches based on one's criteria.
- **Fund Ticker <Equity> <Enter>**: Fund menu page.
- **FMAP <Enter>**: FMAP displays and analyzes mutual fund performance by objective, fund type, and region (see [Exhibits 5.1](#) and [5.2](#)).
- **FL <Enter>**: Fund Look-up.
- **SECF <Enter>, Funds Tab**: Funds look-up and screener.
- **NI FND**: Fund News.
- **HDC**: Identifies holders of loaded funds.
- **PHDC** searches for institutional and insider holders whose trading activity may influence the price of a selected security: PHDC <Enter>.

See Bloomberg Web [Exhibit 5.1](#).

Note on Indexes

Equity investment funds are often classified by their investment style: S&P 500 index fund, large-cap stock fund, small-cap stock funds, emerging market funds, and the like. Similarly, bond funds can be classified as corporate, municipal, government, high-yield, global, mortgage-backed securities, and tax free. Each category reflects a different investment objective. Managers of these various funds, as well as the managers of pension, insurance, and other fixed-income funds, often evaluate the performance of their funds by comparing their fund's return with those of an appropriate index.

A number of stock and bond indexes have been developed in recent years on which funds can be constructed or benchmarked. A number of investment companies also publish a variety of indexes. As noted in Chapter 1, stock indexes can be: broad based, measuring the performance of the overall market; sector specific, measuring the performance of a particular industry or sector; or style specific, measuring the performance of certain type of investment (e.g., investments in small-cap companies or high-yield bond fund). The Dow Jones Industrial Average (DJIA), S&P 500, and Russell 3000 stock indexes, for example, are broad-based indexes measuring the performance of the overall stock market. Stock market indexes are also calculated for a number of stock markets. From these broad-based indexes, there are sub-indexes for the S&P, Russell, or Dow based on size (e.g., small-cap or large-cap) or style (value stocks or growth stocks).

The most cited indexes of the major foreign stock exchanges and world indexes are the Nikkei 225 Index for the Tokyo Stock Exchange and the Financial Times-Stock Exchange Index for the London Stock Exchange, called the "footsie." Some other widely used indexes are the Morgan Stanley and the Dow Jones indexes. Both calculate a number of indexes (in the local currency and in dollars), including national indexes, international industry indexes, a European index, an Asian index, and a world index. Morgan Stanley International computes indexes for more than 20 countries, different geographical areas,

and an Aggregate World Index. Finally, a number of bond indexes have been developed by investment companies in recent years on which bond funds can be constructed or benchmarked. The indexes can be grouped into three categories: U.S. investment-grade bonds indexes (including Treasuries), U.S. high-yield bond indexes, and global government bond indexes. Within each category, subindexes are constructed based on sector, quality ratings, or country.³ [Exhibit 5.8](#) shows the Bloomberg description screens for the S&P 500 index.



(a)



(b)

EXHIBIT 5.8 S&P 500 Indexes

(a) S&P 500: SPX <Index> <Enter>. (b) MEMB Screen; Historical Summary Tab.

Price-Weighted and Market-Based Indexes

The Dow Jones Industrial Average (DJIA) is a *price-weighted index*, calculated by summing the prices of the 30 stocks and dividing by a divisor. In a price-weighted index, the index is constructed initially with a divisor equal to the number of stocks comprising the index. As stock splits and stock dividends occur, the divisor needs to be adjusted. For example, if the index consists of just two stocks, one priced at \$30 and the other at \$20, then the index would be 25 [= (30 + 20)/2] and the divisor would be 2. If the first stock had a 2-for-1 stock split, changing the price from \$30 to \$15, then the divisor would need to be changed to reflect an index value of 25. In this case the divisor would have to be changed from 2 to 1.4, for example, $(15 + 20)/\text{divisor} = 25$, $\text{divisor} = 35/25 = 1.4$.

Price-weighted indexes, like the DJIA or the Nikkei 225, weigh each stock in the average only in proportion to its price, with no weight given to the stock's volume or shares outstanding. As a result, the index does not capture the relative values of the larger companies making up the index. To illustrate, suppose you have a price-weighted index of just two stocks: Stock X priced at \$50 with 1 million shares outstanding and stock Y at \$50, but with 10 million shares outstanding. If Stock X increases by 5 percent to \$52.50 and Stock Y increases by 10 percent to \$55, then the price-weighted index will increase by 7.5 percent:

$$\frac{[(\$52.50 + (\$55.00)/2) - \$50.00]}{\$50.00} = \frac{[(\$52.50 + (\$55.00)/2)]}{\$50.00} - 1 = 0.075$$

However, Stock Y is more valuable to the portfolio than Stock X. To capture the relative importance of Y, one needs to construct an index based on market values (price time number of shares). Here, the initial index value would be one and the percentage change would be 9.545 percent:

$$\frac{(\$52.50)(1,000,000) + (\$55.00)(10,000,000)}{(\$50.00)(1,000,000) + (\$50.00)(10,000,000)} - 1 = 0.09545$$

Indexes computed using market values are referred to as *value-weighted index* or *market-based index*.

Most indexes, including the S&P 500 are market-based indexes. The S&P 500 is calculated using the total market values of 500 stocks divided by a base value:

$$\text{S\&P 500} = \frac{\sum_{i=1}^{500} P_{it} N_{it}}{\sum_{i=1}^{500} P_{ib} N_{ib}}$$

where:

- P_{it} = market price per share at time t
- N_{it} = number of shares at time t
- b = base period

Since market-based indexes are calculated with market values, stock splits and stock dividends are automatically adjusted.

Indexes are used to measure the performance of the market or a segment of the market. Most indexes do not include dividends. As a result, the proportional change in an index over a certain period of time measures the rate of price appreciation of the market or sector the index comprises, but not the total return. The Center for Research in Security Prices (CRSP) does calculate S&P indexes adjusted for dividends.

BLOOMBERG INDEX INFORMATION

- **WEI: WEI <Enter>**: The World Equity Indexes (WEI) screen monitors world equity indexes. On the WEI screen, you can also see different information about the indexes, such as premarket (futures prices), movers (advance and declines), ratios (e.g., price-to-earnings ratio), and currency. On the screen, click the gray country area (e.g., EMEA) to bring up more indexes for that geographical area.
- **SPX <Enter>**: S&P 500 Index Menu.
- **RUSS <Enter>**: Russell Index Menu.
- **Index Ticker <Index>**: Index Menu Screen.
- **EQS <Enter>**: Select Index from "Indexes" tab (from Country list).
- **SECF <Enter>, Indx/Stats tab**.
- **BI <Enter>**: BI has a comprehensive list of Bloomberg sectors and industries and provides detailed financials and analysis for each. You can find breakdowns of industries by indexes.

See Bloomberg Web [Exhibit 5.2](#).

Exchange-Traded Funds

In 1993, the American Stock Exchange created an S&P 500 index fund called an *exchange-traded fund (ETF)* that could be traded continuously like a stock. This first ETF received exemptions from the SEC from various provisions of the Investment Company Act of 1940. The exemptions made it possible for the ETF to be structured so that it could be listed and traded continuously. By 2008, there were over 400 separate ETFs, many with esoteric names such as Spiders (ETF that replicates the S&P 500), Qubes (an

ETF indexed to the NASDAQ), Diamonds (an ETF that replicates the DJIA), and Vipers (name for Vanguard ETFs). In 2008, most of the ETFs were designed to track the performance of a specified index or, in some cases, a multiple of or an inverse of their indexes. Today, ETFs include most sectors, commodities, and investment styles. In early 2008, the SEC granted exemptive relief to several fund sponsors to offer actively managed ETFs that met certain requirements. These actively managed ETFs, in turn, led to new exchange-traded products (ETPs) defined by a particular investment objective and policy. By 2010, the total number of index-based and actively managed ETFs had grown to over 728, with total net assets of over \$530 billion.

Most ETFs originate with a sponsor, who defines the investment objective of the ETF and the method for tracking the performance. The sponsor of an index-based ETF, for example, defines the index (e.g., large U.S. Bank Sector), and the method of tracking it (e.g., a total replication index method that holds every security in the target index or a sample index-based method that holds a representative sample of securities in the index). Given the fund's objective and tracking method, a *creation basket* is identified that specifies the names and quantities of securities and other assets designed to track the performance of the index portfolio. ETF shares are created after an *authorized participant* (typically an institutional investor) deposits the creation basket and/or cash into the fund—the ETF. In return for the creation basket and/or cash, the authorized participant received the block of ETF shares, referred to as a *creation unit*. The authorized participant can then either keep the ETF shares that make up the creation unit or sell all or part of them on a stock exchange (see [Exhibit 5.9](#)).

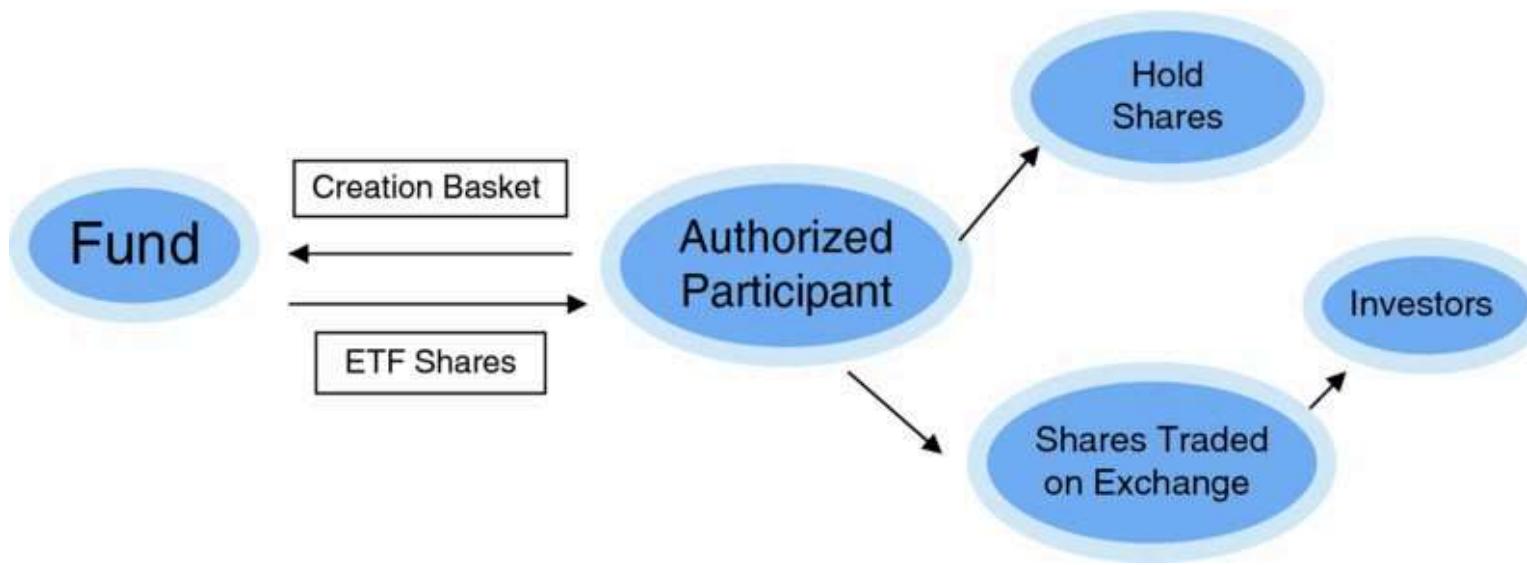


EXHIBIT 5.9 Creation Process of Exchange-Traded Fund

Source: 2009 Investment Company Fact Book: <http://www.icifactbook.org/index.html>

ETFs are like mutual funds in that their value is derived from the underlying portfolio of securities. Different from mutual funds, ETFs trade like stocks: investors can buy and sell them on a continuous basis and can execute trades with market or limit orders; they can also buy ETFs on margin and sell short. Also different from mutual funds, the price of an ETF is based on market supply and demand conditions. However, because of the disclosure requirements that call for the composition of the ETF's basket to be made public, arbitrageurs are in a position to ensure that the price of an ETF trades close to the underlying net asset value of the securities held in the index basket.⁴

Not surprising, the demand for ETFs has accelerated in recent years with institutional investors increasingly using them to take positions on broad movements in the financial markets. Retail investors and households have also started to add ETFs to their portfolio holdings. According to the Investment Company Institute, an estimated 3 million households owned ETFs in 2009. Although many ETFs are equity based, there are an increasing number of fixed-income ETFs and ETPs being offered. These fixed-in-

come ETPs vary from ETFs that are tied to bond indexes, to those linked to Treasury yields, to ETFs that are tied to a multiple of the Treasury yield. There is also an increasing number of equity, commodity, and fixed-income ETFs and ETPs being offered outside the United States. The ETPs vary from ETFs that are tied to foreign equity and bond indexes to those linked to emerging markets.

BLOOMBERG ETF INFORMATION

- ETF <Enter>.
- SECF <Enter>, Funds tab and ETFs tab.
- FSRC <Enter>: Screen by "Fund Type" and "Exchange-Traded Products."
- Funds <Enter>: Menu of funds information.

See Bloomberg Web [Exhibit 5.3](#).

Other Investment-Type Funds and Securities

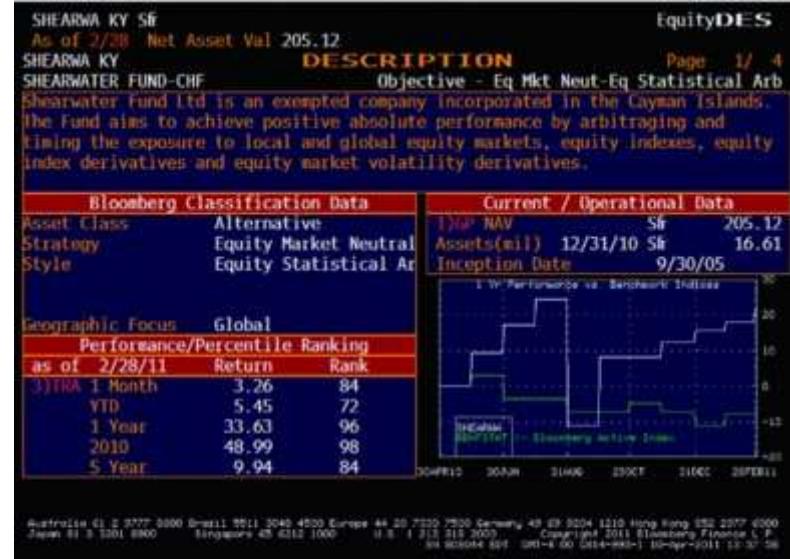
In addition to open-end and closed-end investment funds, unit investment trusts, and ETFs, several other investment funds and related intermediary securities of note are hedge funds, real estate investment trusts (REITs), mortgage-backed and asset-backed securities, and collateralized debt obligations (CDOs).

Hedge Funds

Hedge funds can be defined as special types of mutual funds. There are estimated to be as many as 4,000 such funds. They are structured so that they can be largely unregulated. To achieve this, they are often

set up as limited partnerships. By federal law, as limited partnerships, hedge funds are limited to no more than 99 limited partners, each with annual incomes of at least \$200,000 or a net worth of at least \$1 million (excluding home), or to no more than 499 limited partners, each with a net worth of at least \$5 million. Many funds or partnerships are set up offshore to circumvent regulations. Hedge funds acquire funds from many different individual and institutional sources; the minimum investments range from \$100,000 to \$1 billion, with the average investment being \$10 million. Because they are lightly regulated, hedge funds often set up investment strategies that use derivatives, short sales, and leveraging, with debt-to-equity ratio in some cases as high as 20 to 1—strategies not open to mutual funds. Some hedge funds use their funds to invest or set up investment strategies reflecting pricing aberrations. One of the most famous is that of Long-Term Capital, which in 1998 set up a fund to profit from an expected narrowing of the default spreads on bonds, which subsequently widened. Other notable hedge fund collapses include Amaranth Advisors, Advanced Investment Management, Bayou Management, and Lipper Convertibles.

One of the fastest-growing sectors in the hedge fund industry is hedge funds that invest in one or more other hedge funds. Such funds are referred to as *funds of funds* or feeder funds. These funds also received considerable attention when it was learned in December 2008 that many large feeder funds were large clients of Bernard Madoff and were hurt by his large Ponzi scheme. [Exhibit 5.10](#) shows Bloomberg description screens for two hedge funds.



(a)



(b)

EXHIBIT 5.10 Examples of Hedge Fund

BLOOMBERG HEDGE FUNDS INFORMATION

- **HFND** <Enter>: Hedge Fund information and rankings.
 - **HFR** <Enter> Hedge Fund Research.
 - **Hedge Fund News:** HEDN <Enter>.
 - **Hedge Fund News:** BRIEF <Enter> and click "Hedge Fund Newsletter."
 - **Best Hedge Fund Player Snapshot:** WHF <Enter>.
-

Real Estate Investment Trusts

A real estate investment trust (REIT) is a fund that specializes in investing in real estate or real estate mortgages. The trust acts as an intermediary, selling stocks and warrants and issuing debt instruments (bonds, commercial paper, or loans from banks), then using the funds to invest in commercial and residential mortgage loans and other real estate securities. REITs can take the form of an equity trust that invests directly in real estate, a mortgage trust that invests in mortgage loans or mortgage-backed securities, or a hybrid trust that invests in both. Many REITs are highly leveraged, making them more subject to default risks. Most REITs are tax-exempt corporations. To qualify for tax exemptions, the company must receive approximately 75 percent of its income from real estate, rents, mortgage interest, and property sales, and distribute 95 percent of its income to its shareholders. The stocks of many existing shares in REITs are listed on the organized exchanges and the OTC market. [Exhibit 5.11](#) shows Bloomberg description screens for two REITs.



(a)



(b)

EXHIBIT 5.11 Examples of REITS

(a) Prologis: PLD US <Equity> <Enter>. (b) LTC Properties: LTC US <Equity> <Enter>.

- **REIT <Enter>**: REIT platform.
 - **REIT Ticker <Equity> <Enter>**: REIT's menu screen.
 - **NI REIT <Enter>**: REIT news.
 - **RMEN <Enter>**: Real Estate Indexes of the world.
 - **HOIN <Enter>**: Housing and construction menu screen.
-

Mortgage-Backed and Asset-Backed Securities

Up until the mid-1970s, most home mortgages originated when saving and loans, commercial banks, and other thrift institutions borrowed funds or used their deposits to provide loans to home purchasers, possibly later selling the resulting instruments in the secondary market to Fannie Mae or Ginnie Mae. To a large degree, individual deposits financed real estate, with little financing coming from corporations or institutions. In an effort to attract institutional funds away from corporate bonds and other capital market securities, as well as to minimize their poor hedge (short-term deposit liabilities and long-term mortgage assets), financial institutions began to sell mortgage-backed securities in the 1970s. These securities provided them with an instrument that could compete more closely with corporate bonds for inclusion in the portfolios of institutional investors, and it provided the mortgage industry with more liquidity.

By definition, mortgage-backed securities (MBSs) are instruments that are backed by a pool of mortgage loans. Typically, a financial institution, agency, or mortgage banker buys a pool of mortgages of a certain type from mortgage originators (e.g., Federal Housing Administration-insured mortgages or mortgages with a certain minimum loan-to-value ratio or a specified payment-to-income ratio). This mortgage portfolio is financed through the sale of the MBSs, which have a claim on the portfolio. The mortgage origina-

tors usually agree to continue to service the loans, passing the payments on to the MBS holders. An MBS investor has a claim on the cash flows from the mortgage portfolio. This includes interest on the mortgages, scheduled payment of principal, and any prepaid principal. Since many mortgages are prepaid early as homeowners sell their homes or refinance their current mortgages, the cash flow from a portfolio of mortgages, and therefore the return on the MBS, can be quite uncertain. To address this type of risk, a number of derivative MBS were created in the 1980s. For example, in the late 1980s Freddie Mac introduced the *collateralized mortgage obligations (CMOs)*. These securities had different maturity claims and different levels of prepayment risk.

An MBS is an asset-backed security created through a method known as *securitization*. As noted in Chapter 1, securitization is the process of transforming illiquid financial assets into marketable capital market instruments. Today, it is applied not only to mortgages, but also to home equity loans, automobile loans, lines of credit, credit card receivables, and leases. Securitization is one of the most important financial innovations introduced in the last two decades; it is examined in detail in many fixed-income texts.

Collateralized Debt Obligations

Collateralized debt obligations (CDOs) are securities backed by a diversified pool of one or more fixed-income assets or derivatives. The portfolio of debt obligations underlying the CDO are referred to as the collateral, with the funds to purchase the collateral assets being obtained by the issuance of debt obligations. Assets from which CDOs are formed include investment-grade corporate bonds, high-yield corporate bonds, asset-backed securities, real estate MBSs, commercial loans, commercial MBSs, REITs, municipal bonds, and emerging market bonds. CDOs have a collateral manager who is responsible for managing the portfolio of debt obligations. Restrictions, in turn, are imposed on what the collateral manager can

do. The issuance of CDOs grew from the 1990s to 2007, but stopped in 2008 in the aftermath of the 2008 financial crisis. There are still, however, a number of issues outstanding.

Insurance Companies, Pension Funds, and Investment Banks

Insurance companies, pension funds, and investment banks are important financial intermediaries. Insurance companies and pension funds, on the one hand, use the premiums paid on various insurance policies and the investment funds from retirement and savings plans to invest in bonds, stocks, mortgages, and other assets. On the other hand, many individuals use insurance policies and pension plans as their primary investment conduit. Like commercial banks, large investment banks are multifunctional, serving as an important intermediary.

Insurance Companies' Role in the Financial Market

Insurance companies invest billions of dollars into the financial markets each year from the inflows they received from insurance premiums, savings and investment products they offer, and the funds from pension and endowment funds they managed. In 2010, life insurance companies held approximately \$6.08 trillion in assets. Since their liabilities tend to be more predictable and long term, life insurance companies tend to invest in long-term assets.⁵ In 2010, about 40 percent of their assets were in corporate bonds, followed by equity (22 percent), government securities (11 percent), mortgages (7 percent), and various other assets. In contrast to life insurance companies, property and casualty insurance companies insure against many different types of events, with the amount of potential losses on many of the events they insure more difficult to predict. As a result, property and casualty companies tend to invest in more liquid assets than do life insurance companies.

Life insurance companies provide basic life insurance: protection in the form of income to benefactors in the event of the death of the insurer. They also provide disability insurance, health insurance, annuities, and guaranteed investment contracts. Annuities and guaranteed investment contracts are investment-type instruments. A life insurance company annuity pays the holder a periodic fixed income for as long as the policyholder lives in return for an initial lump-sum investment (coming, for example, from a retirement benefit or insurance cash value). Annuities provide policyholders protection against the risk of out-living their retirement income.⁶ They are constructed based on the rates of return insurance companies can obtain from investing an individual's payment for a period equal to the individual's life expectancy (fixed-life annuity) or for a prespecified period (fixed-period annuity).

A guaranteed investment contract (GIC) is an obligation of an insurance company to pay a guaranteed principal and rate on an invested premium. For a lump-sum payment, the insurance company guarantees a specified dollar amount will be paid to the policyholder at a specified future date. For example, a life insurance company for a premium of \$1 million, guarantees the holder a five-year GIC paying 8 percent interest compounded annually. The GIC, in turn, obligates the insurance company to pay the GIC holder \$1,469,328 [= \$1 million $(1.08)^5$] in five years. Pension funds are one of the primary investors in GICs. The GICs provide them not only an investment with a known payment but also an investment that always has a positive value to report; this contrasts with bond investments whose values may decrease if interest rates increase.

Pension Funds

Pension funds are financial intermediaries that invest the savings of employees in financial assets over their working years, providing them with a pool of funds at their retirements. Pension funds are one of the fastest-growing intermediaries in the United States. The total assets of pension funds (private and state and local government) have grown from \$700 billion in 1980 to approximately \$10 trillion in 2010.

Part of this growth reflects a workforce of Baby Boomers making contributions to their pensions. As this generation enters retirement over the next decade and begins to draw from its investments, there is expected to be a marked decline in such growth.

Pension funds can be grouped as public or private plans. The largest public plan is the Federal Old Age and Disability Insurance Program (Social Security). It is a pay-as-you-go system in which current workers' contributions pay for the benefits to the current recipients. The other public pension funds are those sponsored by state and local governments. Private pension plans are those sponsored by employers, groups, and individuals.

There are two general types of pension plans: a defined-benefit plan and a defined-contribution plan. A *defined-benefit plan* promises the employee a specified benefit when they retire. The benefit is usually determined by a formula. Financial problems can arise when pension funds are underfunded and the company goes bankrupt. As a result, over the past two decades most new plans are structured as *defined-contribution plans*. These plans specify what the employee will contribute to the plan instead of what the plan will pay. At retirement, the benefits are equal to the contributions the employee has made and the returns earned from investing them.

To pension contributors, pension funds represent long-term investments through intermediaries. As of 2010, private funds sponsored by employers, groups, and individuals were one of the largest institutional investors in equity, with about 70 percent of their total equity investments going to equity (stock and mutual fund shares). In 2008, public funds sponsored by state and local governments had invested assets valued at over \$3 trillion, with 38 percent in equity, 6 percent in mutual funds, 9 percent in corporate bonds, 10 percent in federal agency and Treasury securities, and 26 percent in credit market instruments (see Federal Reserve Flow of Fund Accounts, Table L118;

www.federalreserve.gov/releases/z1/Current).⁷ In addition to employee and institutional pension plans,

retirement plans for U.S. individuals can also be set up through *Keogh plans* and *individual retirement accounts (IRAs)*.⁸

Investment Banks

As discussed in Chapter 4, investment banks are active in the primary market where they underwrite or privately place stock and bond issues, and in the secondary market where they provide brokerage services through their electronic systems or directly through customer relation offices. Investment banks are also important intermediaries. They act as dealers on the OTC market and as position traders on block trades, and many have specialist and market makers that keep the market continuous. Furthermore, as discussed in this chapter, investment banks are active participants in setting up investment funds, structuring and managing collateralized debt obligations and hedge funds.

Two additional areas of note in which investment banks are quite active are mergers, consolidations, and acquisitions and corporate equity sales. Mergers, consolidations, and acquisitions are complicated undertakings. Investment banks are active in serving both the acquirers and the target firms. Acquiring firms use investment bankers to help them identify attractive firms to pursue, to solicit shareholders who might sell, to structure tender offers, to raise financial capital, and to structure the deal. Targeted firms may use investment banks to indicate their interest and commitment or possibly their disinterest and protection, especially when there is a hostile takeover effort.

Investment banks are also active in the sale of not just companies in a merger and acquisition, but also in a division of a company, sometime referred to as an *equity sale*. When a company decides to sell a division or some of its assets, it may come from interest expressed by another company or from a change in the company's strategic plan. The decision to sell a division may also be necessitated by the need to raise funds to finance the acquisition of another company or an investment, or it may be to raise funds to pay

off its debt obligations to avoid bankruptcy. Investment banks help in equity sales by providing expertise in determining the value of the business as an ongoing concern and the value of the synergy of a division with other firms. They also help in moving the equity sale forward by initially setting up a bidding process that discretely identifies potential buyers, later procuring letters of intent, and finally obtaining a final contract.

BLOOMBERG INSURANCE INFORMATION

FLNG <Enter>, select Insurance Company in "Institution Type" tab.

BLOOMBERG PENSION INFORMATION

FLNG <Enter>, select Pension Funds in "Institution Type" tab.

BLOOMBERG MERGER AND ACQUISITION SCREEN, MA

MA: <Enter>: Merger Advisor search engine.

BLOOMBERG INVESTMENT BANKER AND UNDERWRITER SCREENS

- **LTOP <Enter>**: The LTOP screen displays top underwriters for the major fixed-income, equity, equity-linked securities, and syndicated loan securities markets. To access: LTOP <Enter>. On the LTOP screen, press the left click to access a dropdown menu showing descriptions and the underwriter's deals for that period.
- **Underwriter's Ticker** (e.g., GS): Ticker <Equity> <Enter>: See DES and CF.
- **LEAG**: <Enter> Underwriter rankings from LTOP.
- **LMX**: <Enter> Underwriter rankings.
- **CACT**: <Enter> CACT screen tracks major corporate moves including mergers and division sales.

Financial Service Industry, the 2008 Financial Crisis, and Regulations

Investment banking firms, commercial banks, insurance companies, and pensions are the key participants in the financial service industry. Prior to the Great Depression, many commercial banks acted as investment bankers by underwriting securities and buying and selling securities for their customer. With over 10,000 commercial banks collapsing during the depression, Congress passed the Glass-Steagall Act in 1932, which separated investment banking from commercial banking. Starting in the 1980s, and later with the passage of the Gramm-Leach-Bliley Act, however, the legal barriers between commercial and investment banking began to diminish. As a result, the financial industry saw many commercial bank holding companies acquiring investment banks, and later investment banks expanding their scope into insurance, real estate, and other financial areas. During this period, Merrill Lynch became an even larger multi-functional financial firm acquiring insurance and real estate companies to combine with its extensive investment banking and brokerage operations. However, large commercial banks such as Citicorp and UBS (formally United Bank of Switzerland) added investment banking to their commercial banking operation. Finally, the industry saw firms such as Goldman Sachs and Lehman Brothers expand the scope of activities in investment banking and developing specializations in stocks, bonds, and derivatives.

In June 2008, the subprime mortgage meltdown that began in August 2007 developed into a global credit crisis. As for the financial industry, the events leading up to the 2008 crisis and the subsequent economic recession led to the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act, aimed at preventing another financial crisis. Some of the key tenets of the act include those aimed at protecting consumers, constraining large Wall Street bonuses, and ending bailouts to financial institutions in distress (i.e., ending the "Too Big to Fail" bailouts). See [Exhibit 5.12](#) for a summary of some of the provisions related to the investment industry.

Constraints on Size: The Financial Stability Oversight Council can make recommendations to the Federal Reserve for increasingly strict rules for capital, leverage, liquidity, risk management and other requirements as companies grow in size and complexity, with significant requirements on companies that pose risks to the financial system.

Fed Regulation of Nonbank Financial Companies: A 2/3 vote of the Financial Stability Oversight Council and vote of the chair, gives the Federal Reserve the authority to regulate a nonbank financial company if the council believe there would be negative effects on the financial system if the company failed or its activities would pose a risk to the financial stability of the United States.

Break Up Large, Complex Companies: Able to approve, with a 2/3 vote of The Financial Stability Oversight Council and vote of the chair, a Federal Reserve decision to require a large, complex company, to divest some of its holdings if it poses a grave threat to the financial stability of the United States.

Technical Expertise: Creates a new Office of Financial Research within Treasury to be staffed with a highly sophisticated staff of economists, accountants, lawyers, former supervisors, and other specialists to support the council's work by collecting financial data and conducting economic analysis.

Bankruptcy: Most large financial companies that fail are expected to have their reorganization or liquidation resolved through the bankruptcy process.

Limits on Debt Guarantees: To prevent bank runs, the FDIC can guarantee debt of solvent insured banks, but only after meeting serious requirements: 2/3 majority of the Board and the FDIC board

must determine there is a threat to financial stability; the Treasury Secretary approves terms and conditions and sets a cap on overall guarantee amounts; the President activates an expedited process for Congressional approval.

Raising Standards and Regulating Hedge Funds: Requires that hedge funds and private equity firms have their advisers register with the SEC as investment advisers and provide information about their trades and portfolios necessary to assess systemic risk. This data will be shared with the systemic risk regulator and the SEC will report to Congress annually on how it uses this data to protect investors and market integrity.

Oversight of Credit Rating Agencies: Creates an Office of Credit Ratings at the SEC with its own compliance staff and the authority to fine agencies. The SEC is required to examine Nationally Recognized Statistical Ratings Organizations at least once a year and make key findings public.

Disclosure: Requires Nationally Recognized Statistical Ratings Organizations to disclose their methodologies, their use of third parties for due diligence efforts, and their ratings track record.

SEC: (1) Gives SEC the authority to impose a fiduciary duty on brokers who give investment advice—the advice must be in the best interest of their customers; (2) Creates a program within the SEC to encourage people to report securities violations; (3) Gives the SEC authority to grant shareholders proxy access to nominate directors; (4) Directs the SEC to clarify disclosures relating to compensation, including requiring companies to provide charts that compare their executive compensation with stock performance over a five-year period; (5) Provides more resources to the chronically underfunded agency to carry out its new duties.

BLOOMBERG DODD-FRANK INFORMATION

BLAW: Information on Dodd-Frank can be accessed from the Bloomberg BLAW Platform: BLAW <Enter>; Click "8) PRAC BLAW Practice Areas"; Click "10) Dodd-Frank Legislation" to bring up a menu for accessing information on Dodd-Frank.

Other Dodd-Frank Information Screens

- **Brief <Enter>**: Regulation Newsletter.
- **NI DODDFR <Enter>**: News of Dodd-Frank.

Bloomberg Credit Crisis Screens

- SBPR <Enter> Subprime News.
- STNI Rumor <Enter> Rumors and Speculation.
- HSST <Enter> U.S. Housing and Construction Statistics.
- DQRP <Enter> Rank Deals by Collateral Performance.
- DQSP <Enter> Delinquent Loan Data by Servicer.
- DELQ <Enter> Credit Card Delinquency Rate.
- BBMD <Enter> Mortgage Delinquency Monitor.
- REDQ <Enter> Commercial Real Estate Delinquencies.
- DQLO <Enter> Delinquency Rates by Loan Originators.

See Bloomberg Web [Exhibit 5.4](#).

Global Equity Markets and Exchanges

Brokers and dealers operating through organized exchanges, the OTC market, and ECNs have created a sophisticated system in which investors can buy and sell securities easily and quickly. This sophisticated system is global in breadth. Since the 1980s, there has been a globalization of security markets with the openings or expansions of exchanges in London, Frankfort, Singapore, Hong-Kong, Shanghai, Toronto, New Zealand, and Tokyo. The increase in the number of exchanges globally has also led to a number of trading innovations: global electronic trading systems, 24-hour worldwide trading, and alliances between exchanges. The growth in the security trading has also led to consolidations, such as the NYSE Euronext. Today, investors can easily buy and sell securities almost anywhere in the world. In this section, we complete our analysis of security trading by examining the global markets. We begin, however, with a note on the exchange-rate risk that investors face when they diversify their investment globally.

Note on Exchange-Rate Risk

Investors buying foreign securities in national or offshore markets denominated in foreign currency are subject to changes in exchange rates that, in turn, affect the rates of return they can obtain from their investments. For example, suppose a U.S. investor bought one share of a French stock worth €900 per share when the \$/€ spot exchange rate was at \$1.4717/€. The U.S. investor's total dollar investment would, therefore, be \$1,324.53.

$$\text{Dollar Investment} = (\$1.4717/\text{€})(\text{€}900) = \$1,324.53$$

Suppose a year later the price of the French stock is trading 11.11 percent higher at €1,000 per share but the \$/€ spot exchange rate decreased (a dollar appreciation) by 15 percent from \$1.4717/€ to \$1.250945/€. If the U.S. investor had to liquidate his investment at that time, then he would lose 5.5 percent in dollars, even though the stock increased in value:

$$\text{Rate} = \frac{(\$1.250945/\text{€})(1,000 \text{ €})}{\$1,324.53} - 1 = -0.055$$

The example illustrates that when investors purchase foreign securities, they must take into account not only the risk germane to the security, but also the risk that exchange rates will move to an unfavorable level. It should be noted that the forward exchange market makes it possible for investors to hedge their investments against exchange-rate risk. In the above case, for example, suppose that when she purchased the French stock, the U.S. investor had entered into a forward contract to sell 1,000 euros one year later at the forward rate of \$1.4717/€. At the end of the year, the investor would be sure of converting €1,000 into \$1,471.70. Thus, even if the \$/€ spot rate fell by 15 percent, the investor would still be able to earn 11.11 percent [= \$1,471.70/\$1,324.53) - 1] from her dollar investment. Thus by entering a forward contract to sell foreign currency, the investor is able to profit from her stock investment. There are other ways investors, as well as borrowers, can hedge against exchange risk (future, options, and swaps). Using these tools, in turn, allows investors and borrowers to focus on the choice of securities and the type of funding.

BLOOMBERG SPOT AND FORWARD EXCHANGE RATES SCREENS

Currency Menu Screen: Ticker <Curncy> <Enter>: Screens: ALLQ, Composite Quotes; CQ, Competing Quotes; GP, Price Graph; FXDV, Foreign Exchange Derivative Menu; FXFR (forward and spot quotes).

FXIP <Enter>: Foreign Exchange Information Portal

Differences in Foreign Security Markets

Foreign investors who buy domestic stocks and bonds will find differences from country to country in how the securities are issued and regulated. In a number of countries, banks, instead of investment bankers, underwrite many new stocks and bonds. In Germany, for example, there had been a long history of no separation between commercial and investment banking. Many banks in Germany acted as security underwriters and as brokers and dealers in the secondary market, trading existing bonds and stocks through an interbank market. In Europe, though, the *Single European Act* did permit banks and financial institutions in the European Economic Community (EEC) to offer a wide variety of the same banking and security services. This act has led to standardization in the EEC. Until 2000, Japan, like the United States, had a history of separating its commercial and investment banking activities. In Japan, brokerage houses such as Nikko, Normura, and Yamaichi underwrite and broker stocks, bonds, and other securities.

A foreign investor buying a domestic security may also be subject to special restrictions. These can include special registrations, exchange controls, and foreign withholding taxes. On some exchanges, trading is conducted electronically or physically only a few times during a day as a call auction. There are also exchanges that have elements of both in which market makers are assigned to actively traded stocks, while thinly traded ones are sold through an open auction.

Security exchanges in the United States, Canada, Japan, Switzerland, and several other countries allow for investors to buy stock on margin. These exchanges are typically spot markets in which the transactions must be settled within a few days. In countries where margin purchases are prohibited, a *futures stock market* for some stocks is provided. An investor buying such a stock on these markets agrees to buy the stock at an agreed-upon price on a specific future date in which the payment of cash is to be made. Typically, futures stock trading is limited to just the major stocks listed on the exchanges, collateral is required, and the future settlement date is often the same for all stocks (e.g., end of the month).

Tax Considerations

Investing in foreign securities often creates different tax considerations than investing domestically. In general, the taxes that an investor may be subject to when investing internationally depend on the tax laws of the investor's country and the country where the investment occurs. The two major cash flows in which taxes may be applied are capital gains and dividend or interest income.⁹ In most countries, including the United States, capital gains taxes are based on where the investor lives and not the origin of the investment. Thus, a U.S. investor realizing a capital gain from buying and selling a French stock would only be subject to a U.S. capital gains tax, not a French tax.

On the other hand, for a number of years the dividend or interest income from a security owned by a foreigner was subject to a *foreign withholding tax* in many countries, including the United States. U.S. investors who received dividend income from Heineken stock, for example, would receive a dividend net of a withholding tax paid by the Heineken Company to the Netherlands government. To eliminate or minimize double taxation, many countries established treaties that permitted the investor to receive a tax credit in their home country. Thus, a U.S. investor would report the total foreign dividends on his U.S. tax form, but would be able to subtract the withholding tax paid to the foreign government from his tax liability.¹⁰ In the 1980s, a number of countries repealed this withholding tax, including the United States, which eliminated its tax in 1984.

Global Equity Investments

A U.S. investor who is interested in buying a foreign stock has several alternatives. First, she may be able to buy the stock directly on the foreign company's national market. If the investor buys the stock this way, she will be subject to exchange risk and she may also incur a relatively high transaction cost. Secondly, it may be that the foreign stock is listed on a U.S. stock exchange or the OTC market. Many

multinational corporations, as previously noted, are listed not only on their national exchanges, but also on security exchanges in other countries, often where they have subsidiaries or conduct considerable business. If the foreign stock of interest is listed on a U.S. stock exchange, then the U.S. investor could easily purchase the stock there. If she did, she would, in turn, avoid the risk of currency conversions and possibly foreign taxes. Third, the U.S. investor may be able to acquire the stock of a foreign company by buying a special share entitling her to its ownership. In the United States, these special shares are known as *American depository receipts (ADRs)*; deposit receipts offered in any country are referred to as *global depository receipts (GDRs)*. Fourth, the investor may find a market maker on the OTC market or in the Euroequity market who is trading in the foreign stock. Finally, if the U.S. investor is looking to internationally diversify her portfolio, then she may find the easiest way to accomplish this is to buy a share in an international mutual fund.

Foreign Stocks Listed on Domestic Markets

Today, many multinational corporations raise funds to finance their foreign subsidiaries and operations by issuing bonds and selling shares of stock in those countries in which they own a subsidiary or have extensive sales. These security sales provide the corporations with funds denominated in a local currency, which they use to finance their local operations, thus avoiding the currency conversion that would have occurred if they had raised the funds in their own markets. In addition, the cash flows from the subsidiaries often can be used to pay dividends, again allowing the company to avoid currency conversion.

To ensure that the stocks they sell in foreign countries are liquid, companies often decide to list their stock on the country's security exchange. Thus, many companies have stock listings on their own national exchanges and on foreign stock exchanges. Although the primary reason for this multiple listing is to provide liquidity, it also serves to make the company's ownership more diversified, possibly protecting it against takeover bids. However, multiple listing may cause an increase in a stock's volatility since the

stock is subject to market conditions in other countries. The major benefit to a domestic investor from buying a stock in a foreign company listed on the investor's national exchange is that she can buy the stock in her local currency. In addition, the investor may also avoid foreign withholding taxes and other fees and regulations that may have resulted if she had purchased the stock on a foreign security market.

Stocks with multiple listings are usually traded at different times and places. A multiple-listed American stock trading on a European exchange, for example, would trade before the U.S. exchange opens. Moreover, if the U.S. market is the dominant market (i.e., a greater proportion of the company's total stock is traded in the U.S. market than on the foreign exchanges), then the price in the European market—the *satellite market*—will probably reflect only the price in the U.S. market the previous day and the exchange rate. However, for some stocks, especially foreign stocks listed on the U.S. exchanges, their home market is not necessarily the dominant one. If this is the case, then the satellite market may lead the home market.

BLOOMBERG FOREIGN SECURITY EXCHANGES

- **EQS <Enter>**: Use EQS to search for exchanges in other countries and their listing.
- **IMAP**: The IMAP screen can be used to identify exchanges and the primary stocks listed on them:
IMAP <Enter>; All Securities tab; Click the area from Name list (e.g., Asia Pacific (Emerging); select country (e.g., China); select exchange (e.g., Shanghai).
- **SECF**: SECF <Enter>; Equity Tab; Select Country from Country Tab; Select Exchange from Exchange tab (or leave blank) to get a list of all securities.
- **QMC <Enter>**: Screen displays quotes from all of the foreign exchanges on which a selected stock trades. The screen can be used to identify a stock's primary market and its dual listings.

See Bloomberg Web [Exhibit 5.5](#).

New Exchanges, Consolidation, and Global 24-Hour Trading

Over the last twenty years, the globalization of security exchanges has seen the emergence of new exchanges, the growth in existing exchanges in emerging markets such as China, India, and Brazil, and the consolidation of existing exchanges through mergers and affiliations. For example, since 1995, the market has seen Germany's three exchanges merge into the Frankfort exchange; later, the consolidation of the Frankfort, London, and Paris exchanges into one exchange; and in 2007 the formation of the transatlantic NYSE Euronext, with its six equity and six derivative exchanges. Such consolidation is the result of technology and the emergence of electronic trading systems that today can handle 10,000 stocks as easily as 200. Consolidation has also widened the markets for global investments, providing global access

by all traders to most securities. This global access, in turn, has improved the marketability and liquidity of all securities.

Globalization and electronic crossing sessions have also led to 24-hour trading, which can be described as a market in which "investment firms pass-the-book around the world." For example, trading can start in New York where stocks can be traded from 9:30 A.M. to 4:00 P.M. (Eastern time), picked up in Tokyo where stocks can be traded with some overlap until 5:00 A.M., then picked up by London where with overlap they can be traded until it is picked back up by New York.

American Depository Receipts

In the 1980s and 1990s, U.S. exchanges began trading American depository receipts (ADRs).¹¹ As noted, ADRs are dollar-denominated claims on shares of foreign stock kept in safekeeping by U.S. commercial or investment banks. They are formed by a U.S. commercial bank or investment banker who buys foreign shares and then holds them in safekeeping. The intermediary then sells dollar-denominated ADRs to investors. The ADRs thus represent claims to the foreign shares held in safekeeping. Dividends paid on the stocks underlying the ADRs are received by the bank that transfers them to the ADR holders. For U.S. investors, ADRs represent an alternative to buying foreign stock. As of 2010, over 160 foreign stocks were traded as ADRs on the NASDAQ and NYSE Euronext.

Although ADRs are traded like domestic securities, they are similar to foreign stocks in that they are subject to both price risk and exchange-rate risk. The advantage ADRs provide U.S. investors over foreign stocks is convenience: Buying and selling ADRs is like buying and selling any U.S. stock. In addition, companies whose stocks sell as ADRs are required by the SEC to file financial statements similar to those of U.S. companies who are listed. As a result, U.S. investors can obtain information on the foreign companies that is comparable to the information for U.S. companies. Finally, commercial and investment banks

in forming ADRs often take into account the exchange rate in determining the number of shares representing an ADR in order to make the prices of ADRs similar to those of U.S. stocks.

BLOOMBERG ADR INFORMATION

- **EQS:** One way to identify ADRs is to use EQS: EQS <Enter>; type "ADR" in "Add Criteria" box.
- **S&P ADR Index: SPADR <Index> <Enter>:** ADRs can also be found looking at ADRs that comprise the S&P ADR index: SPADR <Equity>; MEMB screen.
- **SECF:** ADRs found using SECF: SECF <Enter>; Equity Tab; Select "Receipts" from type; Select country from Country Tab (or leave blank) to get a list; Select exchange from Exchange tab (or leave blank) to get a list.

See Bloomberg Web [Exhibit 5.6](#).

Conclusion

Just like the direct markets for stocks and bonds, the intermediary and global financial markets offer investors a wide array of instruments for financing and investing: from short-term securities, such as CDs, BAs, and shares in money market funds, to intermediate- and long-term instruments, such as MBSs, mutual fund shares, ETFs, pension plans, annuities, and GICs. The investment and commercial banks, insurance companies, investment funds, pension funds and individual investors invest trillions of dollars each year into primary and intermediary securities. The types of securities offered and their trading characterize a financial market of both depth and breadth.

In examining the types of equity and intermediate securities and markets over the last two chapters and in Chapter 1, our focus has been on the markets, with emphasis on equity securities. In the next three chapters, we focus on how investors can evaluate stocks and portfolios in terms of their expected returns and risk.

Web Site Information

1. *Wall Street Journal* site: <http://online.wsj.com/public/us>
 1. Click "Market Data" tab.
 2. Click "ETF" tab.
 3. Click "Mutual Fund" tab.
 4. Use Screener.
2. FINRA: Go to www.finra.org/index.htm, Sitemap, Market Data, and Mutual Funds.
3. Yahoo: Go to <http://screen.yahoo.com/funds.html>, Fund Screener.
4. Real estate investment trusts: www.nareit.com
 1. Price and other information on REITs can be found by going to Yahoo, <http://screen.yahoo.com/funds.html>; use Stock Screener to find REITs.
5. Investment Company Institute: www.ici.org
6. Investment Company Institute Facts Book: www.icifactbook.org/index.html
7. Investment funds and ratings:
 1. www.morningstar.com
 2. www.lipper.com
8. Hedge funds:
 1. www.thehfa.org
 2. www.hedgefund.net
9. Federal Reserve flow-of-fund accounts: www.federalreserve.gov/releases/z1/current/data.htm

1. Go to PDF (2MB) for Flow of Fund Tables by sector and security type.
 2. See Table L109-L113 for banks.
 3. See Table L121 for mutual funds.
 4. See Table L122 for ETFs.
 5. See Table L123 for REITs.
 6. Go to "Data Download Program" to download series to Excel.
10. Federal Reserve Flow of Fund Accounts: www.federalreserve.gov/releases/z1/current/data.htm
1. Go to PDF (2MB) for Flow of Fund Tables by sector and security type.
 2. See Table L115 for life insurance assets.
 3. See Table L114 for property and casualty insurance assets.
 4. See Table L117-L119 for pension fund assets.
 5. Go to "Data Download Program" to download series to Excel.
11. For pension fund information and updates: www.ifebp.org
12. For Social Security Fund information: www.ssa.gov
13. Pension Benefit Guarantee Corporation: www.pbgc.gov
14. Current Currency Quotes: <http://online.wsj.com/public/us>, Click Market Data Tab; Click FX Tab.
15. Historical foreign exchange rates and balance of payments: www.research.stlouisfed.org/fred2/categories
16. Information on world indexes, exchange rates, and other international data: www.bloomberg.com

Notes

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1. Although it is generally true that the number of shares of a closed fund is fixed, such funds occasionally issue new shares either through a public offering or through a share dividend, which is sometimes offered to shareholders who are given an option of receiving either cash or new shares. Also, some funds occasionally go into the market and purchase their own shares.

2. Section 13(f) of the 1934 Securities Exchange Act requires institutional investment managers with investment discretion over \$100 million or more of certain equity securities to file quarterly reports disclosing their equity holdings. An institutional investment manager is an entity that either invests in, or buys and sells, securities for its own account, for example, banks, insurance companies, broker/dealers, and corporations and pension funds that manage their own investment portfolios. An institutional investment manager is also a natural person or an entity that exercises investment discretion over the account of any other natural person or entity. Form 13F must be filed within 45 days of the end of each calendar quarter. The Bloomberg's FLNG screen (FLNG <Enter>) displays 13F Filings. From the 13F Filings screen, one can search through a list of companies with 13F Filings status. One can also display aggregated 13F Filings and break down the filings by type: All, Pensions, Banks, Mutual Funds, Venture Capital, and Private Equity.

3. The Barclay, J. P. Morgan, and Merrill Lynch indexes require a subscription to access. The subscription can be made through Bloomberg. With the subscription, one is able to access the indexes from the Bloomberg terminal.

4. Managers of ETFs contract with third parties to calculate a real-time estimate of an ETF's current value, called the *intraday indicative value (IIV)*. The IIVs are disseminated at regular intervals during the trading day. Investors, in turn, can observe any discrepancies between the ETF's share price and its IIV during the trading day. When a gap exists between the ETF share price and its IIV, investors may decide to trade in either the ETF share or the underlying securities that the ETF holds in its portfolio in order to attempt to capture a profit. This trading helps to narrow any discrepancy between the price of the ETF share and its IIV. For more information on ETFs, see *Investment Company Fact Book*, www.icifactbook.org.

5. Using actuarial tables, life insurance companies can predict with a relatively high degree of accuracy when death benefits would have to be paid.

6. There are three general types of annuities: A *life annuity*, which pays a fixed amount regularly until the investor's death; a *last survivor's annuity*, which pays regular fixed amounts until both the investor and spouse die; and a *fixed-period annuity*, which makes regular fixed payments for a specified period (e.g., 5, 10, or 20 years), with payments made to a beneficiary if the investor dies. These annuities are referred to as fixed annuities. In addition to fixed annuities, insurance companies also offer a *variable annuity* in which regular payments are not fixed, but rather depend on the returns from the investments made by the

insurance company (the insurance company sometimes invests in a mutual fund that they also manage). Finally, insurance companies offer *deferred annuities* (variable or fixed) that allow an investor to make a series of payments instead of a single payment.

7. Pension members are not taxed on their contributions, but they do pay taxes on benefits when they are paid out. Pension funds in the United States are governed by the 1974 *Employee Retirement Income Security Act (ERISA)*. ERISA requires prudent management of the fund's investments and requires that all private plans be fully funded; that is, that the assets and income cover all promised benefits. The act also ensures transferability of plans when employees change jobs, specifies disclosure requirements, and defines the minimum vesting requirements for determining eligibility. In 1974, Congress also created the *Pension Benefit Guaranty Corporation (PBGC or Penny Benny)* to provide insurance for employee benefits. Similar to the FDIC, Penny Benny is a government agency that insures pension benefit up to a limit if a company goes bankrupt and has an underfunded pension plan. It operates by charging pension plans a premium, and it can borrow funds from the Treasury. In 2008, Penny Benny paid benefits to over 700,000 retirees of failed pension plans.
8. In accordance with the Self-Employed Individual Tax Retirement Act of 1962, self-employed people can contribute up to 20 percent of their net earnings to a Keogh plan (retirement account) with the contribution being tax deductible from gross income. The Pension Reform Act of 1978 updated the 1962 act to permit individual retirement accounts (IRAs). Subsequent legislation in 1981 and 1982, in turn, expanded the eligibility for creating tax-deferred accounts to include most individuals. The Small Business Protection Act of 1996 created simplified retirement plans for businesses with 100 or fewer workers. In addition to company-sponsored and group-sponsored pensions, bank trust departments, insurance companies, and investment companies offer and manage individual retirement accounts and Keogh plans. For small accounts, these institutions often combine the accounts in a *commingled fund*, instead of managing each account separately. A commingled fund is similar to a mutual fund. For accounting purposes, individuals setting up accounts are essentially buying shares in the fund at their NAV, and when they withdraw funds, they are selling essential shares at their NAV. Like mutual funds, insurance companies and banks offer a number of commingled funds, such as money market funds, stock funds, and bond funds.
9. Depending on the country, there also may be a transaction tax levied on the value of the stock purchase.

10. It should be noted that many tax-free investment companies, such as pension funds, were not able to take advantage of this credit, or if they could, they often had to file special exemption forms with the foreign government, which was often costly and time-consuming.

11. ADRs were first introduced in the 1920s. However, it was not until the 1980s that they became popular.

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Bloomberg Exercises

1. Learn more about the different types of funds and their classifications by going to the FUND screen and "Classification" link: FUND <Enter>; click "10".
2. The performances of funds by type (e.g., mutual, hedge funds, ETFs, and unit investment trust) can be found on Bloomberg's Fund Heat Map screen, FMAP. Use the screen to identify the top performers based on total return for several types: FMAP <Enter>, click "Fund Type" in "View By" dropdown.
3. The performances of funds by objective (e.g., equity, debt, asset allocation, money market, and alternative) can be found on FMAP. Use the screen to identify the top performers based on total return for several objectives: FMAP <Enter>, Click "Objective" in "View By" dropdown.
4. Identify several mutual funds (open and closed end) using SECF: SECF <Enter>; Funds Tab, click Open End or Closed End tab or select Open-End fund or Closed-End fund from the Type tab; select Equity, Fixed Income, or Mixed from the Focus tab, and USD from currency tab. Examine one of the funds using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>). Functions to include are DES, historical fund analysis (HFA) or COMP, fund holdings (MHD), and price graph (GP).
5. Identify several unit investment trusts using SECF: SECF <Enter>; Funds Tab, select Unit Investment Trust from Type tab, Fixed Income from Focus tab, and USD from currency tab. Examine one of the funds using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>). Functions to include are DES, historical fund analysis (HFA) or COMP, fund holdings (MHD), and price graph (GP).
6. Identify several fund of funds using SECF: SECF <Enter>; Funds Tab; click select F of F tab or select Fund of Funds from Type tab; chose a Focus (e.g., equity, real estate, or all), and currency (e.g., USD). Examine one of the funds using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>). Functions to include are DES, historical fund analysis (HFA) or COMP, fund holdings (MHD), and price graph (GP).
7. Identify several ETFs using SECF: SECF <Enter>; Funds Tab; click ETFs tab or select ETF from Type tab; chose a focus (e.g., equity, real estate, or all), and currency (e.g., USD). Examine one of the ETFs

using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>). Functions to include are DES, historical fund analysis (HFA) or COMP, fund holdings (MHD), and price graph (GP).

8. Use the Bloomberg fund search screen, FSRC, to search for the following types of open- and closed-end equity funds:

1. Fund type: Open-End Funds; Classification/Fund Asset Class Focus: Equity; Classification/Fund Market Cap Focus: Small-Cap; Country of Domicile: United States; Analytic criterion: Enter (in amber box) total return for one year of greater than X percent (e.g., 30 percent).
2. Fund type: Closed-End Investment Funds; Classification/Fund Asset Class Focus: Equity; Country of Domicile: United States.

Note: To save your searches, click "Save As" in the Actions Tab.

9. Select one of the funds from each of your searches in Exercise 8 and study it using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>).

10. Use the Bloomberg fund search screen, FSRC, to search for the following types of fixed-income funds and ETFs:

1. Fund type: Open-End Funds; Classification/Fund Asset Class Focus: Fixed Income; Classification/Maturity band Focus: Long Term; Classification/Fund Rating Class Focus: Investment Grade A or higher; Analytic criterion: Enter (in amber box) total return for one year of greater than X percent (e.g., 4 percent or 10 percent).
2. Fund type: Open-End Funds; Classification/Fund Asset Class Focus: Fixed Income; Classification/Maturity band Focus: Intermediate Term; Classification/Fund Rating Class Focus: High Yield; Analytic criterion: Enter (in amber box) total return for one year of greater than X percent (e.g., 10 percent).
3. Fund type: Exchange Traded Products; Country of Domicile: United States; Classification/Fund Asset Class Focus: Fixed Income; Classification/Fund Rating Class Focus: High Yield.
4. Fund type: Fund of Fund; Classification/Fund Asset Class Focus: Fixed Income; Classification/Fund Rating Class Focus: High Yield.

Note: To save your searches, click "Save As" in the Action Tab.

11. Select one of the funds from each of your searches in Exercise 10 and study it using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>).
12. Use the Bloomberg fund search screen, FSRC, to search for the following types of equity funds outside the United States:
 1. Fund type: Open-End Funds or Closed-End; Classification/Fund Asset Class Focus: Equity; Country of Domicile: Select country other than United States (e.g., Netherlands).
 2. Fund type: Open-End Funds or Closed-End; Classification/Fund Asset Class Focus: Fixed-Income; Country of Domicile: Select country other than United States (e.g., Netherlands).
13. Select one of the funds from each of your searches in Exercise 12 and study it using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>).
14. Use the Bloomberg fund search screen, FSRC, to search for the following types of ETFs:
 1. Fund type: Exchange Traded Product; Classification/Fund Asset Class Focus: Equity or Fixed Income. Consider narrowing your search by entering an analytical criterion: Enter (in amber box) total return for one year of greater than X percent.
 2. Classification/Fund Objective: Select an ETF from the Exchange Traded Product menu. Consider narrowing your search by entering an analytical criterion: Enter (in amber box) total return for one year of greater than X percent.
15. Select one of the funds from each of your searches in Exercise 14 and study it using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>).
16. Use FSRC to search and screen for different types of government funds: FSRC: FSRC <Enter>; Classification/Fund Objective: Select from a Fixed-Income menu list (e.g., Government Bond, High yield). Funds to consider:
 1. Government Bond Long
 2. Muni High Yield
 3. Muni of a state (e.g., Muni New York Long)

Select some of the funds from your searches and study them using the functions on the fund's menu screen (Fund Ticker <Equity> <Enter>).

17. Use Bloomberg's SECF screen to find different types of funds: SECF <Enter>, click Funds Tab and then type the fund of interest (municipal, global, or index) in the Search box. You may want to narrow your search by selecting categories from the Focus, Exchange, and Type tabs. Funds to consider:

1. Municipal
2. Global
3. Index

Study some of funds using the functions on the fund's menu screen (Ticker <Equity> <Enter>).

18. Bloomberg's REIT screen provides a menu for searching for real estate investment trusts by regions: United States, Europe, Asia, Australia, Canada, and other. Using the screens, search and select some REITs from different regions. You can also use the SECF screen: SECF <Enter>, type "REIT" in the Search box. Study the REITs using the functions on the REIT's menu screen (Ticker <Equity> <Enter>).

19. Go to the FUND screen to find news and information on mutual funds, hedge funds, and ETFs: FUND <Enter>, use the "News and Research" link.

20. The hedge fund industry is a leader in creating new investment products. To keep current, go to the BRIEF screen to access the Bloomberg newsletter: "Hedge Fund."

21. Investment banks are an important financial intermediary. Study some of the activities and deals of investment banks by exploring Bloomberg's LTOP and LEAG screens.

22. Keep current on mergers by going to the BRIEF screen to access the Bloomberg newsletter: "Mergers."

23. The LTOP screen displays top underwriters for the major fixed income, equity, equity-linked securities, and syndicated loan securities markets. Using the screen, identify the top underwriters over the past year for global equity issues. Using the dropdown menu, study some of the recent deals for several of the top equity underwriters. To access: LTOP <Enter>.

24. The IMAP screen can be used to identify stocks that are trading on different exchanges around the world. On the IMAP screen, study the securities listed on an exchange outside the United States: IMAP <Enter>, select All Securities, click region, country, and then an exchange.
25. Use WEXC to find the Web site of foreign exchanges of interest.
26. Use SECF to search for ADRS or Global Depository Receipts: SECF <Enter>; Equity tab; select Receipts from Type tab; select country (e.g., United Kingdom); select currency (e.g., USD). Study some of the ADRs using the functions on the fund's menu screen (Ticker <Equity> <Enter>).
27. Use the SECF or EQS screen to search for stocks from countries other than the United States. SECF <Enter>; Equity tab; Common stock from Type tab; select country (e.g., United Kingdom, France, or China). Or, EQS <Enter>; click "Exchange" and then country. Study some of the stocks using the functions on the stock's menu screen (Ticker <Equity> <Enter>).
28. Bloomberg's QMC screen displays quotes from all of the domestic and foreign exchanges on which a selected stock trades. The screen can be used to identify a stock's primary market and its dual listings. Select a stock of interest and study its quotes: Stock Ticker <Equity> <Enter>; QMC. You may want to use the "Exclude" tabs to include or exclude exchanges with quotes in different currencies.
29. Information on Dodd-Frank Financial Regulatory Reform Bill can be accessed from the Bloomberg BLAW Platform: BLAW <Enter>; Click "8) PRAC BLAW Practice Areas;" Click "10) "Dodd-Frank Legislation" to bring up a menu for accessing information on Dodd-Frank. Use the portal to learn about some of the legislation and the timetables for implementing some of regulatory changes called for in the bill.