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Investment Foundations

A CLEAR UNDERSTANDING OF THE INDUSTRY

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Investment Foundations is a certificate program designed to give you a clear understanding of the investment management industry. Whether you're just starting a career in financial services or want to learn essential industry concepts, Investment Foundations offers an accessible solution for breaking through the complexities of the global investment industry and raising your professional profile.

THE BIG PICTURE

Investment Foundations is a comprehensive global education certificate program that provides a clear understanding of investment industry essentials. The certificate program is designed for all professional disciplines outside of investment roles, including IT, operations, accounting, administration, and marketing. There is no education or experience requirement and the exam can be taken at your convenience at available test centers around the world.

WHAT YOU LEARN

The certificate program covers the essentials of the investment management industry:

Module 1: Industry Overview

Module 2: Ethics and Regulation

Module 3: Inputs and Tools

Module 4: Investment Instruments

Module 5: Industry Structure

Module 6: Serving Client Needs

Module 7: Industry Controls

HOW WILL YOU BENEFIT

Clarity
Benefit from having a common understanding of industry structure and terminology, regardless of your job function or geographic location.

Collaboration
Work more effectively with global colleagues by understanding industry functions, building stronger relationships and raising your professional competence.

Confidence
Gain the knowledge to identify issues and the confidence to speak up. Get a better sense of your role and how you connect with the complex global industry at large.

"[CFA Institute Investment Foundations] is very relevant to the current market and I can study on the move. The program cleared up a lot of concepts for me and now I am much more comfortable speaking with clients about what is happening in the market."

MITALI BHANDARE
MORNINGSTAR,
INVESTMENT FOUNDATIONS
CERTIFICATE HOLDER

"The main benefit of [CFA Institute Investment Foundations] was an ability to see a bigger picture of the finance industry and the role of our business within it."

ALEXANDER TARASOV
CITCO FUND SERVICES,
INVESTMENT FOUNDATIONS
CERTIFICATE HOLDER

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CHAPTER 14

INVESTMENT VEHICLES

by Larry Harris, PhD, CFA

LEARNING OUTCOMES

After completing this chapter, you should be able to do the following:

a Compare direct and indirect investing in securities and assets;

b Distinguish between pooled investments, including open-end mutual funds, closed-end funds, and exchange-traded funds;

c Describe security market indices including their construction and valuation, and identify types of indices;

d Describe index funds, including their purposes and construction;

e Describe hedge funds;

f Describe funds of funds;

g Describe managed accounts;

h Describe tax-advantaged accounts and describe the use of taxable accounts to manage tax liabilities.

INTRODUCTION

1

Investment professionals offer a great number of financial services, which were discussed in the previous chapter, and products to help their clients address their investment and risk management requirements. The large variety of services and products reflects the many different needs and challenges their clients face. Understanding the products and how they are structured is necessary to appreciate how the investment industry creates value for its clients.

Investment vehicles are assets offered by the investment industry to help investors move money from the present to the future, with the hope of increasing the value of their money. These assets include securities, such as shares, bonds, and warrants; real assets, such as gold; and real estate. Many investment vehicles are entities that own other investment vehicles. For example, an equity mutual fund is an investment vehicle that owns shares.

This chapter introduces the most important investment vehicles and explains how they are structured and how those structures serve investors. Understanding these products and how they benefit clients will help you support investment professionals and contribute to the value creation process.

DIRECT AND INDIRECT INVESTMENTS

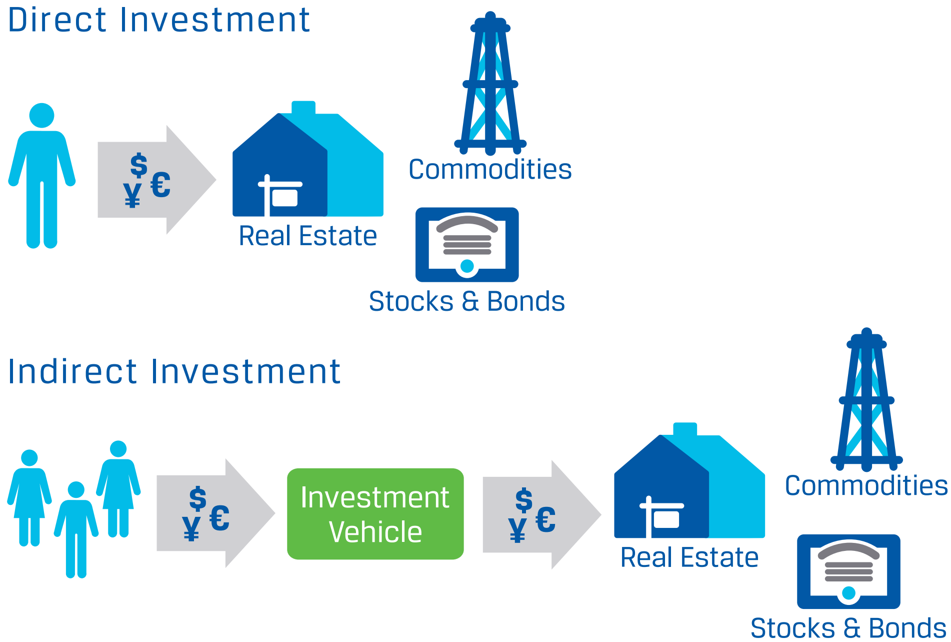
2

Investors make **direct investments** when they buy securities issued by companies and governments and when they buy real assets, such as precious metals, art, or timber.

But a common way to invest is through indirect investment vehicles. That is, investors give their money to investment firms, which then invest the money in a variety of securities and assets on their behalf. Thus, investors make **indirect investments** when they buy the securities of companies, trusts, and partnerships that make direct investments. The following are examples of indirect investment vehicles:

- Shares in mutual funds and exchange-traded funds
- Limited partnership interests in hedge funds
- Asset-backed securities, such as mortgage-backed securities
- Interests in pension funds

Most indirect investment vehicles are **pooled investments** (also known as collective investment schemes) in which investors pool their money together to gain the advantages of being part of a large group. The resulting economies of scale can significantly improve investment returns.



2.1 Comparison of Direct and Indirect Investments

Indirect investment vehicles provide many advantages to investors in comparison with direct investments.

- Indirect investments are professionally managed. Professional management is particularly important when direct investments are hard to find and must be managed.
- Indirect investments allow small investors to use the services of professional managers, whom they otherwise could not afford to hire.
- Indirect investments allow investors to share in the purchase and ownership of large assets, such as skyscrapers. This advantage is especially important to small investors who cannot afford to buy large assets themselves.
- Indirect investments allow investors to own diversified pools of risks and thereby obtain more stable, although not necessarily better, investment returns. Many indirect investment vehicles represent ownership in many different assets, each of which typically is subject to specific risks not shared by the others. For example, a risk of investing in home mortgages is that the homeowners may default on their mortgages. Defaults on individual mortgages are highly unpredictable, which makes holding an individual mortgage quite risky. In contrast, the average default rate among a large set of mortgages is much more predictable. Investing an amount in shares of a large mortgage pool is much less risky than investing that same amount in a single mortgage.
- Indirect investments are often substantially less expensive to trade than the underlying assets. This cost advantage is especially significant for publicly traded investment vehicles that own highly illiquid assets; recall from the Alternative Investments chapter that liquidity is one of the benefits of real

estate investment trusts compared with real estate limited partnerships or real estate equity funds. Although the assets in which traded investment vehicles invest may be difficult to buy and sell, ownership shares in these vehicles can trade in liquid markets.

Direct investments also present some advantages to investors compared with indirect investments.

- Investors exercise more control over direct investments than over indirect investments. Investors who hold indirect investments generally must accept all decisions made by the investment managers, and they can rarely provide input into those decisions.
- Investors choose when to buy or sell their direct investments to minimise their tax liabilities. In contrast, although the managers of indirect investments often try to minimise the collective tax liabilities of their investors, they cannot simultaneously best serve all investors when those investors have diverse tax circumstances.
- Investors can choose not to invest directly in certain securities—for example, in securities of companies that sell tobacco or alcohol. In contrast, indirect investors concerned about such issues must seek investments with investment policies that include these restrictions.
- Investors who are wealthy can often obtain high-quality investment advice at a lower cost when investing directly rather than indirectly.

So, is direct or indirect investment more advantageous for investors? The answer is: it depends. Each investor and each investment firm must decide on the best approach given their specific needs and circumstances.

2.2 Investment Control Problems

Although the majority of investment managers work faithfully to serve their clients, some are not always careful, conscientious, or honest, which can lead to investment losses from poor research, missed opportunities, self-serving advice, or outright fraud. Consider the following examples of potential investment management problems:

- Investment managers who do not conduct sufficient research and due diligence may suggest inappropriate investments. Take the example of a manager who buys a stock for a client portfolio simply based on the recommendation of a friend. It would be inappropriate for the manager to buy the stock without first conducting thorough research and due diligence on the company.

- Investment managers who receive commissions on trades that they recommend may execute too many trades. Some managers have been known to sell and replace their entire portfolios once or more over the course of a year. Practitioners commonly call this practice **churning**.
- Investment managers may favour themselves or their preferred clients over other clients when allocating trades that have been, or are expected to be, profitable. For instance, a manager might offer shares in an initial public offering that is expected to do well only to preferred clients.

To successfully use the services of professional investment managers, investors must control potential investment management problems. Investors who cannot easily deal with these problems often prefer indirect investment vehicles, such as public mutual funds, for which a board of directors (or trustees) has primary responsibility for monitoring the performance of the managers. Unfortunately, although board members generally work conscientiously on behalf of their shareholders, some may be more loyal to the managers that they monitor than to the shareholders that they represent. Regardless, the managers of public mutual funds generally work hard for their investors because they usually are paid in proportion to their total assets under management. Because good performance tends to attract additional investments, mutual fund managers generally work to produce investment returns that attract new investments and thus increase their fees.

In contrast, large institutional investors are often direct investors who hire and oversee investment managers. These institutional investors can often devote substantial resources to monitoring and evaluating their managers.

3 POOLED INVESTMENTS

Most retail investors choose to save through pooled investment vehicles managed by investment firms. The sole purpose of these investment vehicles is to own securities and other assets. The investment vehicles, in turn, are owned by their investors, who share in the profits and losses in proportion to their ownership. It is important to note that investors in an investment vehicle do not share ownership of the investment securities and assets held by the investment vehicle. Instead, they share in the ownership of the investment vehicle itself. That is, they are the beneficial owners of the investment vehicle's securities and assets, but not their legal owners.

3.1 How Pooled Investment Vehicles Work

Banks, insurance companies, and investment management firms organise most pooled investment vehicles. The organiser is often called the sponsor. Sponsors can organise investment vehicles as business trusts, limited partnerships, or limited liability companies. Depending on the form of the organisation, ownership shares are known as shares, units, or partnership interests. Large sponsors can organise hundreds of investment vehicles.

Pooled investment vehicles are overseen by a board of directors, a board of trustees, a general partner, or a single trustee; the governance structure depends on the form of legal organisation. In some countries, directors must be independent of the sponsor—that is, they are not allowed to work for the banks, insurance companies, or investment companies that organise the investment vehicle. In other countries, employees or directors of the sponsor may also serve as directors of its associated investment vehicles.

The directors appoint a professional investment management firm, which is almost always an affiliate of the sponsor. The investment manager works on a contractual basis in exchange for a management fee paid by the investment vehicle from its assets. The investment manager chooses the securities and other assets held by the investment vehicle.

All pooled investment vehicles disclose their investment policies, deposit and redemption procedures, fees and expenses, and past performance statistics in an official offering document called a **prospectus**. Investors use this information to evaluate potential investments. Investment vehicles may disclose additional information through other mandated regulatory filings, on their websites, or in marketing materials.

The three main types of pooled investment vehicles are open-end mutual funds, closed-end funds, and exchange-traded funds. An important distinction between pooled investment vehicles is whether they are exchange-traded or not. Many closed-end funds and exchange-traded funds trade in organised secondary markets just like common stocks. In contrast, open-end mutual funds are not exchange traded.

Another important distinction between pooled investment vehicles is whether their managers use passive or active investment strategies. The distinction between passive and active investment strategies was introduced in the Structure of the Investment Industry chapter. Recall that passive managers seek to match the return and risk of a benchmark, and active managers try to outperform (beat) the benchmark. Almost all closed-end funds use active management strategies. Open-end mutual funds may use active or passive investment strategies, depending on the fund. Most exchange-traded funds use passive indexing strategies, but some are actively managed.

Sections 3.2 to 3.4 discuss more thoroughly the characteristics of open-end mutual funds, closed-end funds, and exchange-traded funds. Section 3.5 compares the three types of pooled investment vehicles and concludes with a summary table.

3.2 Open-End Mutual Funds

Open-end mutual funds are pooled investment vehicles used by many individual and institutional investors. These pooled investment vehicles are called open-end because they have the ability to issue or redeem (repurchase) shares on demand. When investors want to invest in a mutual fund, the fund issues new shares in exchange for cash that the investors deposit. When existing investors want to withdraw money, the fund redeems the investors' shares and pays them cash. So from the fund's point of view, investor purchases and sales are deposits and redemptions, respectively.

The manager of an open-end mutual fund determines the prices at which deposits and redemptions occur. No-load funds, which do not charge deposit or redemption fees, set the same price for deposits and redemptions on any given day. This price is the net asset value of the fund. The **net asset value (NAV)** of a fund is calculated by dividing the total net value of the fund (the value of all assets minus the value of all liabilities) by the fund's current total number of shares outstanding. Managers compute the fund's NAV each day following the normal close of exchange market trading. They use last reported trade prices to value their portfolio securities and usually publish the NAVs a few hours after the market closes.

Investors may have to pay sales loads to the fund distributor, who markets the fund, at the time of purchase, at the time of redemption, or over time. Front-end sales loads are fees that investors may have to pay when they buy shares in a fund. Back-end sales loads are fees that investors may have to pay when they sell shares in a fund that they have not held for more than some pre-specified period, typically a year or more. Sales loads are calculated as a percentage of the sales price. The percentage is usually around 3%, but can be as high as 9%. Typically, the fund distributor receives the fee and pays part of it to the investment manager and part of it to anybody who helped arrange the sale, except where legally restricted from doing so.

Some funds also charge purchase or redemption fees. Investors pay these fees to the fund as opposed to paying them to the distributor as in a front-end or back-end sales load. Purchase and redemption fees help compensate existing shareholders for costs imposed on the fund when other shareholders buy and sell their shares. These costs primarily consist of the costs of trading portfolio securities incurred when buying securities to invest the cash received from investors or when selling securities to raise cash for redemptions.

As mentioned earlier, open-end mutual funds may be passively or actively managed. Passively managed funds typically have much lower fees than actively managed funds.

Money market funds are a special class of open-end mutual funds that investors view as uninsured interest-paying bank accounts. Unlike other open-end mutual funds, regulators permit money market funds to accept deposits and satisfy redemptions at a constant price per share (typically one unit of the local currency—for example, a euro per share in the eurozone) if they meet certain conditions. In particular, they may only hold money market securities—that is, generally very short-term, low-risk debt securities issued by entities with very high-quality credit. In that case, regulators allow money market funds to pay daily income distributions to their shareholders, which they typically distribute at the end of the month. These arrangements ensure that money market funds' NAVs remain very close to their constant redemption price.

Money market funds are vulnerable to a run on assets. In particular, if investors expect that the value of their money market funds will decline in the near future, they may rush to redeem their shares before the NAV falls. These actions can be destabilising because they force funds to sell portfolio securities when the market is falling.

3.3 Closed-End Funds

Unlike open-end funds, **closed-end funds** have a fixed number of shares; they do not issue or redeem shares on demand. They may issue additional shares in secondary offerings or through rights offerings or they may repurchase shares, but these events are uncommon. Accordingly, the total number of shares outstanding for most closed-end funds rarely changes.

Listed closed-end funds sell shares to the public in initial public offerings (IPOs), as described in the Equity Securities chapter. They then use the proceeds from the IPO to purchase securities and other assets. After the IPO, investors who want to buy or sell a listed closed-end fund do so through exchanges and dealers. The closed-end fund does not participate in these transactions aside from registering the resulting ownership changes. Investors buy and sell the shares at whatever prices they can obtain in the market.

Listed closed-end funds are actively managed and generally trade at prices different from their NAV. A fund is said to trade at a discount if the trading price is lower than the fund's NAV or at a premium if the trading price is greater than its NAV. Discounts are more common than premiums because many closed-end fund investment managers have been unable to add more value to their funds than the funds lose through their various operational costs. The investment management fee typically is the largest of these costs. Other costs include portfolio transaction costs and fees for accounting and other administrative services.

3.4 Exchange-Traded Funds

Exchange-traded funds (ETFs) are pooled investment vehicles that are typically passively managed to track a particular index or sector, although an increasing number of ETFs are actively managed. ETFs are generally managed by investment professionals who provide investment, managerial, and administrative services. The fees for these services and trading costs are low, particularly for ETFs that are passively managed.

3.5 Comparison of Pooled Investment Vehicles

We already mentioned that two important differences between pooled investment vehicles is whether they are exchange traded and whether they are passively or actively managed. Other differences involve risks, management accountability, costs, and taxes.

3.5.1 *Risks*

All pooled investment vehicles are risky, although the risks associated with each investment vehicle mainly depend on the securities and other assets that it holds in its portfolio. These risks vary much more by the investment approach than by how the investment vehicle is organised. In general, passively managed funds are less risky than actively managed funds that invest in the same asset class because investors in actively managed funds run the risk that their managers will underperform the market for that asset class.

Closed-end funds generally are riskier than similar open-end mutual funds because the discounts and occasional premiums at which closed-end funds trade relative to their NAVs vary over time. Variation of these discounts and premiums increases the risk of holding closed-end funds. ETFs also sometimes trade at discounts and premiums to their NAVs, but these variations tend to be small.

3.5.2 *Management Accountability*

Investors in indirect investment vehicles cannot choose who will manage their investments. But they can choose the funds in which they invest and seek to invest in funds run by managers that they trust and sell funds run by managers they no longer have confidence in.

Management accountability is only a minor concern for ETFs and for open-end mutual funds that use passive investing strategies because their managers have little influence on portfolio performance.

Investors are more concerned about the accountability of managers of actively managed open-end mutual funds and ETFs. Investors will withdraw their money from these funds if they are unhappy with the management, thus reducing the manager's assets under management and the fee paid to the manager.

In contrast, managers of closed-end funds are largely insulated from their shareholders. Shareholders can sell their shares to new investors, but the assets under management remain the same.

3.5.3 *Costs*

The costs incurred by pooled investment vehicles are deducted from their assets, reducing their investment performance.

The biggest costs are those associated with management, distribution, and account maintenance. The level of management fees depends primarily on the style of asset management and the type of assets managed. Investors in passively managed funds generally pay lower management fees, whereas management fees for actively managed funds are usually higher.

Another type of cost is associated with trading. Investors can trade most listed closed-end funds or ETFs at any time they can find a counterparty willing to take the other side of their trade. In contrast, investors in open-end mutual funds can trade only at the end of the day. They can place their orders at any time, but settlement occurs after the markets close when the NAV has been determined.

Investors who trade listed closed-end funds and exchange-traded funds generally know the prices at which their trades can take place because market prices are available. They usually use brokers to arrange their trades and must pay commissions to them.

3.5.4 *Tax Implication of Cash Distributions*

Pooled investment vehicles generally distribute the income (typically interest and dividends) that they receive from holding securities as cash dividends to their investors. They also distribute any short- and long-term capital gains realised (gains as a result of selling a security at a higher price than pad for it) on their portfolio security trades as cash dividends. Distributions (made on a per-share basis) are the same for all investors, regardless of how long the shares have been held. Investors may choose, if the investment vehicle allows it, to reinvest these distributions rather than receive them.

Investors should be aware of the tax implication of these cash dividends. Section 8 discusses more thoroughly how investors can manage their tax liabilities.

3.5.5 *Summary of Differences Between Pooled Investment Vehicles*

Exhibit 1 offers a summary table of characteristics of open-end mutual funds, closed-end funds, and ETFs.

Exhibit 1 Comparison of Open-End Mutual Funds, Closed-End Funds, and ETFs

	Open-End Mutual Funds, including Money Market Funds	Closed-End Funds	Exchange-Traded Funds
Managed	Yes, actively or passively	Yes, primarily actively	Yes, primarily passively
Exchange traded	No	Yes, but not traded continuously	Yes, traded continuously
If exchange traded, size of the gap between the price and the net asset value		Can be large, usually trade at a discount to the NAV	Small, usually trade at close to the NAV
Redeemable	Yes	No	Yes
Risky	Yes	Yes	Yes
Management accountability	Few issues, particularly if funds are passively managed	Management not particularly responsive to shareholders' concerns	Few issues, particularly if funds are passively managed
Management fees	High if actively managed, low if passively managed	High because actively managed	Low if passively managed

4 INDEX FUNDS

Index funds, which are passively managed, are among the most common types of pooled investment vehicles and are used widely in most parts of the world. They are popular because they provide broad exposure to an asset class and are cheap relative to many other products. In order to understand index funds, it is necessary to have an understanding of security market indices.

4.1 Security Market Indices

If you want to assess how a stock market performed this week, you could look at the performance of every single security listed on the market. But it is more practical to use a single measure that is representative of the performance of the entire stock market. If you are located in the United States, you can look at the S&P 500 Index; if you are in the United Kingdom, you can look at the FTSE 100 (practitioners commonly pronounce FTSE as "footsie"); if you are in France, you can look at the CAC 40; or if you are in South Korea, you can look at the Korea Stock Price Index (KOSPI).

A **security market index** is a group of securities representing a given security market, market segment, or asset class. The security market indices just mentioned are widely published equity market indices. Practitioners have also created many other indices.

4.1.1 *The Index Universe*

The investment industry has created indices to measure the values of almost every existing market, asset class, country, and sector:

- Broad market indices cover an entire asset class—for example, stocks or bonds—generally within a single country or region.
- Multi-market indices cover an asset class across many countries or regions.
- Industry indices cover single industries.
- Sector indices cover broad economic sectors—sets of industries related by common products or common customers, such as healthcare, energy, or transportation.
- Style indices provide benchmarks for common styles of investment management. Examples of equity-style indices include indices of value and growth stocks; of small-, mid-, and large-capitalisation stocks; and of combinations of these classifications, such as small-cap growth.
- Fixed-income indices cover debt securities and vary by characteristics of the underlying securities and by characteristics of the issuers. For example, separate indices are available for securities issued by governments (sovereign) and companies (corporate); short-, mid- (intermediate-), and long-term bonds; investment-grade and high-yield bonds; inflation-protected and convertible bonds; and asset-backed securities.
- Other indices track the performance of alternative investments, such as hedge funds, real estate investment trusts (REITs), and commodities. As discussed in the Alternative Investments chapter, real estate investment trusts are public companies that mainly own, and in most cases operate, income-producing real estate.

4.1.2 *How to Compute the Value of Indices*

The value of an index is computed from the prices of the securities that compose the index. Two important elements affect the value of an index:

- the securities included in the index and
- the weight assigned to each security in the index.

Some indices include a small number of securities from one national market or one particular sector. For example, the Dow Jones Industrial Average (DJIA) includes only 30 large US company stocks and the Dow Jones Utilities includes only 15 large US company stocks from the utility sector. Other indices try to capture a larger share of the securities market and include hundreds or thousands of securities from around the world. For example, the Morgan Stanley Capital International (MSCI) World

Index includes more than 6,000 stocks in 24 developed markets. Note that the list of securities included in an index may change from time to time. The process of adding and removing securities included in the index is called **index reconstitution**.

There are different approaches used to assign weights to the securities included in an index: price-weighted, capitalisation-weighted, or equal-weighted.

A **price-weighted index** is an index in which the weight assigned to each security is determined by dividing the price of the security by the sum of all the prices of the securities. As a consequence, high-priced securities have a greater weighting and more of an effect on the value of the index than low-priced stocks. The DJIA in the United States and the Nikkei 225 in Japan are examples of price-weighted indices.

Many indices are **capitalisation-weighted indices** (also known as **cap-weighted indices**, **market-weighted indices**, or **value-weighted indices**). The weight assigned to each security depends on the security's market capitalisation. The market capitalisation or capitalisation of a security is the market price of the security multiplied by the number of shares outstanding of the security. For example, as of November 2013, Apple's stock price was $524 per share and there are about 900 million shares. Thus, Apple's market capitalisation was about $472 billion. Securities included in capitalisation-weighted indices are given weights in the proportion of their market capitalisations. In other words, securities of bigger companies get higher weights. The Hang Seng in Hong Kong, the FTSE 100 in the United Kingdom, and the S&P 500 Market Weight Index are examples of capitalisation-weighted indices.

Equal-weighted indices show what returns would be made if an equal value were invested in each security included in the index. The prices of these securities change continuously. Thus, to maintain the equal weights between securities, regular **index rebalancing** is necessary. That is, the weights given to securities whose prices have risen must be decreased, and the weights given to securities whose prices have fallen must be increased. The S&P 500 Equal Weight Index is an example of an equal-weighted index.

The fact that different indices include different securities and use different approaches to assign weights to the securities explains why the changes in values of indices vary, even when focussing on the same national market or sector. For example, as of November 2013, Apple is the largest company by market capitalisation. Apple stock is not included in the DJIA but is included in both the S&P 500 Equal Weight and Market Weight Indices. Because the S&P 500 Equal Weight Index assigns the same weights to all the stocks it includes, Apple represents only 0.2% (1/500th) of the S&P 500 Equal Weight Index. Because the S&P 500 Market Weight Index assigns to each stock a weight that reflects the company's market capitalisation, Apple represents 3.0% of the S&P 500 Market Weight Index. A change in the price of Apple's stock will not affect the DJIA, will have a small effect on the S&P 500 Equal Weighted Index, and will have a much larger effect on the S&P 500 Market Weight Index. Knowing which securities are included in an index and how much weight is assigned to each is important information for people using the index.

The percentage change in the value of an index over some time interval is the index return. Analysts focus more on index returns than on index values because index values are arbitrary. For example, the value of the FTSE 100 was arbitrarily set to a base value of 1,000 on 3 January 1984 when the *Financial Times* and the London Stock Exchange created the index.

4.2 Index Funds

The investment industry creates many investment products based on security market indices, such as index funds. An **index fund** is a portfolio of securities structured to track the returns of a specific index called the benchmark index. An index fund is a passive investment strategy because the index fund manager aims to replicate the benchmark index.

Index funds are popular among individual and institutional investors because they produce returns that closely track market returns. Index funds are generally broadly diversified and highly transparent, with relatively low management and trading costs. They are tax-efficient because they do not do a lot of trading that can generate taxable capital gains. The low level of trading also reduces trading costs. Most individual investors and many institutional investors invest in index funds by buying open-end mutual funds that hold index portfolios. Many large institutional investors also hold index portfolios in their investment accounts; in other words, they create their own index funds.

Some index fund managers invest in every security in the benchmark index, a strategy known as full replication. Other index funds find it difficult to buy and hold all of the securities included in the benchmark index. The securities may not be easily available or the transaction costs of acquiring and holding all the securities included in the benchmark index may be high. If full replication is difficult or too costly, index fund managers might invest in only a representative sample of the index securities, a strategy called sampling replication. Managers of small funds, which track indices with many securities, often use the sampling replication strategy to reduce costs.

Once set up, index funds only trade if the weightings need to be adjusted. Adjustments are necessary in the case of index reconstitution—that is, when securities are added or deleted from the list of index securities. All index funds are affected by index reconstitution, but equal-weighted index funds are most affected by a need to change weightings. The equal-weighted index fund has to trade to maintain the equal weighting. The capitalisation-weighted index fund only needs to rebalance if corporate actions, such as mergers and acquisitions, affect weightings.

Index funds sometimes buy securities to invest cash when cash inflows are received. Cash inflows include receipt of dividends and/or interest. They also include additional net cash inflows from investors—that is, additional investments from investors that exceed withdrawal (redemption) requests by investors. Index funds may have to sell securities if withdrawal requests from investors exceed additional investment from investors.

5 HEDGE FUNDS

Hedge funds are another type of pooled investment vehicle. They are less widely used by investors than index funds because they tend to be more complex, less transparent, and less liquid, with higher costs and a high minimum investment level.

5.1 Characteristics

Hedge funds are private investment pools that investment managers organise and manage. As a group, they pursue diverse strategies. The term "hedge" once referred to the practice of buying one asset and selling a correlated asset to take advantage of the difference in their values without taking much market risk—thus the use of the term hedge because it refers to a reduction or elimination of market risk. Although many hedge funds do engage in some hedging, it is not the distinguishing characteristic of most hedge funds today.

Hedge funds are distinguished from other pooled investment vehicles primarily by

- their availability to only a limited number of investors,
- agreements that lock up the investors' capital for fixed periods, and
- their managers' performance-based compensation.

They can also be distinguished by their use of strategies beyond the scope of most traditional closed-end funds and open-end mutual funds that are actively managed.

5.1.1 *Availability*

Hedge funds are usually available only to some investors who meet various wealth, income, and investment knowledge criteria that regulators set. The criteria are designed to ensure that these investment vehicles are suitable for their investors. Most money invested in hedge funds comes from large institutional investors, such as pension funds, university endowment funds, and sovereign wealth funds, as well as from high-net-worth individuals.

5.1.2 *Lock-Up Agreements*

Most hedge funds lock up their investors' capital for various periods, the length of which depends on how much time the hedge fund managers expect that they will need to successfully implement their strategies. Funds that engage in high-frequency strategies generally have shorter lock-up periods than funds that engage in strategies that may take much more time to realise the expected returns, such as strategies that involve reforming corporate governance.

5.1.3 *Compensation*

Perhaps the most distinguishing characteristic of hedge funds is the managerial compensation system they use. Hedge fund managers generally receive an annual management fee plus a performance fee that is often specified as a percentage of the returns that they produce in excess of a **hurdle rate**. For example, a manager who receives "2 and 20" compensation will receive 2% of the fund assets in management fees every year plus a performance fee of 20% of the return on the fund assets that exceeds the hurdle rate.

HURDLE RATE

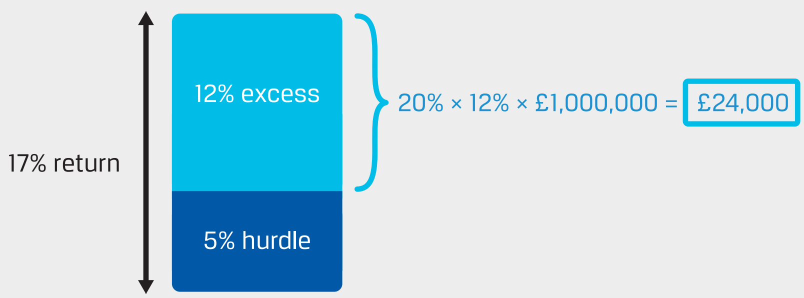
For example, assume that the assets under management are £1 million, that the hurdle rate is 5%, and that the return on the fund assets for the year is 17%. As illustrated in the figure, the excess return—that is, the return in excess of the hurdle rate—is 12%. Based on a “2 and 20” compensation, the hedge fund manager will receive an annual management fee of £20,000 and a performance fee of £24,000 for a total compensation of £44,000.

Assets under management: £1 million

Compensation: 2 and 20

Annual management fee: £1,000,000 × 2% = $\boxed{£20,000}$

Performance fee:

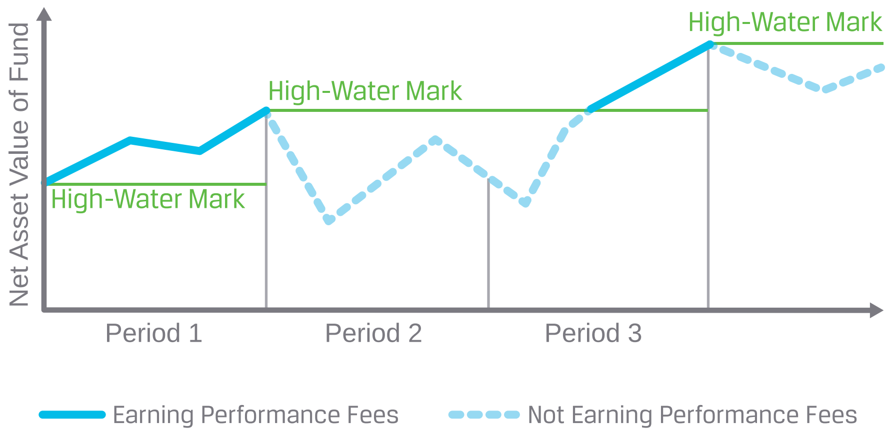


Total compensation = $\boxed{£44,000}$

The investors’ return net of fees is £126,000 [= (17% × £1,000,000) – £44,000] or 12.6%.

Hedge fund managers usually earn the performance fee only if the fund is above its high-water mark. The **high-water mark** reflects the highest value, net of fees, that the fund has reached at any time in the past (Exhibit 2). The high-water mark provision ensures that investors pay the managers only for net returns calculated from the initial investment and not for returns that recoup previous losses. This provision is also called the loss-carryback provision.

Exhibit 2 High-Water Mark



Some managers terminate their funds and start over when they have significant losses because they know they may never achieve their high-water mark and so cannot collect performance fees. Restarting gives managers a new high-water mark. But it does not always solve their problem: managers who have performed poorly often have difficulty raising new funds from investors.

Investors pay high performance fees in the belief that the fees provide strong incentives to managers to perform well. These incentives work when the fund is near its high-water mark but they are less powerful when the fund has performed poorly.

5.2 Risks

Although many hedge funds are not particularly risky, the high performance fees might encourage some fund managers to take substantial risks. Hedge funds sometimes increase their risk exposure through leverage. Increased leverage can be achieved through the use of borrowed funds or through the use of derivatives.

On the one hand, if their investments are successful, the performance fee can make the managers extremely wealthy. On the other hand, if the hedge fund has poor returns, the investors lose their whole investment but the managers lose only the opportunity to stay in business. This asymmetry in managers' compensation can encourage risk taking.

Hedge fund investment managers often also participate as investors in their hedge funds. Their co-investments help assure their investors that the managers' interests are well aligned with theirs. Such assurances help managers raise funds.

Most hedge funds are open-end investment vehicles that allow new investors to buy in and existing investors to leave at the NAV. But as mentioned before, most funds only allow investors to withdraw funds following a lock-up period and then only on specific dates.

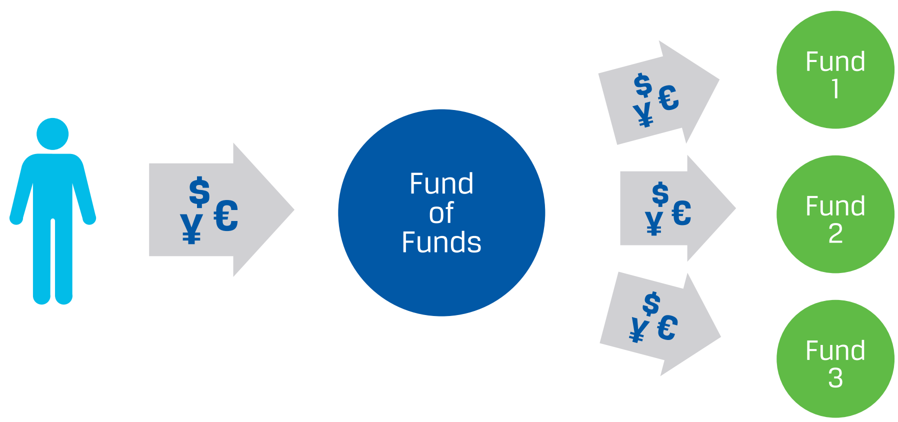
5.3 Legal Structure and Taxes

The legal structure and legal domicile of hedge funds generally depend on their managers' and investors' tax situations. For example, most hedge funds serving US investors are organised as domestic limited partnerships in which the manager is the general partner and the investors are the limited partners. This structure, which is similar to the structure of private equity funds described in the Alternative Investments chapter, allows for some of the fees to be treated as capital gains rather than ordinary income.

Some hedge funds are domiciled in offshore financial centres where tax rates may be lower. The Cayman Islands are a popular domicile for hedge funds because of favourable laws and regulations for investors and investment managers and the tax advantages this location offers.

6 FUNDS OF FUNDS

Funds of funds are investment vehicles that invest in other funds. They can be actively managed or passively managed.



Two main investment strategies characterise most actively managed funds of funds. Some managers try to identify funds with managers they believe will outperform the market. They then invest in funds managed by those managers. Others use various proprietary models to predict which investment strategies are most likely to be successful in the future and then invest in funds that implement those strategies. Both types of managers try to hold well-diversified portfolios of funds to reduce the overall risk of their funds.

The costs of investing in an actively managed fund of funds can be high because investors pay two levels of fees. They pay management and performance fees directly to the fund of funds manager and they also indirectly pay fees to the managers of the funds in which the fund of funds invests.

In the case of a fund of hedge funds, investors may pay particularly high management fees because of the performance fees paid to the hedge fund managers. In a well-diversified fund of hedge funds, investment gains in some funds are often offset by losses in the other funds. The fund of hedge funds pays performance fees to the winning hedge fund managers and thus shares its gains in these funds with those managers. But losing hedge fund managers do not share in the losses of their hedge funds. If the gains and losses are of equal size, fund-of-hedge-funds investors will not profit overall, but will still pay substantial performance fees to the winning managers.

MANAGED ACCOUNTS 7

Many investors contract with investment professionals to help manage their investments. These investment professionals generally promise to implement specific strategies in exchange for an advisory fee or for commissions on the trades that they recommend. Investors are increasingly using fee-based investment professionals to ensure that these professionals will not profit from recommending excessive trading.

Institutional investors that do not manage investments in-house use fee-based investment professionals. Retail investors often obtain the services of fee-based investment professionals through wrap accounts. In a **wrap account**, the charges for investment services, such as brokerage, investment advice, financial planning, and investment accounting, are all wrapped into a single flat fee. The fee typically ranges between 1% and 3% of total assets per year and is usually paid quarterly or annually.

Investment managers can hold their institutional clients' investments in separate accounts or in commingled accounts. In a **commingled account**, the capital of two or more investors is pooled together and jointly managed. In contrast, funds and securities in a separate account are always kept separate from those of other investors, even if the investment manager uses identical investment strategies for several such accounts.

TAX-ADVANTAGED ACCOUNTS AND MANAGING TAX LIABILITIES 8

To promote savings for retirement income, educational expenses, and health expenses, many countries give tax advantages to certain investment accounts.

8.1 Tax-Advantaged Accounts

In general, **tax-advantaged accounts** allow investors to avoid paying taxes on investment income and capital gains as they earn them. In addition, contributions made to these accounts may have tax advantages. In exchange for these privileges, investors must accept stringent restrictions on when the money can be withdrawn from the account and sometimes on how the money can be used.

Many countries allow contributions to certain tax-advantaged accounts to be tax deductible, which means that they reduce the income on which taxes are paid. Tax-deductible contributions are common for retirement accounts. In most countries, contributions made to pension plans by employers or employees, as well as contributions made by individuals to specific types of retirement accounts, are tax deductible up to certain limits. These accounts are allowed to grow tax free so that any income or capital gains earned by the account will not be taxed if left in the account. But taxes may be due when the money is ultimately withdrawn. For most retirement accounts, distributions are taxed as ordinary income.

Some countries also allow investors to contribute after-tax funds to tax-advantaged accounts. After-tax funds are the amounts that remain after taxable income and gifts are received and taxed. When placed in tax-advantaged accounts, the funds grow tax free. When withdrawn, taxes, if any, are collected only on the accumulated investment income and capital gains earned during the period of the investment. The original investment (principal), which was taxed once, is not taxed again.

Some countries allow all distributions from certain tax-advantaged accounts to be tax free if the money is used for higher education or for health care. Distributions from retirement accounts are generally taxed as ordinary income.

Governments usually prohibit early withdrawals or withdrawals for unauthorised purposes from tax-advantaged accounts. When such withdrawals are permitted, they generally incur penalties and immediate taxes. In some countries and for some accounts, investors can circumvent these restrictions by borrowing against the values of their accounts.

Saving in tax-advantaged accounts from which distributions are not taxed is advantageous for investors if they are certain that they will ultimately use the money for its authorised purpose. For example, investors saving for education will always be better off doing so with tax-advantaged accounts if the withdrawals used to fund educational expenses are not taxable.

Some tax-advantaged accounts allow the deferral of tax. Whether deferral is advantageous depends on the tax rates at which the principal and investment income would otherwise be taxed and on the tax rates at which the deferred income will be taxed. If future tax rates are expected to be lower or the same as current tax rates, deferral is advantageous.

Deferring taxes may not be beneficial if tax rates are expected to be higher in the future. Future rates may be higher under a variety of circumstances: tax rates may change during the period of the investment, the investor may be wealthier in the future and thus subject to higher tax rates, or the investor may pay ordinary income tax rates on distributions from a tax-advantaged account but would have paid lower rates on capital gains and investment income earned (dividends and interest) on the investment if the money was invested in a taxable account.

8.2 Managing Tax Liabilities

Investors in taxable accounts can often minimise their tax liabilities through careful investment management decisions. In particular, most countries do not tax capital gains until they are realised. Capital gains and losses generally are realised on the sale of a previously purchased security or asset. Investors who have unrealised capital gains because their purchases increased in value can avoid paying taxes by simply not selling their appreciated securities or assets.

Most countries allow taxpayers to offset their realised capital gains with realised capital losses so that they are taxed only on the net gain. Accordingly, investors frequently realise losses by selling losing positions so that they can use them to offset realised capital gains.

Many countries tax capital gains at lower rates than they tax investment income, such as interest and dividends. Taxpaying investors in these countries can minimise their taxes by using investment vehicles that do not pay investment income. Alternatively, they could invest in companies that distribute cash by repurchasing shares on the open market instead of paying dividends. Share prices of these companies tend to rise over time as the share repurchases reduce the total number of shares. Investors who retain their shares thus earn long-term capital gains rather than current investment income. These companies provide more tax-efficient investments than do otherwise similar companies that pay dividends. Some countries, such as Hong Kong and Singapore, do not have capital gains taxes.

Whether investors should defer taxable income depends on the tax regime, their expectations of future tax rates (including estate tax rates, which are imposed on the transfer of properties from the deceased to his or her heirs), and the probability that they will need money that they cannot access if placed in a tax-advantaged account. Some investment professionals can help investors work through these issues.

SUMMARY

Companies in the investment industry offer many investment vehicles that help individual and institutional investors meet their investment needs. Investors use these investment vehicles to reduce the cost of investing, control their risk exposure, and improve their returns. By pooling their money in investment vehicles, investors can gain access to skilled professional investment managers, reduce risk through diversification, and benefit from economies of scale.

The great diversity in investment vehicles is a result of differences in investor needs, preferences, and wealth. In their search for profits, investment firms create a variety of investment vehicles designed to satisfy investors whose needs are diverse.

This chapter provides an overview of the investment vehicles that investors commonly use. Some important points to remember include the following:

- Investors make direct investments by buying investment securities issued by companies and governments and real assets. Direct investors benefit from the ability to choose the securities and assets they invest in, time their trades to minimise their tax liabilities, and exercise control over their investments.
- Investors who make indirect investments buy investment vehicles from investment firms. The investment vehicles invest directly in portfolios of securities and assets. Indirect investors benefit from access to professional management, the ability to share ownership of large assets, the ability to diversify their risks, and often, lower trading costs than direct investments.
- The three main types of pooled investments are open-end mutual funds, closed-end funds, and exchange-traded funds (ETFs). Investors like them because they allow them to cheaply invest in highly diversified portfolios in a single low-cost transaction.
- Almost all closed-end funds use active management strategies whereas open-end mutual funds can use active or passive investment strategies. Most ETFs are passively managed.
- Closed-end funds and ETFs are exchange-traded and may trade at prices other than their net asset values. In contrast, open-end mutual funds do not trade on an organised secondary market. Open-end funds' securities are bought and redeemed with the fund at net asset value.
- The other main differences between the various types of pooled investments are related to management accountability, management fees and trading costs, and the tax implication of cash distributions.
- Practitioners have created indices to track markets, asset classes, industries, and regions. Two important elements that affect the value of indices are the securities included in the index and the approach used to assign weights to the securities included in the index: price-weighted, capitalisation-weighted, or equal-weighted.
- The investment industry creates investment products based on indices, such as index funds. Index funds use passive investment strategies that are inexpensive to implement, generate minimal management and trading costs, and thus produce returns that closely track returns of a benchmark index.
- The defining characteristics of hedge funds include their availability to only a limited number of investors, agreements that lock up the investors' capital for fixed periods, and performance-based managerial compensation contracts. Different hedge funds have different profiles in terms of risks, legal structure, and taxes.
- Funds of funds are investment vehicles that invest in other funds. Fund-of-funds managers seek to add value by selecting managers who will outperform their peers rather than by selecting securities that will outperform other securities. Fees can be high because investors implicitly pay two levels of fees.

- Separate accounts can be managed for the exclusive benefit of a single investor, but they can be expensive to manage. In contrast, commingled accounts provide investors the benefit of economies of scale in asset management.
- Tax-advantaged accounts allow investors to avoid or defer paying taxes on investment income and capital gains. Investors in taxable accounts can also often minimise their tax liabilities through timing of investment decisions and choice of investments.