

## CHAPTER 4

### *Mutual Funds*

*More than 8,000 different mutual funds are available to United States investors. Incredibly, this is about the number of different stocks traded on the Nasdaq and the New York Stock Exchange combined. There are funds for aggressive investors and conservative investors, short-term investors and long-term investors. There are bond funds, stock funds, international funds, you-name-it funds. Is there a right fund for you? Let's see!*

As we discussed in an earlier chapter, if you do not wish to actively buy and sell individual securities on your own, you can invest in stocks, bonds, or other financial assets through a *mutual fund*. Mutual funds are simply a means of combining or pooling the funds of a large group of investors. The buy and sell decisions for the resulting pool are then made by a fund manager, who is compensated for the service provided.

Since mutual funds provide indirect access to financial markets for individual investors, they are a form of financial intermediary. In fact, mutual funds are now the second largest type of intermediary in the United States. Only commercial banks are larger.

Mutual funds have become so important that we will devote this entire chapter to them. The number of funds and the different fund types available have grown tremendously in recent years. Indeed, 37 percent of U.S. households held mutual fund assets in 1997, which is up markedly from only 6 percent of U.S. households in 1980. One of the reasons for the proliferation of mutual funds and fund types is that mutual funds have become, on a very basic level, consumer products. They are created and marketed to the public in ways that are intended to promote buyer appeal. As every

## 2 CHAPTER 4

business student knows, product differentiation is a basic marketing tactic, and in recent years mutual funds have become increasingly adept at practicing this common marketing technique.

### ***4.1 Investment Companies and Fund Types***

At the most basic level, a company that pools funds obtained from individual investors and invests them is called an **investment company**. In other words, an investment company is a business that specializes in managing financial assets for individual investors. All mutual funds are, in fact, investment companies. As we will see, however, not all investment companies are mutual funds.

*(marg. def. investment company* A business that specializes in pooling funds from individual investors and investing them.)

In the sections that follow, we will be discussing various aspects of mutual funds and related entities. Figure 4.1 is a big picture overview of some of the different types of funds and how they are classified. It will serve as a guide for the next several sections. We will define the various terms that appear as we go along.



Figure 4.1 about here

### ***Open-end versus Closed-End Funds***

As Figure 4.1 shows, there are two fundamental types of investment companies, *open-end funds* and *closed-end funds*. The difference is very important. Whenever you invest in a mutual fund, you do so by buying shares in the fund. However, how shares are bought and sold depends on which type of fund you are considering.

With an **open-end fund**, the fund itself will sell new shares to anyone wishing to buy and will redeem (i.e., buy back) shares from anyone wishing to sell. When an investor wishes to buy open-end fund shares, the fund simply issues them and then invests the money received. When someone wishes to sell open-end fund shares, the fund sells some of its assets and uses the cash to redeem the shares. As a result, with an open-end fund, the number of shares outstanding fluctuates through time.

*(marg. def. **open-end fund** An investment company that stands ready to buy and sell shares at any time.)*

With a **closed-end fund**, the number of shares is fixed and never changes. If you want to buy shares, you must buy them from another investor. Similarly, if you wish to sell shares that you own, you must sell them to another investor.

*(marg. def. **closed-end fund** An investment company with a fixed number of shares that are bought and sold only in the open stock market.)*

Thus, the key difference between an open-end fund and a closed-end fund is that, with a closed-end fund, the fund itself does not buy or sell shares. In fact, as we discuss below, shares in closed-end funds are listed on stock exchanges just like ordinary shares of stock, where their shares are bought and sold in the same way. Open-end funds are more popular among individual investors than closed-end funds.

Strictly speaking, the term “mutual fund” actually refers only to an open-end investment company. Thus, the phrase “closed-end fund” is a bit of an oxymoron, kind of like military intelligence, and the phrase “open-end mutual fund” is a redundancy, an unnecessary repetition or restatement. Nonetheless, particularly in recent years, the term “investment company” has all but disappeared from common use, and investment companies are now generically called mutual funds. We will stick with this common terminology whenever it won't lead to confusion.

### *Net Asset Value*

A mutual fund's **net asset value** is an important consideration. Net asset value is calculated by taking the total value of the assets held by the fund and dividing by the number of outstanding shares. For example, suppose a mutual fund has \$100 million in assets based on current market values and a total of 5 million shares outstanding. Based on the value of the assets held by the fund, \$100 million, each share has a value of  $\$100 \text{ million} / 5 \text{ million} = \$20$ . This \$20 is the fund's net asset value, often abbreviated as NAV.

*(marg. def. net asset value* The value of the assets held by a mutual fund, divided by the number of shares. Abbreviated NAV.)

*Example 4.1: Net Asset Value.* The Fidelity Magellan Fund is the largest mutual fund in the United States with about \$88 billion invested (as of early 1999). It has about 680 million shares outstanding. What is its net asset value?

The net asset value is simply the asset value per share, or  $\$88 \text{ billion} / 680 \text{ million} = \$129$ .

With one important exception, the net asset value of a mutual fund will change essentially every day simply because the value of the assets held by the fund fluctuates. The one exception concerns money market mutual funds, which we discuss in a later section.

As we noted, an open-end fund will generally redeem or buy back shares at any time. The price you receive for shares you sell is the net asset value. Thus, in our example just above, you could sell your shares back to the fund and receive \$129 each. Because the fund stands ready to redeem shares at any time, shares in an open-end fund are always worth their net asset value.

In contrast, because the shares of closed-end funds are bought and sold in the stock markets, their share prices at any point in time may or may not be equal to their net asset values. We examine this issue in more detail in a later section.

**CHECK THIS**

- 4.1a What is an investment company?
- 4.1b What is the difference between an open-end fund and a closed-end fund?

***4.2 Mutual Fund Operations***

In this section, we discuss some essentials of mutual fund operations. We focus on how mutual funds are created, marketed, regulated, and taxed. Our discussion here deals primarily with open-end funds, but much of it applies to closed-end funds as well. Further details on closed-end funds are provided in a later section.

***Mutual Fund Organization and Creation***

A mutual fund is simply a corporation. Like a corporation, a mutual fund is owned by its shareholders. The shareholders elect a board of directors; the board of directors is responsible for hiring a manager to oversee the fund's operations. Although mutual funds often belong to a larger “family” of funds, every fund is a separate company owned by its shareholders.

Most mutual funds are created by investment advisory firms, which are businesses that specialize in managing mutual funds. Investment advisory firms are also called mutual fund companies. Increasingly, such firms have additional operations such as discount brokerages and other financial services.

There are hundreds of investment advisory firms in the United States. The largest, and probably best known, is Fidelity Investments, with over 220 mutual funds, \$500 billion in assets under management, and 36 million shareholder accounts. Dreyfus, Franklin, and Vanguard are some other

well-known examples. Many brokerage firms, such as Merrill Lynch and Charles Schwab, also have large investment advisory operations.

Investment advisory firms create mutual funds simply because they wish to manage them to earn fees. A typical management fee might be .75 percent of the total assets in the fund per year. A fund with \$200 million in assets would not be especially large but could nonetheless generate management fees of about \$1.5 million per year. Thus, there is a significant economic incentive to create funds and attract investors to them.

For example, a company like Fidelity might one day decide that there is a demand for a fund that buys stock in companies that grow and process citrus fruits. Fidelity could form a mutual fund that specializes in such companies and call it something like the Fidelity Lemon Fund.<sup>1</sup> A fund manager would be appointed, and shares in the fund would be offered to the public. As shares are sold, the money received is invested. If the fund is a success, a large amount of money will be attracted and Fidelity would benefit from the fees it earns. If the fund is not a success, the board can vote to liquidate it and return shareholders' money or merge it with another fund.

As our hypothetical example illustrates, an investment advisory firm such as Fidelity can (and often will) create new funds from time to time. Through time, this process leads to a family of funds all managed by the same advisory firm. Each fund in the family will have its own fund manager, but the advisory firm will generally handle the record keeping, marketing, and much of the research that underlies the fund's investment decisions.

In principle, the directors of a mutual fund in a particular family, acting on behalf of the fund shareholders, could vote to fire the investment advisory firm and hire a different one. As a practical

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<sup>1</sup>Fidelity would probably come up with a better name.

matter, this rarely, if ever, occurs. At least part of the reason is that the directors are originally appointed by the fund's founder, and they are routinely reelected. Unhappy shareholders generally "vote with their feet" — that is, sell their shares and invest elsewhere.

### ***Taxation of Investment Companies***

As long as an investment company meets certain rules set by the Internal Revenue Service, it is treated as a "regulated investment company" for tax purposes. This is important because a regulated investment company does not pay taxes on its investment income. Instead, the fund passes through all realized investment income to fund shareholders who then pay taxes on these distributions as though they owned the securities directly. Essentially, the fund simply acts as a conduit, funneling gains and losses to fund owners.

To qualify as a regulated investment company, the fund must follow three basic rules. The first rule is that it must in fact be an investment company holding almost all of its assets as investments in stocks, bonds, and other securities. The second rule limits the fund to using no more than five percent of its assets when acquiring a particular security. This is a diversification rule. The third rule is that the fund must pass through all realized investment income to fund shareholders as soon as it is realized.

### ***The Fund Prospectus and Annual Report***

Mutual funds are required by law to produce a document known as a *prospectus*. The prospectus must be supplied to any investor wishing to purchase shares. Mutual funds must also provide an annual report to their shareholders. The annual report and the prospectus, which are

## 8 CHAPTER 4

sometimes combined, contain financial statements along with specific information concerning the fund's expenses, gains and losses, holdings, objectives, and management. We discuss many of these items in the next few sections.

### CHECK THIS

4.2a How do mutual funds usually get started?

4.2b How are mutual funds taxed?

### ***4.3 Mutual Fund Costs and Fees***

All mutual funds have various expenses that are paid by the fund's shareholders. These expenses can vary considerably from fund to fund, however, and one of the most important considerations in evaluating a fund is its expense structure. All else the same, lower expenses are preferred, of course, but, as we discuss, matters are not quite that cut and dried.

#### ***Types of Expenses and Fees***

There are basically four types of expenses or fees associated with buying and owning mutual fund shares:

1. Sales charges or "loads."
2. 12b-1 fees.
3. Management fees.
4. Trading costs.

We discuss each of these in turn.

**SALES CHARGES** Many mutual funds charge a fee whenever shares are purchased. These fees are generally called **front-end loads**. Funds that charge loads are called load funds. Funds that have no such charges are called no-load funds.

*(marg. def. front-end load* A sales charge levied on purchases of shares in some mutual funds.)

When you purchase shares in a load fund, you pay a price in excess of the net asset value, called the *offering price*. The difference between the offering price and the net asset value is the load. Shares in no-load funds are sold at net asset value.

Front-end loads can range as high as 8.5 percent, but 5 percent or so would be more typical. Some funds, with front-end loads in the 2 percent to 3 percent range, are described as low-load funds.

Front-end loads are expressed as a percentage of the offering price, not the net asset value. For example, suppose a load fund has an offering price of \$100 and a net asset value of \$98. The front-end load is \$2, which, as a percentage of the \$100 offering price is  $\$2/\$100 = 2$  percent. The way front-end loads are calculated understates the load slightly. In our example here, you are paying \$100 for something only worth \$98, so the load is really  $\$2/\$98 = 2.04$  percent.

*Example 4.2: Front-end Loads.* On January 20, 1995, according to the *Wall Street Journal*, the Common Sense Growth fund had a net asset value of \$13.91. The offering price was \$15.20. Is this a load fund? What is the front-end load?

Since the offering price, which is the price you must pay to purchase shares, exceeds the net asset value, this is definitely a load fund. The load can be calculated by taking the difference between the offering price and the net asset value, \$1.29, and dividing by the \$15.20 offering price. The result is a hefty front-end load of 8.5 percent.

Some funds have “back-end” loads, which are charges levied on redemptions. These loads are often called contingent deferred sales charges and abbreviated CDSC. The CDSC usually declines

## 10 CHAPTER 4

through time. It might start out at 6 percent for shares held less than one year, then drop to 3 percent for shares held for two years, and disappear altogether on shares held for three or more years.

**12B-1 FEES** So-called **12b-1 fees** are named for the Securities and Exchange Commission rule that permits them. Mutual funds are allowed to use a portion of the fund's assets to cover distribution and marketing costs. Funds that market directly to the public may use 12b-1 fees to pay for advertising and direct mailing costs. Funds that rely on brokers and other sales force personnel often use 12b-1 fees to provide compensation for their services. The total amount of these fees could be .75 percent to 1.0 percent of the fund's assets per year.

*(marg. def. **12b-1 fees** Named for SEC Rule 12b-1, which allows funds to spend up to 1 percent of fund assets annually to cover distribution and marketing costs.)*

Frequently, 12b-1 fees are used in conjunction with a CDSC. Such funds will often have no front-end load, but they effectively make it up through these other costs. Such funds may look like no-load funds, but they are really disguised load funds. Mutual funds with no front-end or back-end loads and no or minimal 12b-1 fees are often called “pure” no-load funds to distinguish them from the “not-so-pure” funds that may have no loads but still charge hefty 12b-1 fees.

**MANAGEMENT FEES** We briefly discussed management fees in an earlier section. Fees are usually based first on the size of the fund. Beyond this, there is often an incentive provision that increases the fee if the fund outperforms some benchmark, often the S&P 500 (this index is discussed in Chapter 1). Management fees generally range from .25 percent to 1.0 percent of total funds assets every year.

**TRADING COSTS** Mutual funds have brokerage expenses from trading just like individuals do. As a result, mutual funds that do a lot of trading will have relatively high trading costs.

Trading costs can be difficult to get a handle on because they are not reported directly. However, in the prospectus, funds are required to report something known as **turnover**. A fund's turnover is a measure of how much trading a fund does. It is calculated as the lesser of a fund's total purchases or sales during a year, divided by average daily assets.<sup>2</sup>

*(marg. def. turnover* A measure of how much trading a fund does, calculated as the lesser of total purchases or sales during a year divided by average daily assets.)

*Example 4.3: Turnover.* Suppose a fund had average daily assets of \$50 million during 1995. It bought \$80 million worth of stock and sold \$70 million during the year. What is its turnover?

The lesser of purchases or sales is \$70 million, and average daily assets are \$50 million. Turnover is thus  $\$70/\$50 = 1.4$  times.

A fund with a turnover of 1.0 has, in effect, sold off its entire portfolio and replaced it once during the year. Similarly, a turnover of .50 indicates that, loosely speaking, the fund replaced half of its holdings during the year. All else the same, a higher turnover indicates more frequent trading and higher trading costs.

### ***Expense Reporting***

Mutual funds are required to report expenses in a fairly standardized way in the prospectus. The exact format varies, but the information reported is generally the same. There are three parts to an expense statement. Figure 4.2 shows this information as it was reported for the Fidelity Retirement Growth fund for the year 1998.

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<sup>2</sup>Purchases and sales for a fund are usually different because of purchases and redemptions of fund shares by shareholders. For example, if a fund is growing, purchases will exceed sales.



Figure 4.2 about here

The first part of the statement shows shareholder transaction expenses, which are generally loads and deferred sales charges. As indicated, for this fund, there is no front-end load either on shares purchased or on dividends received that are reinvested in the fund (it's common for mutual fund shareholders to simply reinvest any dividends received from the fund). The second item shows that there is no CDSC. The third item, labeled “exchange fee,” refers to exchanging shares in this mutual fund for shares in another Fidelity fund. There is no charge for this; some funds levy a small fee.

The second part of the statement, “Annual fund operating expenses,” includes the management and 12b-1 fees. This fund's management fee was .76 percent of assets. There was no 12b-1 fee. The other expenses include things like legal, accounting, and reporting costs along with director fees. At .29 percent of assets, these costs are not trivial. The sum of these three items is the fund's total operating expense expressed as a percentage of assets, 1.05 percent in this case. To put this in perspective, this fund has about \$3 billion in assets, so operating costs were \$31.5 million, of which about \$23 million was paid to the fund manager.

The third part of the expense report gives a hypothetical example showing the total expense you would pay over time per \$1,000 invested. The example is strictly hypothetical, however, and is only a rough guide. As shown here, your costs would amount to \$128 after 10 years per \$1,000 invested. This third part of the expense statement is not all that useful, really. What matters for this fund is that expenses appear to run about 1 percent per year, so that is what you pay.

One thing to watch out for is that funds may have 12b-1 plans but may choose not to spend anything in a particular year. Similarly, the fund manager can choose to rebate some of the management fee in a particular year (especially if the fund has done poorly). These actions create a low expense figure for a given year, but this does not mean that expenses won't be higher in the future.

Another caveat concerns certain practices in the mutual fund business (and elsewhere in the securities industry) involving so-called soft dollars. These are essentially hidden costs, and, as the Investment Updates box describes, can make it difficult to compare fund expenses from one fund to the next.

Investment Updates: Soft Dollars

### ***Why Pay Loads and Fees?***

Given that pure no-load funds exist, you might wonder why anyone would buy load funds or funds with substantial CDSC or 12b-1 fees. It is becoming increasingly difficult to give a good answer to this question. At one time, there simply weren't many no-load funds; those that existed weren't widely known. Today, there are many good no-load funds, and competition among funds is forcing many funds to lower or do away with loads and other fees.

Having said this, there are basically two reasons that you might want to consider a load fund or a fund with above average fees. First, you may simply want a fund run by a particular manager. A good example of this is the Fidelity Magellan Fund we mentioned earlier. For much of its life, it was run by Peter Lynch, who is widely regarded as one of the most successful managers in the history

of the business. The Magellan Fund was (and is) a load fund, leaving you had no choice but to pay the load to obtain Lynch's expertise.

The other reason to consider paying a load is that you want a specialized type of fund. For example, you might be interested in investing in a fund that invests only in a particular foreign country such as Brazil. We'll discuss such specialty funds in a later section, but for now we note that there is little competition among specialty funds, and as a result, loads and fees tend to be higher.

#### CHECK THIS

4.3a What is the difference between a load fund and a no-load fund?

4.3b What are 12b-1 fees?

#### ***4.4 Short-Term Funds***

Mutual funds are usually divided into two major groups, short-term funds and long-term funds. Short-term funds are collectively known as *money market mutual funds*. Long-term funds essentially include everything that is not a money market fund. We discuss long-term funds in our next section; here we focus on money market funds.

#### ***Money Market Mutual Funds***

As the name suggests, **money market mutual funds**, or MMMFs, specialize in money market instruments. As we described in Chapter 3, these are short-term debt obligations issued by governments and corporations. Money market funds were introduced in the early 1970s and have

grown tremendously. By 1999, about 1,000 money market funds managed over \$1.4 trillion in assets for 35 million investors. All money market funds are open-end funds.

*(marg. def. money market mutual fund* A mutual fund specializing in money market instruments.)

Most money market funds invest in high-quality, low-risk instruments with maturities of less than 90 days. As a result, they have relatively little risk. However, some buy riskier assets or have longer maturities than others, so they do not all carry equally low risk. For example, some buy only very short-term U.S. government securities and are therefore essentially risk-free. Others buy mostly securities issued by corporations which entail some risk. We discuss the different types of money market instruments and their relative risks in Chapter 9.

### ***Money Market Fund Accounting***

A unique feature of money market funds is that their net asset values are always \$1 per share. This is purely an accounting gimmick, however. A money market fund simply sets the number of shares equal to the fund's assets. In other words, if the fund has \$100 million in assets, then it has 100 million shares. As the fund earns interest on its investments, the fund owners are simply given more shares.

The reason money market mutual funds always maintain a \$1 net asset value is to make them resemble bank accounts. As long as a money market fund invests in very safe, interest-bearing, short maturity assets, its net asset value will not drop below \$1 per share. However, there is no guarantee that this will not happen, and the term “breaking the buck” is used to describe dropping below \$1 in net asset value. This is a very rare occurrence, but, in 1994, several large money market funds

experienced substantial losses because they purchased relatively risky derivative assets and broke the buck, so it definitely can happen.

### *Taxes and Money Market Funds*

Money market funds are either taxable or tax-exempt. Taxable funds are more common; of the \$1.5 trillion in total money market fund assets in 1999, taxable funds accounted for about 84 percent. As the name suggests, the difference in the two fund types lies in their tax treatment. As a general rule, interest earned on state and local government (or “municipal”) securities is exempt from federal income tax. Nontaxable money market funds therefore buy only these types of tax-exempt securities.

Some tax-exempt funds go even further. Interest paid by one state is often subject to state taxes in another. Some tax-exempt funds therefore buy only securities issued by a single state. For residents of that state, the interest earned is free of both federal and state taxes. For beleaguered New York City residents, there are even “triple tax-free” funds that only invest in New York City obligations, thereby allowing residents to escape federal, state, and local income taxes on the interest received.

Because of their favorable tax treatment, tax-exempt money market instruments have much lower interest rates, or yields.<sup>3</sup> For example, in early 1999, taxable money funds offered about 4.6 percent interest, whereas tax-exempt funds offered only 2.8 percent interest. Which is better depends on your individual tax bracket. If you're in a 40 percent bracket, then the taxable fund is

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<sup>3</sup>We discuss how yields on money market instruments are calculated in Chapter 9.

paying only  $4.6\% \times (1 - .40) = 2.76\%$  on an after tax basis, so you're slightly better off with the tax-exempt fund.

*Example 4.4: Taxes and Money Market Fund Yields.* In our discussion just above, suppose you were in a 25 percent bracket. Which type of fund is more attractive?

On an after tax basis, the taxable fund is offering  $4.6\% \times (1 - .25) = 3.45\%$ , so the taxable fund is more attractive.

### ***Money Market Deposit Accounts***

Most banks offer what are called “money market” deposit accounts, or MMDAs, which are much like money market mutual funds. For example, both money market funds and money market accounts generally have limited check-writing privileges.

There is a very important distinction between such a bank-offered money market account and a money market fund, however. A bank money market account is a bank deposit and offers FDIC protection, whereas a money market fund does not. A money market fund will generally offer SIPC protection, but this is not a perfect substitute. Confusingly, some banks offer both money market accounts and, through a separate, affiliated entity, money market funds.

### **CHECK THIS**

- 4.4a What is a money market mutual fund? What are the two types?
- 4.4b How do money market funds maintain a constant net asset value?

### ***4.5 Long-Term Funds***

There are many different types of long-term funds. Historically, mutual funds were classified as stock, bond, or income funds. As a part of the rapid growth in mutual funds, however, it is becoming increasingly difficult to place all funds into these three categories. Also, providers of mutual fund information do not use the same classification schemes.

Mutual funds have different goals, and a fund's objective is the major determinant of the fund type. All mutual funds must state the fund's objective in the prospectus. For example, the Fidelity Retirement Growth Fund we discussed earlier states in its prospectus:

*The fund seeks capital appreciation by investing substantially in common stocks. In pursuit of its goal, the fund has the flexibility to invest in large or small domestic or foreign companies. The fund does not place any emphasis on income.*

Thus this fund invests in different types of stocks with the goal of capital appreciation without regard to dividend income. This is clearly a stock fund, and it would further be classified as a “capital appreciation” fund or “aggressive growth” fund, depending on whose classification scheme is used.

Mutual fund objectives are an important consideration; unfortunately, the truth is they frequently are too vague to provide useful information. For example, a very common objective reads like this: “The Big Bucks Fund seeks capital appreciation, income, and capital preservation.” Translation: the fund seeks to (1) increase the value of its shares, (2) generate income for its shareholders, and (3) not lose money. Well, don't we all! More to the point, funds with very similar-sounding objectives can have very different portfolios, and consequently, very different risks. As a result, it is a mistake to look only at a fund's stated objective: Actual portfolio holdings speak louder than prospectus promises.

In our next section, we discuss information available on mutual funds, focusing on the *Wall Street Journal*, which uses a mutual fund classification scheme from Lipper Analytical Services, Inc., a major provider of mutual fund information. A brief description of the Lipper categories is given in Figure 4.3. For the sake of consistency, we generally follow this classification in discussing fund types. Thus the four major categories we discuss are stock funds, taxable bond funds, municipal bond funds, and combined stock and bond funds.

Figure 4.3 about here

### ***Stock Funds***

Stock funds exist in great variety. We consider nine separate general types and some subtypes. We also consider some new varieties that don't fit in any category.

**CAPITAL APPRECIATION VERSUS INCOME** The first four types of stock funds trade off capital appreciation and dividend income.

1. **CAPITAL APPRECIATION** As in our example just above, these funds seek maximum capital appreciation. They generally invest in whatever companies have, in the opinion of the fund manager, the best prospects for share price appreciation without regard to dividends, company size, or, for some funds, country. Often this means investing in unproven companies or perceived out-of-favor companies.
2. **GROWTH** These funds also seek capital appreciation, but they tend to invest in larger, more established companies. Such funds may be somewhat less volatile as a result. Dividends are not an important consideration.
3. **GROWTH AND INCOME** Capital appreciation is still the main goal, but at least part of the focus is on dividend-paying companies.
4. **EQUITY INCOME** These funds focus almost exclusively on stocks with relatively high dividend yields, thereby maximizing the current income on the portfolio.

Among these four fund types, the greater the emphasis on growth, the greater the risk, at least as a general matter. Again, however, these are only rough classifications. Equity income funds, for example, frequently invest heavily in public utility stocks; such stocks had heavy losses in the first part of the 1990s.

**COMPANY SIZE-BASED FUNDS** These next two fund types focus on companies in a particular size range.

1. **SMALL COMPANY** As the name suggests, these funds focus on stocks in small companies, where “small” refers to the total market value of the stock. Such funds are often called “small-cap” funds, where “cap” is short for total market value or capitalization. In Chapter 1, we saw that small stocks have traditionally performed very well, at least over the long run, hence the demand for funds that specialize in such stocks. With small company mutual funds, what constitutes small is variable, ranging from perhaps \$10 million up to \$1 billion or so in total market value, and some funds specialize in smaller companies than others. Since most small companies don't pay dividends, these funds necessarily emphasize capital appreciation.
2. **MIDCAP** These funds usually specialize in stocks that are too small to be in the S&P 500 index but too large to be considered small stocks.

**INTERNATIONAL FUNDS** The next two fund groups invest internationally. Research has shown that diversifying internationally can significantly improve the risk-return trade-off for investors, and international funds have been among the most rapidly growing. However, that growth slowed sharply in the late 1990's.

1. **GLOBAL** These funds have substantial international holdings but also maintain significant investments in U.S. stocks.
2. **INTERNATIONAL** These funds are like global funds, except they focus on non-U.S. equities.

Among international funds, some specialize in specific regions of the world, such as Europe, the Pacific Rim, or South America. Others specialize in individual countries. Today, there is at least

one mutual fund specializing in essentially every country in the world that has a stock market, however small.

International funds that specialize in countries with small or recently established stock markets are often called emerging markets funds. Almost all single-country funds, and especially emerging markets funds, are not well-diversified and have historically been extremely volatile.

Many funds that are not classified as international funds may actually have substantial overseas investments, so this is one thing to watch out for. For example, as of the end of 1993, the Templeton Capital Accumulator Fund, which was classified as a growth fund, had 80 percent of its portfolio invested internationally.

**SECTOR FUNDS** Sector funds specialize in specific sectors of the economy and often focus on particular industries or particular commodities. There are far too many different types to list here. There are funds that only buy software companies, and funds that only buy hardware companies. There are funds that specialize in natural gas producers, oil producers, and precious metals producers. In fact, essentially every major industry in the U.S. economy is covered by at least one fund.

One thing to notice about sector funds is that, like single-country funds, they are obviously not well-diversified. Every year, many of the best performing mutual funds (in terms of total return) are sector funds simply because whatever sector of the economy is hottest will generally have the largest stock price increases. Funds specializing in that sector will do well. In the same vein, and for the same reason, the worst performing funds are also almost always some type of sector fund. When it comes to mutual funds, past performance is almost always an unreliable guide to future performance; nowhere is this more true than with sector funds.

OTHER FUND TYPES AND ISSUES Three other types of stock funds that don't fit easily into one of the above categories bear discussing: *index funds*, so-called *social conscience funds*, and *tax-managed funds*.

1. **INDEX FUNDS.** Index funds simply hold the stocks that make up a particular index in the same relative proportions as the index. The most important index funds are S&P 500 funds, which are intended to track the performance of the S&P 500, the large stock index we discuss in Chapter 1. By their nature, index funds are passively managed, meaning that the fund manager only trades as necessary to match the index. Such funds are appealing in part because they are generally characterized by low turnover and low operating expenses.

Another reason index funds have grown rapidly is that there is considerable debate over whether mutual fund managers can consistently beat the averages. If they can't, the argument runs, why pay loads and management fees when it's cheaper just to buy the averages by indexing? We discuss this issue in more detail later.

2. **SOCIAL CONSCIENCE FUNDS** These funds are a relatively new creation. They invest only in companies whose products, policies, or politics are viewed as socially desirable. The specific social objectives range from environmental issues to personnel policies. As the accompanying Investment Updates box shows, the Parnassus Fund is a well-known example, avoiding the alcoholic beverage, tobacco, gambling, weapons, and nuclear power industries.

Investment Updates: Parnassus Fund

Of course, consensus on what is socially desirable or responsible is hard to find. In fact, there are so-called sin funds (and sector funds) that specialize in these very industries!

3. **TAX-MANAGED FUNDS** Taxable mutual funds are generally managed without regard for the tax liabilities of fund owners. Fund managers focus on (and are frequently rewarded based on) total pretax returns. However, recent research has shown that some fairly simple strategies can greatly improve the after-tax returns to shareholders and that focusing just on pretax returns is not a good idea for taxable investors.

Tax-managed funds try to hold down turnover to minimize realized capital gains, and they try to match realized gains with realized losses. Such strategies work particularly well for index funds. For example, the Schwab 1000 Fund is a fund that tracks the Russell 1000 index, a widely followed 1,000-stock index. However, the fund will deviate from strictly following the index to a certain extent to avoid realizing taxable gains, and, as a result, the fund holds turnover to a minimum. Fund shareholders have largely escaped taxes as a result.

We predict funds promoting such strategies will become increasingly common as investors become more aware of the tax consequences of fund ownership.

### *Taxable and Municipal Bond Funds*

Most bond funds invest in domestic corporate and government securities, although some invest in foreign government and non-U.S. corporate bonds as well. As we will see, there are a relatively small number of bond fund types.

There are basically five characteristics that distinguish bond funds:

1. **Maturity range.** Different funds hold bonds of different maturities, ranging from quite short (2 years) to quite long (25 - 30 years).
2. **Credit quality.** Some bonds are much safer than others in terms of the possibility of default. United States government bonds have no default risk, while so-called junk bonds have significant default risk.
3. **Taxability.** Municipal bond funds buy only bonds that are free from federal income tax. Taxable funds buy only taxable issues.
4. **Type of bond.** Some funds specialize in particular types of fixed income instruments such as mortgages.
5. **Country.** Most bond funds buy only domestic issues, but some buy foreign company and government issues.

**SHORT -TERM AND INTERMEDIATE TERM FUNDS** As the names suggest, these two fund types focus on bonds in a specific maturity range. Short-term maturities are generally considered to be less than five years. Intermediate-term would be less than 10 years. There are both taxable and municipal bond funds with these maturity targets.

One thing to be careful of with these types of funds is that the credit quality of the issues can vary from fund to fund. One fund could hold very risky intermediate term bonds, while another might hold only U.S. government issues with similar maturities.

## 24 CHAPTER 4

**GENERAL FUNDS** For both taxable and municipal bonds, this category is kind of a catch-all. Funds in this category simply don't specialize in any particular way. Our warning just above concerning varied credit quality applies here. Maturities can differ substantially as well.

**HIGH YIELD FUNDS** High-yield municipal and taxable funds specialize in low-credit quality issues. Such issues have higher yields because of their greater risks. As a result, high-yield bond funds can be quite volatile.

**MORTGAGE FUNDS** A number of funds specialize in so-called mortgage-backed securities such as Government National Mortgage Association, referred to as Ginnie Mae issues. We discuss this important type of security in detail in Chapter 13. There are no municipal mortgage-backed securities (yet), so these are all taxable bond funds.

**WORLD FUNDS** A relatively limited number of taxable funds invest worldwide. Some specialize in only government issues; others buy a variety of non-U.S. issues. These are all taxable funds.

**INSURED FUNDS** This is a type of municipal bond fund. Municipal bond issuers frequently purchase insurance that guarantees the bond's payments will be made. Such bonds have very little possibility of default, so some funds specialize in them.

**SINGLE-STATE MUNICIPAL FUNDS** Earlier we discussed how some money market funds specialize in issues from a single state. The same is true for some bond funds. Such funds are especially important

in large states such as California and higher-tax states. Confusingly, this classification only refers to long-term funds. Short and intermediate single state funds are classified with other maturity-based municipal funds.

### ***Stock and Bond Funds***

This last major fund group includes a variety of funds. The only common feature is that these funds don't invest exclusively in either stocks or bonds. For this reason, they are often called “blended” or “hybrid” funds. We discuss a few of the main types.

**BALANCED FUNDS** Balanced funds maintain a relatively fixed split between stocks and bonds. They emphasize relatively safer, high quality investments. Such funds provide a kind of “one-stop” shopping for fund investors, particularly smaller investors, because they diversify into both stocks and bonds.

**ASSET ALLOCATION FUNDS** Two types of funds carry this label. The first is an extended version of a balanced fund. Such a fund holds relatively fixed proportional investments in stocks, bonds, money market instruments, and perhaps real estate or some other investment class. The target proportions may be updated or modified periodically.

The other type of asset allocation fund is often called a flexible portfolio fund. Here, the fund manager may hold up to 100 percent stocks, bonds, or money market instruments, depending on her views about the likely performance of these investments. These funds essentially try to time the

market, guessing which general type of investment will do well (or least poorly) over the months ahead.

**CONVERTIBLE FUNDS** Some bonds are convertible, meaning they can be swapped for a fixed number of shares of stock at the option of the bondholder. Some mutual funds specialize in these bonds.

**INCOME FUNDS** An income fund emphasizes generating dividend and coupon income on its investments, so it would hold a variety of dividend-paying common and preferred stocks and bonds of various maturities.

#### CHECK THIS

- 4.5a What are the three major types of long-term fund? Give several examples of each and describe their investment policies.
- 4.5b What do single-state municipal funds, single-country stock funds, and sector stock funds have in common?
- 4.5c What are the distinguishing characteristics of a bond fund?

#### ***4.6 Mutual Fund Performance***

We close our discussion of open-end mutual funds by looking at some of the performance information reported in the financial press. We then discuss the usefulness of such information for selecting mutual funds.

### ***Mutual Fund Performance Information***

Mutual fund performance is very closely tracked by a number of organizations. Financial publications of all types periodically provide mutual fund data, and many provide lists of recommended funds. We examine *Wall Street Journal* information in this section, but by no means is this the only source or the most comprehensive.<sup>4</sup> However, the *Wall Street Journal* is a particularly timely source because it reports mutual fund year-to-date returns on a daily basis, and it provides a summary of average investment performance by fund category on a regular basis. The information we consider here applies only to open-end funds.

Figure 4.4 about here

Figure 4.4 reproduces a “Performance Yardsticks,” a feature appearing in the *Journal* each Friday. This box compares the recent investment performance of 32 fund categories, including 16 equity funds, 9 taxable bond funds, 5 municipal bond funds, gold funds, and balanced stock and bond funds.

Figure 4.5 about here

Figure 4.5 is a small section of the mutual fund price quotations reported in the *Wall Street Journal* daily. All of the funds listed in Figure 4.5 belong to the very large family of funds managed by Fidelity Investments. An arrow points to one particular fund, the Blue Chip Growth Fund (abbreviated BluCh). After the name of the fund, the next thing listed is the net asset value, or NAV,

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<sup>4</sup>For more detailed information, publications from companies such as Morningstar, Weisenberger, and Value Line are often available in the library. Of course, a mutual fund's prospectus and annual report contain a great deal of information as well.

as of the close of trading. Here we see that Blue Chip closed at a price of \$42.76. Next we have the change in the NAV from the previous day, revealing that the Blue Chip Fund gained 50 cents per share. Finally, the last column reports the fund's year-to-date performance, up 14.4 percent in this case.

In Figure 4.5, notice that a number of funds have the small letter "r" immediately after their names. This indicates that a redemption charge may apply. For the funds listed here, this most commonly occurs with the single-country funds, such as Canada, France, Germany, Japan..

### ***How Useful Are Fund Performance Ratings?***

If you look at the 3-year and 5-year returns reported in Figure 4.4, you might wonder why anyone would buy a fund in a category other than those with the highest returns. Well, the lessons learned in Chapter 1 suggest the answer that these historical returns do not consider the riskiness of the various fund categories. For example, if the market has done well, the best ranked funds may simply be the riskiest funds, since the riskiest funds normally perform the best in a rising market. In a market downturn, however, these best ranked funds are most likely to become the worst ranked funds, since the riskiest funds normally perform the worst in a falling market.

These problems with performance measures deal with the evaluation of historical performance. However, there is an even more fundamental criterion. Ultimately, we don't care about historical performance; we care about *future* performance. Whether historical performance is useful in predicting future performance is the subject of ongoing debate.

**CHECK THIS**

- 4.6a Which mutual fund in Figure 4.5 had the best year-to-date return? The worst?
- 4.6b What are some of the problems with comparing historical performance numbers?

**4.7 Closed-End Funds**

It is probably fitting that we close our mutual fund chapter with a discussion of closed-end funds. As we will see, such funds have some unusual aspects.

***Closed-End Funds Performance Information***

As we described above, the major difference between a closed-end fund and an open-end fund is that closed-end funds don't buy and sell shares. Instead, there is a fixed number of shares in the fund, and these shares are bought and sold on the open market. About 500 closed-end funds have their shares traded on U.S. stock exchanges, which is far fewer than the roughly 8,000 open-end mutual funds available to investors.

Figure 4.6 shows some NYSE quotes from the *Wall Street Journal*. An arrow points to the Mexico Fund, a closed-end single-country fund. Such funds are one of the more common closed-end fund types. Single-state municipal bond funds are another common type (see, for example, listings beginning with “Nuveen” in the *Journal*).

Figure 4.6 about here

In Figure 4.6, notice how the listing for the Mexico Fund is almost indistinguishable from the common stock listing for Micron Technology (MU) immediately below it. The first tipoff that it is

a fund and not a stock is the letters “Fd” at the end of the fund’s name indicating the abbreviation for a “fund.” Another tipoff is that no PE ratio is reported, although the same is true for many stocks with PE ratios that are not meaningful.

### *The Closed-End Fund Discount Mystery*

Wall Street has many unsolved puzzles, and one of the most famous and enduring has to do with prices of shares in closed-end funds. As noted earlier, shares in closed-end funds trade in the marketplace. As a result, share prices can differ from net asset values. In fact, most closed-end funds sell at a discount relative to their net asset values, and the discount is sometimes substantial.

For example, suppose a closed-end fund owns \$100 million worth of stock. It has 10 million shares outstanding, so the NAV is clearly \$10. It would not be at all unusual, however, for the share price to be only \$9, indicating a 10 percent discount. What is puzzling about this discount is that you can apparently buy \$10 worth of stock for only \$9!

Investment Updates: Closed-End Fund Discounts

To make matters even more perplexing, the typical discount fluctuates over time. As the accompanying Investment Updates box explains, sometimes the discount is very wide; at other times, it almost disappears. Despite a great deal of research, the closed-end fund discount phenomenon remains largely unexplained.

Because of the discount available on closed-end funds, it is often argued that funds with the largest discounts are attractive investments. The problem with this argument is that it assumes that

the discount will narrow or disappear. Unfortunately, this may or may not happen; the discount might get even wider.

Sometimes, although not often, the average closed-end fund sells at a premium, implying that investors are willing to pay more than the NAV for shares. This case is not quite as perplexing; however, after all, investors in load funds do the same thing. The reasons we discussed for paying loads might apply to these cases.

One last comment on closed-end funds seems appropriate. When a closed-end fund is first created, its shares are offered for sale to the public. For example, a closed-end fund might raise \$50 million by selling 5 million shares to the public at \$10 per share (the original offer price is almost always \$10), which is the fund's NAV.

If you pay \$10, then you are very likely to shortly discover two unpleasant facts. First, the fund promoter will be paid, say, 7 percent of the proceeds right off the top, or about \$3.5 million (this will be disclosed in the prospectus). This fee will come out of the fund, leaving a total value of \$46.5 million and a NAV of \$9.30. Further, as we have seen, the shares will probably trade at a discount relative to NAV in the market, so you would lose another piece of your investment almost immediately. In short, newly offered closed-end funds are generally very poor investments.

#### CHECK THIS

- 4.7a What is the closed-end fund puzzle?
- 4.7b Why are newly offered closed-end funds often a poor investment?

### 4.8 *Summary and Conclusions*

We have covered many aspects of mutual fund investing in this chapter. We have seen that there are thousands of mutual funds and dozens of types. A few of the more important distinctions we made can be summarized as follows:

1. Some funds are open-end and some are closed-end. Open-end funds stand ready to buy or sell shares. Closed-end funds do not; instead, their shares trade on the stock exchanges.
2. Some open-end funds have front-end loads, meaning that there is a fee tacked on to the fund's net asset value when you buy. Other funds are no-load. Various costs and fees exist, including back-end loads and 12b-1 fees.
3. Funds have very different objectives and, as a result, very different risk and return potentials. Furthermore, funds with similar sounding objectives can, in fact, be quite different. It is important to consider a fund's actual holdings and investment policies, not just read its stated objective.
4. Mutual fund information is widely available, but performance information should be used with caution. The best performing funds are often the ones with the greatest risks or the ones that just happened to be in the right investment at the right time.

#### *Key Terms*

**investment company**

**front-end load**

**open-end fund**

**12b-1 fees**

**closed-end fund**

**turnover**

**net Asset Value (NAV)**

**Money Market Mutual Fund**

***Get Real!***

This chapter covered the essentials of mutual funds. How should you, as an investor or investment manager, put this information to work?

The first thing to do is to start looking at mutual fund prospectuses. These are written to be accessible to novice investors (or, at least, they are *supposed* to be written that way). The best way to begin exploring is to visit web sites. Almost any large mutual fund company will have extensive on-line information available. Links to some of the better known families are available at our web page. It is important to look at different funds within a given family and also to look across families. Compare growth funds to growth funds, for example. This adventure will give you some of the real-life background you need to select the types of funds most suitable for you or someone else.

Once you have examined prospectuses on different funds, it's time to invest. Beginning with your simulated account, pick a few funds, invest, and observe the outcomes. Open-end mutual funds are probably the place most of you will begin investing real dollars. An initial purchase can be made with a relatively small amount, perhaps \$500, and subsequent purchases can be made in amounts of as little as \$50.

Most important of all, most employers now provide employees with retirement plans. The way these work is that, typically, your employer will make a contribution to a mutual fund you select (often from a fairly limited set). Your employer may even match or more than match a contribution you make. Such plans may be the only retirement benefit offered, but they can be an extraordinary opportunity for those who take full advantage of them by getting the largest possible match and then investing in a suitable fund. It's an important choice, so the more knowledge you have regarding mutual funds, the better your outcome is likely to be.

## ***STOCK-TRAK FAST TRACK***

### ***TRADING MUTUAL FUNDS WITH STOCK-TRAK***

Stock-Trak allows you to trade mutual funds as simply as it allows you to trade common stocks. There are some restrictions: you cannot use margin to buy mutual fund shares and fund shares cannot be sold short. You should consult the most recent Stock-Trak rules at their website ([www.stocktrak.com](http://www.stocktrak.com)) for other restrictions that might apply.

To trade mutual funds with Stock-Trak, you must know the ticker symbol of the fund whose shares you wish to buy or sell. Unfortunately, you cannot find mutual fund ticker symbols in the *Wall Street Journal*. Mutual fund ticker symbols can be conveniently obtained through many quote servers on the internet, as for example the Yahoo internet quote server ([quote.yahoo.com](http://quote.yahoo.com)). You simply type the name of the mutual fund into the symbol look-up function and submit it to the quote server. After you have the ticker symbol for the fund of interest, you can use it just like a stock ticker to get a price quote from the quote server.

Mutual fund ticker symbols normally contain five letters, where the last letter is an X. For example, FMAGX is the ticker for the Fidelity Magellan Fund, VFINX is the ticker for the Vanguard Index Trust 500 Fund, and SNXFX is the ticker for the Schwab 1000 Equity Fund.

When buying mutual fund shares, you take a long position hoping the fund's share price will increase. Suppose you want to invest \$10,000 in the Kemper Small Capital Value Fund, which has the ticker symbol KDSAX. You submit your order as "buy \$10,000 KDSAX." Later, suppose you want to sell \$4,000 in KDSAX shares. You submit this order as "sell \$4,000 KDSAX."

STOCK-TRAK EXERCISES

1. Look up stock ticker symbols for these mutual funds: Templeton Foreign Equity Fund, Strong Growth Fund, T. Rowe Price Blue Chip Growth Fund.

## Chapter 4

### Mutual Funds

Questions and problems

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#### *Review Problems and Self-Test*

1. **Front-end loads** The Madura HiGro Fund has a net asset value of \$50 per share. It charges a 3 percent load. How much will you pay for 100 shares?
2. **Turnover** The Starks Income Fund's average daily total assets were \$100 million for the year just completed. Its stock purchases for the year were \$20 million, while its sales were \$12.5 million. What was its turnover?

#### *Answers to Self-Test Problems*

1. You will pay 100 times the offering price. Since the load is computed as a percentage of the offering price, we can compute the offering price as follows:

$$\text{Net asset value} = (1 - \text{Front-end load}) \times \text{Offering price}$$

In other words, the NAV is 97 percent of the offering price. Since the NAV is \$50, the offering price is  $\$50/0.97 = \$51.55$ . You will pay \$5,155 in all, of which \$155 is a load.

2. Turnover is the lesser of purchases or sales divided by average daily assets. In this case, sales are smaller at \$12.5, so turnover is  $\$12.5/\$100 = .125$  times.

**Test Your IQ (Investment Quotient)**

1. **Mutual Fund Investing** Which of the following is the least likely advantage of mutual fund investing?
  - a. diversification
  - b. professional management
  - c. convenience
  - d. mutual fund returns are normally higher than market average returns
  
2. **Open-End Funds** An open-end mutual fund is owned by which of the following?
  - a. an investment company
  - b. an investment advisory firm
  - c. a “family of funds” mutual fund company
  - d. its shareholders
  
3. **Closed-End Funds** Which of the following is most true of a closed-end investment company?
  - a. the fund’s share price is usually greater than net asset value
  - b. the fund’s share price is set equal to net asset value
  - c. fund shares outstanding vary with purchases and redemptions by shareholders
  - d. fund shares outstanding are fixed at the issue date
  
4. **Closed-End Funds** A closed-end fund is owned by which of the following?
  - a. an investment company
  - b. an investment advisory firm
  - c. a “family of funds” mutual fund company
  - d. its shareholders
  
5. **Investment Advisory Firms** Which of the following is not true about the typical relationship between a mutual fund and an investment advisory firm? The investment advisory firm
  - a. owns the mutual fund
  - b. manages the mutual fund’s assets
  - c. manages shareholder purchase and redemption operations
  - d. receives a management fee for services rendered

- 6. Fund Types** Which mutual fund type is most likely to own stocks paying the highest dividend yields?
- a. capital appreciation fund
  - b. equity income fund
  - c. growth and income fund
  - d. growth fund
- 7. Fund Types** Which mutual fund type is most likely to own stocks paying the lowest dividend yields?
- a. capital appreciation fund
  - b. equity income fund
  - c. growth and income fund
  - d. growth fund
- 8. Fund Types** Which mutual fund type will most likely incur the greatest tax liability for its investors?
- a. index fund
  - b. municipal bond fund
  - c. income fund
  - d. growth fund
- 9. Fund Types** Which mutual fund type will most likely incur the smallest tax liability for its investors?
- a. index fund
  - b. municipal bond fund
  - c. income fund
  - d. growth fund
- 10. Fund Types** Which mutual fund type will most likely incur the greatest overall risk levels for its investors?
- a. large-cap index fund
  - b. insured municipal bond fund
  - c. money market mutual fund
  - d. small-cap growth fund

- 11. Fund Types** Which mutual fund type will most likely incur the smallest overall risk levels for its investors?
- a. large-cap index fund
  - b. insured municipal bond fund
  - c. money market mutual fund
  - d. small-cap growth fund
- 12. Mutual Fund Fees** Which of the following mutual fund fees is assessed on an annual basis?
- a. 12b-1 fees
  - b. front-end load
  - c. back-end load
  - d. contingent deferred sales charge (CDSC)
- 13. Mutual Fund Fees** Which of the following mutual fund fees will most likely be the biggest expense for a long-term fund investor?
- a. 12b-1 fees
  - b. front-end load
  - c. back-end load
  - d. contingent deferred sales charge (CDSC)
- 14. Mutual Fund Fees** Over a five-year period and accounting for the time value of money, which of the following mutual fund fees produces the biggest expense?
- a. 1 percent annual 12b-1 fees
  - b. 5 percent front-end load
  - c. 5 percent back-end load
  - d. 5 percent contingent deferred sales charge (CDSC)
- 15. Mutual Fund Fees** Which of the following mutual fund fees and expenses is the most difficult for investors to assess?
- a. sales charges or “loads”
  - b. 12b-1 fees
  - c. management fees
  - d. trading costs

*Chapter Questions and Problems*

Core Questions

1. **Fund Ownership** Who actually owns a mutual fund? Who runs it?
2. **Loads** Given that no-load funds are so widely available, why would a rational investor pay a front-end load? More generally, why don't fund investors always seek out funds with the lowest loads, management fees, and other fees?
3. **Money Market Funds** Is it true that the NAV of a money market mutual fund never changes? How is this possible?
4. **Money Market Deposits Accounts** What is the difference between a money market deposit account and a money market mutual fund? Which is riskier?
5. **Net Asset Value** The World Income Appreciation Fund has current assets with a market value of \$2.5 billion and has 75 million shares outstanding. What is the net asset value (NAV) for this mutual fund?
6. **Front-End Loads** Suppose the mutual fund in the previous problem has a current market price quotation of \$36.03. Is this a load fund? If so, calculate the front-end load.
7. **Calculating NAV** The ANZUS Growth and Equity Fund is a "low-load" fund. The current offer price quotation for this mutual fund is \$56.00, and the front-end load is 2.5 percent. What is the NAV? If there are 12.5 million shares outstanding, what is the current market value of assets owned by the ANZUS fund?
8. **Fund Goals** What is a capital appreciation fund? An equity income fund? Which is likely to be riskier? Why?
9. **Money Market Funds** The Johnson Liquid Assets Money Market Mutual Fund has a NAV of \$1 per share. During 1999, the assets held by this fund appreciated by 6.9 percent. If you had invested \$25,000 in this fund at the start of the year, how many shares would you own at the end of the year? What will the NAV of this fund be at the end of 1999? Why?
10. **Open versus Closed-End Funds** If you were concerned about the liquidity of mutual fund shares that you held, would you rather hold shares in a closed-end or open-end fund? Why?

Use the following mutual fund entry from *The Wall Street Journal* to answer the next two questions:

Hankey r 10.25 +.10 +3.5

11. **Mutual Fund Information** What is this fund's objective? Its NAV? What was the NAV yesterday? If you buy 100 shares in the fund, what will it cost you?
12. **Mutual Fund Performance** What does the +3.5 tell us about the Hankey fund?

### Intermediate Questions

13. **Calculating Turnover** A sector fund specializing in commercial bank stocks had average daily assets of \$1.2 billion in 1999. This fund sold \$650 million worth of stock during the year, and its turnover ratio was .45. How much stock did this mutual fund purchase during the year?
14. **Calculating Fees** In the previous problem, suppose the annual operating expense ratio for the mutual fund in 1999 is 1.25 percent, and the management fee is .85 percent. How much money did the fund's management earn during 1999? If the fund doesn't charge any 12b-1 fees, how much were miscellaneous and administrative expenses during the year?
15. **Calculating Fees** You purchased 2,000 shares in the New Pacific Growth Fund on January 2, 1999 at an offering price of \$18.75 per share. The front-end load for this fund is 6 percent, and the back-end load for redemptions within one year is 3 percent. The underlying assets in this mutual fund appreciate (including reinvested dividends) by 18 percent during 1999, and you sell back your shares at the end of the year. If the operating expense ratio for the New Pacific fund is 1.35 percent, what is your total return from this investment? What do you conclude about the impact of fees in evaluating mutual fund performance?
16. **Calculating Fees** Suppose in the previous problem that the mutual fund has no front-end load or back-end load. Further suppose that the operating expense ratio for the fund is .85 percent. What is your return on investment now?
17. **Taxes and MMMFs** Suppose you're evaluating three alternative MMMF investments. The first fund buys a diversified portfolio of municipal securities from across the country and yields 4.8 percent. The second fund buys only taxable, short-term commercial paper and yields 7.5 percent. The third fund specializes in the municipal debt from the state of New Jersey and yields 4.5 percent. If you are a New Jersey resident, your federal tax bracket is 35 percent, and your state tax bracket is 8 percent, which of these three MMMFs offers you the highest after-tax yield?

- 18. Taxes and MMMFs** In the previous problem, which MMMF offers you the highest yield if you are a resident of Texas, which has no state income tax?
- 19. Closed-End Funds** The Argentina Fund has \$275 million in assets and sells at a 12.5 percent discount to NAV. If the quoted share price for this closed-end fund is \$8.75, how many shares are outstanding? If you purchase 1,000 shares of this fund, what will the total shares outstanding be now?
- 20. Closed-End Fund Discounts** Suppose you purchase 5,000 shares of a closed-end mutual fund at its initial public offering; the offer price is \$10 per share. The offering prospectus discloses that the fund promoter gets a 9 percent fee from the offering. If this fund sells at a 10 percent discount to NAV the day after the initial public offering, what is the value of your investment?

**Chapter 4**  
**Mutual Funds**  
Answers and solutions

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**Answers to Multiple Choice Questions**

1. D
2. D
3. D
4. D
5. A
6. B
7. D
8. C
9. B
10. D
11. C
12. A
13. A
14. B
15. D

**Answers to Chapter Questions and Problems**

1. Mutual funds are owned by fund shareholders. A fund is run by the fund manager, who is hired by the fund's directors. The fund's directors are elected by the shareholders.
2. A rational investor might pay a load because he or she desires a particular type of fund or fund manager for which a no-load alternative does not exist. More generally, some investors feel you get what you pay for and are willing to pay more. Whether they are correct or not is a matter of some debate. Other investors simply are not aware of the full range of alternatives.
3. The NAV of a money market mutual fund is never *supposed* to change; it is supposed to stay at a constant \$1. It never rises; only in very rare instances does it fall. Maintaining a constant NAV is possible by simply increasing the number of shares as needed such that the number of shares is always equal to the total dollar value of the fund.
4. A money market deposit account is essentially a bank savings account. A money market mutual fund is a true mutual fund. A bank deposit is insured by the FDIC, so it is safer, at least up to the maximum insured amount.
5.  $NAV = \$2.5B / 75M = \$33.33$

44 CHAPTER 4

6. Since the price quote is higher than NAV, this is a load fund.  
Load =  $(\$36.03 - \$33.33)/\$36.03 = 7.5\%$
7. NAV =  $\$56(1 - .025) = \$54.60$  ; Market value of assets =  $\$54.60(12.5M) = \$682.5M$
8. A capital appreciation fund seeks maximum possible growth without regard to income; an equity income fund is concerning with generating dividend income first, with growth a secondary goal. Generally speaking, a capital appreciation fund would be substantially riskier because maximum possible growth usually involves investments in newer, less well-established companies in less well-established industries.
9. Initial shares = 25,000. Final shares =  $25,000(1.069) = 26,725$ , and final NAV = \$1 because this is a money market fund.
10. You should probably buy an open end fund because the fund stands ready to buy back shares at NAV; with a closed-end fund, another buyer must make the purchase, so it may be more difficult to sell at NAV. We should note that an open end fund may have the right to delay redemption if it so chooses.
11. It's a growth (GR) fund. It's NAV is \$10.25; yesterday's NAV was \$0.10 lower, \$10.15. The fund levies a 3.5 percent load, so the offer price is  $\$10.25/(1 - .035) = \$10.6218$  per share. If you buy 100 shares, you pay \$1,062.18.
12. The fund's five year ranking is "A." Its one and three year rankings are lower. The A ranking means the fund's average annual return of 18.6 percent is better than at least 80 percent of the funds with the same objective.

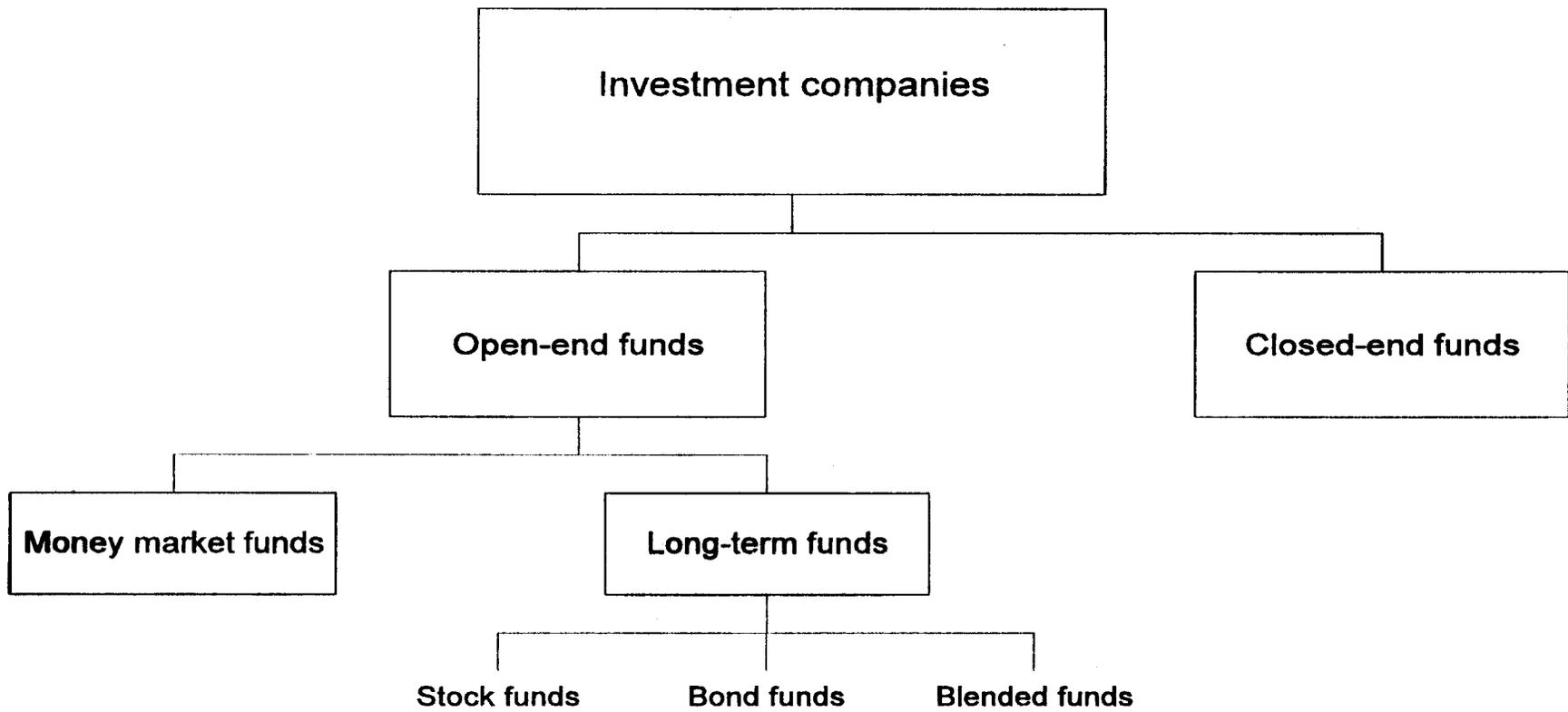
Intermediate

13. Turnover =  $X/\$1.2B = .45$  ;  $X = \$540M$ . This is less than the \$650M is sales, so this is the number used in the calculation of turnover in this case.
14. Management fee =  $.0085(\$1.2B) = \$10.2M$   
Miscellaneous and administrative expenses =  $(.0125 - .0085)\$1.2B = \$4.8M$
15. Initial NAV =  $\$18.75(1 - .06) = \$17.625$   
Final NAV =  $\$17.625(1 + [.18 - .0135]) = \$20.56$   
Sale proceeds per share =  $\$20.56(1 - .03) = \$19.94$   
Total return =  $(\$19.94 - \$18.75)/\$18.75 = 6.4\%$

You earned 6.4% even though the fund's investments grew by 18%! The various fees and loads sharply reduced your return.

- 16.** Initial NAV = \$18.75 ; Final NAV =  $\$18.75(1 + [.18 - .0085] ) = \$21.97 = \text{Sale proceeds}$   
 Total return =  $(\$21.97 - \$18.75)/\$18.75 = 17.15\%$
- 17.** Municipal fund:  $\text{aftertax yield} = .048(1 - .08) = 4.42\%$   
 Taxable fund:  $\text{aftertax yield} = .075(1 - .35 - .08) = 4.28\%$   
 New Jersey municipal fund:  $\text{aftertax yield} = 4.5\%$  ; choose the New Jersey fund.
- 18.** Municipal fund:  $\text{aftertax yield} = 4.8\%$   
 Taxable fund:  $\text{aftertax yield} = .075(1 - .35) = 4.88\%$   
 New Jersey municipal fund:  $\text{aftertax yield} = 4.5\%$  ; choose the taxable fund.
- 19.**  $(\$8.75 - \text{NAV})/\text{NAV} = -.125$  ; NAV = \$10  
 Shares outstanding =  $\$275\text{M}/\$10 = 27.5\text{M}$   
 For closed-end funds, the total shares outstanding are fixed, just as with a common stock (assuming no net repurchases by the fund or new share issues to the public).
- 20.** NAV at IPO =  $\$10(1 - .09) = \$9.10$   
 $(P - \$9.10)/\$9.10 = -.10$  ; P = \$8.19  
 The value of your investment is  $5,000(\$8.19) = \$40,950$ , a loss of \$9,050 in one day.

**Figure 4.1. Fund Types**



## Figure 4.2. Mutual Fund Expenses

### Fidelity Retirement Growth Fund

Prospectus  
January 19, 1994

## Expenses

### Expenses

#### Shareholder transaction expenses

are charges you pay when you buy or sell shares of a fund.

Maximum sales charge on purchases and reinvested dividends	None
Deferred sales charge on redemptions	None
Exchange fee	None

#### Annual fund operating expenses

are paid out of the fund's assets. The fund pays a management fee that varies based on its performance. It also incurs other expenses for services such as maintaining shareholder records and furnishing shareholder statements and fund reports. The fund's expenses are factored into its share price or dividends and are not charged directly to shareholder accounts (see page 22).

The following are projections based on historical expenses and are calculated as a percentage of average net assets.

Management fee	.76%
12b-1 fee	None
Other expenses	.29%
Total fund operating expenses	1.05%

**Examples:** Let's say, hypothetically, that the fund's annual return is 5% and that its operating expenses are exactly as just described. For every \$1,000 you invested, here's how much you would pay in total expenses if you close your account after the number of years indicated:

After 1 year	\$11
After 3 years	\$33
After 5 years	\$58
After 10 years	\$128

These examples illustrate the effect of expenses, but are not meant to suggest actual or expected costs or returns, all of which may vary.

Investment Updates (1/6/05)

# 'Soft Dollars' Makes Comparing Fund Costs Hard

By ABBY SCHULTZ

Special to THE WALL STREET JOURNAL

Savvy investors have learned that mutual funds with lean expenses can produce better returns. But can you find out what a fund's expenses really are?

Probably not, because fund managers can, and do, hide much of their actual costs by paying for research, computers, stock-quote systems and even phone calls and newspaper subscriptions with so-called soft dollars instead of cash.

It works like this: Say a fund manager needs a new laptop computer. Instead of buying the laptop and putting it down as a fund expense, the manager pays a slightly higher-than-necessary commission to a stockbroker—hence the term soft dollars—and the broker buys the laptop for him. Or, the fund manager might buy the computer himself and send the bill to the broker. In general, a fund's expenses cover management fees and general operating costs, but not commissions.

The more a fund manager can use soft dollars to pay expenses, the less expensive it appears that it is to run the fund—because soft dollars aren't included in calculating a fund's annual expenses. The consumer reading a prospectus is none the wiser.

Consumers can find out how much fund advisers pay in total commissions by requesting a "statement of additional information" from the fund. But that statement doesn't break out soft dollars. So a reader can't tell how much higher the commissions are than they would have been in the absence of soft-dollar dealings.

## Raising Trading Costs

Soft dollars can also result in higher trading costs for the fund. That can occur if a fund group's trading desk improperly steers stock and bond trades to certain soft-dollar brokers despite higher commissions charged by those brokers.

Despite their resemblance to kickbacks, soft dollars are legal in most instances. And they are nothing new. They originated way back when the Securities and Exchange Commission required brokerage firms to charge customers fixed commission rates. Soft dollars became a popular incentive for brokers to offer customers, and when the SEC deregulated commissions in 1975, it allowed the practice to continue.

A 1993 survey by Greenwich Associates, a consulting firm in Greenwich, Conn., found that 30% of commissions paid by investment firms were paid in "soft dollars."

Figure 4.3. Mutual Fund Objectives

<b>MUTUAL FUND OBJECTIVES</b>	
Categories compiled by The Wall Street Journal, based on classifications by Lipper Analytical Services Inc.	
<b>STOCK FUNDS</b>	
<b>Capital Appreciation (CP):</b>	Seeks rapid capital growth, often through high portfolio turnover.
<b>Growth (GR):</b>	Invests in companies expecting higher than average revenue and earnings growth.
<b>Growth &amp; Income (GI):</b>	Pursues both price and dividend growth. Category includes S&P 500 Index funds.
<b>Equity Income (EI):</b>	Tends to favor stock with the highest dividends.
<b>Small Cap (SC):</b>	Stocks of lesser-known, small companies.
<b>MidCap (MC):</b>	Shares of middle-sized companies.
<b>Sector (SE):</b>	Health/Biotechnology; Natural Resources; Environmental; Science & Technology; Specialty & Miscellaneous; Utility; Financial Services; Real Estate; Gold Oriented funds.
<b>Global Stock (GL):</b>	Includes small company global. Can invest in U.S.
<b>International Stock (IL) (non-U.S.):</b>	International; European region; Pacific region; Pacific EX-Japan; Japanese; Latin American; Canadian; Emerging Markets; International small cap.
<b>TAXABLE BOND FUNDS</b>	
<b>Short-Term (SB):</b>	Ultrashort obligation and short, short-intermediate investment grade corporate debt.
<b>Short-Term U.S. (SG):</b>	Short-term U.S. Treasury; Short, short-intermediate U.S. government funds.
<b>Intermediate (IB):</b>	Investment grade corporate debt of up to 10-year maturity.
<b>Intermediate U.S. (IG):</b>	U.S. Treasury and government agency debt.
<b>Long-Term (AB):</b>	Corporate A-rated; Corporate BBB-rated.
<b>Long-Term U.S. (LG):</b>	U.S. Treasury; U.S. government; zero coupon.
<b>General U.S. Taxable (GT):</b>	Can invest in different types of bonds.
<b>High Yield Taxable (HC):</b>	High yield high-risk bonds.
<b>Mortgage (MG):</b>	Ginnie Mae and general mortgage; Adjustable-Rate Mortgage.
<b>World (WB):</b>	Short world multi-market; short world single-market; global income; international income; Emerging-Markets debt.
<b>MUNICIPAL BOND FUNDS</b>	
<b>Short-Term Muni (SM):</b>	Short, short-intermediate municipal debt; Short-intermediate term California; Single states short-intermediate municipal debt.
<b>Intermediate Muni (IM):</b>	Intermediate-term municipal debt including single-state funds.
<b>General Muni (GM):</b>	A variety of municipal debt.
<b>Single-State Municipal (SS):</b>	Funds that invest in debt of individual states.
<b>High Yield Municipal (HM):</b>	High yield low credit quality.
<b>Insured (NM):</b>	California Insured, New York Insured, all other insured.
<b>STOCK &amp; BOND FUNDS</b>	
<b>Stock/Bond Blend (MP):</b>	Multi-purpose funds such as Balanced; convertible securities; income; flexible income; flexible portfolio; global flexible and other multi-purpose funds that invest in both stocks and bonds.

## Investment Updates: Parnassus Fund

### Sister Mary's answered prayer

It's easy to see why Jerry Dodson's "socially responsible" Parnassus Fund is a popular investment for charities and other nonprofits—source of 15% of the fund's \$150 million in assets. "Our investment universe is about 200 companies that are ethical, respect the environment, treat employees well and are sensitive to their communities," says Dodson. "Moreover, none is involved in alcohol, tobacco, gambling, weapons contracting and nuclear power." Those saintly traits certainly appealed to Sister Mary Bernadette McNulty, treasurer of the Sisters of St. Joseph of Orange, a 250-member order that runs eight hospitals in California. In late 1990, with the Dow mired at 2600 (down 10% from its then record peak before Iraq kidnapped Kuwait in August of that year), she says the group gamely socked 20% of its portfolio into Parnassus. The payoff? At last count the sisters' initial stake had risen in value nearly 2.5 times, or 30% a year, vs. the Dow's corresponding 12% annual return. "Jerry is by far the top performer among the seven investment managers we employ," she adds.

# A saintly stock picker names angels to ascend 48% in '95

Jerry Dodson, 51, dean of socially responsible investing (defined at left), is not your typical tree-hugging stock picker. In November, for example, the manager of the \$150 million Parnassus Fund in San Francisco (3.5% load, 800-999-3505) voted for California Gov. Pete Wilson because the incumbent Republican took a stronger pro-business stance than Democratic challenger Kathleen Brown. Moreover, Dodson, unlike most of his fund's peers, particularly the 13 politically correct ones, has trounced the market over the past three years. For that period, his fund returned 94%, triple the 32% earned by the S&P 500 index and the 30% average for socially responsible stock funds overall. What about disappointing 1994? At last count, Parnassus was up 8%, vs. no change for the S&P 500 and the do-gooders' 3% decline.

Why aren't the other altruistic funds so enriching? They tend to buy inherently pricey growth stocks "that happen to be good corporate citizens," says Dodson, a Harvard M.B.A. who founded Parnassus 10 years ago and now heads its team of four analysts. "We're strict value investors who wait until these companies encounter a sudden—but temporary—setback that effectively wrings much of the risk out of the stock."



Dodson's three-year return of 94% was triple the market's.

Figure 4.4. Mutual Fund Performance

## Performance Yardsticks

### How Fund Categories Stack Up

INVESTMENT OBJECTIVE	ON A TOTAL RETURN BASIS				
	YEAR-TO-DATE	FOUR WEEKS	ONE YEAR	3 YRS (annualized)	5 YRS (annualized)
Capital Appreciation	— 2.11%	— 0.67%	— 7.47%	+ 11.25%	+ 10.98%
Growth	+ 4.46	+ 1.26	+ 1.34	+ 17.21	+ 15.74
Small-Cap Stock	— 16.43	— 1.74	— 21.68	+ 7.59	+ 9.35
Mid-Cap Stock	— 7.81	— 1.22	— 12.14	+ 9.84	+ 10.82
Growth & Income	+ 4.15	+ 2.79	+ 3.50	+ 19.16	+ 16.57
Equity Income	+ 2.13	+ 2.43	+ 3.07	+ 17.62	+ 15.06
Global (inc U.S.)	+ 0.13	+ 1.87	— 4.93	+ 10.13	+ 9.95
International (non U.S.)	+ 1.80	+ 2.62	— 4.93	+ 6.86	+ 6.47
European Region	+ 8.88	+ 0.68	+ 6.61	+ 16.96	+ 14.28
Latin America	— 37.69	+ 7.54	— 46.38	+ 0.28	— 4.81
Pacific Region	— 15.92	+ 10.31	— 28.49	— 14.15	— 7.95
Emerging Markets	— 33.07	+ 3.46	— 44.62	— 11.12	— 8.11
Science & Technology	+ 9.08	— 0.51	— 4.52	+ 10.49	+ 16.05
Health & Biotech	+ 5.27	— 2.28	+ 0.49	+ 16.97	+ 18.32
Natural Resources	— 19.75	+ 1.31	— 32.12	+ 5.12	+ 4.37
Gold	— 10.70	— 1.09	— 35.88	— 17.90	— 11.47
Utility	+ 7.20	+ 1.76	+ 15.74	+ 16.25	+ 11.50
Balanced	+ 4.47	+ 1.31	+ 4.69	+ 13.98	+ 12.06
Intermediate Corp. Debt	+ 6.83	— 0.21	+ 9.25	+ 7.30	+ 6.13
Intermediate Gov't	+ 7.47	+ 0.07	+ 10.01	+ 7.23	+ 5.86
Long-Term Govt.	+ 7.79	— 0.30	+ 11.40	+ 7.45	+ 6.13
High-Yield Taxable	— 6.56	— 3.34	— 6.42	+ 6.71	+ 6.73
Mortgage Bond	+ 4.94	— 0.16	+ 6.84	+ 6.70	+ 5.74
Short-Term US	+ 6.17	+ 0.42	+ 7.80	+ 6.32	+ 5.27
Long Term	+ 5.05	— 0.69	+ 7.38	+ 7.19	+ 6.26
General US Taxable	— 1.31	— 0.84	— 1.22	+ 6.79	+ 5.73
World Income	+ 1.00	+ 2.32	+ 0.79	+ 6.79	+ 5.02
Short-Term Muni	+ 4.07	+ 0.50	+ 5.50	+ 4.77	+ 4.29
Intermed.-Term Muni	+ 4.99	+ 0.49	+ 7.61	+ 6.04	+ 5.11
General L-T Muni	+ 5.04	+ 0.23	+ 8.60	+ 7.10	+ 5.47
High-Yield Muni	+ 4.84	+ 0.13	+ 7.98	+ 7.38	+ 6.01
Insured Muni	+ 5.17	+ 0.38	+ 8.70	+ 6.90	+ 5.38

## Figure 4.5. Fidelity Investments Funds

Name	NAV	Net Chg	YTD %ret
<b>Fidelity Invest:</b>			
AMGrIn	12.45	+0.01	+ 5.8
A Mgr	18.67	+0.09	+ 4.2
AMGrGr	19.23	+0.13	+ 4.1
Balanc	15.08	+0.10	+ 9.6
BluCh	42.76	+0.50	+14.4
Canad r	12.56	+0.05	-24.0
CapAp	18.58	+0.27	- 4.1
Cplnc r	8.91	+0.10	- 5.0
CngS	336.73	-0.66	+11.1
Contra	49.96	+0.54	+ 7.3
ContraII	8.88	+0.15	NS
ChvSc	17.26	+0.35	+ 1.3
DestI	25.83	...	+ 9.3
DestII	14.93	...	+ 8.3
DisEq	26.99	+0.19	+ 4.4
DivIntl	16.78	-0.02	+ 4.0
DivGth	25.60	+0.16	+19.6
EmGr r	26.81	+0.43	+13.3
EmrMkt r	6.55	+0.06	-31.8
Eq Inc	52.31	+0.23	+ 2.2
EQII	28.66	+0.18	+ 8.7
Europ r	31.83	+0.12	+ 6.3
ErCapAp r	15.81	+0.08	+ 7.7
Exch	226.34	+1.50	+ 7.6
Export	16.67	+0.24	+ 2.6
Fidel	31.75	+0.29	+12.0
Fifty	13.89	+0.24	- 4.8
France r	14.45	+0.13	+15.1
GNMA	10.89	-0.01	+ 5.2
Germany r	14.25	-0.07	+11.9
GloBal	15.55	+0.06	+ 7.6
GovtInc	10.22	-0.02	+ 7.9
GroCo	46.07	+0.70	+ 7.4
GroInc	40.51	+0.21	+11.7
Highinc r	11.32	+0.08	- 5.5
HKChina	9.61	-0.03	-12.8
IntBd	10.33	-0.01	+ 6.7
IntGov	9.98	-0.01	+ 7.2
IntGr	19.24	+0.06	- 2.3
IntIBnd	9.06	+0.03	+ 4.5
IntVal	12.07	+0.01	- 0.3
InvGB	7.40	-0.01	+ 6.5
Japan r	10.27	-0.21	+ 2.5
JpnSmCo r	6.04	-0.11	+ 9.4
LargeCap	14.31	+0.19	+15.0
LatinAm r	10.94	+0.30	-36.5
LowP r	20.87	+0.15	- 9.1
MagIn	102.83	+1.02	+10.8
MidCap	15.16	+0.15	- 2.9
MtgSec	11.03	...	+ 5.1
NewMkt r	8.94	+0.06	-24.4
NewMill	22.64	+0.55	+ 2.4
Nordic	15.66	+0.01	+10.1
OTC	34.10	+0.41	+ 9.7

Blue Chip Fund →

### Figure 4.6. The Mexico Fund (MXF)

Mexico Fund →

52 Weeks		Stock	Sym	Div	Yld %	PE	Vol 100s	Hi		Lo		Close	Net Chg
Hi	Lo							Hi	Lo				
22%	17%	▲ Mestek	MCC	...	11	13	18%	18%	18%	...	...	...	
25 1/8	25 1/4	MetEdCap	pIA	2.25	8.8	...	725 1/8	25 1/8	25 1/8	25 1/8	+ 1/8	...	
17%	10%	▲ MetPro	MPR	.30f	2.5	12	112	12 1/4	12	12 1/4	+ 1/8	...	
20 1/8	6 3/8	Mtts USA	MUI	...	12	577	10 1/8	9%	9%	9 3/4	+ 3/8	...	
27	7 1/8	▲ MicroGlow	MGM	...	dd	1667	9%	8%	8 1/8	- 13/16	...	...	
10 1/8	6 1/4	Metrogas	MGS	.90e	11.0	...	11	8%	8%	8%	...	...	
22 7/8	14	MetIrToledo	MTD	...	...	769	22%	20 1/2	21 1/8	+ 1 3/8	...	...	
11 1/8	4 3/8	MexEplncoFd	MXE	3.56e	55.3	...	673	6 1/2	6 1/8	6 7/8	+ 5/8	...	
22 7/8	7 3/8	MexicoFd	MXF	.83e	7.3	...	5800	11 7/8	10 1/8	11 7/8	+ 7/8	...	
38 3/8	20 1/8	MicronTch	MU	...	dd	24238	34 1/8	33%	34 1/8	+ 1 1/8	...	...	
29 7/8	22 3/4	▲ MidAmApt	MAA	2.20	9.0	24	353	24 1/2	24	24 3/4	+ 1/8	...	
27	23 1/4	▲ MidAmApt	pfA	2.37	9.8	...	8	24 1/8	24	24 1/8	- 3/8	...	
25 1/4	23	▲ MidAmApt	pfC	.59p	...	...	51	23 7/8	23 3/8	23 7/8	+ 7/8	...	
16 3/4	4 7/8	MidAllMed	MME	...	dd	3035	6%	6 1/8	6 1/2	+ 7/8	...	...	
15	11	▲ MidAllRtyTr	MRR	1.00	7.7	18	17	13 3/8	13 1/8	13 1/8	...	...	
26 7/8	17	MidAmEngy	MEC	1.20	4.6	18	2545	26 1/8	25 3/4	25 7/8	+ 1/8	...	
26 3/4	25	MidAmEngy	QUPS A	2.00	7.7	...	6325	25 1/8	25%	25 1/8	+ 1/8	...	
26 7/8	14%	Midas	MDS	.04e	2	...	263	26 1/4	26	26 1/4	...	...	

# Rebound Candidates for '95

By WILLIAM POWER  
Staff Reporter of THE WALL STREET JOURNAL  
Closed-end funds are piling up in Wall Street's discount bin.

How they got there is a painful story for investors. But now that they're languishing, some closed-end funds could be positioned for a revival in 1995, analysts say.

In 1994, the 537 closed-end funds — the publicly traded equivalent of mutual funds — saw their average "discounts" widen to levels unseen in four years. A discount happens when the price of a closed-end fund, typically traded on the New York Stock Exchange, drops below the value of the fund's actual stockholdings. (In contrast, when a fund's price races ahead of its actual value, it's considered to trade at a "premium.")

"This is the time to buy closed-ends. This is where you make your money," declares Ron Olin, president of Deep Discount Advisors, an Asheville, N.C., money manager specializing in closed-end funds.

Which is not to say that investors should run out and buy any old closed-end fund that's trading at a discount. Many got that way for a good reason. ("Some funds are cheap because they stink," says one analyst.) But the overall group does appear to have been overly punished. And, just as with common stocks, it's often good to buy when things look worst.

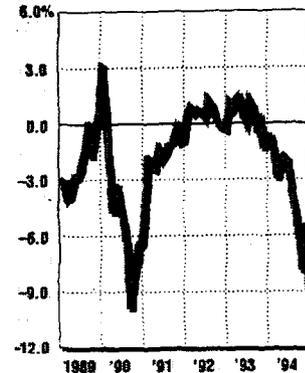
"Discounts can often be a pretty good contrarian market indicator," says Colin Mathews, analyst at Morningstar Closed-End Funds newsletter in Chicago.

Mr. Mathews notes that if you bought closed-end funds in mid-1990, the last time the sector was this battered, "you would have done extremely well. Conversely, if you saw the premiums at the end of 1993, particularly among emerging-markets funds like the Latin America funds, and pulled out, you would have gotten out at the top."

## Wall Street's Discount Store

### Closed-End Discounts Widen...

Average monthly premium or discount of closed-end funds



Source: Morningstar Closed-End Funds

### Led by Asian Funds

Funds with largest difference between recent discount and average historical discount\*

FUND	RECENT PREMIUM OR DISCOUNT	PERCENTAGE POINTS BELOW AVG.
Korea	+5.5%	-40.7
Taiwan	-9.3	-34.0
Thai	-21.8	-32.7
Spain	-9.2	-19.8
Gemini II Inc.	+12.2	-18.8
NAIC Growth	-17.0	-18.2
Germany	-15.5	-17.2
Colonial Invest. Grade Muni	-11.2	-16.5
Convertible Holdings	+5.9	-16.2
Blackrock Strategic Term	-13.7	-15.9

\*Data as of Dec. 16

### Trouble in Foreign Stocks

Worse hit: "country funds" that invest in stocks in Europe and Asia and elsewhere, which lost an average 18.7%. U.S. municipal-bond funds lost 15.1% on average. U.S. stock funds did best, losing "just" 7.8%.

Why were the closed-end funds battered more than the overall market? For one thing, closed-end funds — particularly country funds, which invest in a single country or region — are always volatile, zigzagging up and down with abandon. And a slew of country funds came into the market this year right before things turned south. In addition, the asset values of several funds were diluted by a flood of so-called rights offerings of additional shares. Finally, there appeared to be a particularly high level of tax-loss selling among closed-end funds in late 1994.

Michael Porter, a country-fund analyst at Smith Barney Inc., says country funds in particular are poised for a rebound.

With these often-trendy funds, "people overreact to both good and bad news, and they're usually wrong at both extremes," Mr. Porter says.

Mr. Porter also favors the arbitraging of funds, or buying one fund while short-selling another to take advantage of differences in discounts. (In a short sale, an investor sells a borrowed security in hopes that the price will decline. The investor can then replace the security at a lower price and pocket the difference.) For example, Mr. Porter suggests shorting Scudder New Asia Fund and buying Schroder Asian Growth Fund. This sophisticated strategy isn't for most investors, however.