

PART I

Mutual Funds: Nature, Regulation, and Costs

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CHAPTER 1

The Nature of Mutual Funds

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As a first-year doctoral student at the Pennsylvania State University in 1990, I wrote my investments seminar paper on the performance of a sample of open-end mutual funds. My professor indicated that the paper was methodologically sound but suggested to me that finance academics did not really care about mutual fund performance (or, for that matter, about mutual funds, in general). So he advised that I examine something else in future research. Academics often lag what is of interest in the “real world,” and I recall thinking that mutual funds were important, and likely to become more so over time. But as a doctoral student, one learns to do what one is told to do. So, I put down the mutual fund topic during the rest of my doctoral program, although my interest in funds never waned. Soon after entering the professorate in 1993, I restarted my formal research on mutual funds. That research continues to this day.

While I had suspicions in 1990 that mutual funds would become an interesting and important topic, I did not even come close to imagining then what has actually happened in the mutual fund universe over the nearly two decades since my first research effort as a doctoral student. At the time of my first study, there were a few hundred open-end mutual funds that held about \$1 trillion total. Today, there are well over 10,000 funds holding about \$10 trillion in wealth. A confluence of societal and corporate trends over this time, the biggest of which being the large-scale changeover from defined benefit to defined contribution retirement plans, has fueled the tremendous growth of assets held in open-end mutual funds.

There has also been explosive growth in academic research about mutual funds. Most of that research in finance examines fund performance issues, broadly addressing the question: Do mutual funds “beat the market”? More recently, there has been a growing stream of research on institutional and structural aspects of mutual fund services and providers (Sirri and Tufano, 1998). One might view this research as more oriented toward marketing, studying the intersection of the supply and demand for mutual funds as well as the growing segmentation of both sides of that fundamental equation. The broad growth in the demographics of individuals owning funds partly explains this research trend. Several decades ago, mutual fund ownership was concentrated among the affluent. Now funds are owned by a wide range of individuals across the income spectrum. Over the past two decades, open-end mutual funds have become the primary financial wealth

accumulation vehicle in American society, especially for middle-market consumers and the “emerging affluent.” Understanding mutual funds has thus become critical for social well-being. Nowhere is this decision more evident than in the choice of funds for an individual’s retirement plan.

This chapter first provides an overview of the nature, structure, and services of open-end mutual funds. The goal of this chapter is to introduce the reader to the characteristics of the open-end fund as well as the competitive environment for investment products. This chapter also sets the stage for more detailed discussions of various aspects of mutual funds that are presented in subsequent chapters. This overview chapter highlights how the open-end fund is unique, and the advantages and disadvantages the product has for individual investors. The discussion focuses on the key attributes of open-end funds, with the individual investor’s perspective in mind. Upon moving to Chapter 2, the reader should have a sense for the relevant factors necessary for understanding the open-end fund product and ultimately how these factors compare to those in alternative investment vehicles.

ATTRIBUTES OF THE OPEN-END MUTUAL FUND

Board of Directors

Open-end mutual funds are pooled investment products where a large number of individual investors can each own a “slice” of the investment pie. Stepping back from that general description, it is first important to understand how mutual funds are controlled. Most mutual funds are corporations or trusts that are managed by a board of directors, which consists of both inside and outside members. Inside members are typically officers of the investment adviser that manages the funds’ assets while outsiders (independents) can come from various occupations and backgrounds (some are even college professors). The mutual fund board’s primary responsibility is to protect the interests of the fund’s shareholders, similar to the duty that a board of directors has in an operating company. One key task that the independent directors of a mutual fund board face is the negotiation of the investment advisory agreement, which takes place during the “15-c process” (named after a provision in the 1940 Investment Company Act [ICA]). Another key task of the independent directors is to approve and oversee the fund’s independent auditors.

The board also technically oversees the other service providers of the funds, such as the distributor (who performs or oversees the actual transactions in fund shares with investors), transfer agent (who keeps shareholder records), and custodian (who holds the inventory of the fund’s securities). Once the investment advisory agreement is signed, the investment management company typically manages the day-to-day aspects of the service providers above. As Gremillion (2005) states, a number of investment management companies perform some or even all of the distribution and transfer agent functions themselves while others outsource these functions. The inside members of the board, much like inside board members/officers of the corporation in an operating company, typically oversee the administrative service functions of the fund on a day-to-day basis.

The ICA requires that a mutual fund board have a majority of independent directors. In recent years, there have been proposals to strengthen the “independence” of mutual fund boards by requiring that three-quarters of all board

members be independent and that the chairman of the board be independent. These governance proposals have been controversial, and are discussed in more detail in Chapter 2 in the context of current regulatory challenges.

Liquidity

Perhaps the most distinguishing attribute of the open-end mutual fund is its liquidity feature. In an open-end fund, the *fund itself* stands ready to buy and sell shares from investors at the fund's net asset value (NAV) each day (the fund is "self-liquidating"). For purposes of introduction, the reader can assume that NAV equates to fair market value of a share of the fund. So investors can generally buy or sell (redeem) shares of the fund for its fair market value each day, with the fund itself taking the opposite side of the transaction. This daily self-liquidating feature of the open-end fund is unlike the liquidity mechanisms in the competing investment structures. For example, compare the open-end fund to the closed-end fund. Investors have the ability to purchase or liquidate fund shares in closed-end funds, but the mechanism for exchange is typically trading the shares of the fund with another investor. As such, trading in closed-end funds is similar to trading a stock on an exchange (such as the New York Stock Exchange). In fact, many closed-end funds are listed on an exchange and traded similarly to stocks. In closed-end vehicles, purchases by investors do not add to total assets in the fund, nor do redemptions reduce the total assets in the fund. Thus in a closed-end fund, trades would most often take place with another investor and not the fund itself, unless the fund was repurchasing its own shares or selling new shares in as in a secondary equity offer. These are usually rare events and not the day-to-day reality.

Why is this self-liquidating feature of the open-end fund such a big deal? Having the fund standing ready to buy or sell shares from investors each day as opposed to transacting shares in a marketplace sounds like a somewhat trivial distinction. This feature, however, has probably been the single most troublesome regulatory issue surrounding open-end mutual funds since their birth in the 1920s. There are several reasons for this, but one relates to computation of the sale price, the fund's NAV, as mentioned earlier. Ciccotello et al. (2002) details the historical regulatory issues, which initially related to computation of the NAV so as to avoid allowing the purchase or sale of shares at a "stale price." In the past decade, in particular, large advances in technology have allowed for rapid order submission as well as an increase in the submission of bundled orders ("omnibus accounts") to funds. This has put a strain on the challenges present in calculating NAV so as to not provide those who trade an advantage in doing so (Edelen, 1999). Chapter 2 details some of the regulatory and operating issues associated with fund pricing and rapid trading.

Aside from technical issues with setting the correct NAV, the fund's self-liquidating feature can also have significant performance implications. Stepping back and thinking about how open-end fund performance is comprised is illustrative. Suppose that a stock fund has \$500 million in assets today, and tomorrow \$500 million of cash inflows arrive at the fund. The portfolio manager's job has just doubled in size, and the overall return of the fund is now a blend of the return on the existing assets and the return on the new assets. Presumably, these inflows start as cash equivalents (they are put into a money market type of account) and remain as such while the portfolio manager invests them into assets in the fund's

particular investment objective. This would be stocks if the fund were a stock fund, bonds if it were a bond fund, and so on. Now reverse the process, and consider a \$1 billion fund today where investors request \$500 million in redemptions tomorrow. In this case, the portfolio manager might be in position where she might have to sell securities (such as stocks if the fund is a stock fund) in the portfolio to meet redemptions. Since the manager might have to sell securities to meet redemptions, open-end funds tend to hold securities that themselves are liquid in that they can be sold quickly and for fair value. In contrast, closed-end funds can hold illiquid securities in the portfolio since investors seeking to sell typically have to trade with other investors instead of redeeming assets from the fund itself.

So an open-end fund manager must not only select securities but also manages the portfolio with an eye toward daily flow into and out of the fund (Greene and Ciccotello, 2006). This aspect of portfolio management is unique to the open-end fund vehicle. The reader might suspect that these fund flow examples were concocted to overstate the point, but that is not really so. In recent years, both investment professionals and academics have become increasingly concerned with the performance and regulatory implications of “flow” into and out of mutual funds. The ability to buy and sell shares from an open-end fund is defined by the fund’s prospectus. Some funds restrict trading either by limiting the number of trades an investor can make in a given period of time or by imposing a minimum length of time between trades. Other funds impose a redemption fee, which requires that a percentage of the sale (2 percent is typical) be returned to the fund for the privilege of trading. Allowing an investor to trade in excess of prospectus limits while enforcing those limits against other shareholders can violate the prospectus and lead to regulatory action. Such problems were at the core of the mutual fund market timing scandal that broke in September 2003 (Hulbert, 2003; Masters, 2003). Chapter 2 discusses in more detail the issues associated with violation of prospectus trading limits during the recent mutual fund market timing scandal.

More generally, the timing of inflows and outflows from open-end funds has been a hot topic for academic research over the past decade. As Edelen (1999) observes in his groundbreaking paper, flows into open-end funds can have a significant impact on performance. As Braverman, Kandel, and Wohl (2005) observe, investors tend to buy shares in open-end funds after stock market prices have increased in the sector (or asset class) where funds invest, and similarly, they tend to request redemptions after market prices have fallen in that sector. Thus, mutual fund investors tend to chase performance and often arrive “late to the party.” Arriving late in a mutual fund context means buying shares after asset prices have already risen (and are more inclined to fall) or vice versa. Behavioral arguments suggest that investors would tend to herd by following the crowd—buying into sectors that have done well.

Also consider the actual portfolio management challenges associated with flows into and out of the fund on a daily basis. While mutual fund portfolio managers do have some discretion about how quickly to invest or divest from the fund’s risky asset base of stocks (assuming a stock fund), poorly timed flows into funds can create a significant performance issue. Since the fund is a pooled investment vehicle with a self-liquidating feature, those investors who are not trading can be impacted by the trades of those investors who trade. Fund (in- and out-) flows have thus become a significant aspect both of the management

of mutual funds, as just mentioned, and in the reporting of fund performance. Fund flows also set up a conflict between the interests of shareholders who might want to trade funds often and those who want to buy and hold funds. This regulatory issue surrounding trading and performance reporting is discussed in more depth in Chapter 2.

In the context of this overview chapter, the key takeaways are that liquidity in an open-end fund matters to fund management and performance.

All-Equity Capital Structure

Another attribute that distinguishes open-end funds from other pooled investment vehicles is that open-end funds have a very simple all-equity capital structure. Sections 12 and 18 of the ICA limit any type of borrowing and forbid the issuance of senior securities (bonds) by an open-end investment company (Gremillion, 2005, p. 22). Closed-end funds, by contrast, often rely on both debt and equity (common and preferred stock) capital. According to the 1940 ICA, a closed-end fund may have up to 33 percent of its assets financed with debt (leverage). This might seem like a manageable amount of leverage, but debt can create problems for closed-end funds, as the 2007–2008 meltdown in the auction rate market (where many closed-end funds had borrowed funds) illustrates (Gullapalli, 2008; Rappaport, 2008).

From the investor's perspective, the lack of leverage in an open-end fund has both costs and benefits. Prudent use of leverage can enhance the returns of stockholders in a firm or in a fund. However, a leveraged capital structure adds risk. The ICA does recognize this risk; that is why the law imposes debt limits on closed-end funds. But consider an example where a pooled investment vehicle is not subject to any leverage restrictions (one might call such an investment a hedge fund). If such a fund employed high leverage and also had restrictions on redemptions, an equity investor would be holding both an illiquid and a highly levered investment vehicle. Now assume that the fund's investment objective is to create value by buying and selling assets in a high-risk asset class with the accompanying high price volatility. The balance sheet risk of this fund is very high. The example fund has highly volatile assets, which may be illiquid themselves, a highly levered capital structure, and low liquidity for shareholders regarding shares of the fund itself. Falling asset prices can quickly lead to financial distress and large losses in shareholder value, as in the 2008 debacles with Bear Stearns hedge funds (Kelly, 2008) and, in the more distant past, Long Term Capital Management.

The open-end fund stands at the other end of the spectrum with regard to capital structure risk. Since the open-end fund must be unlevered, the returns to shareholders of the fund cannot be magnified (up or down) relative to the returns of the assets the fund holds. Together with the self-liquidating feature, the absence of leverage provides individual mutual fund investors with a low-risk investment structure, independent of the considerations about the nature of the investments held by the fund. Such a structure is especially valuable in the case of redemptions in a period of falling asset (stock) prices. An open-end fund manager might be forced to sell securities to meet redemptions in such an environment, but she would not be forced to sell securities in order to avoid breaking any covenants associated with debt the fund is carrying—because the open-end fund has no debt.

Despite the debt restrictions just discussed, some fund families have started to offer open-end funds that have the ability to take “short” positions in a portion of their portfolio. Short positions occur when the fund borrows securities and sells them into the market with the goal of buying them back later at a lower price. Investors should be wary of these types of funds (typically identified by a title such as a 130/30 fund, indicating that up to 30 percent of the portfolio may be short positions). These funds may present higher risks than ordinary open-end funds due to the use of margin borrowing to hold short positions.

Portfolio Diversification

Open-end funds tend to hold a large number of securities within their given asset class (such as stocks, bonds, or cash equivalents) and investment objective. Even the most “focused” funds tend to hold at least 20 securities—the Janus 20 fund comes to mind as an example. Holding a large number of individual securities in one investment vehicle is a big plus for investors in funds. The single most powerful (Nobel Prize-winning) and useful idea in all of finance is that investment diversification has benefits (Markowitz, 1959). Holding an undiversified portfolio is a bad idea, as the investor is not rewarded for taking company-specific risks. The open-end mutual fund especially provides a powerful advantage for individual investors with smaller amounts of capital to invest, because the fund’s diversification is provided for them at the most critical time—when they have the small amount of capital. Since younger individuals tend to have less capital to invest than older investors, diversification is also provided to protect their most critical investments—those with the longest time horizon for compounding.

Minimum investments in funds vary across investment managers. Typical entry-level investments might be \$100,000 to \$300,000, but employees entering a retirement plan (such as a 401[k]) typically do so with no required minimum. Employees make their first monthly contribution (with a match from the employer, it is hoped). Next month, the process continues. Without a pooled investment vehicle, an investor with a small amount of capital might choose to buy a single stock (a bad idea). Alternatively, an investor might be able to use a brokerage account to purchase a closed-end fund or exchange-traded fund each month as he accrues wealth for retirement. Such a strategy would address diversification needs but would require payment of a commission each month, unlike the open-end fund. Issues regarding choices of investment vehicles are discussed in more depth later in this chapter.

Professional Management

Successful negotiation of the investment advisory agreement results in a contract for the investment adviser’s day-to-day management of the fund. The aspect of this task most frequently examined is the selection of securities by a portfolio manager—and the resulting fund performance. Clearly, the selection of securities is one key job of the fund manager. A vast body of academic literature explores mutual fund manager performance with evidence mixed about how and whether mutual fund managers can beat the market (Carhart, 1997). For readers of this chapter, the key point should be that all investment managers charge some fee for

investment advisory services. Performance that investors experience is net of fees charged. The higher the fees, the better the portfolio manager must be, all else the same (Bogle, 2005; LaPlante, 2001).

Parsing the universe of open-end mutual funds into two classifications is useful for thinking about investment strategies and investment fees. Some funds are passively managed, meaning that their goal is to track the performance of a specific market index, such as the Standard & Poor's (S&P) 500. Portfolio managers of passively managed funds tend to trade fairly infrequently, and when they do so, it is to minimize the difference (tracking error) between the performance of the fund and that of the market index they track. Other funds are actively managed, meaning that their goal is to employ a manager-specific investment strategy to the fund's assets. Active management strategies come in numerous forms; some rely on fundamental analyses of value while others rely on technical indicators of value. As the names imply, active management tends to be more expensive than passive management, although even passively managed funds have a range of expenses (Haslem, Baker, and Smith, 2006).

The fundamental issue for investors, stated in academic terms, is whether active managers can earn their (higher) advisory fees. If the marketplace for mutual fund management were in a competitive equilibrium, one might expect that active fund management would result in obtaining information that translated into superior trading capability but that, net of the higher costs of active management relative to passive management, the returns of active and passively managed funds would be similar. The evidence on this point is mixed, although recently there has been more emphasis on questioning the growth of actively managed funds in the face of their relatively poor overall performance (French, 2008). Subsequent chapters in the book discuss the regulatory and performance aspects of mutual fund fees in greater detail.

Investor Services

Professional management of open-end mutual funds involves more than picking securities and managing fund inflows and outflows. These activities typically do not involve direct contact with investors, who are the ultimate owners of the fund. So if the portfolio manager herself does not interact with investors on a day-to-day basis, who actually services investors? There are a range of tasks, such as order processing, fund performance reporting, tax reporting, beneficiary designations, and even assistance in fund selection that fall under this category. One useful way to group these activities might be to think of them as investor servicing issues.

Fund-level personnel could handle investor servicing tasks, but the nature of these tasks might suggest that they could be efficiently executed by administrative personnel who serve several funds at once. Consider that most open-end mutual funds belong to a fund family (also called a fund complex). Fidelity is one example; T.R. Price is another. Families can provide economies of scale in the administration of investor servicing. Indeed, the roles and importance of fund families are growing areas of academic research (Ciccotello, Greene, and Walsh, 2007; Hechinger, 1999).

Reputation of fund families might be linked with investment style (Massa, 2003). For example, the Janus family built its reputation as a growth stock investment family. But some mutual fund industry observers believe that competitive

advantage in the industry is becoming more closely linked with the quality and scope of investor servicing, since security selection is becoming increasingly commoditized by the growth in the number and variety of funds. With over 10,000 mutual funds run by highly sophisticated investment professionals, the view is that any security selection advantages that a particular investment adviser might have would tend to be short-lived.

Pozen (2002) argues that the move in the mutual fund industry is toward "open architecture," where an investor can have a choice of funds that transcend a single family through a servicing portal. Black, Ciccotello, and Skipper (2002) assert that brand in financial services is moving toward the distributor and away from the originator. These trends clearly bring marketing issues and the proper "boundary" of the mutual fund firm into the discussion. Similar to firms involved in the value chain for tangible goods, mutual fund families must consider matching their strategy and structure to best serve their target clients (Milgrom and Roberts, 1995).

Consider the marketing issues associated with starting a new open-end mutual fund. If an investment adviser has an investment strategy that she believes will be successful, that alone is not enough to start an open-end fund. Investors are needed. The investment adviser must attract capital in an environment where an investor has tens of thousands of choices. Moreover, that advisor must then address the management of the accounts of the capital she attracts. This is really a customer service or investor relations function, where the adviser herself (or her outsourced entity) actually has direct contact with the investor. In the increasingly competitive open-end mutual fund environment, some investment management companies may decide that they cannot perform both security selection and investor servicing functions well. Evidence of this choice is the growth in open-end fund distribution innovations, such as fund supermarket platforms (Reid and Rea, 2003). Similar to a supermarket for groceries, a fund supermarket offers a one-stop-shop for funds.

Beginning in 1992, the Charles Schwab No-Transaction-Fee (NTF) Supermarket offered investors the ability to choose from among the funds of many different investment companies (also called mutual fund families). With the fund supermarket, investors have the advantage of a unified account, which is helpful for tax administration and record-keeping purposes. Ciccotello, Miles, and Walsh (2006) find that smaller, more focused (as to investment objective) fund management companies tend to rely more on supermarket distribution than larger, less focused families. This trend is growing more noticeable over time and is consistent with arguments that the goal of these smaller fund families is to focus on security selection and outsource servicing.

Investor servicing is also becoming more important in an era of increased number of choices investors have with regard to "asset locations." The traditional asset location for a mutual fund was an ordinary, after-tax account. In that type of account, interest and dividends paid by the mutual fund and passed through pro rata to its investors trigger ordinary income for current-year tax purposes. At present, qualified dividends receive special tax treatment, but this is not guaranteed to continue. Realized capital gains (either long or short) also trigger current-year tax treatment. Unrealized capital gains become a "tax overhang" in the fund that might be realized at some future time. Tax efficiency in funds is a growing area of research and clearly intersects both investment management issues (since trading of securities has tax consequences) and investor servicing.

As complicated as that all might be, especially given the various tax results that individual investors might experience based on the days entered, stayed in, and left the fund in a given tax year, the current tax situation has become much more involved. Many investors now purchase funds through tax-deferred accounts, such as 401(k) accounts, Individual Retirement Accounts (IRAs), or Simplified Employee Pensions (SEPs). In this kind of tax-deferred asset location, fund distributions such as income and capital gains do not affect investors' current year taxes. Consider, however, that all monies that individuals eventually remove from the tax-deferred account itself are considered and taxed as ordinary income, as opposed to capital gains. The fundamental issue, identified by Horan (2002); Bergstresser and Porterba (2004); Dammon, Spatt, and Zhang (2004); and Reichenstein (2007), is that tax efficiency from the investors' perspective might indicate putting certain types of investments in certain types of asset locations. All else equal, from a tax efficiency perspective, bond funds are better placed in tax-deferred accounts. This is because the ordinary income from bond interest is shielded from tax in the tax-deferred account. Similarly, stock funds may be better located in taxable accounts because long-term capital gains tax rates are lower than those on ordinary income.

The story does not end with tax-deferred retirement accounts. There has been an explosion in education funding accounts, for example, 529 Plans, where capital contributed (and often held in mutual funds) receives preferential tax treatment when it is redeemed from the fund and used for educational purposes. Similarly, there is likely to be explosive growth of health savings accounts (HSAs), where funds taken from the account receive favorable tax treatment if used for medical expenditures. Again, it is likely that open-end funds will form a major investment within HSAs.

What responsibility does the mutual fund company have for all this? The recent research on asset location mentioned earlier suggests that the growth in the number of asset locations is triggering the need for more careful coordination of investments chosen and places (types of accounts) where those investments are made. This is creating a necessity for advice that links investments with tax and individual investor goals. Ultimately, what investors will have to do is convert their wealth, now largely held in mutual funds, to income that is needed to address specific goals. The process and efficiency of conversion from wealth to income is a major growth area for financial planning firms. For investment management firms, the decision will be the degree to which they focus on security selection as opposed to offering the potential array of broader investor service functions.

The danger for open-end funds in relying solely on security selection may be the eventual disconnect from the customer, as seen in the supermarket account. For example, Schwab mutual fund supermarket customers hold shares in the mutual funds from a large number of different fund families. These investors are Schwab customers, not the customers of the individual funds (Ciccotello et al., 2007). Often the fund itself may not even know the identity of the individuals who comprise the supermarket account. The interesting point in all of this is the consideration of brand loyalty. Suppose that financial products are like tangible goods. One goes to a supermarket (Kroger, e.g.) for one-stop shopping for groceries. It is convenient. On the shelves at Kroger are different brands of green beans, such as Del Monte. But Kroger also has its own brand of green beans, often less expensive than the

name brand. How long will it be until the brand of the supermarket overtakes the name brand of the product?

MUTUAL FUNDS AND THE COMPETITIVE ENVIRONMENT

This chapter has discussed the major attributes of the open-end fund. The open-end fund offers the investor a range of desirable features, including liquidity, all-equity capital structure, diversification, professional management, and a range of investor services. To complete this introductory chapter, consider these attributes within the framework of an investor choosing a vehicle to accumulate wealth for some specified goal. Suppose that we have a young investor beginning her first job and wanting to begin saving for retirement. What choices does that investor have?

Employer-Sponsored Retirement Plans

First, let us discuss the context of an employer-sponsored retirement plan account, such as a 401(k), then move on to discussing the choices the investor might have in other types of accounts, such as an IRA or an ordinary after-tax brokerage account. In many employer-sponsored retirement plans, the investment choices are limited to open-end funds. Open-end funds have been popular for retirement plans because of their liquidity feature, along with the benefits offered by instant diversification and professional management. The latter two attributes are very valuable for those employees with small account balances, which is everyone when they enter a plan anew (they start with a zero balance).

Most 401(k)-type retirement participants make monthly contributions, often matched to some degree by employers. The open-end fund accepts these as inflows; there is no need to trade in as would have to happen in a market-traded vehicle. Moreover, if a participant wanted to reallocate money toward a more conservative strategy as she ages, the open-end fund allows that redemption (from the fund itself) and the reinvestment into another fund. Many 401(k)-type plans offer a broad menu, but the selection is often from open-end mutual products as opposed to market-traded vehicles, like closed-end funds. Typically, a sponsor would offer an employee the choice of one or more open-end fund families in which to invest.

Two trends are worth noting in the design of employer-sponsored retirement plans and the offerings of open-end products. The first is the movement toward "default" options in plans. Default is what happens if the investor does not take an action. The default option emerging in retirement plans are the target-date retirement funds. Although many fund families now offer such funds, one of the first to do it was Fidelity, with the Fidelity Freedom Funds. These funds spell out a target retirement date, say 2050, 2040, or 2030, or 2020. Based on an individual's age, say 25 in our example, she would be placed in (or could choose herself) a target-date 2050 plan, which would put her in retirement at age 67.

Target-date retirement funds allow investors to stay in the fund and not have to reallocate their investments as they age. As time progresses and the retirement date draws closer, the fund moves toward a more conservative asset allocation. So, a fund with a target retirement date of 2050 might hold mostly (85–90 percent)

stocks, while a 2020 target-date plan might be more balanced between stocks and bonds (close to 50/50).

The second major trend in retirement plans is open architecture. What this means is that open-end funds are offered in a supermarket-type platform. While a single fund family or financial services firm might have baseline administrative duties for the plan, the individual who participates in the plan might be able to choose from the funds of literally hundreds of fund families. This is changing the relationship among fund providers, who now must often cooperate and share information in order to be listed on the platform offered by another fund provider acting as administrator for the plan. For investors who seek a wide variety of choices and investment strategies, this is a desirable platform. This structure raises the issues mentioned earlier regarding branding and recognition of funds.

Recall the earlier discussion of mutual fund attributes, including liquidity, all-equity capital structure, diversification, professional management, and investor services. Recent trends in the law increase the fiduciary duty of a retirement plan sponsor—think of this as the sponsor’s duty to see that investors do not hurt themselves. The open-end fund provides plenty of advantages in this context that may help it keep its favorable position in the employer-sponsored retirement plan going forward.

After-Tax Accounts

The discussion now turns from employer-sponsored retirement plans to individual accounts, either tax deferred, such as IRAs, or “ordinary” after-tax accounts. In this environment, the individual has more flexibility in terms of investment vehicles. Limiting the discussion to products that allow investment in a portfolio of assets, as opposed to investing in a particular firm, such as IBM stock, for example, the individual could choose an open-end fund, a closed-end fund, an exchange-traded fund (ETF), or a hedge fund.

Compared to these alternatives, the open-end fund generally offers the most investor-friendly set of attributes. An open-end fund investor can trade each day with the fund acting as the counterparty. This contrasts with exchange-based trading in either the closed-end fund or the ETF. At the end of the spectrum is the hedge fund, which may offer the ability for investors to buy and sell only at specific points in time.

Regarding capital structure, the open-end fund and ETF essentially do not rely on borrowed funds. The closed-end fund may borrow, but only to certain limits prescribed by the 1940 ICA. Hedge funds really do not have any limits on the use of leverage, and through the use of derivatives they can magnify (up or down) their returns dramatically relative to the other investment vehicles discussed in this chapter.

All of these products offer diversification and professional management, but the range of investment strategies that the hedge fund can offer is arguably broader than any of the other three products. This is clearly where hedge funds attempt to make their market, in that they can do what other vehicles cannot.

In sum, outside of the typical employer-sponsored retirement plan, the open-end fund is in direct competition with several vehicles. The competitors tend to

offer a riskier platform than the open-end fund, independent of the riskiness of the assets that the vehicle itself holds. Investors should consider the desirable attributes of the open-end fund structure in their decision. The open-end fund offers daily liquidity through the fund itself, diversification of investments, no risks associated with leverage, and professional management and services.

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