**Solutions for End-of-Chapter Questions and Problems: Chapter Five**

1. What is a mutual fund? In what sense is it a financial institution?

A mutual fund represents a pool of financial resources obtained from individuals and companies, which is invested in the money and capital markets. This process represents another method for economic savers to channel funds to companies and government units that need extra funds.

1. What are money marketmutual funds? In what assets do these funds typically invest? What factors have caused the strong growth in this type of fund since the late 1970s?

Money market mutual funds (MMMFs) invest in assets that have maturities of less than one year. These assets primarily are Treasury bills, negotiable certificates of deposit, repurchase agreements, and commercial paper. The growth in MMMFs since the late 1970s initially occurred because of rising interest rates in the money markets, while Regulation Q restricted interest rates on accounts in depository institutions. Many investors moved their short-term savings from the depository institutions to the MMMFs as the spread in the earnings rate reached double digits. A result of this activity was to introduce many investors to the capital markets for the first time.

At the end of 2008, the share of long-term funds plunged to 59.1 percent of all funds, while money market funds increased to 40.9 percent. Part of the move to money market funds was the fact that during the worst of the financial crisis, the U.S. Treasury extended government insurance to all money market mutual fund accounts on a temporary basis. As financial markets tumbled in 2008, money market mutual funds moved investments out of corporate and foreign bonds (12.4 percent of the total in 2007 and 6.1 percent in 2008) into safer securities such as U.S. government securities (13.6 percent of the total investments in 2007 and 35.5 percent in 2008).

1. What are long-termmutual funds? In what assets do these funds usually invest? What factors caused the strong growth in this type of fund from 1992 through 2007, the slowdown in growth in 2007-2008, and the return to growth after 2008?

Long-term mutual funds primarily invest in assets that have maturities of more than one year. The most common assets include long-term fixed-income bonds, common stock, and preferred stocks. Some money market assets are included for liquidity purposes. The growth in these funds in the 1990s and 2000s reflected the dramatic increase in equity returns, the reduction in transaction costs, and the recognition of diversification benefits achievable through mutual funds.

The financial crisis and the collapse in stock and other security prices produced a sharp drop in mutual fund activity. At the end of 2008, total assets fell to $9,603.6 billion and the number of accounts to 264.6 million (of this, $5,771.3 billion and 226.5 million accounts were long-term funds). Investor demand for certain types of mutual funds plummeted, driven in large part by deteriorating financial market conditions. Stock market funds suffered substantial outflows, while inflow to U.S. government money market funds reached record highs. As the economy recovered in 2009-2012, so did assets invested in mutual funds, growing to $13,046.9 billion by the end of 2012 (of this, $10,354.3 billion were invested in long-term funds).

1. Using the data in Table 5-2, discuss the growth and ownership holdings over the last 32 years of long-term funds versus short-term funds.

The dollar investment in the money market mutual funds (MMMF) exceeded the investment in the long-term funds in 1980. However, by 2007, long-term funds had more than a two to one advantage on the MMMFs, $7,829 billion to $3,033 billion. Long-term funds grew at an annualized rate of 19.6 percent, and the MMMF grew at an annualized rate of 14.6 percent. In each type of fund, the largest investment source was the household sector, owning 61.7 percent of all long-term funds and 44.4 percent of MMMFs in 2007. Household sector growth from 1980 through 2008 was 18.3 percent annual rate for long-term funds and 11.9 percent for the MMMF.

The financial crisis and the collapse in stock and other security prices produced a sharp drop in long-term mutual fund activity. In 2008, investments in long-term funds fell to $5,435.3 billion, while MMMFs grew to $3,757.3 billion. However, as the economy recovered, long-term funds grew back to $9,262.4 billion by 2012, while MMMF fell to $2,506.9 billion. In each type of fund, the household sector remained the largest investment source, owning 59.8 percent of all long-term funds and 41.7 percent of MMMFs in 2012.

5. Why did the proportion of equities in long-term funds increase from 38.3 percent in 1990 to more than 70 percent by 2000, and then decrease to 54 percent in 2012? How might an investor’s preference for a mutual funds objectives change over time?

The primary reason for the increased proportion of funds in equities during the 1990s was the strength of the equity market that was driven by the underlying strength of the economy during this period. Contrarily, the economy experienced its worst recession since the Great Depression in the late 2000s, causing investors to retreat from equities as preferred investments.

The pattern of investor preferences also changes over the life of an investor for reasons other than changes in economic activity. Aggressive high growth funds may be preferred during the early career years of the 20s, 30s, and into the 40s. As investors mature and retirement becomes a closer reality, investors may switch to a balance of growth and income funds. Finally, at retirement investors may try to protect their investment savings by switching to high yield stock and bond funds.

6. How does the risk of short-term funds differ from the risk of long-term funds?

The principal type of risk for short-term funds is interest rate risk, because of the predominance of fixed-income securities. Because of the shortness of maturity of the assets, which often is less than 60 days, this risk is mitigated to a large extent. Short-term funds generally have virtually no liquidity or default risk because of the types of assets held. An exception occurred during the financial crisis of 2008-2009. In September 2008, Primary Reserve Fund, a large and reputedly conservative money market fund had holdings of $785 million in commercial paper issued by Lehman. As a result of Lehman’s failure, shares in Primary Reserve Fund ‘broke the buck’ (i.e., fell below $1), meaning that its investors lost principal. This was the first incidence of a share price dip below a dollar for any money market mutual fund open to the general public. This fund had built a reputation for safe investment. Hence its exposure to Lehman scared investors, leading to a broad run on money market mutual funds. Within a few days more than $200 billion had flowed out of these funds. The U.S. Treasury stopped the run by extending government insurance to all money market mutual fund accounts held in participating money market funds as of the close of business on September 19, 2008. The insurance coverage lasted for one year (through September 18, 2009).

Long-term equity funds typically are well diversified, and the risk is more systematic or market based. Bond funds have extensive interest rate risk because of their long-term, fixed-rate nature. Sector, or industry-specific, funds have systematic (market) and unsystematic risk, regardless of whether they are equity or bond funds.

7. What are the economic reasons for the existence of mutual funds; that is, what benefits do mutual funds provide for investors? Why do individuals rather than corporations hold most mutual funds?

One major economic reason for the existence of mutual funds is the ability to achieve diversification through risk pooling for small investors. By pooling investments from a large number of small investors, fund managers are able to hold well-diversified portfolios of assets. In addition, managers can obtain lower transaction costs because of the volume of transactions, both in dollars and numbers, and they benefit from research, information, and monitoring activities at reduced costs.

Many small investors are able to gain benefits of the money and capital markets by using mutual funds. Once an account is opened in a fund, a small amount of money can be invested on a periodic basis. In many cases, the amount of the investment would be insufficient for direct access to the money and capital markets. On the other hand, corporations are more likely to be able to diversify by holding a large bundle of individual securities and assets, and money and capital markets are easily accessible by direct investment. Further, an argument can be made that the goal of corporations should be to maximize shareholder wealth, not to be diversified.

8. What are the principal demographics of household owners who own mutual funds? What are the primary reasons why household owners invest in mutual funds?

Investors tend to be in their primary income generating years, are married with college degrees, have other retirement plans, and prefer equity funds as opposed to bond, hybrid, or money market funds. Most individuals are using the funds as vehicles for retirement savings, while many households are using the funds as savings vehicles for children’s education.

9. What change in regulatory guidelines occurred in 2009 that had the primary purpose of giving investors a better understanding of the risks and objectives of a fund?

In March 2009, the SEC adopted amendments to the form used by mutual funds to register under the Investment Company Act of 1940 and to offer their securities under the Securities Act of 1933 in order to enhance the disclosures that are provided to mutual fund investors. The amendments (first proposed in November 2007) required key information to appear in plain English in a standardized order at the front of the mutual fund statutory prospectus. The new amendment also included a new option for satisfying prospectus delivery obligations with respect to mutual fund securities under the Securities Act. Under the option, key information is sent or given to investors in the form of a summary prospectus and the statutory prospectus is provided on an Internet Web site. The improved disclosure framework was intended to provide investors with information that is easier to use and more readily accessible, while retaining the comprehensive quality of the information that was previously available.

10. What are the three possible components reflected in the return an investor receives from a mutual fund?

The investor receives the income and dividends paid by the companies, the capital gains from the sale of securities by the mutual fund, and the capital appreciation of the underlying assets.

11. How is the net asset value (NAV) of a mutual fund determined? What is meant by the term *marked-to-market daily*?

Net Asset Value (NAV) is the market value of each ownership share of the mutual fund. The total market value of the fund is determined by summing the total value of each asset in the fund. The value of each asset can be found by multiplying the number of shares of the asset by the corresponding price of the asset. Dividing this total fund value by the number of shares in the mutual fund will give the NAV for the fund.

The NAV is calculated at the end of each daily trading session, and thus reflects any adjustments in value caused by (a) changes in value of the underlying assets, (b) dividend distributions of the companies held, or (c) changes in ownership of the fund. This process of daily recalculation of the NAV is called marking-to-market.

12. Suppose today a mutual fund contains 2,000 shares of J.P. Morgan Chase, currently trading at $46.75, 1,000 shares of Wal-mart, currently trading at $70.10, and 2,500 shares of Pfizer, currently trading at $27.50. The mutual fund has no liabilities and 10,000 shares outstanding held by investors.

a. What is the NAV of the fund?

NAV = (2,000 x $46.75 + 1,000 x $70.10 + 2,500 x $27.50)/10,000 = $232,350/10,000 = $23.235

b. Calculate the change in the NAV of the fund if tomorrow J.P. Morgan’s shares increase to $50, Wal-mart’s shares increase to $73, and Pfizer’s shares increase to $30.

NAV = (2,000 x $50 + 1,000 x $73 + 2,500 x $30)/10,000 = $248,000/10,000 = $24.80,

or an increase of $1.565.

c. Suppose that today 1,000 additional investors buy one share each of the mutual fund at the NAV of $23.235. This means that the fund manager has $23,235 additional funds to invest. The fund manager decides to use these additional funds to buy additional shares in J.P. Morgan Chase. Calculate tomorrow’s NAV given the same rise in share values as assumed in part b.

At today’s market price, the manager could buy 497 additional shares ($23,235/$46.75) of J.P. Morgan Chase. Thus, its new portfolio of shares has 2,497 in J.P. Morgan Chase, 1,000 in Wal-mart, and 2,500 in Pfizer.

NAV = (2,497 x $50 + 1,000 x $73 + 2,500 x $30)/11,000 = $272,850/11,000 = $24.805,

or an increase of $1.570. Note that the fund’s value changed over the month due to both capital appreciation and investment size. A comparison of the NAV in part b. with the one in this part indicates that the additional shares and the profitable investments made with the new funds from these shares resulted in a slightly higher NAV than had the number of shares remained static ($24.805 versus $24.80).

13. A mutual fund owns 300 shares of General Electric, currently trading at $22, and 400 shares of Microsoft, Inc., currently trading at $28. The fund has 1,000 shares outstanding.

1. What is the net asset value (NAV) of the fund?

NAV = (300 x $22 + 400 x $28)/1,000 = $17,800/1,000 = $17.80.

1. If investors expect the price of General Electric shares to increase to $26 and the price of Microsoft shares to decrease to $20 by the end of the year, what is the expected NAV at the end of the year?

Expected NAV = (300 x $26 + 400 x $20)/1,000 = $15,800/1,000 = $15.80, or a decline of 11.24%

1. Assume that the expected price of the General Electric shares is realized at $26. What is the maximum price decrease that can occur to the Microsoft shares to realize an end-of-year NAV equal to the NAV estimated in part (a)?

[(300 x $26) + (400 x PM)]/1,000 = $17.80, implies that PM = $25.00, a decrease of $3.00.

14. What is the difference between open-end and closed-end mutual funds? Which type of fund tends to be more specialized in asset selection? How does a closed-end fund provide another source of return from which an investor may either gain or lose?

Open-end funds allow shares to be purchased and redeemed according to investor demand. The NAV of open-ended funds is determined only by changes in the value of the assets owned. In closed-end funds, the number of shares of the fund is fixed. If investors need to redeem their shares, they sell them to another investor. Thus, the demand for the fund shares can provide another source of return for the investors as the market price of the fund may exceed the NAV of the fund. Closed-end funds, such as real estate investment trusts, tend to be more specialized.

15. Open-end fund A owns 165 shares of AT&T valued at $35 each and 50 shares of Toro valued at $45 each. Closed-end fund B owns 75 shares of AT&T and 120 shares of Toro. Each fund has 1,000 shares of stock outstanding.

1. What are the NAVs of both funds using these prices?

NAVopen-end = (165 x $35 + 50 x $45)/1,000 = $8.025.

NAVclosed-end = (75 x $35 + 120 x $45)/1,000 = $8.025.

1. Assume that in one month the price of AT&T stock has increased to $36.25 and the price of Toro stock has decreased to $43.375. How do these changes impact the NAV of both funds? If the funds were purchased at the NAV prices in part (a) and sold at month end, what would be the realized returns on the investments?

NAVopen-end = (165 x $36.25 + 50 x $43.375)/1,000 = $8.15.

Percentage change in NAV = ($8.15 - $8.025)/$8.025 = 1.56%.

NAVclosed-end = (75 x $36.25 + 120 x $43.375)/1,000 = $7.92375.

Percentage change in NAV = ($7.92375 - $8.025)/$8.025 = -1.26%.

1. Assume that another 155 shares of AT&T are added to fund A. The funds needed to buy the new shares are obtained by selling 676 more shares in fund A. What is the effect on fund A’s NAV if the stock prices remain unchanged from the original prices?

NAVopen-end = ((165 + 155) x $35 + 50 x $45)/(1,000 + 676) = $8.025.

Percentage change in NAV = ($8.025 - $8.025)/$8.025 = 0.00%.

16. What is the difference between a load fund and a no-load fund? Is the argument that load funds are more closely managed and therefore have higher returns supported by the evidence presented in Table 5-6?

A load fund charges an up-front fee that often is called a sales charge and is used as a commission payment for sales representatives. These fees can be as high as 5.75 percent. A no-load fund does not charge a sales fee, although a small annual fee can be charged to cover certain administrative expenses. This small fee, which is called a 12b-1 fee, usually ranges between 0.25 and 1.00 percent of assets. According to the data in Table 5-6, the load funds have adjusted returns that are decreased after the fee is removed. In each case the relative performance ranking of the fund decreases after the load is subtracted.

17. What is a 12b-1 fee? Suppose you have a choice between a load fund with no annual 12b-1 fee and a no-load fund with an annual 12b-1 fee of 25 basis points. How would the length of your expected investment horizon, or holding period, influence your choice between these two funds?

The 12b-1 fee is allowed by the SEC to provide assistance in covering administrative expenses for no-load funds. Thus, in terms of fees and without consideration of time value issues, a 4.00 percent load would be equivalent to the 12b-1 fee for 16 years. This comparison would have to be adjusted for change in the value of the funds assets over time, since the 12b-1 fee is administered on an annual basis against the fund value at that time.

18. Suppose an individual invests $10,000 in a load mutual fund for two years. The load fee entails an up-front commission charge of 4 percent of the amount invested and is deducted from the original funds invested. In addition, annual fund operating expenses (or 12b-1 fees) are 0.85 percent. The annual fees are charged on the average net asset value invested in the fund and are recorded at the end of each year. Investments in the fund return 5 percent each year paid on the last day of the year. If the investor reinvests the annual returns paid on the investment, calculate the annual return on the mutual fund over the two-year investment period.

Annual Return Calculation Based on Text Example 5-4:

Annualized load fee = 4% ÷ 2 years = 2.00%

Annual fund operating expense = 0.85%

Total annual cost = 2.85% ⇒ Annual return = 5.00% - 2.85% = 2.15%

Annual Return Calculation Based on Present Value of Investment:

Initial investment in the fund = $10,000

Front-end load of 4.00% = $400

Total investable funds = $9,600

Investment value at end of year one = $9,600 x 1.05 = $10,080.00

Operating expenses based on average NAV = $9,840 x 0.0085 = $83.64

Net investable funds for year two = $9,996.36

Investment value at end of year two = $9,996.36 x 1.05 = $10,496.18

Operating expenses based on average NAV = $10,246.27 x 0.0085 = $87.09

Net investment at end of year two = $10,409.09

Average annual compound return:

$10,409.09 = $10,000(1 + g)2 => g = 2.025%

19. Who are the primary regulators of the mutual fund industry? How do their regulatory goals differ from those of other types of financial institutions?

The Securities and Exchange Commission (SEC) is the primary regulator of the mutual fund industry. The SEC is not concerned with the administration of sound economic monetary policy, which is part of the goal of the Federal Reserve System, but rather is primarily concerned with the protection of investors from possible abuses by managers of mutual funds.

Several pieces of legislation have been enacted to clarify and assist this regulatory process. Under the Securities Act of 1933, mutual funds must file a registration statement with the SEC and abide by the rules established under the act for the distribution of prospectuses to investors. The Securities Exchange Act of 1934 establishes antifraud provisions aimed at the accurate transmission of information to prospective investors. The 1934 act also appointed the National Association of Securities Dealers to supervise the distribution of mutual fund shares. The Investment Advisors Act of 1940 regulates the activities of mutual fund advisors, and the Investment Company Act establishes rules involving fees and charges. The Insider Trading and Securities Fraud Enforcement Act of 1988 addresses issues of insider trading, and the Market Reform Act of 1990 provides for the establishment of circuit breakers to halt trading in case of severe market downturns. The National Securities Markets Improvement Act of 1996 exempts mutual funds from the regulatory burden of state securities regulators. Finally, in March 2009, the SEC adopted amendments to the form used by mutual funds to register under the Investment Company Act of 1940 and to offer their securities under the Securities Act of 1933 in order to enhance the disclosures that are provided to mutual fund investors. The amendments (first proposed in November 2007) required key information to appear in plain English in a standardized order at the front of the mutual fund statutory prospectus. The new amendment also included a new option for satisfying prospectus delivery obligations with respect to mutual fund securities under the Securities Act. Under the option, key information is sent or given to investors in the form of a summary prospectus and the statutory prospectus is provided on an Internet Web site. The improved disclosure framework was intended to provide investors with information that is easier to use and more readily accessible, while retaining the comprehensive quality of the information that was previously available.

20. What is a hedge fund and how is it different from a mutual fund?

Hedge funds are a type of investment pool that solicits funds from (wealthy) individuals and other investors (e.g., commercial banks) and invests these funds on their behalf. Hedge funds are similar to mutual funds in that they are pooled investment vehicles that accept investors’ money and generally invest it on a collective basis. Hedge funds are, however, not subject to the numerous regulations that apply to mutual funds for the protection of individuals, such as regulations requiring a certain degree of liquidity, regulations requiring that mutual fund shares be redeemable at any time, regulations protecting against conflicts of interest, regulations to ensure fairness in the pricing of funds shares, disclosure regulations, and regulations limiting the use of leverage. Further, hedge funds do not have to disclose their full activities to third parties. Thus, they offer a high degree of privacy for their investors. Until 2010, hedge funds were not required to register with the SEC. Thus, they were subject to virtually no regulatory oversight

(e.g., by the SEC under the Securities Act and Investment Advisors Act) and generally took significant risk. Even after 2010, hedge funds offered in the United States avoid regulations by limiting the asset size of the fund.

Historically, hedge funds avoided regulations by limiting the number of investors to less than 100 individuals (below that required for SEC registration), who must be deemed “accredited investors.” To be accredited, an investor must have a net worth of over $1 million or have an annual income of at least $200,000 ($300,000 if married). These stiff financial requirements allowed hedge funds to avoid regulation under the theory that individuals with such wealth should be able to evaluate the risk and return on their investments. According to the SEC, these types of investors should be expected to make more informed decisions and take on higher levels of risk. However, as a result of some heavily publicized hedge fund failures and near failures (the result of fraud by fund managers, e.g., Bernard L. Madoff Investment Securities, and the financial crisis, e.g., Bear Stearns High Grade Structured Credit Strategies Fund), in 2010 federal regulators increased the oversight of hedge funds.

Because hedge funds have been exempt from many of the rules and regulations governing mutual funds, they can use aggressive strategies that are unavailable to mutual funds, including short selling, leveraging, program trading, arbitrage, and derivatives trading. Further, since hedge funds that do not exceed $100 million in assets under management do not register with the SEC, their actual data cannot be independently tracked. Therefore, much hedge fund data are self-reported. It is estimated that in 2013 there were over 8,000 hedge funds in the world, with managed assets estimated at $2.25 trillion.

21. What are the different categories of hedge funds?

Most hedge funds are highly specialized, relying on the specific expertise of the fund manager(s) to produce a profit. Hedge fund managers follow a variety of investment strategies, some of which use leverage and derivatives, others use more conservative strategies and involve little or no leverage. Generally, hedge funds are set up with specific parameters so investors can forecast a risk-return profile. Figure 5-4 shows the general categories of hedge funds by risk classification.

“More risk” funds are the most aggressive and may produce profits in many types of market environments. Funds in this group are classified by objectives such as: aggressive growth, emerging markets, macro, market timing, and short selling. Aggressive growth funds invest in equities expected to experience acceleration in growth of earnings per share. Generally, high price-to-earnings ratios, low or no dividend companies are included. These funds hedge by shorting equities where earnings disappointment is expected or by shorting stock indexes. Emerging market funds invest in equity or debt securities of emerging markets which tend to have higher inflation and volatile growth. Macro funds aim to profit form changes in global economies, typically brought about by shifts in government policy which impact interest rates. These funds include investments in equities, bonds, currencies and commodities. They use leverage and derivatives to accentuate the impact of market moves. Market timing funds allocate asset among different asset classes depending on the manager’s view of the economic or market outlook. Thus, portfolio emphasis may swing widely between assets classes. Unpredictability of market movements and the difficulty of timing entry and exit from markets adds significant risk to this strategy. Short selling funds sell securities in anticipation of being able to buy them back in the future at a lower price based on the manager’s assessment of the overvaluation of the securities or in anticipation of earnings disappointments.

“Moderate risk” funds are more traditional funds, similar to mutual funds, with only a portion of the portfolio being hedged. Funds in this group are classified by objectives such as: distressed securities, fund of funds, opportunistic, multi strategy, and special situations. Distressed securities funds buy equity, debt or trade claims at deep discounts of companies in or facing bankruptcy or reorganization. Profits opportunities come from the market’s lack of understanding of the true value of these deep discount securities and from the fact that the majority of institutional investor cannot own below investment grade securities. Fund of funds mix hedge funds and other pooled investment vehicles. This blending of different strategies and asset classes aims to provide a more stable long term investment return than any of the individual funds. Returns and risk can be controlled by the mix of underlying strategies and funds. Capital preservation is generally an important consideration for these funds. Opportunistic funds change their investment strategy as opportunities arise to profit from events such as IPOs, sudden price changes resulting from a disappointing earnings announcement, and hostile takeover bids. These funds may utilize several investing styles at any point in time. and are not restricted to any particular investment approach or asset class. Multi strategy funds take a diversified investment approach by implementing various strategies simultaneously to realize short and long term gains. This style of investment allows the manager to overweight or underweight different strategies to best capitalize on current investment opportunities. Special situation funds invest in event driven situations such as mergers, hostile takeovers, reoganizations, or leveraged buyouts. These funds may undertake simultaneous purchases of stock in companies being acquired, and the sale of stock in its bidder, hoping to profit from the spread between the current market price an the final purchase price of the company.

“Risk avoidance” funds are also more traditional funds, emphasizing consistent but moderate returns while avoiding risk. Funds in this group are classified by objectives such as: income, market neutral-arbitrage, market neutral-securities hedging, and value. Income funds invest with the primary focus on yield or current income rather than solely on capital gains. These funds use leverage to buy bonds and some fixed income derivatives, profiting from principal appreciation and interest income. Market neutral-arbitrage funds attempt to hedge market risk by taking offsetting positions, often in different securities of the same issuer, e.g., long convertible bonds and short the firm’s equity. Their focus is on obtaining returns with low or no correlation to both the equity and bond markets. Market neutral-securities hedging funds invest equally in long and short equity portfolios in particular market sectors. Market risk is reduced but effective stock analysis is critical to obtaining a profit. These funds use leverage to magnify their returns. They also sometimes use market index futures to hedge systematic risk. Value funds invest in securities perceived to be selling at deep discounts relative to their intrinsic values. Securities include those that may be out of favor or underfollowed by analysts.

22. What types of fees do hedge funds charge?

Hedge fund managers generally charge two type of fees: management fees and performance fees. As with mutual funds, the management fee is computed as a percentage of the total assets under management and typically run between 1.5 to 2.0 percent. Performance fees are unique to hedge funds. Performance fees give the fund manager a share of any positive returns on a hedge fund. The average performance fee on hedge funds is approximately 20 percent but varies widely. For example, Steven Cohen’s SAC Capital Partners charges a performance fee of 50 percent. Performance fees are paid to the hedge fund manager before returns are paid to the funds investors. Hedge funds often specify a “hurdle” rate, which is a minimum annualized performance benchmark that must be realized before a performance fee can be assessed. Further, a “high water mark” is usually used for hedge funds in which the manager does not receive a performance fee unless the value of the fund exceeds the highest net asset value it has previously achieved. High water marks are used to link the fund manager’s incentives more closely to those of the fund investors and to reduce the manager’s incentive to increase the risk of trades.

23. What is the difference between domestic hedge funds and offshore hedge funds? Describe the advantages of offshore hedge funds over domestic hedge funds.

Hedge funds that are organized in the U.S. are designated as domestic hedge funds. These funds require investors to pay income taxes on all earnings from the hedge fund. Funds located outside of the U.S. and structured under foreign laws are designated as offshore hedge funds. Many offshore financial centers encourage hedge funds to locate in their countries. The major centers include the Cayman Islands, Bermuda, Dublin, and Luxembourg. /the Cayman Islands is estimated to be the location of approximately 75 percent of all hedge funds. Offshore hedge funds are regulated in that they must obey the rules of the host country. However, the rules in most of these countries are not generally burdensome and provide anonymity to fund investors. Further, offshore hedge funds are not subject to U.S. income taxes on distributions of profit or to U.S. estate taxes on funds shares.

When compared to domestic hedge funds, offshore hedge funds have been found to trade more intensely than domestic funds, due to the zero or lower capital gains tax for offshore funds. Further, offshore hedge funds tend to engage less often in positive feedback trading (rushing to buy when the market is booming and rushing to sell when the market is declining) than domestic hedge funds. Finally, offshore hedge funds have been found to herd (mimic each other’s behavior when trading while ignoring information about the fundamentals of valuation) less than domestic hedge funds. Many hedge fund managers maintain both domestic and offshore hedge funds. Given the needs of their client investors, hedge fund managers want to have both types of funds so as to attract all types of investors.