

Chapter 12. Mutual Funds and Other Pooling Arrangements

What are the major types of pooling instruments?

- Mutual Funds:
 - ▣ Open-end
 - ▣ Closed-end
- Investment Trusts:
 - ▣ Unit Investment Trusts (UITs)
 - ▣ Real Estate Investment Trusts (REITs)

What is a mutual fund's NAV?

- A Fund's Net Asset Value (NAV) = Total Value of All the Assets the Fund Owns / Number of Shares
- NAV to mutual funds is similar to share price to stocks
- Example – a mutual fund with three stocks

Company	# of Shares Owned	Price per Share	Total Value
IBM	100	\$120	\$12,000
Xerox	100	80	8,000
GM	100	70	7,000
Value of the fund's portfolio			\$27,000
Number of shares issued			1,000
Fund X's NAV			\$ 27.00

Chapter Objectives

- To understand why pooling instruments are important alternatives to direct investing
- To identify the important characteristics of open-end and close-end mutual funds
- To be able to evaluate a mutual fund with a risk and return framework
- To recognize the characteristics of unit investment trusts and real estate instrument trusts and how each differs from mutual funds
- To learn the basics of portfolio construction and maintenance and appreciate why mutual funds simplify the process

What Is A Mutual Fund?

- An investment company that pools the funds of many individuals to invest in stocks, bonds, and other types of assets

What load funds vs. no-load funds?

- A Load is a commission paid to buy or sell fund shares
 - ▣ Load range: 1% - 9% of NAV
 - ▣ front-end load (load paid for buying) and rear-end load (load paid for selling)
- No-load funds have no commission to buy shares, but some may charge a rear-end load
- There is no evidence showing that load funds do better than no-load funds. Thus everything else equal, no-load funds are better.

What are open-end mutual funds?

- ☛ This type of mutual fund allows investors to buy or sell mutual fund shares directly from the Fund at NAV
- ☛ This is the most popular type of fund
 - ☛ Large funds include Fidelity, Vanguard
- ☛ Typically a company offers many different types of funds for different investment objectives
- ☛ Visit Vanguard's Website at <http://www.vanguard.com/VGApp/hnw/PersonalHome>. Explore the funds they offer.

What are closed-end mutual funds?

- ☛ A fund that is traded in the securities markets just like stocks, except the fund owns more than one stock.
 - ☛ Selling prices can be above or below NAV
 - ☛ No direct purchase from the mutual fund company. Buy through brokers.
- ☛ Visit <http://www.investools.com/cgi-bin/library/mscf.pl> for more information on closed-end funds.

What are the different types of funds?

Type of Fund	Objective
Growth	Price Appreciation over Time
Income	High Current Return
Balanced	Good Current Return with some Growth
Money Mkt.	High Liquidity and Returns Better than Bank Returns
Maximum Appreciation	Exploit Opportunities to Earn Very High Returns

Type of Fund	Fund Objective
Sector	Invests in Only One Industry
International	Earn Returns in Countries outside the United States
Global	Earn Returns in both the United States and Foreign Countries
Index	Earn Returns Equal to a Market Index Returns

Do mutual fund companies use the same terms for fund types they offer?

- ☛ Different companies often use different terms. See Vanguard's classification below.



- ☛ See a list of funds offered by Vanguard at <http://flagship5.vanguard.com/VGApp/hnw/FundsByObjective>
- ☛ See if you can figure out fund objectives by looking at its type and category

Where do I find information about fund objectives and historical performance?

- ☛ Prospectus
 - ☛ Each mutual fund has this document that describes a fund in considerable detail.
- ☛ Revisit Vanguard fund types at <http://flagship5.vanguard.com/VGApp/hnw/FundsByObjective>
- ☛ Click under "Domestic-General" under "Stock Funds". Find Vanguard 500 index fund. This will lead you to a whole array of information that would normally be included in a fund's prospectus. At the bottom of the page, you can click "prospectus/reports" print an electronic copy of the prospectus. The document is usually long.

What services do mutual fund companies typically offer?

- ⚙ Automatic draft from your bank for regular investments
- ⚙ Reinvestment plans
- ⚙ Transactions by telephone and the Internet
- ⚙ Fund switching within the company
- ⚙ Adaptability to Individual Retirement Accounts (IRAs)

How to measure mutual fund performance?

- ⚙ Growth of \$1,000 over Time
 - ▢ Example: a cumulative 10-year return of 259.45% means \$1,000 invested 10 years ago is now worth \$3,594.50
 - ▢ Assumes that all dividends are reinvested
- ⚙ Average Annual Total Return (AATR)
 - ▢ Expresses the cumulative return as a yearly average: 13.65% for the above
 - ▢ Note the way to compute AATR in the above example is to solve for r in $1,000 \cdot (1+r)^{10} = 3594.50$. It is not $(259.45\%/10)$ because of compounding.

⚙ Risk-adjusted rate of return (RAROR)

- ▢ To take risk into consideration, one can use the Risk-Adjusted Rate of Return (RAROR)
 - $RAROR = (AATR/Beta) - S\&P\ 500\ Return$
 - Example: $AATR = 13.65\%$, $Beta = 0.86$,
 $S\&P\ 500\ Return = 14.39\%$
 $RAROR = (13.65\%/0.86) - 14.39\%$
 $= 15.87\% - 14.39\%$
 $= + 1.48\%$
- ▢ Interpretation:
 - A Positive RAROR -> Good Fund Management
 - A Negative RAROR -> Poor Fund Management
 - One needs to look at RAROR over time

⚙ Operating Expenses and fees

- ▢ Usually expressed as a % of Net Assets
- ▢ Go to <http://flagship5.vanguard.com/VGApp/hnw/FundsSnapshot?FundId=0040&FundIntExt=INT> for Vanguard 500 index fund. Click cost to see expense ratio and fee structure.
- ▢ Example of expense ratios:
 - The average annual return on S&P 500 index fund is about 10.48% from 1963-2002.
 - Expense ratio for such funds from different companies:
 - Vanguard 500 index = 0.18%
 - Fidelity 500 index = 0.41%
 - Average for S&P500 index funds = 0.66%
 - Actual return investors get after expense ratio is taken into consideration
 - Vanguard 500 index = 10.46%
 - Fidelity 500 index = 10.44%
 - Average for S&P500 index funds = 10.41%
 - In the long run, your account can worth thousands of dollars less if you pick a fund with a high expense ratio
- ▢ Visit <http://news.morningstar.com/news/Ms/Investing101/mfexpenses.html> for a good explanation of mutual fund fees

⚙ Portfolio Turnover %

- ▢ Turnover % Measures the Trading Frequency: High Numbers = Much Trading
- ▢ Low numbers are desirable

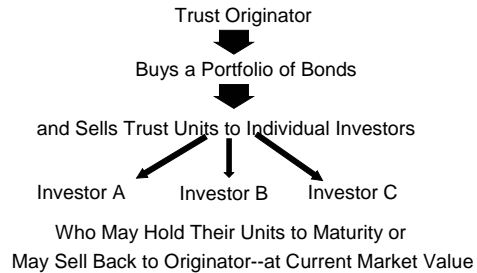
Where do I find information on experts' fund evaluations?

- ⚙ The Popular Press
 - ▢ Wall Street Journal--Each Friday Issue
 - ▢ Money Magazine
 - ▢ Business Week
 - ▢ Forbes
 - ▢ Consumer Reports (once in a while)
- ⚙ Professional Evaluations
 - ▢ Morningstar – see a [review of Fidelity Funds](#)

What is an unit investment trust (UIT)?

- Similar to an Open-End Fund
 - Trust Units (Shares) Are Purchased from and Redeemed by the Fund Originator
 - Redemption at near NAV
- Major Difference
 - Portfolio is Unmanaged
 - Low Operating Costs
 - Have Loads
- For more information about UITs, visit SEC site at <http://www.sec.gov/answers/uit.htm>

How is a UIT created?



What are exchange-traded funds (ETFs)?

- These are a type of UITs that are similar to closed-ended mutual funds, except that they usually are not traded at a discount like closed-ended mutual funds.
- Usually based on broad market (QQQs, Viper Spiders, Diamonds, others)
- Some based on market segments (Industry ETFs, Holders, others)
- For more information, visit <http://news.morningstar.com/doc/article/0.1.3503.00.html>

What are the advantages and disadvantages of ETFs?

- Advantages
 - Positions can be taken quickly because they are traded on the market like stocks
 - Shares can be purchased on margin
 - Very low expense ratios
 - Tax advantage
 - Investors can avoid capital gains by simply not selling
- Disadvantages
 - Commissions charged so frequent trading (such as using Dollar Cost Averaging to invest in your retirement fund) is not a good idea.

What are real estate investment trusts (REITs)?

- Similar to a Closed-End Fund
 - Equity per Share (EqPS) of a REIT is Similar to NAV and Calculated as Follows:
$$\frac{\text{Assets} - \text{Liabilities}}{\text{REIT Shares Outstanding}}$$
- Types of REITs
 - Equity Trust: Invest in Rental Properties
 - Mortgage Trust: Invests in Mortgages
- Investment Appeal: Easy Way to Include Real Estate in a Portfolio If not a Homeowner
- For more information, visit <http://www.nareit.com/>

How to allocation your portfolio?

- Depend on your risk tolerance level and your needs
 - Aggressive Investor
 - 100% Stocks: 1/3 Large Company, 1/3 Small Company, 1/3 International
 - Cautious Investor
 - 30% Large Company Growth Stocks, the Balance in Bonds, including Zero-Coupon
 - Investor Who Needs Income
 - 50% High-Quality Corporate Bonds, 25% Medium-Quality Corporate Bonds, and 25% Income Stocks

How to maintaining a portfolio? - The value averaging approach

	Stocks	Bonds
(1) Amount Invested		
Initially	\$10,000	\$10,000
(2) Current Market Values	15,000	9,000
(3) Adjustment with Constant Ratio Plan *	- 3,000	+ 3,000
(4) Adjusted Balances	12,000	12,000

Are there easier ways to rebalance than doing it yourself every once in a while?

- Some companies offer assets management funds to do the balance for you.
- Example: Fidelity offers several assets management funds. For details, see http://personal.fidelity.com/global/search/nlpindex.shtml?url=http://activequote.fidelity.com/nav/asset.phtml&toc=/products/funds/mutualfunds_toc.shtml

Assignments for Chapter 12

- A useful site for mutual fund investors is [Brill's Mutual Funds Interactive](#). Click on "Experts" to get some insights and advice from mutual fund professionals.
- Look for the 5-year performance history of the stocks you picked for the previous chapter assignment. Now compare those with the performance of an index fund, such as the Vanguard 500 index. Did your stocks do better or worse during the past 5 years? If you longer history is available, take a look at that too.