CHAPTER 4
Mutual Funds and Other Investment Companies

4.1 INVESTMENT COMPANIES

Investment Companies

- Administration & record keeping
- Diversification & divisibility
- Professional management
- Reduced transaction costs

Investment Companies: Net Asset Value

- Net Asset Value
  - Used as a basis for valuation of investment company shares
  - Selling new shares
  - Redeeming existing shares

Calculation:

\[
\text{Net Asset Value} = \frac{\text{Market Value of Assets} - \text{Liabilities}}{\text{Shares Outstanding}}
\]

4.2 TYPES OF INVESTMENT COMPANIES

Unit Trusts

- Pools of money fixed for the life of the fund
- Little active management
Managed Investment Companies: Open-End and Closed-End

- Open-End
  - Sold at Net Asset Value (NAV)
  - Changes when new shares are sold or old shares are redeemed
- Closed-End
  - Sold at premium or discount to NAV
  - No change unless new stock is offered

Other Investment Organizations

- Commingled funds
- REITs
- Hedge Funds

Investment Policies

- Described in the prospectus
- Management companies manage a family of mutual funds. Some examples include:
  - Fidelity
  - Vanguard
  - Putnam
  - Dreyfus

Types of Mutual Funds

- Money Market
- Equity
- Specialized Sector
- Bond
Types of Mutual Funds

- Balanced Funds
- Asset Allocation and Flexible
- Indexed
- International

How Funds Are Sold

- Directly marketed
- Sales force distributed
- Revenue sharing on sales force distributed
  - Potential conflicts of interest
  - Must be disclosed to the investor
- Financial supermarkets

Fee Structure

- Fee Structure
  - Front-end load
  - Back-end load
- Operating expenses
- 12 b-1 charges
  - Distribution costs paid by the fund
  - Alternative to a load
- Fees and performance

Table 4.1 Mutual Funds by Investment Classification

<table>
<thead>
<tr>
<th>Type of Fund</th>
<th>Assets ($ in billions)</th>
<th>Percent of Total Assets</th>
<th>Number of Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity funds</td>
<td>$2.700</td>
<td>32.3%</td>
<td>1,700</td>
</tr>
<tr>
<td>Balanced</td>
<td>12.4</td>
<td>1,700</td>
<td></td>
</tr>
<tr>
<td>Total equity funds</td>
<td>$2.700</td>
<td>32.3%</td>
<td>1,700</td>
</tr>
<tr>
<td>Bond funds</td>
<td>$372.2</td>
<td>2.4%</td>
<td>369</td>
</tr>
<tr>
<td>Government</td>
<td>2.4%</td>
<td>369</td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>2.4%</td>
<td>369</td>
<td></td>
</tr>
<tr>
<td>Total bond funds</td>
<td>$372.2</td>
<td>2.4%</td>
<td>369</td>
</tr>
<tr>
<td>Alternative to load</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Money market funds</td>
<td>$104.4</td>
<td>10.0%</td>
<td>72</td>
</tr>
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<td>10.0%</td>
<td>72</td>
<td></td>
</tr>
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<td>72</td>
</tr>
</tbody>
</table>

Example 4.1 From Text

<table>
<thead>
<tr>
<th>Funds by Objective</th>
<th>Class A</th>
<th>Class B</th>
<th>Class C</th>
<th>Class D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-end load</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>12b-1 fees</td>
<td>0.25%</td>
<td>1.5%</td>
<td>2.0%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Expense ratio</td>
<td>1.08%</td>
<td>1.03%</td>
<td>1.05%</td>
<td>1.07%</td>
</tr>
</tbody>
</table>

Note: 12b-1 fees are not included in the expense ratio.
Fees and Mutual Fund Returns

Rate of return = \( \frac{\text{NAV}_{\text{end}} - \text{NAV}_{\text{initial}} + \text{Income and capital gain distributions}}{\text{NAV}_{\text{initial}}} \)

Fees and Mutual Fund Returns: An Example

Initial NAV = $20
Income distributions of $.15
Capital gain distributions of $.05
Ending NAV = $20.10:

Rate of Return = \( \frac{$20.10 - $20.00 + $.15 + $.05}{$20.00} = 1.5\% \)

Table 4.2 Impacts of Costs on Investment Performance

<table>
<thead>
<tr>
<th>Years</th>
<th>Fund A</th>
<th>Fund B</th>
<th>Fund C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 years</td>
<td>$12,000</td>
<td>$10,000</td>
<td>$9,200</td>
</tr>
<tr>
<td>10 years</td>
<td>$20,000</td>
<td>$15,000</td>
<td>$14,500</td>
</tr>
<tr>
<td>15 years</td>
<td>$30,000</td>
<td>$22,000</td>
<td>$21,500</td>
</tr>
<tr>
<td>20 years</td>
<td>$40,000</td>
<td>$30,000</td>
<td>$29,500</td>
</tr>
</tbody>
</table>

*After load and load, if any.

Potential Reforms

- Strict 4:00 PM cutoff with late orders executed the following trading day
- Fair value pricing with net asset values being adjusted for trading in open markets
- Imposition of redemption fees

4.5 TAXATION OF MUTUAL FUND INCOME
Taxation of Mutual Fund Income

- Investor directed portfolios can be structured to take advantage of taxes while mutual funds cannot.
- High turnover leads to tax inefficiency.
- More disclosure on taxes was required in 2000.

Exchange Traded Funds

- ETF allow investors to trade index portfolios like shares of stock.
- Examples – SPDRs, Diamonds, and WEBS.
- Potential advantages:
  - Trade continuously
  - Lower taxes
  - Lower costs
- Potential disadvantages:

Mutual Fund Performance

- Evidence shows that average mutual fund performance is generally less than broad market performance.
- Evidence suggests that over certain horizons some persistence in positive performance.
  - Evidence is not conclusive.
  - Some inconsistencies.

Figure 4.2 Diversified Equity Funds Versus Wilshire 5000 Index
4.8 INFORMATION ON MUTUAL FUNDS

Table 4.4 Consistency of Investment Results

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>Successive Period Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiesenberger’s Investment Companies</td>
<td>Successive Period Performance</td>
</tr>
<tr>
<td>Morningstar (<a href="http://www.morningstar.com">www.morningstar.com</a>)</td>
<td>Successive Period Performance</td>
</tr>
<tr>
<td>Yahoo (<a href="http://finance.yahoo.com/funds">finance.yahoo.com/funds</a>)</td>
<td>Successive Period Performance</td>
</tr>
<tr>
<td>Investment Company Institute</td>
<td>Successive Period Performance</td>
</tr>
<tr>
<td>Popular press</td>
<td>Successive Period Performance</td>
</tr>
<tr>
<td>Investment services</td>
<td>Successive Period Performance</td>
</tr>
</tbody>
</table>