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The Asset Management Business

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Introduction

- Purpose of the seminar
  - Discussion of the asset management business
- Topics — page #

- Administrative

The Goal of an Asset Management Company Is to Attract and Retain Assets Under Management

What Are Mutual Funds?

- A group of investors share in a fund's investment gains and losses
  - The asset management company is responsible for:
    - » Making investment decisions for the fund
    - » Reporting to investors
    - » Compliance with laws and regulations
  - Custodian is responsible for:
    - » Controlling and safeguarding the fund assets
    - » Paying and receiving funds
    - » Delivering and receiving financial assets
  - Contracts between:
    - » Fund holders and the fund
    - » Asset manager and fund
    - » Custodian and fund

An Example

- An asset management company organizes a fund with three investors.

- The asset manager sets the fund's initial per share price at 1000. At the beginning the fund's structure is:

Investor	invested Assets	# shares
– A	500,000	500
– B	300,000	300
– C	200,000	200
– Total	1,000,000	1,000

- These assets are placed under the control of an approved custodian who holds them for the benefit of the fund holders

- **Fund manager invests in certain assets which during the year gain 18% in price to 1,180,000**

- **Other transactions:**

53,000	**fund received dividends and interest**
(20,000)	**management company fees @ 2% of assets**
(13,000)	**other operating expenses incurred by fund**
20,000	**net other transactions**

- **New fund asset value is 1,200,000 (1,180,000 plus 20,000) and asset value per share is worth 1,200. What is the value of the fund holders' shares? What was the total investment return to the shareholders during the first period?**

Example: The Second Period

- At the end of the first period,
  - Investor B adds 240,000 by buying 200 shares at 1,200
  - D invests 360,000 by buying 300 shares at 1200

The new shareholder list is:

Investor	Invested Assets	# shares
– A	600,000	500
– B	600,000	500
– C	240,000	200
– D	360,000	300
– Total	1,800,000	1,500

- During the second period the fund manager achieved a total net return of 25%. At the end of the period, the fund was worth 1500 per share. The total fund was worth 2,250,000 and the fund management company earned 2% or 36,000

- At the end of the period, A returns 100 shares to the fund and receives 150,000 (100 * 1500). He retains 400 shares.

- C returns all 200 shares, receiving 300,000.

- E invests 1,200,000 and receives 800 shares.

- B and D do nothing.

- **The new shareholder list is:**

Investor	Invested Assets	# shares
– A	600,000	400
– B	750,000	500
– C	-0-	-0-
– D	450,000	300
– E	1,200,000	800
– Total	3,000,000	2,000

- **In the third period, the net total return is negative 10%. The value per share goes to 1,350. This is the price charged to buyers and the price received by sellers.**

Open and closed funds

- Most funds are open funds. The investor buys new shares from the fund and sells holdings back to the fund.
  - All transactions are done at NAV at the end of the day. All transaction orders must be received before the close of trading on the market.
  - Size of the fund is elastic.
  - Successful fund managers can build very large, profitable funds.
  - Unsuccessful funds can wither away.
  - When sales and redemptions are volatile, the holding of illiquid assets can become very expensive for fund managers and the funds.

- **A small portion of funds are closed. They offer a fixed number of shares on an offering. After the offering, no more shares are sold and shares are not redeemed by the funds.**

- **Closed funds usually have a fixed time period, such as ten years. At the end of the period, the assets are sold and the proceeds paid to the fund holders.**

- **With a fixed amount of assets, the fund manager can pursue some illiquid strategies.**
  - **Many emerging market funds are closed.**
  - **Investors buy and sell shares on the open market rather than buying and selling from the fund company.**
  - **Fund shares will trade at prices higher or lower that the NAV depending on the demand for the shares.**
  - **When a new fund is offered, the shares usually trade at a discount until a performance record has been established.**
  - **Closed funds may be a good idea for a new market so that fund managers can get some experience without being under pressure from fund holders.**

Management Fees

- Asset management fees are established according to an agreement between the fund and the asset management company. The custodian can only release money to the management company according to this agreement.

- In emerging market funds, 2% of net assets per year appears to be the normal fee.

- Normal practice is to calculate the fee based on average assets. In our example, the fee was charged on assets at the beginning of the period.

- **The asset management company earns larger fees as assets rise.**
  - **fees usually calculated as percent of assets**
  - **fees fluctuate with changes in value of holdings**
  - **net new investments by shareholders**
  - **normally, shareholders will invest more money in a fund that is growing in value**
  - **shareholders are also likely to take money out of funds that provide poor returns**

Marketing Charges

- Asset management companies can also charge investors a fee to invest in the fund. This fee is called a sales load and is designed to cover the marketing costs of the fund.

- The fee can be charged:
  - at the time of the investment (front end load),
  - on an ongoing basis during the period of the investment, and
  - when the investment in liquidated (back end load).

- In the USA, many very successful funds do not charge a sales load in order to attract knowledgeable investors (no load fund).
  - These investors prefer to make their investment decisions without a salesperson.
  - No load investors usually invest larger balances in a fund

Advantages of funds to investors

- Shared resources
- Continuous access to specialists
- Access to information
- Investor's lack of investment expertise
- Lack of time to manage investments
- Easier reporting and record keeping

Disadvantages of funds to investors

- Risks of fraud
- Must find trusted asset managers
- Inappropriate investments
- Additional costs
- Some fund problems can lead to illiquid investments
- If fund turns out to be poorly managed or inappropriate, the investor has to sell and select another fund.
- Changing management through voting is impractical.

Advantages of funds to investment companies

- Easier to manage one large account than numerous small ones
- Funds can be marketed to investors whose balances are too small for private management
- The performance record of the fund is easier to market than the average of many disparate accounts
- Lower costs
- Simplified administration

Disadvantages of mutual funds for asset management companies

- Hard to build relationships with customers
- Poor investment results can hurt company's reputation
- High start-up costs

The Prospectus

- Prepared by the investment company
- The prospectus is approved by the securities commission regarding its completeness and accuracy. The commission does not issue an opinion about how good the fund will be as an investment.
- The basic document describing the fund, the managers, and the obligations of all the parties.
- Investors must receive a copy of the prospectus before they can purchase shares in the the fund.

Accounting

- Three sets of accounting records
  - Fund accounts
  - Shareholder accounts
  - Asset management company accounts

- We will only look at the fund accounts and the shareholder accounts.

- The example in the Introduction will be used to illustrate the accounting principles.

Fund Accounts

- Purpose: to keep accurate records of fund income, expenses and balances for the benefit of the fund holders.
- Need to report to fund holders, regulators and public
- Assets, liabilities are kept separate from the asset management company as a distinct entity
- Assets and liabilities are valued at market, not at cost. When there is not a market price for an asset, the fund management company should assign an estimated value.

A fund accounting example

- Using the example in the introduction as a base, at the beginning of period one 1 million UAH have been deposited in the fund.

- The investment strategy will be to run as a balanced fund with about 65% in stocks, 3 - 5% in reserves and the balance in high quality bonds. The assets are redistributed after the capital changes at the beginning of each period.

- At the beginning of the first period, the fund manager invests 650,000 in stocks and 300,000 in bonds. The balance of 50,000 is kept in short term reserves.

- **The management fee and other operating expenses are deducted from dividend and interest income to calculate the fund's net income. The net income is added to reserves.**

- **Other operating expenses include the costs of directors' meetings, audits, legal advice, and communications with shareholders.**

Mutual Fund Accounting Example

Period One	Opening Balance	Income %	Value	Price Gain %	Capital Increase	Ending Balance
Reserves	50,000	6.00%	3,000	0%	0	70,000
Common Stocks	650,000	4.00%	26,000	30%	195,000	845,000
Bonds	300,000	8.00%	24,000	-5%	-15,000	285,000
Dividend and Interest Income			53,000			
Managment fee @	2%		-20,000			
Other operating espenses			-13,000			
Net income and expenses			20,000			
Sum	1,000,000				180,000	1,200,000
Number of shares	1,000					1,000
Net assets per share	1,000					1,200

Period Two	Opening Balance	Income %	Value	Price Gain %	Capital Increase	Ending Balance
Prior ending balance	1,200,000					
New contributions	600,000					
New begin balance	1,800,000					
Reserves	54,000	5.00%	2,700	0%	0	78,480
Common Stocks	1,200,000	3.50%	42,000	30%	360,000	1,560,000
Bonds	546,000	8.00%	43,680	12%	65,520	611,520
Dividend and Interest Income			88,380			
Managment fee @	2%		-36,000			
Other operating espenses			-27,900			
Net income and expenses			24,480			
Sum	1,800,000				425,520	2,250,000
Number of shares	1,500					1,500
Net assets per share	1,200					1,500

Period Three	Opening Balance	Income %	Value	Price Gain %	Capital Increase	Ending Balance
Prior ending balance	2,250,000					
New contributions	750,000					
New begin balance	3,000,000					
Reserves	90,000	6.00%	5,400	0%	0	135,500
Common Stocks	2,000,000	3.00%	60,000	-15%	-300,000	1,700,000
Bonds	910,000	7.50%	68,250	-5%	-45,500	864,500
Dividend and Interest Income			133,650			
Managment fee @	2%		-60,000			
Other operating espenses			-28,150			
Net income and expenses			45,500			
Sum	3,000,000				-345,500	2,700,000
Number of shares	2,000					2,000
Net assets per share	1,500					1,350

Shareholder accounting

- Purpose: to maintain complete and sufficient records for taxation, ownership, regulatory and fund performance requirements.

- Each fund has net income and two types of capital gains and losses:
  - Realized gains and losses result from the purchase and subsequent sale of securities, and
  - Unrealized gains and losses occur when portfolio holdings have moved up or down affecting the value of the portfolio, but the changes have not been realized through the sale of the securities.
  - Since mutual fund accounting mandates that holdings be valued at market prices, it is necessary to record the unrealized amounts.

- **For the purposes of our example, we are assuming that the realized and unrealized gains/losses are:**

	Realized	Unrealized	Total
Period 1	80,000	100,000	180,000
Period 2	200,000	225,520	425,520
Period 3	100,000	(445,500)	(345,500)

Mutual Fund Shareholder Accounting

Period #	One			Two			Three		
Number of shares outstanding	1,000			1,500			2,000		
Net income	20,000			24,480			45,500		
Net income per share	20.00			16.32			22.75		
Realized capital gains	80,000			200,000			100,000		
Realized capital gains per share	80.00			133.33			50.00		
Shareholder:	# Shares	Net Income	Capital Gains	# Shares	Net Income	Capital Gains	# Shares	Net Income	Capital Gains
A	500	10,000	40,000	500	8,160	66,667	400	9,100	20,000
B	300	6,000	24,000	500	8,160	66,667	500	11,375	25,000
C	200	4,000	16,000	200	3,264	26,667	0	0	0
D				300	4,896	40,000	300	6,825	15,000
E							800	18,200	40,000
Total		20,000	80,000		24,480	200,000		45,500	100,000

Reporting

- Funds are required to send shareholders annual and semi-annual reports using a format stipulated by the Securities Commission. The reports must present a full picture of the fund's assets, liabilities, revenues, expenditures and turnover for the period, with comparable figures for earlier periods.

- The annual report must be audited by a firm approved by the Securities Commission.

- The fund should also send to customers written confirmations of their purchases and redemptions and periodic statements of their holdings in the fund.

Marketing

- Define the target investor
- Selling to investors
- Advertising and Promotion

Defining the target investor

- Investors goals
  - Growth - increase in the value of the investment
  - Income - periodic payments made to investors
  - Low risk - volatility
  - Diversification - spreading the risks

- Suitability
  - Age
  - Sophistication
  - Other assets and earning power

- Size

- **For most investors, mutual funds should be part of an overall financial plan.**
  - **regardless of the level of the person's wealth.**

- **The plan should consider all aspects of the investor's financial picture.**

- **In the USA we often use a group of funds to try to match needs and objectives with assets.**

- **Repeat investments**

Investment Returns

- There are two types of investment return:
  - the income return is the dividend or interest received, periodic payments to investors
  - capital return is the gain or loss from changing asset prices

- The total return is the combination of the income and the capital returns.

Goals - Growth

- Many investors want to see their investments grow in value. Capital appreciation.
- Common stocks are the preferred investment .
- Overall, the total return usually better than alternatives.
- Often accompanied by less dividend and interest income and greater risk.

Goals - Income

- Most investors want some income or cash flow from their investments, either now or at some point in the future.

- Bonds issued by governments and business usually provide the highest income. Some common stocks have high dividends when the company has low growth prospects.

- When the goal is income, there is usually less growth and risk.

- **However, very high current income can carry more risk. The high return usually reflects investors' opinions:**
  - **that the dividend or interest payments are likely to be reduced in the future, or**
  - **that the risks of not receiving the income is high.**

Goals - Risk

- The assumption of risk is one of the fundamental costs of investing.
- Higher risk associated with higher investment returns. High income investments often have less risk. But very high income investments become more risky.
- Risk is often defined as volatility. When the volatility of an investment is high, the return is less certain.
- Volatility is also very difficult to predict.

Diversification

- Diversification means holding numerous, unrelated assets so that declines in one are offset by rises in others.

- One of the best ways to control risk without sacrificing too much return is to diversify.

- Diversification must be done carefully or the result will be:
  - ineffective risk reduction, or
  - too much return reduction.

Suitability

- Matching investors' needs to the nature of the fund. How important are these assets to the investor?

- Age: Older investors should have less tolerance for risk than younger ones. Income oriented funds are better for them. A very large market.

- Knowledgeable investors are better able to make their own decisions about their investments.

- Investors with substantial other assets or with non-investment earnings can tolerate greater risk and seek higher returns.

Size of the investors' accounts

- The fund management company has to be able to handle the record keeping requirements of the fund's holders.
  - It is simpler and more efficient to have a fewer number of investors with large accounts.
  - However, the company may be able to charge higher fees to handle a fund with a large number of smaller accounts.
  - The key point is that the company should be prepared for the type of accounts the fund targets.

- Size of accounts may also be related to some of the suitability issues.

Types of mutual funds

- Growth:
  - earnings growth
  - value
  - special situation
  - opportunistic
  - small capitalization issues
  - equity income
  - emerging markets
- Income
  - bonds
  - high yield stocks
  - balanced (stocks and bonds)
  - money market

- **Low risk**
  - high quality bonds
  - balanced funds
  - international diversified
  - money market funds

- **Higher risk**
  - small capitalization funds
  - high income funds
  - sector funds
  - emerging market and country funds

Selling funds to investors

- Direct sales by employees of the fund management company

- Third party sales by:
  - broker/dealers
  - mutual fund sales specialists

- Mass market, telephone and mail

- Group plans

Advertising and Promotion

- Public awareness can build interest in the fund
  - Fund objectives
  - Fund results
  - Quality of sponsors
  - Differentiate from other funds
- The more information investors have about the fund the more likely they are to invest
- It is also important to provide useful information to internal and outside sales personnel for their needs and for them to provide to their customers.
- Information must be focused and intelligently presented.

- The fund management company may provide different types of information for internal and external use.
- Advertising through selected media
  - What media do the target investors use?
  - Are the media appropriate for presentation of serious messages.
- Public relations can also be very useful but it must be carefully managed.
  - Newspaper articles about the fund, its objectives, managers and results.
  - Before the interview you should know the message you want to convey. What do you want the writer to write?
  - Finding cooperative and sophisticated journalists may be hard.
  - Try to avoid articles by journalists who do not understand or support the message you are trying to present.

Communications with investors

- Investors will want to have regular communications about their investments. They do not know you and you need to build their trust.

- Communications should build on a consistent message. How do you want them to remember you?

Service to distributors

- Distributors can be the key link between fund customers and the management company.

- They also need regular communications about the funds they are selling.
  - Portfolio changes
  - Investment results
  - Personnel changes
  - New marketing and promotional plans

- The distributors can also provide valuable information about investment goals and plans of their clients.

Governmental relations

- The USA mutual fund industry has been very successful in working with the Congress and the Securities and Exchange Commission to achieve its legislative and regulatory goals.
  - pass through of municipal tax advantage
  - marketing charges paid by the funds
  - better prospectuses

- The industry has been very organized and focused and has had an unusual degree of agreement on goals

Shareholder services

- Protection of shareholder assets
- Pricing procedures
- Customer service
- Shareholder reporting, discussed in the accounting section

Protection of assets: Custody

- Each fund must have a custodian bank, commonly called a custodian, appointed to provide custody services which include
  - hold and protect the fund's assets
  - receive income payments and disburse authorized amounts
  - transfer cash and assets to close out transactions
  - determine that all investments are in authorized instruments and portions
  - maintain separate accounts
  - assure that fund pricing is consistent with law, regulations and the prospectus
  - initiate legal actions to protect the rights of the fund holders

The custodian bank must be independent of the asset management company.

- **The investment company and the custodian bank conclude a contract for the bank to provide the services in return for a fee to be paid by the fund**

- **The custodian bank provides the key independent protection of the fund's assets. Fund assets can only be disbursed by the bank and with proper authorization.**

- **The custodian bank must have the capacity to handle the volume of the fund's transactions: personnel, computer hardware and software, systems, financial capability, etc..**

Protection of Assets: Procedures

- Fund management companies have a legal obligation to put the fund's interests first in any business dealings. Fiduciary responsibility.

- Fund management companies need to establish operating procedures that protect the fund's assets.

- Only certain authorized people can communicate with the custodian bank about transactions and can obligate the fund's assets.

Pricing procedures

- The fund management company is responsible for periodically calculating the net asset value per share (NAV) of the fund.
  - In the USA, the NAV of most funds is calculated once daily at the close of trading.
  - Some funds calculate the NAV twice or more daily.

- The NAV is very important for valuing sales and redemptions and for calculating performance.

- The principle is to determine the market value of all the assets of the fund, deduct liabilities and divide the net assets by the number of shares of the fund.

- **All securities with active trading markets are valued at the most recent transaction price, if that transaction is reasonably recent.**

- **Other securities and assets are assigned a market value in the judgment of the board of directors based upon an analysis by the fund managers.**

- **The liabilities should also be valued at their current value which will usually be the amount payable.**

- **The custodian bank is also responsible for assuring that the NAV calculations are performed accurately.**

Customer Service

- Strong customer service can be a very effective means for building loyalty with the company's fund holders.
  - They are more likely to forgive investment mistakes than service problems that are difficult for them to resolve.
- Providing prompt, efficient service to the fund holders
  - Additions
  - Redemptions
  - Transfers
  - Cash payments
  - Activity history
  - Pricing requests
  - Provide prospectuses, annual and semiannual reports

- **Only authorized and well trained people should be allowed to talk with customers. Untrained service people will make mistakes and alienate customers.**

- **These people do not need to be the top managers, but**
  - **they must know what they are talking about,**
  - **they must know the company's message, and**
  - **they must be able to solve any problems the customer has.**

- **Customer service people can also provide information about investors' desires and help the management company in the development of new investment products.**

- **A strong customer relations effort can be a major factor in a firm's success.**
  - **It can help build a relationship between the customer and the fund management company.**
  - **It can prevent problems by solving small problems quickly, before they become big problems.**
  - **It can build loyalty which will be helpful when you are having investment or other problems.**

- **The service representatives' ability and willingness to deal with people pleasantly on the telephone or through correspondence are key factors in the success of the service program.**

- **They must have access to accurate and updated computerized information to do their job effectively.**

- **They also need to have the authority to fix problems because mistakes will occur. Therefore, they need to be carefully supervised.**

Portfolio Management

Designing portfolios to be consistent with the targeted investor's strategy

- Major asset types
- Portfolio management concepts
- Valuation of financial assets and portfolio holdings
- Managing risk

Major asset types

- Common stocks or equities
  - represents the basic ownership interest in companies
  - stock prices are the most sensitive instruments to changes in general business outlook and interest rates
  - stocks usually have the highest return and the greatest volatility
- Bonds
  - represents a contractual claim on an agreed upon fixed income stream from a business enterprise or a government
  - moderately sensitive to business conditions and interest rates
- Money market bills and notes
  - very short term debt, usually payable in 180 days or less
  - very stable prices, help to dampen volatility of portfolios

- **In the USA there is a major market for bonds issued by states and local governments. These financial instruments are called municipal bonds.**

- **Similar to other bonds except that:**
  - **they are to be paid from the proceeds of taxation of the governmental entity issuing the bond or the proceeds of a specific governmental project,**
  - **the interest income is not subject to federal income tax. Corporate and federal interest income is subject to full federal tax rates.**
  - **municipal bond funds have been very successful due to the tax benefit.**

Portfolio management concepts

- Selecting securities that are expected to meet the needs of the investors.

- Investment decisions are based on expectations for the future. History is interesting and may help to frame the expectations, but there is no substitute for making correct judgments.

- Investment decisions must be followed by action.

Equity Strategies

- Growth investors look for companies whose earnings increases will help to propel the stock price ahead.
  - New products
  - New demand for existing products
  - Better management of company assets
  - New corporate investment opportunities
- Value investors look for inexpensive stocks that will rise as their business conditions improve.
- Some investors buy the best companies with the best managers who are able to take advantage of new opportunities.
  - Others buy poorly managed companies when they see a catalyst for change. The stocks are usually very depressed and expectations are low.

- **Macro strategies refer to selecting holdings on the basis of overviews of economic or social trends.**

- **Other investors focus entirely on specific company opportunities.**

- **Another strategy is to select stocks with a strong long term outlook to earn a few major price moves.**

- **The contrasting strategy is to actively trade holdings to pick up numerous small price moves.**

- **Holdings in small companies are used by some risk tolerant investors to find major winners. Changing business conditions often have a bigger impact on little companies.**

- **Large companies are usually less dynamic, but offer more stable outlooks.**

- **Some investors prefer stable issues while others try to find opportunities in more volatile stocks.**

- **Diversification is as major strategy tool used to balance out fluctuations in different securities. Most funds are designed to be diversified.**

- **Some investors aim to select only a few very promising opportunities. This strategy will produce higher returns if the investor is successful. However, very few investors manage to succeed with this strategy.**

- **There are also investors who use a consistent strategic focus while others change strategies as market conditions change.**

Diversification

- One of the most important principles of Asset Management.

- When the portfolio includes a number of unrelated issues, the collapse of one issue is not a catastrophe for the whole portfolio. Better than expected performance from other holdings will offset the disasters.

- When dealing with equities, the portfolio should have at least sixteen unrelated holdings. Thirty to fifty holdings is more common.

A diversification example

- Six holdings each have the same expected return of 15%. The actual returns for the issues and their industry specializations are:

– Machinery	50%
– Automobile manufacturing	-35
– Food processing	15
– Retailing	10
– Chemical production	30
– Railroad	20
Average	15%

- In this case the average actual return equaled the expected return.

- **The key to successful diversification is to find unrelated assets with similar expected returns.**

- **Diversification is easiest in the stock market since there are a wide variety of types of companies reacting to different influences.**

- **The bond and money markets are more homogeneous. They are also less volatile and the differences in performance are less. However, bonds do have a default risk that can be reduced through diversification.**

- **Only financially strong companies can issue money market certificates reducing the default risk.**

Asset valuation

- The price of the shares of a company will be set by the market where sellers equal buyers. The price will fluctuate as participants change their valuation judgments.

- Financial asset valuation is the investor's expectation of future cash flows discounted to the present using risk adjusted market interest rates.

Valuation: an example

- If I sell you something for 100 UAH payable now, my promise to pay is worth 100 UAH. Assuming you see no risk that I will not pay.

- If I promise to pay you the 100 UAH a year from now, the value of that promise needs to be reduced or discounted to reflect the investor's other opportunities.
- If you think you can earn 20% on your money. then you will want to earn 20% on any money you lend me. In order to earn 20% on my promise to pay you 100 UAH in a year, you should value that promise in current terms at 83.33 UAH.
- If I am to pay you in two years, the value is 69.44. In two years, 69.44 invested at 20% will be worth 100 UAH.

- **If I promise to pay you 100 UAH in each of the next five years, that is a serial promise. That promise would be valued as the sum of the value of five payments.**

Year	Amount paid	Value		
1	100	83.33		
2	100	69.44		
3	100	57.87		
4	100	48.23		
5	100	40.19	Prin 1000	401.88
Sum		299.06		700.94

- **My promise to pay you 100 per year for five years is worth 299.06 to you.**

- **Other investors may have other opportunity costs and value the promise differently.**

- **If the promise is to pay the fixed amount for 20 years, the value of that investment is 486.96 at 20%. If the discount rate is 15%, the value is 625.93.**

- **In an example more usual for common stocks, let us say that the amount to be paid rises by 15% each year. Thus, a year from now I will pay 115 UAH. Two years from now I will pay 132.25 and three years from now 152.09. This amount grows by 15% until the end of the contract. If we discount that payment stream at 20%, the current value is 1318.12.**

- **If the amount grows at 25% for twenty years, the value is 3156.08 discounted at 20%.**

- **You should experiment with discounting on personal computers.**

- **The investment has a higher value when the growth rate is higher or the discount rate is lower.**

- **The discount rate should include two components:**
  - **the opportunity cost which is generally the rate of interest for the most risk free alternative, and**
  - **an adjustment for the amount of risk in the forecasts.**

- **The cash flow should be the cash that comes to the investor after all expenses, fees and taxes.**

- **The investor must make independent judgments about the likely future cash flows and the amount of risk to incorporate in the discount rate for individual investment opportunities. There are no hard rules. It is all based on your judgment.**

Valuation - Simplified methods

- Performing discounted cash flow analyses on numerous companies can become very time consuming. The full scale DCF analysis is most useful for major, strategic investments.

- Market based participants do not have the time to do major valuations exercises. They have developed some easy ratios to judge valuations on a quick basis.

- These ratios are simplistic, but very useful.

- The most common is the price/earnings ratio (PER)
  - In our example above, if the earnings were going to grow at 15% and the discount rate was 20%, the value would be 1318. If the price in the market is 1318 and current year earnings are 115, the PER is 1318 / 115 or 11.46. The stock price is 11.46 times earnings.
  - If other companies with similar growth rates and risk factors are selling at 15 times, then this issue is cheap in the market place.
  - Prices often vary from values, do not confuse the two. Prices are objective facts. Values are based on subjective forecasts.
- Other frequently used ratios are:
  - Price/ book value. Book value is the accounting number for the common equity of the company divided by the number of shares outstanding. Book values can be influenced by many non-operating factors.
  - Dividend yield or the dividend expected to be paid divided by the current price.

Managing Risk

- The goal is to maximize the investment returns while controlling risk to a level suitable to the owners of the portfolio. Risk is usually defined as the volatility of the asset, whether an individual stock or a diversified portfolio.

- Diversification is a very important means of controlling risk.

- Important to understand the volatility of the portfolio, after diversification.

- **Another simple method for reducing volatility is to use short term money market instruments as reserves.**
  - **If 80% of the fund is invested in volatile common stocks and 20% is invested in reserves, the volatility will be 20% less.**
  - **The level of reserves can be set to create the desired level of volatility.**
  - **Need to take care that the reserves are really safe.**

- **Ukrainian investors will need to study their portfolio holdings to understand the interrelationships between the holdings and the market.**

- **It will take at least a few years for good reliable statistical indicators to be developed.**

Derivatives

- Derivative investments are another means of controlling risk.
- Derivatives are financial instruments whose value is derived from the value of other instruments.
- The simplest form of derivative instrument is the convertible bond.
  - It is like a bond in that is has a fixed term and interest rate.
  - The conversion feature allows the bond to be converted into shares based on a set formula.
  - The bond will increase as the underlying shares rise, but there is a floor value based on the bond features.

- **Call options give the buyer the right to purchase shares at a fixed price for a specific amount of time.**
  - **The owner of the shares sells the purchase right or option to the buyer for a premium. The term and strike price are established in the contract.**
  - **The buyer can exercise the option at any time.**
  - **When the market price is greater than the strike price, the owner of the option calls the shares away from the owner by buying them at the strike price and can immediately sell them at the higher market price.**
  - **Alternatively, the option owner can sell the option with the remaining term to another investor for the difference in prices plus some premium for the time left on the contract.**
  - **At the end of the term, if the shares are trading under the strike price, the option expires worthless.**

- Put options allow the buyer of the option to sell shares to the seller of the option at a strike price for a specific amount of time.

- The option buyer wins if the shares decline in value. The buyer can then buy the shares at the new lower price and sell them to the option seller at the higher price.

- Otherwise, they are similar to call options.

- An investor who wants to reduce risk can buy call options instead of the shares and hold the balance he would have invested in the stock in reserves. Thus, the loss potential is limited to the premium.

- **Another risk reducing method involves buying the stock and a put option. If the stock declines, the owner can sell at the strike price and only loses the premium.**

- **There are also options on market indices. Thus, the investor could hold a portfolio and buy a put on the market to cover the market risk.**

- **Options on individual issues can offset moves in the individual stock. Options on the market offset the market impact. A properly diversified portfolio will have offsetting issues that create the same effect as individual options. The remaining portfolio volatility is related to the market.**

Hedging

- Hedging involves holding offsetting positions in different but related issues.

- Short selling is the process of borrowing shares from an investor and selling them short in the market. If the stock goes down, the seller can purchase them in the market and return them to the owner for a credit at the higher original price. If the stock goes up, the short seller loses.

- Outright short selling can be very risky since the potential loss is unlimited while the gain is finite.

- However, when the short selling is combined with other transactions, the portfolio risk can be reduced or changed dramatically.
  - For example, if you believe that one competitor will take market share away from a rival, you could take a long position in the expected winner and short the loser. If both perform similarly relative to the market, you have no market exposure. The long and short holdings will perform the same except for the difference due to the expected changes in market share. Your only risk is the operating risk of the two companies.
  - You may also see two companies in the same business, one you believe is substantially overpriced, the other cheap. You could go long the cheap one and short the overpriced one.
- Derivatives and short selling require complex supporting institutions. But most markets develop them over time.

Organization

- Roles of key people in the investment business
- Review of organization chart
- Personal trading
- Investment oversight
- Outsourcing

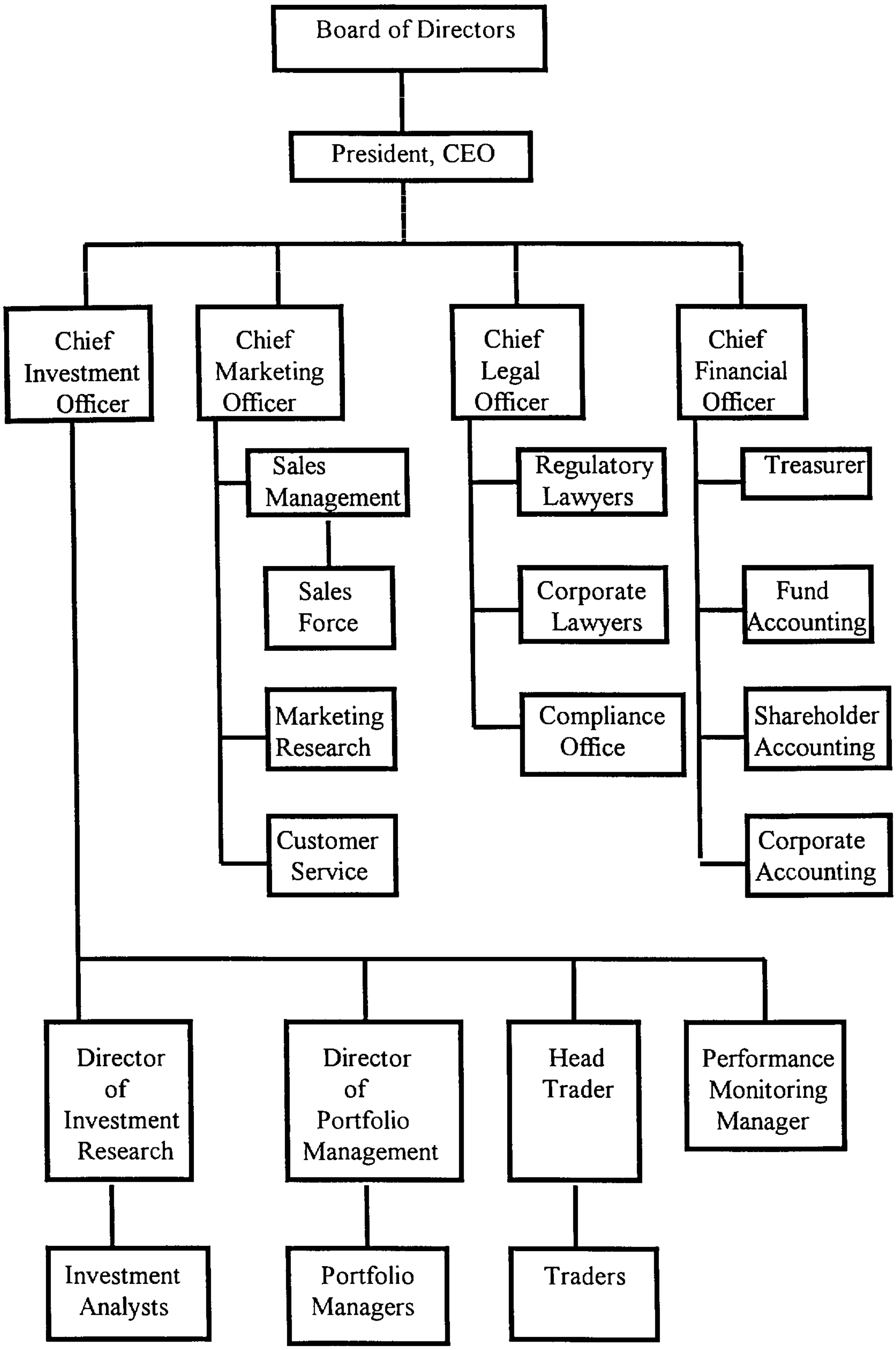
Key positions

- The management company has a board of directors that monitors fund investments, compliance and other business matters.
- The investment decision process usually flows:
  - an analyst does the investment analysis to determine which issues are attractive for the fund and consistent with the fund's objectives, or which holdings should be sold
  - the portfolio manager chooses from the recommendations of various analysts to decide what purchase and sale actions to take
  - the portfolio manager then tells the trader which issues to buy or sell
  - the trader determines how best to buy and sell the issues
  - the trader is the only person in this chain authorized to actually impact the fund assets, but he can only act upon instructions of others
  - there is a paper trail to document that each person has signed off on the transaction

- **In small companies, some people may perform more than one function.**

- **The process should also be controlled by the fund's investment strategy. Helps to determine which issues are suitable for the fund.**

Organization Chart
Mutual Fund Management Company



Personal Trading

- A major source of problems is the desire of many investment people to trade securities in their own account.
- The real issue is that they should not take unfair advantage of their position as employees of the investment company. They are being paid by the fund holders and they owe the holders the opportunities they develop. Otherwise, they are considered to be stealing company assets.
- The general rule is that the employees can buy and sell securities after the fund has finished its transactions.

- **Investment companies have developed a variety of measures to assure that this rule is being observed.**

- **At some companies, all employees are generally required to list all their transactions with the management company once per month. The reporting requirement extends to family members and others for whom the employees have some degree of effective control over their investments. Investment employees often have to get prior approval to execute personal transactions.**

- **Companies will fire offenders and sue them for any profits.**

- The SEC also prosecutes offenders and can have them barred from the business.

- The rule has been interpreted very broadly. People trading for friends have been successfully prosecuted.

- Companies, regulators and professional organizations take this issue very seriously.

Investment oversight

- The management company is responsible for the proper investment of the fund's assets
  - Board of Directors of the fund
  - Senior management of the fund management company
  - Monitors need to be knowledgeable about investments so that they can make appropriate judgments
- Suitability of assets
  - all securities owned by fund should be consistent with the fund's objectives from the prospectus and its investment strategy
  - some funds use a list of approved securities from which fund managers may choose
  - procedures for adding issues to the approved list
  - others have more informal procedures
  - common criteria

- **Suitability of investment practices**
  - diversification
  - portfolio volatility
  - income
  - investment decision process
- **Activity reports <u>of the fund</u>**
  - listing of all transactions, purchases, sales, cash flows, fees, expenses
- **Investment returns**
  - consistent with objectives
  - comparisons to market indices and competition
  - recent period and multi-year
- **Personnel**
  - review changes for suitability, experience, maturity
  - review personal trading reports

Outsourcing

- Most services can be provided by independent firms on a contract basis. Specialists can perform some functions cheaper and better.
- Outsourcing works best when the function is different in character than the core business of the primary company
  - custody must be independent
  - shareholder accounting for a large fund
  - selling through third parties
  - legal
  - even Asset Management can be outsourced, can be inexpensive way to add specialty products to the product line

- The economics and legal liability of an outsourcing decision need to be carefully analyzed.

- Regulators, shareholders, boards of directors and law courts will hold the primary company responsible for the service. The primary company must be able to supervise the contract firm.
  - knowledgeable
  - determine desired service levels and monitor compliance

- The risk to the primary company is the loss of a degree of control over the activity. Can lose direct contact with customers, markets, regulatory contacts, etc.

- But if done appropriately, outsourcing can free up management time to do what the managers can do best.

- In the USA, there are numerous service providers that offer highly professional service at competitive prices. Few mutual fund companies do everything.