

# Investment Philosophy: The Secret Ingredient in Investment Success

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# What is an investment philosophy?

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- An investment philosophy is a coherent way of thinking about markets, how they work (and sometimes do not) and the types of mistakes that you believe consistently underlie investor behavior.
- An investment strategy is much narrower. It is a way of putting into practice an investment philosophy.
- For lack of a better term, an investment philosophy is a set of core beliefs that you can go back to in order to generate new strategies when old ones do not work.

# Ingredients of an Investment Philosophy

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*Step 1:* All investment philosophies begin with a view about how human beings learn (or fail to learn). Underlying every philosophy, therefore is a view of human frailty - that they learn too slowly, learn too fast, tend to crowd behavior etc....

*Step 2:* From step 1, you generate a view about markets behave and perhaps where they fail.... Your views on market efficiency or inefficiency are the foundations for your investment philosophy.

*Step 3:* This step is tactical. You take your views about how investors behave and markets work (or fail to work) and try to devise strategies that reflect your beliefs.

# An Example..

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- Market Belief: Investors over react to news
- Investment Philosophy: Stocks that have had bad news announcements will be under priced relative to stocks that have good news announcements.
- Investment Strategies:
  - Buy (Sell short) stocks after bad (good) earnings announcements
  - Buy (Sell short) stocks after big stock price declines (increases)

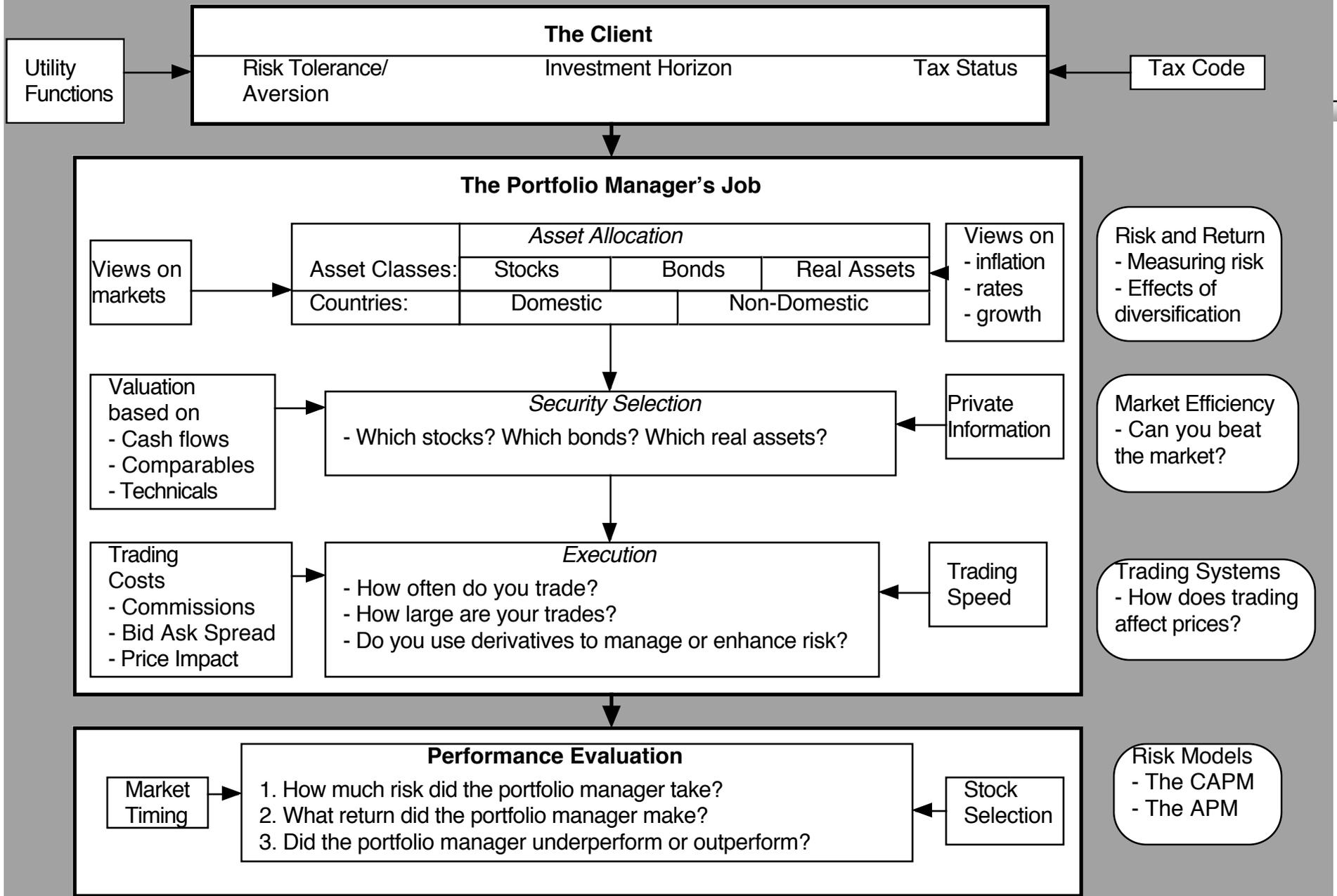
# Why do you need an investment philosophy?

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If you do not have an investment philosophy, you will find yourself doing the following:

1. Lacking a rudder or a core set of beliefs, you will be easy prey for charlatans and pretenders, with each one claiming to have found the magic strategy that beats the market.
2. Switching from strategy to strategy, you will have to change your portfolio, resulting in high transactions costs and paying more in taxes.
3. Using a strategy that may not be appropriate for you, given your objectives, risk aversion and personal characteristics. In addition to having a portfolio that under performs the market, you are likely to find yourself with an ulcer or worse.

# The Investment Process



# Understanding the Client (Investor)

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- There is no “one” perfect portfolio for every client. To create a portfolio that is right for an investor, we need to know:
  - The investor’s risk preferences
  - The investor’s time horizon
  - The investor’s tax status
- If you are your own client (i.e, you are investing your own money), know yourself.

# I. Investor risk preferences..

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- Whether we measure risk in quantitative or qualitative terms, investors are risk averse.
  - The degree of risk aversion will vary across investors at any point in time, and for the same investor across time (as a function of his or her age, wealth, income and health)
- There is a trade off between risk and return
  - To get investors to take more risk, you have to offer a higher expected returns
  - Conversely, if investors want higher expected returns, they have to be willing to take more risk.
- **Proposition 1: The more risk averse an investor, the less of his or her portfolio should be in risky assets (such as equities).**

## II. Time Horizon

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- An investor's time horizon reflects
  - **personal characteristics:** Some investors have the patience needed to hold investments for long time periods and others do not.
  - **need for cash.** Investors with significant cash needs in the near term have shorter time horizons than those without such needs.
  - **Job security and income:** Other things remaining equal, the more secure you are about your income, the longer your time horizon will be.
- An investor's time horizon can have an influence on both the kinds of assets that investor will hold in his or her portfolio and the weights of those assets.
- **Proposition 2: Most investors' actual time horizons are shorter than than their stated time horizons. (We are all less patient than we think we are...)**

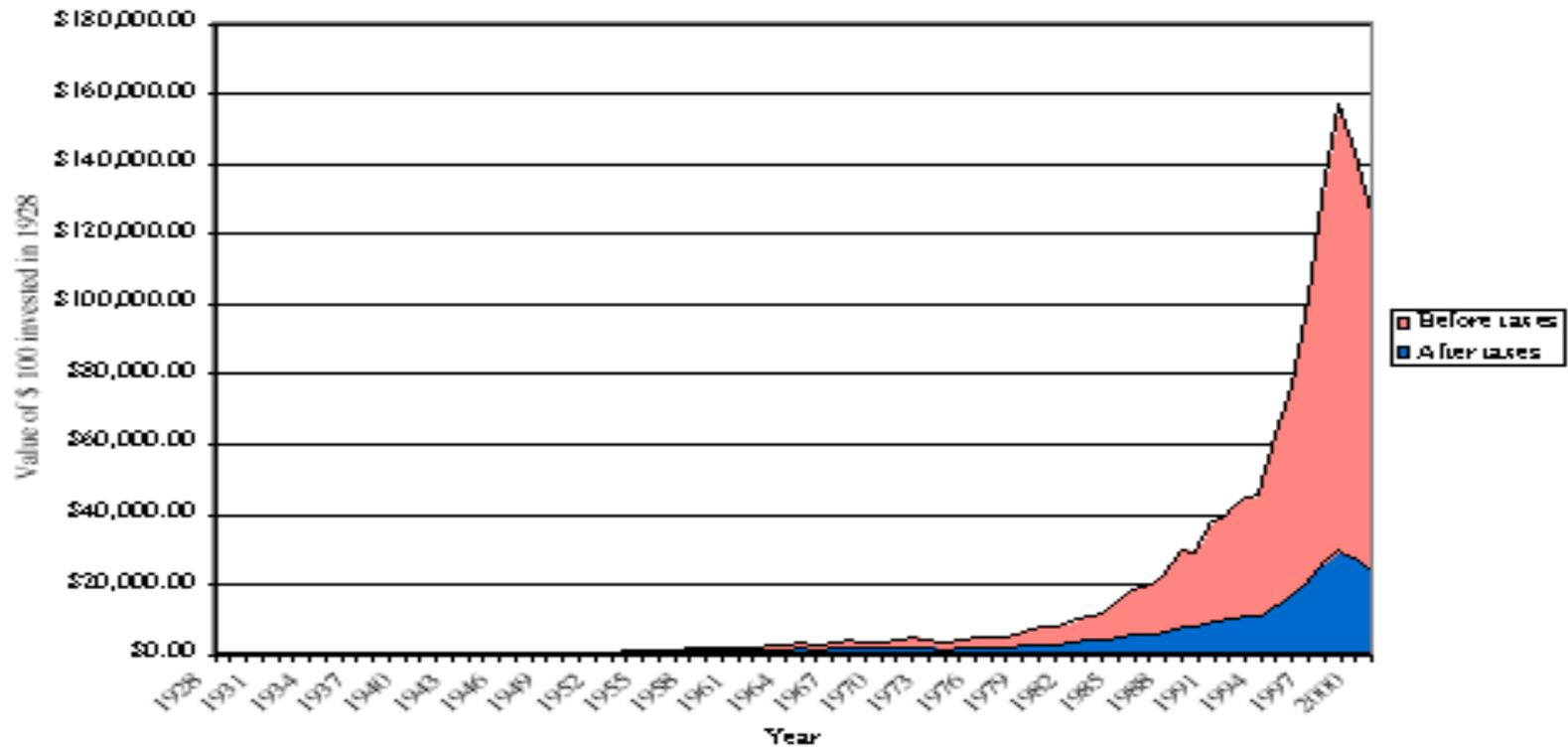
### III. Tax Status and Portfolio Composition

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- Investors can spend only after-tax returns. Hence taxes do affect portfolio composition.
  - The portfolio that is right for an investor who pays no taxes might not be right for an investor who pays substantial taxes.
  - Moreover, the portfolio that is right for an investor on one portion of his portfolio (say, his tax-exempt pension fund) might not be right for another portion of his portfolio (such as his taxable savings)
- The effect of taxes on portfolio composition and returns is made more complicated by:
  - The different treatment of current income (dividends, coupons) and capital gains
  - The different tax rates on various portions of savings (pension versus non-pension)
  - Changing tax rates across time

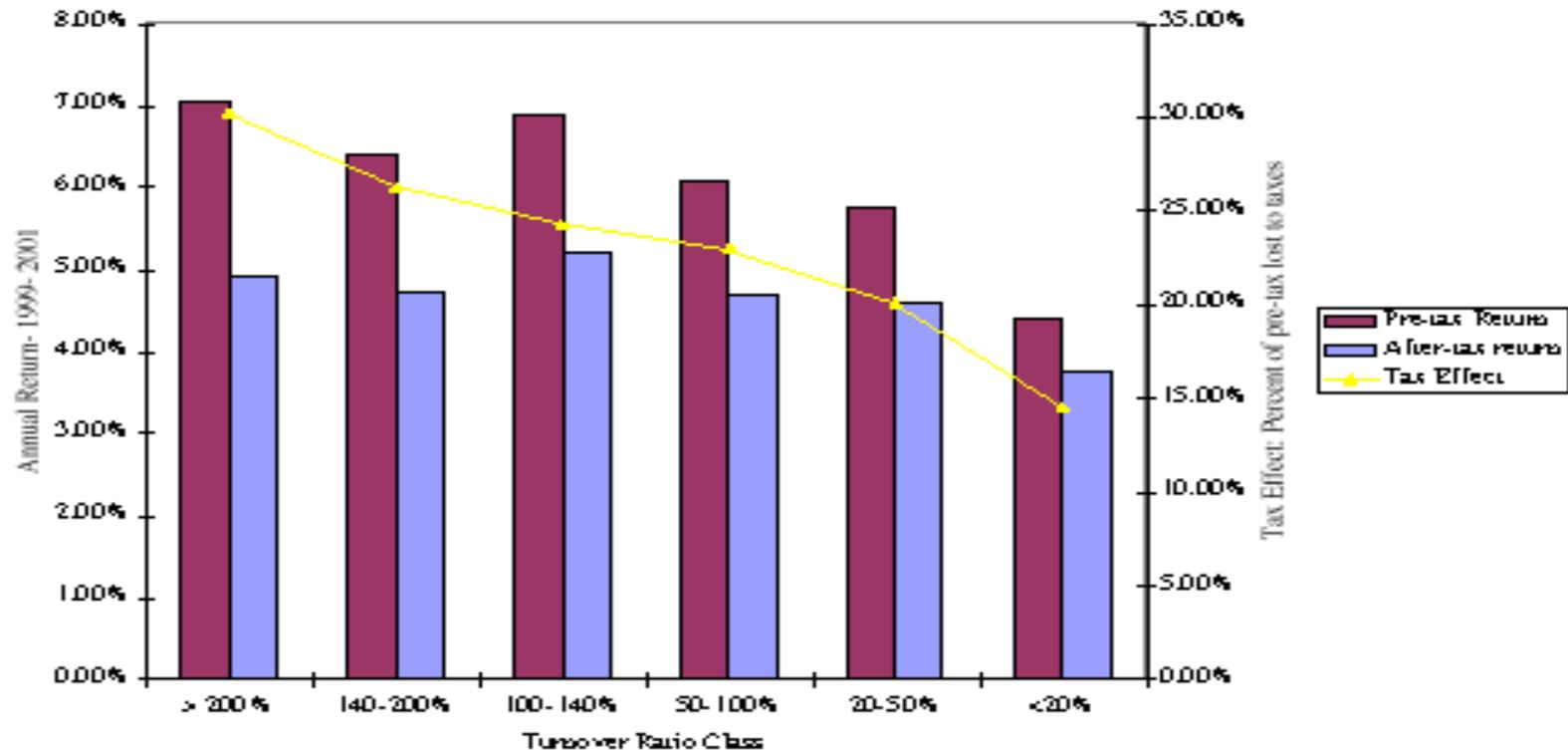
# The Tax Effect: Stock Returns before and after taxes

Figure 5.7: Value of \$ 100 invested in Stocks: Before and After Taxes

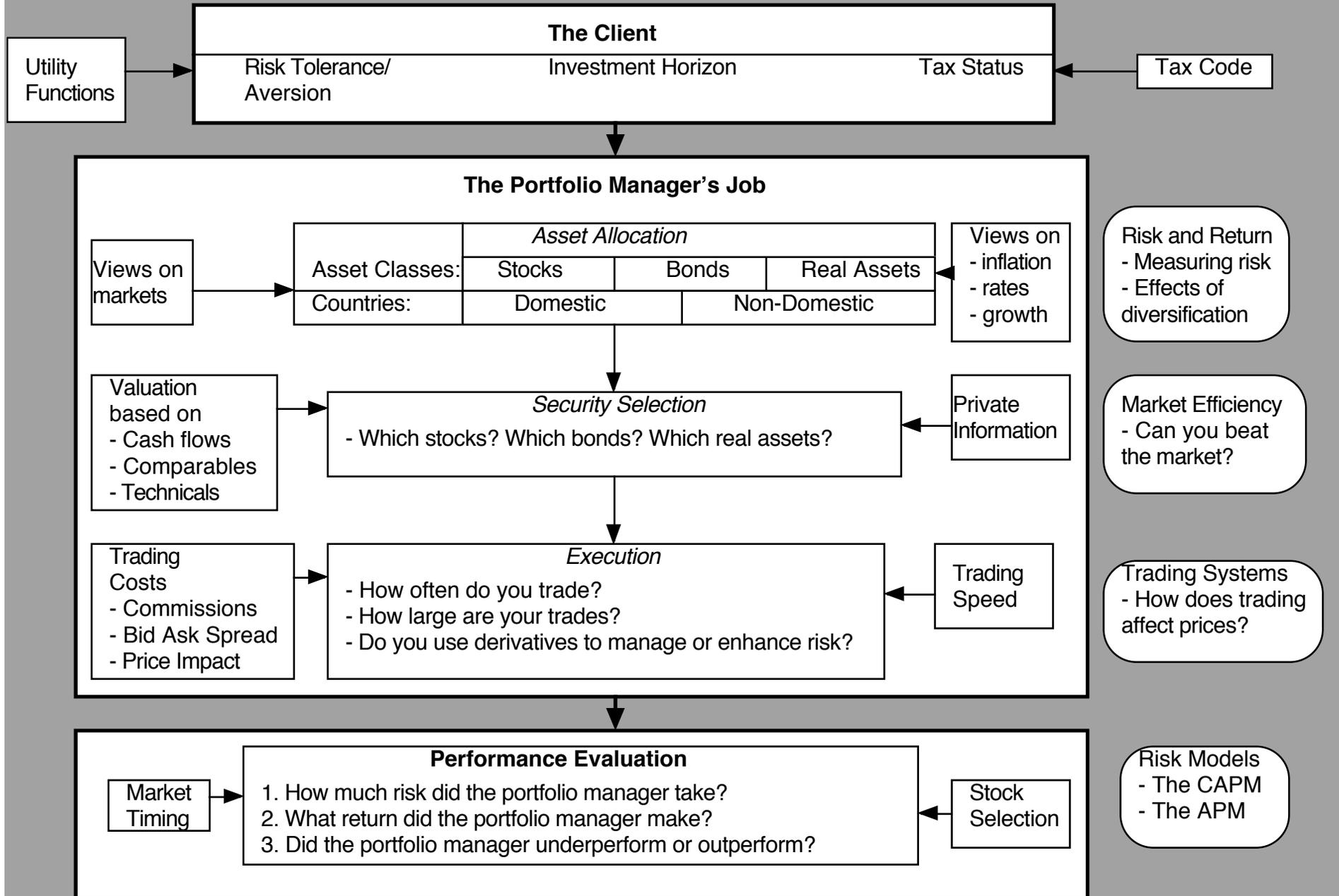


# Tax Effect and Turnover Ratios

Figure 5.11: Tax Effect and Turnover Ratio: U.S. Mutual funds- 1999-2001



# The Investment Process



# Asset Allocation

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- The first step in portfolio management is the asset allocation decision.
- The asset allocation decision determines what proportions of the portfolio will be invested in different asset classes - stocks, bonds and real assets.
- Asset allocation can be passive,
  - ➔ It can be based upon the mean-variance framework: trading off higher expected return for higher standard deviation.
  - ➔ It can be based upon simpler rules of diversification or market value based
- When asset allocation is determined by market views, it is active asset allocation.

# I. Passive Asset Allocation

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- In passive asset allocation, the proportions of the various asset classes held in an investor's portfolio will be determined by the risk preferences of that particular investor. These proportions can be determined in one of two ways:
  - Statistical techniques can be employed to find that combination of assets that yields the highest return, given a certain risk level
  - The proportions of risky assets can mirror the market values of the asset classes. Any deviation from these proportions will lead to a portfolio that is over or under weighted in some asset classes and thus not fully diversified. The risk aversion of an investor will show up only in the riskless asset holdings.

## A. Efficient (Markowitz) Portfolios

### Return Maximization

Maximize Expected Return

$$E(R_p) = \sum_{i=1}^{i=n} w_i E(R_i)$$

subject to  $\sigma_p^2 = \sum_{i=1}^{i=n} \sum_{j=1}^{j=n} w_i w_j \sigma_{ij} \leq \hat{\sigma}^2$

where,

$\sigma^2$  = Investor's desired level of variance

$E(R)$  = Investor's desired expected returns

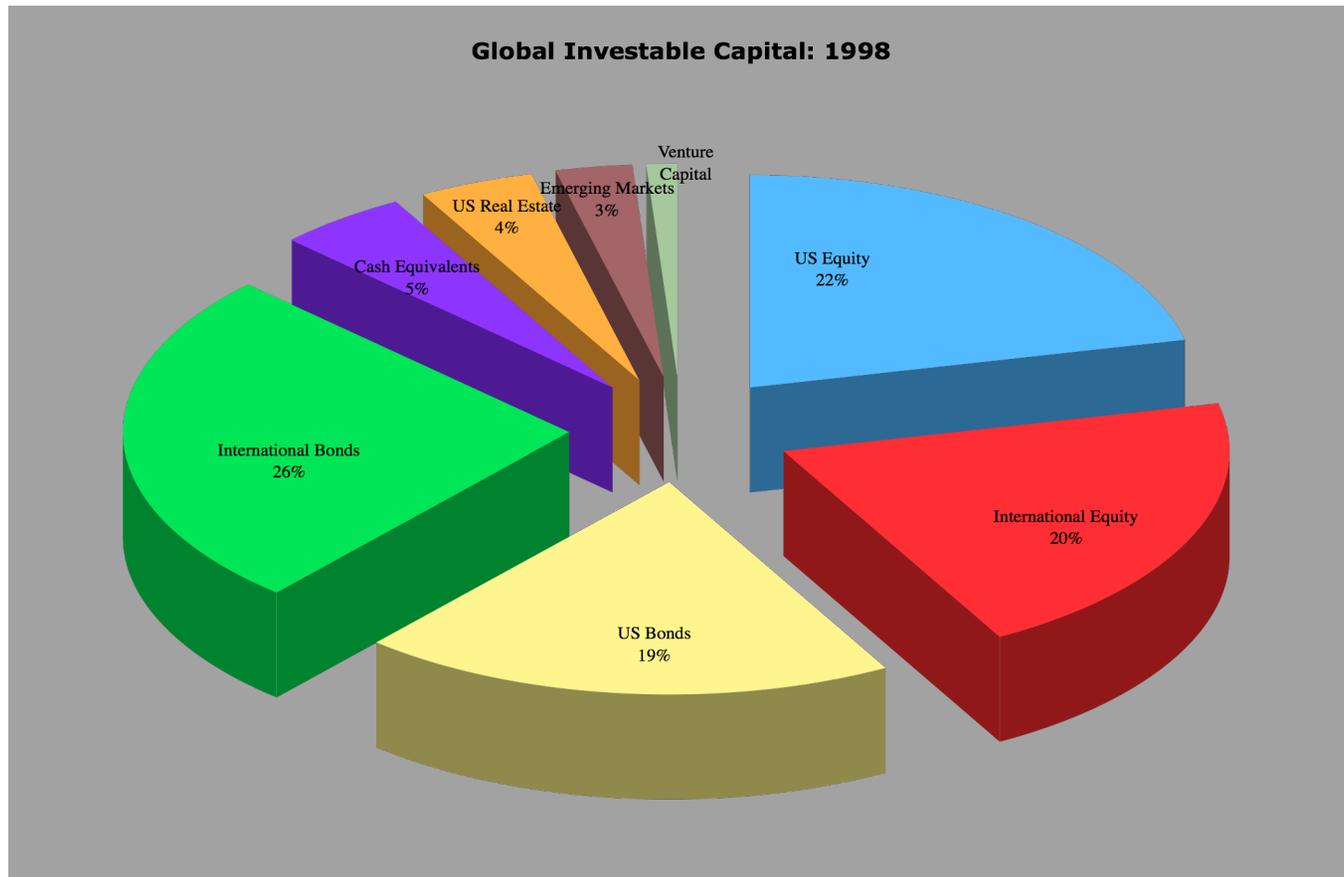
### Risk Minimization

Minimize return variance

$$\sigma_p^2 = \sum_{i=1}^{i=n} \sum_{j=1}^{j=n} w_i w_j \sigma_{ij}$$

$$E(R_p) = \sum_{i=1}^{i=n} w_i E(R_i) = E(\hat{R})$$

## B. Just Diversify



## II. Active Asset Allocation (Market Timing)

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- The payoff to perfect timing: In a 1986 article, a group of researchers raised the shackles of many an active portfolio manager by estimating that as much as 93.6% of the variation in quarterly performance at professionally managed portfolios could be explained by the mix of stocks, bonds and cash at these portfolios.
- Avoiding the bad markets: In a different study in 1992, Shilling examined the effect on your annual returns of being able to stay out of the market during bad months. He concluded that an investor who would have missed the 50 weakest months of the market between 1946 and 1991 would have seen his annual returns almost double from 11.2% to 19%.
- Across funds: Ibbotson examined the relative importance of asset allocation and security selection of 94 balanced mutual funds and 58 pension funds, all of which had to make both asset allocation and security selection decisions. Using ten years of data through 1998, Ibbotson finds that about 40% of the differences in returns across funds can be explained by their asset allocation decisions and 60% by security selection.

# Market Timing Approaches

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## ■ **Non-financial indicators**

- Spurious Indicators: Over time, researchers have found a number of real world phenomena to be correlated with market movements. (The winner of the Super Bowl, Sun Spots...)
- Feel Good Indicators: When people are feeling good, markets will do well.
- Hype Indicators: When stocks become the topic of casual conversation, it is time to get out. The Cocktail party chatter measure (Time elapsed at party before talk turns to stocks, average age of chatterers, fad component)

## ■ **Technical Indicators**

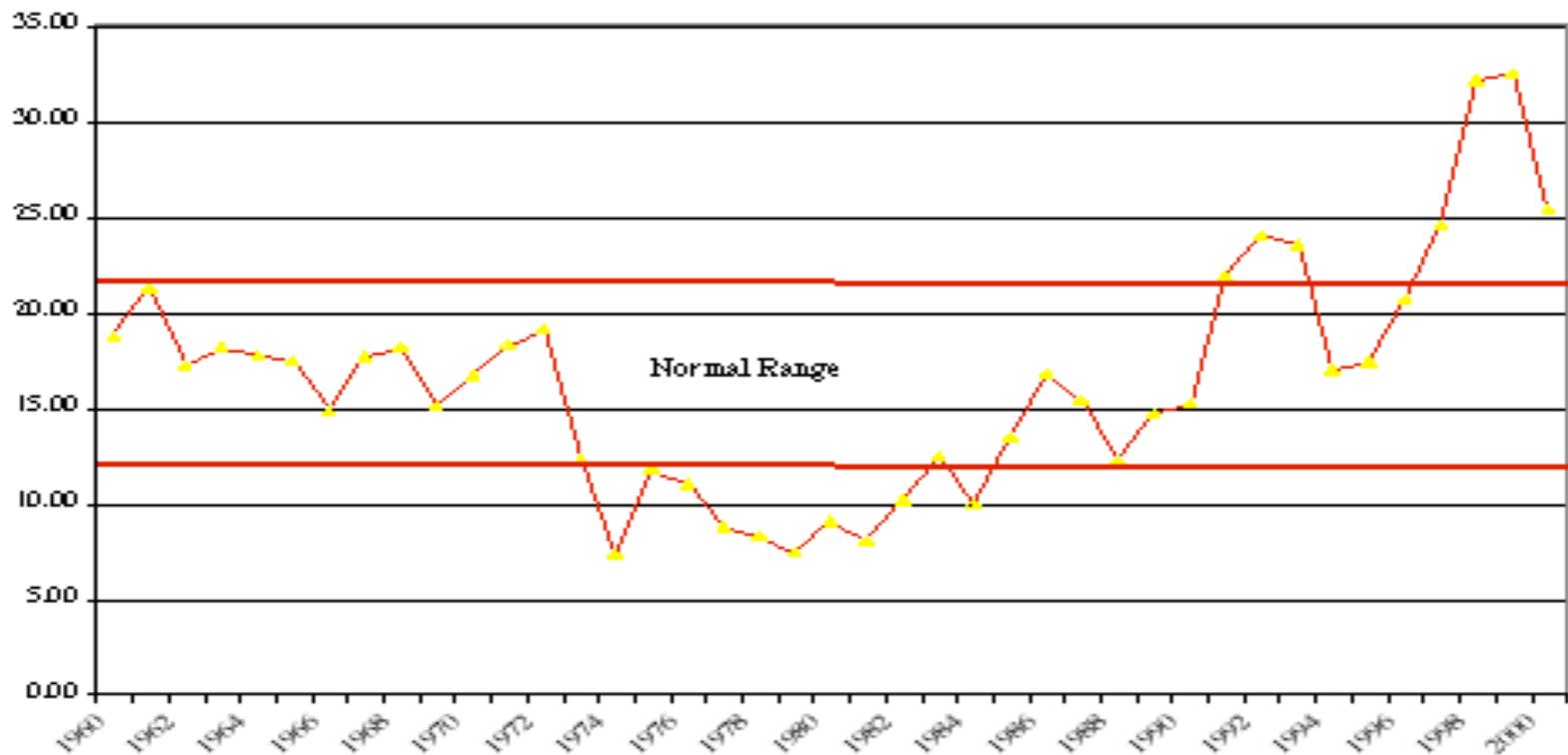
- Price Indicators: Charting patterns and indicators give advance notice.
- Volume Indicators: Trading volume may give clues to market future
- Volatility Indicators: Higher volatility often a predictor of higher stock returns in the future

## ■ **Reversion to the mean**: Every asset has a normal range of value and things revert back to normal.

## ■ **Fundamentals**: There is an intrinsic value for the market.

# A Normal Range for PE Ratios: S&P 500

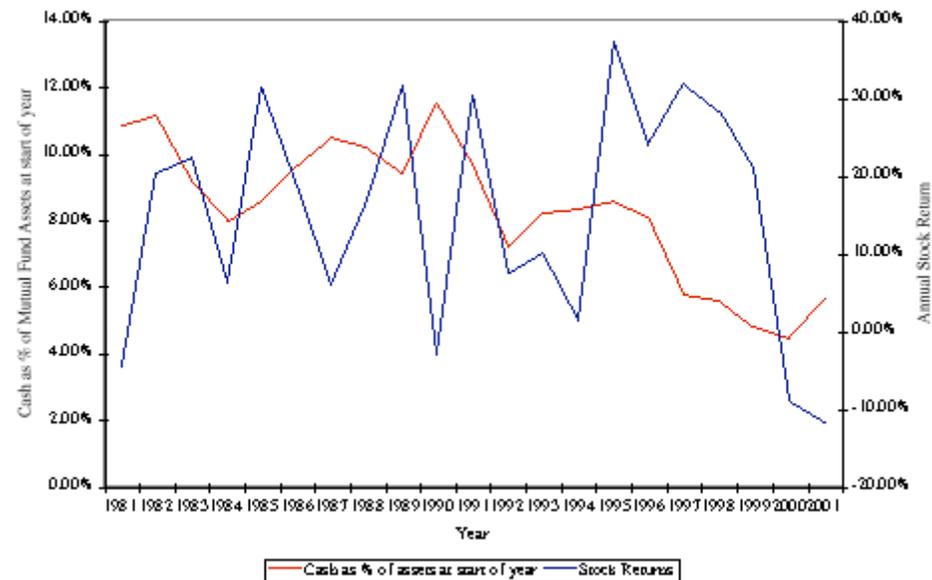
Figure 12.2: PE Ratio for S&P 500: 1960-2001



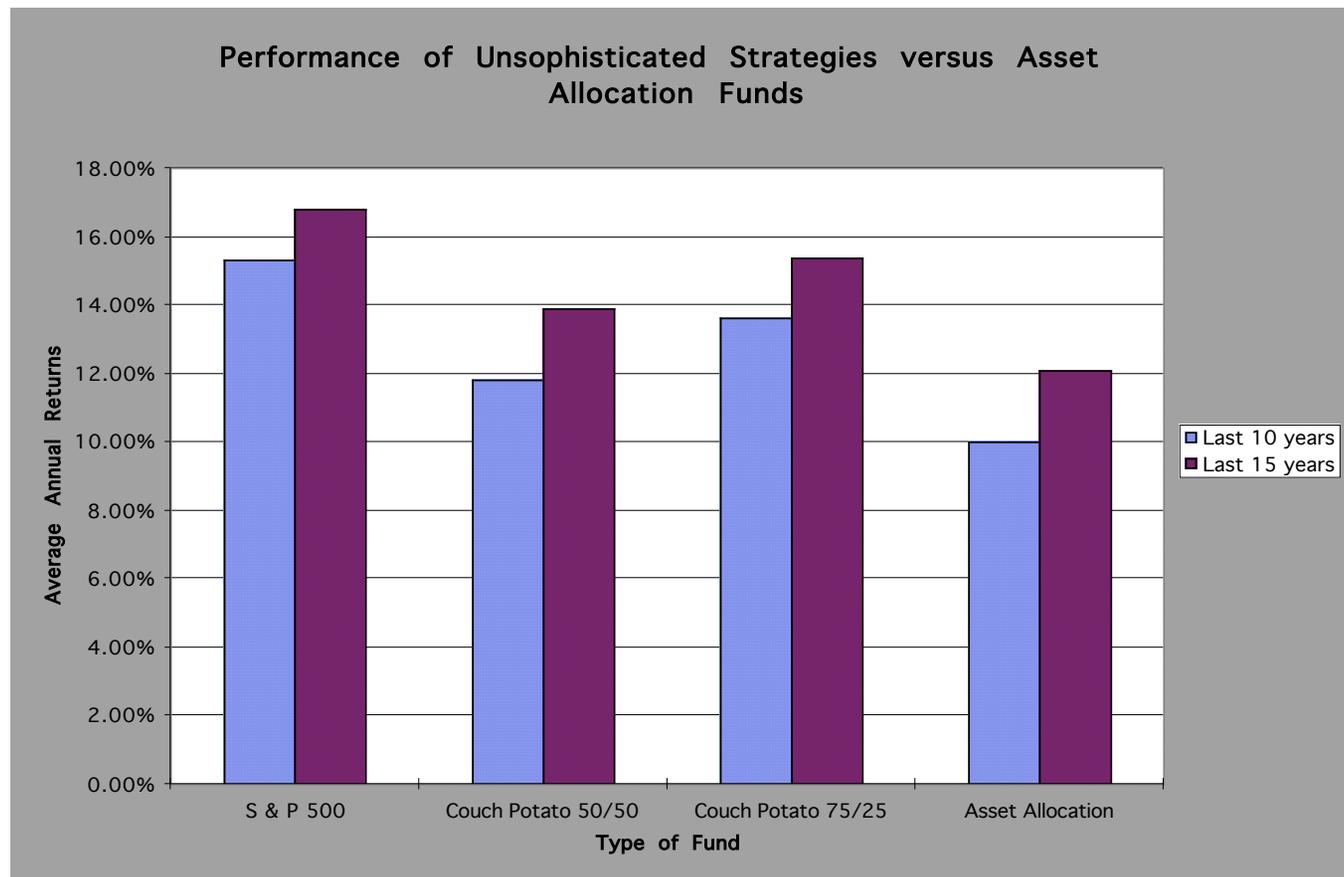
# How well does market timing work?

## 1. Mutual Funds

Figure 12.6: Mutual Fund Cash Holdings and Stock Returns

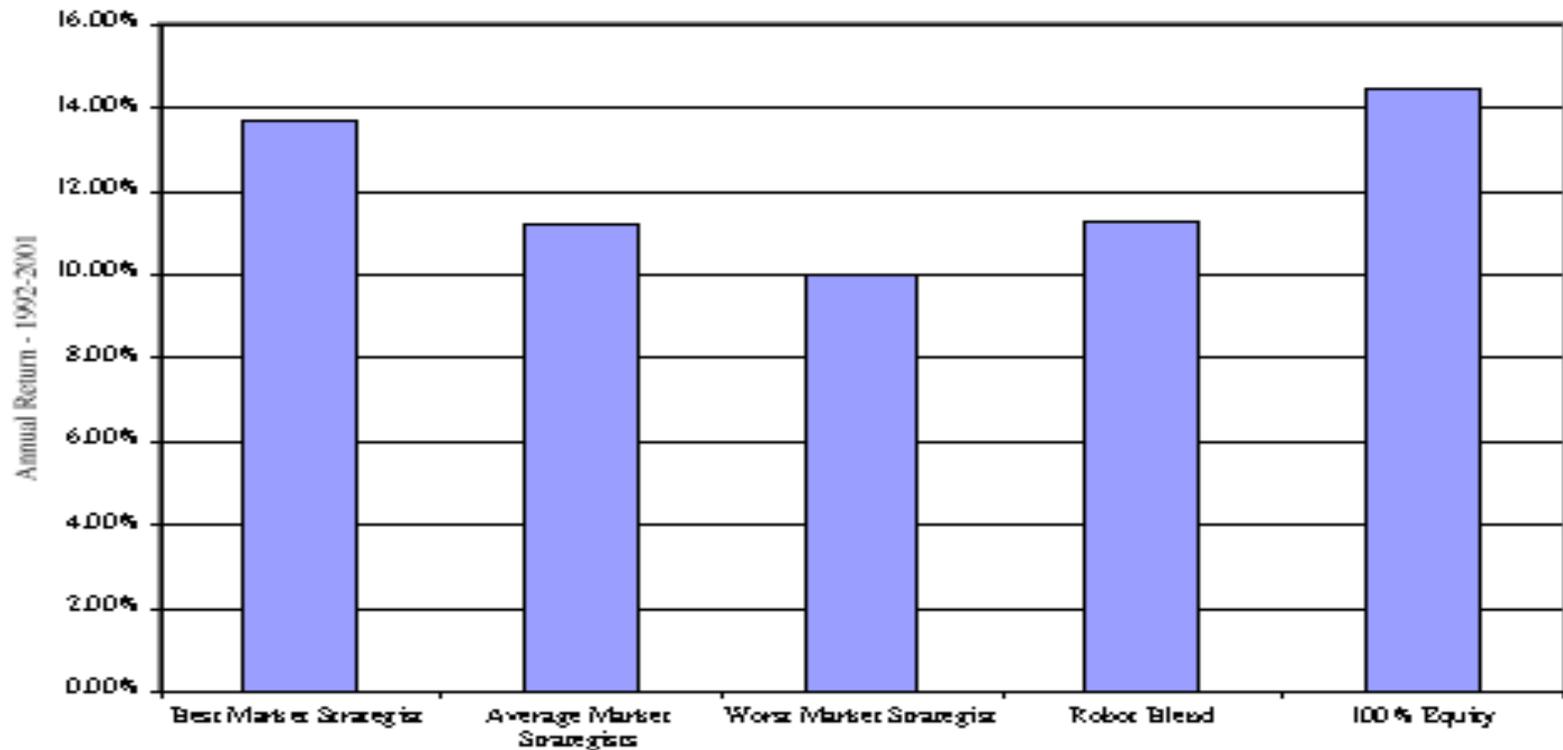


## 2. Tactical Asset Allocation Funds



### 3. Market Strategists..

*Annual Return from Market Strategists' Mixes: 1992-2001*



## IV. Timing other markets

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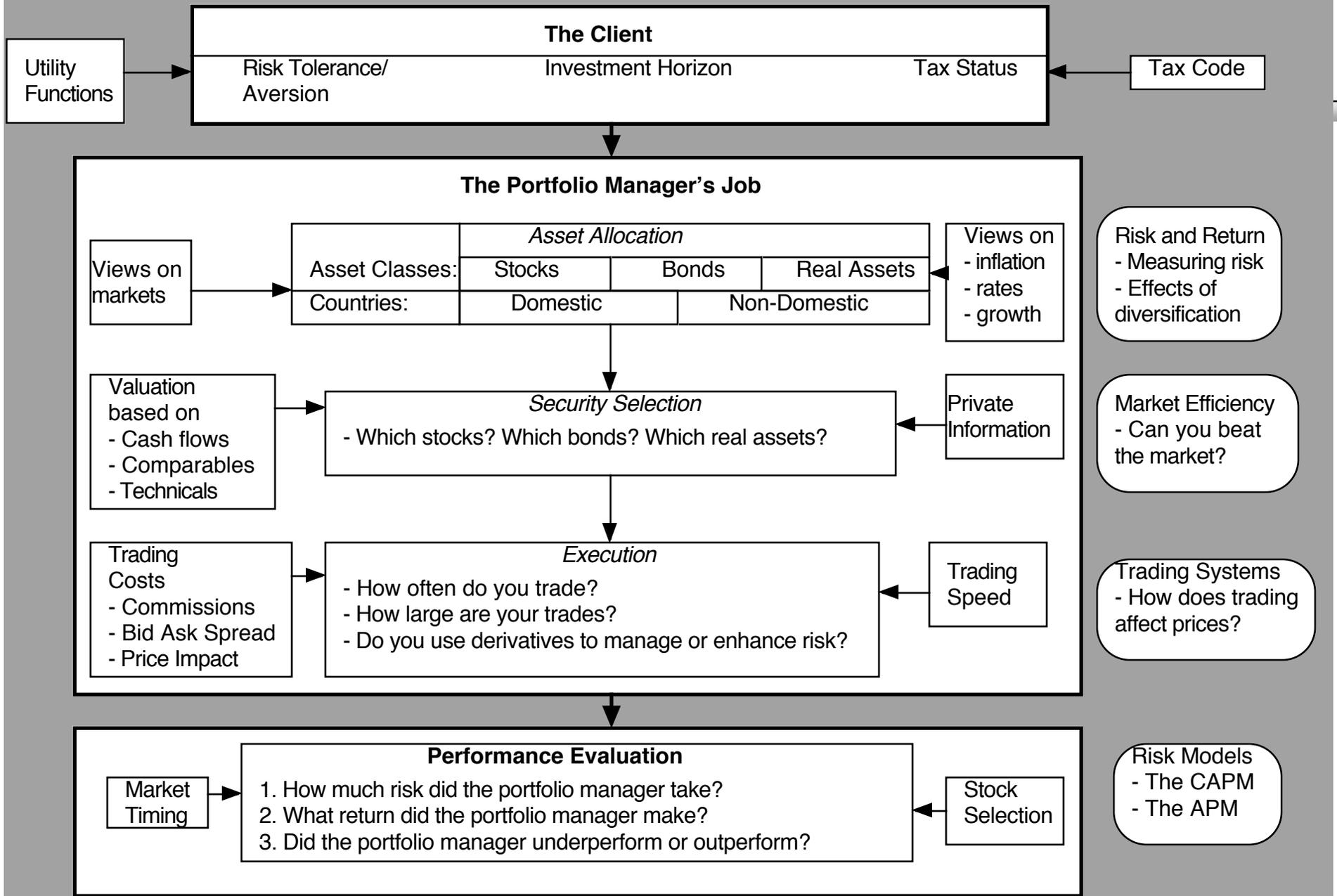
- It is not just the equity and bond markets that investors try to time. In fact, it can be argued that there are more market timers in the currency and commodity markets.
- The keys to understanding the currency and commodity markets are
  - These markets have far fewer investors and they tend to be bigger.
  - Currency and commodity markets are not as deep as equity markets
- As a consequence,
  - Price changes in these markets tend to be correlated over time and momentum can have a bigger impact
  - When corrections hit, they tend to be large since investors suffer from lemmingitis.
- Resulting in
  - Timing strategies that look successful and low risk for extended periods
  - But collapse in a crisis...

# Summing Up on Market Timing

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- A successful market timer will earn far higher returns than a successful security selector.
- Everyone wants to be a good market timer.
- Consequently, becoming a good market timer is not only difficult to do, it is even more difficult to sustain.

# The Investment Process



# Security Selection

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- Security selection refers to the process by which assets are picked within each asset class, once the proportions for each asset class have been defined.
- Broadly speaking, there are three different approaches to security selection.
  - The first is to focus on fundamentals and decide whether a stock is under or overvalued relative to these fundamentals.
  - The second is to focus on charts and technical indicators to decide whether a stock is on the verge of changing direction.
  - The third is to trade ahead of or on information releases that will affect the value of the firm.

# Active Security Selection

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The objective is to use the skills of your security analysts to select stocks that outperform the market, and create a portfolio.

- (1) *Technical Analysis*, where charts reveal direction of future movements
- (2) *Fundamental Analysis*, where public information is used to pick undervalued stocks
- (3) *Private information*, which enables the analyst to pinpoint mis-valued securities.

*Assumption:* Your stock selection skills help you make choices which, on average, beat the market.

*Inputs:* The model will vary with the security selection model used.

*Advantage:* If there are systematic errors in market valuation, & you can spot these errors, the portfolio will outperform the market.

*Disadvantage:* If it does not pay off, you have expended time and resources to earn what you could have made with random selection.

## Active investors come in all forms...

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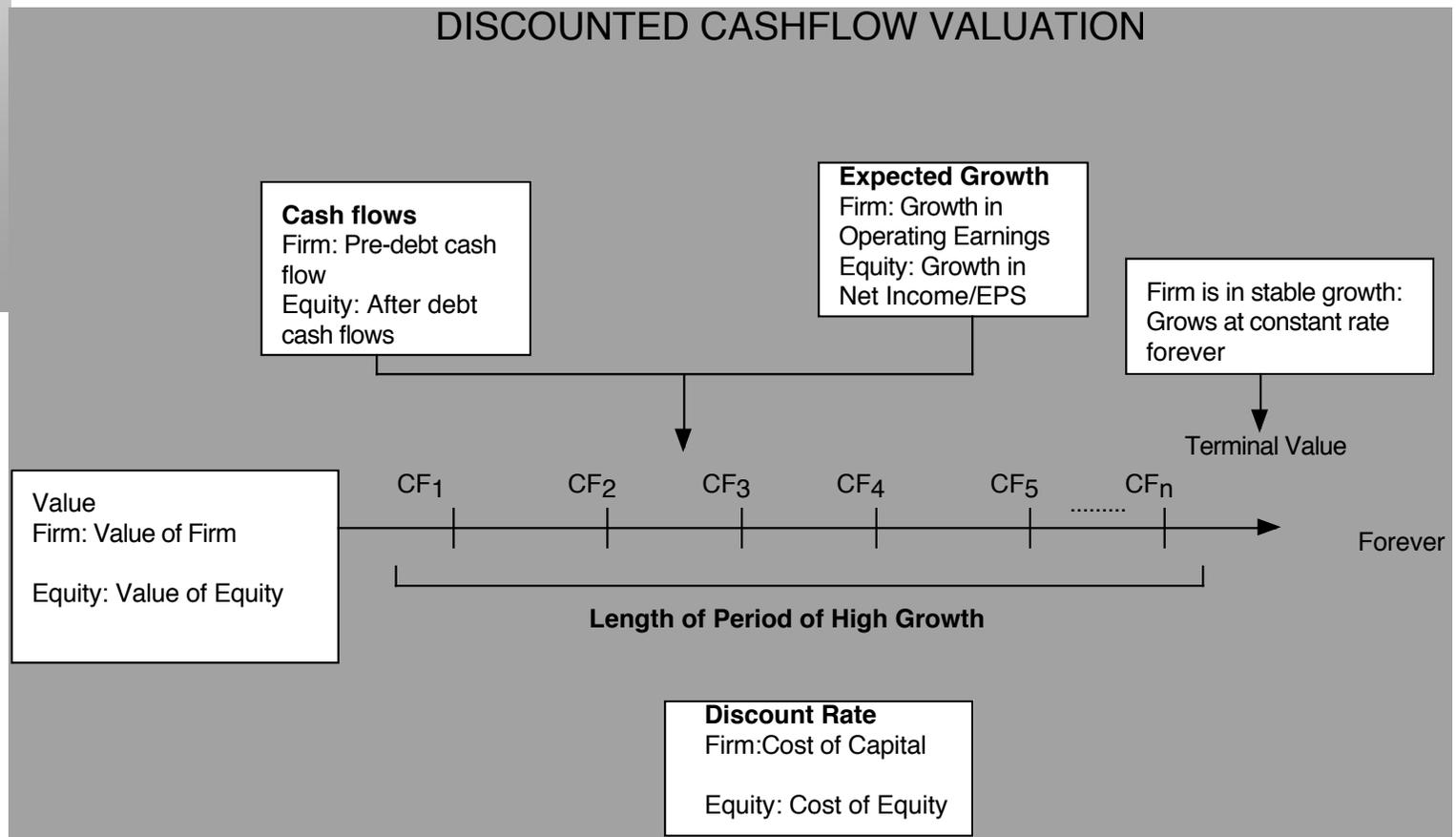
- Fundamental investors can be
  - value investors**, who buy low PE or low PBV stocks which trade at less than the value of assets in place
  - growth investors**, who buy high PE and high PBV stocks which trade at less than the value of future growth
- Technical investors can be
  - momentum investors**, who buy on strength and sell on weakness
  - reversal investors**, who do the exact opposite
- Information traders can believe
  - that **markets learn slowly** and buy on good news and sell on bad news
  - that **markets overreact** and do the exact opposite
- They cannot all be right in the same period and no one approach can be right in all periods.

# The Many Faces of Value Investing...

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- *Intrinsic Value Investors*: These investors try to estimate the intrinsic value of companies (using discounted cash flow models) and act on their findings.
- *Relative Value Investors*: Following in the Ben Graham tradition, these investors use multiples and fundamentals to identify companies that look cheap on a relative value basis.
- *Contrarian Investors*: These are investors who invest in companies that others have given up on, either because they have done badly in the past or because their future prospects look bleak.
- *Activist Value Investors*: These are investors who invest in poorly managed and poorly run firms but then try to change the way the companies are run.

# I. Intrinsic Value Investors: The determinants of intrinsic value



## II. The Relative Value Investor

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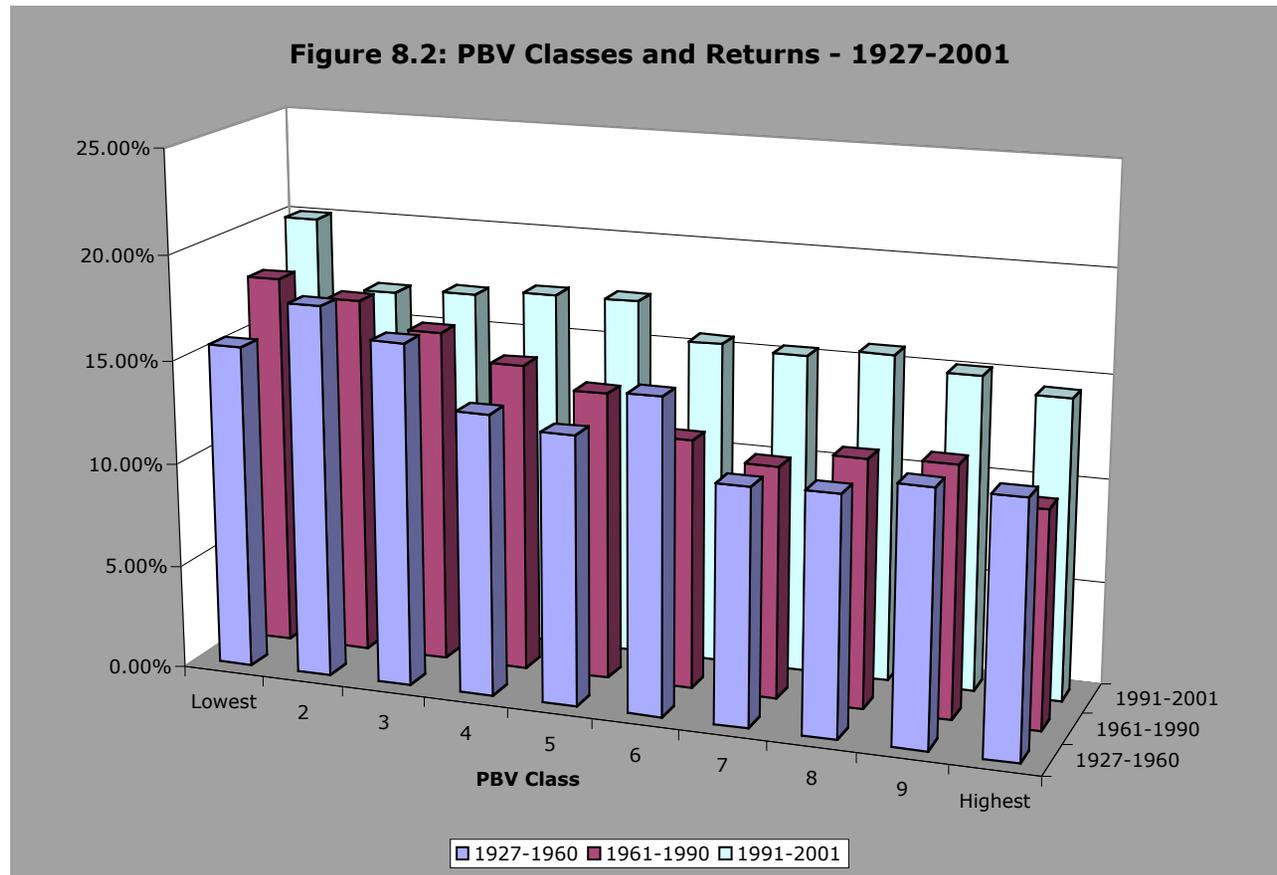
- In relative value investing, you compare how stocks are priced to their fundamentals (using multiples) to find under and over valued stocks.
- This approach to value investing can be traced back to Ben Graham and his screens to find undervalued stocks.
- In recent years, these screens have been refined and extended. The following section summarizes the empirical evidence that backs up each of these screens.

# Ben Graham' Screens

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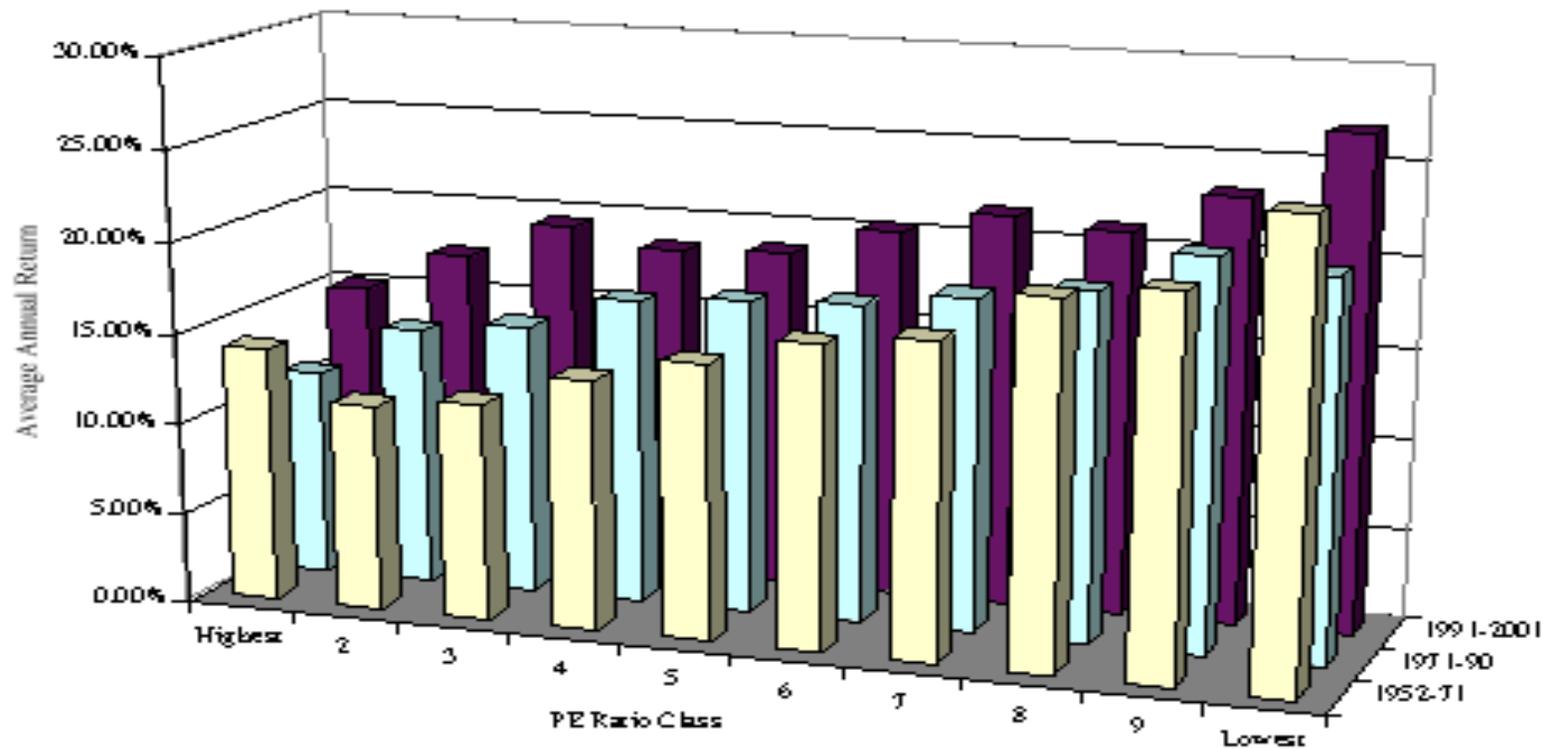
1. PE of the stock has to be less than the inverse of the yield on AAA Corporate Bonds:
2. PE of the stock has to be less than 40% of the average PE over the last 5 years.
3. Dividend Yield > Two-thirds of the AAA Corporate Bond Yield
4. Price < Two-thirds of Book Value
5. Price < Two-thirds of Net Current Assets
6. Debt-Equity Ratio (Book Value) has to be less than one.
7. Current Assets > Twice Current Liabilities
8. Debt < Twice Net Current Assets
9. Historical Growth in EPS (over last 10 years) > 7%
10. No more than two years of negative earnings over the previous ten years.

# Low Price/BV Ratios and Excess Returns



# The Low PE Effect

Figure 8.3: Returns on PE Ratio Classes - 1952-2001



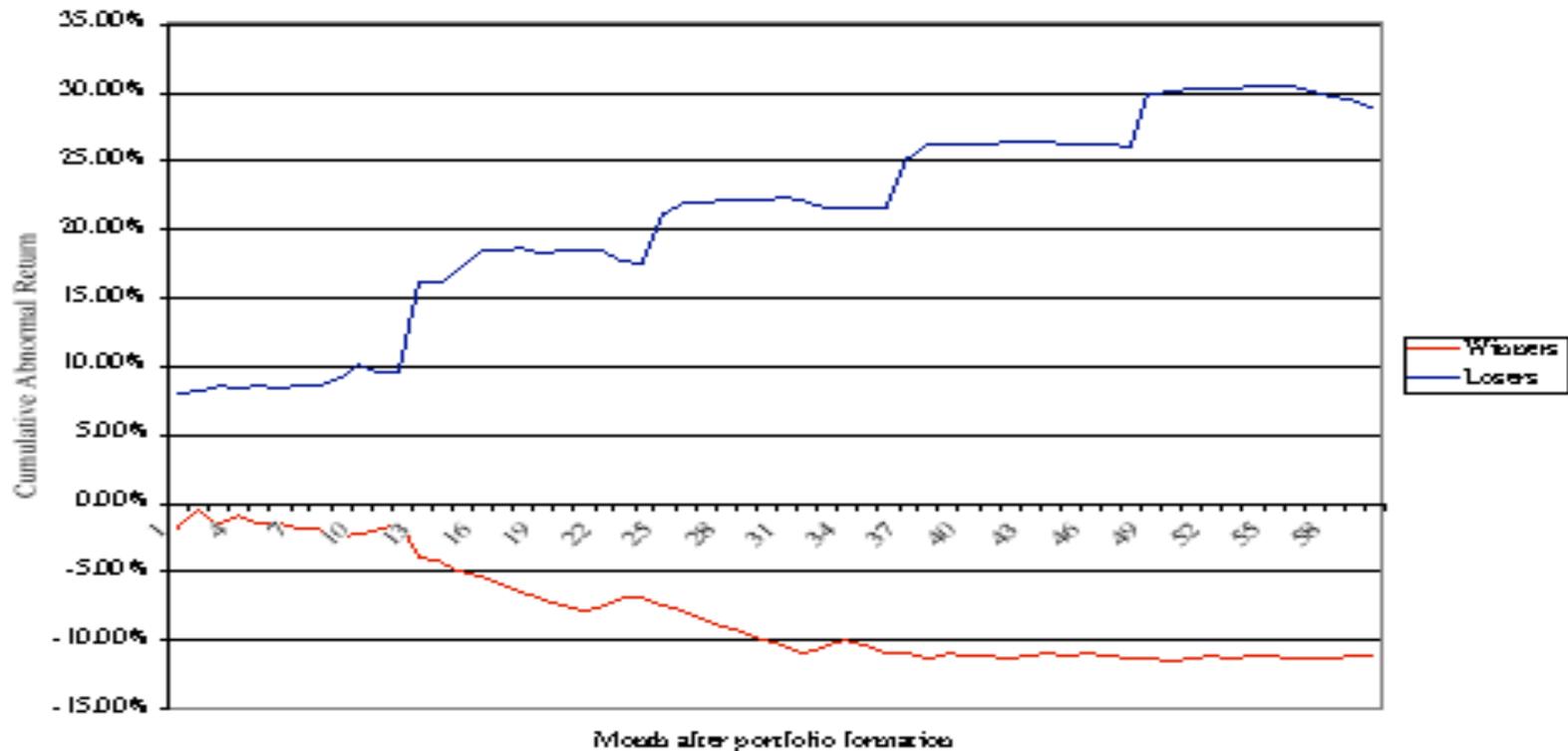
# III. Contrarian Value Investing: Buying the Losers

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- The fundamental premise of contrarian value investing is that markets often over react to bad news and push prices down far lower than they should be.
- A follow-up premise is that they markets eventually recognize their mistakes and correct for them.
- There is some evidence to back this notion:
  - Studies that look at returns on markets over long time periods chronicle that there is significant negative serial correlation in returns, I.e, good years are more likely to be followed by bad years and vice versa...
  - Studies that focus on individual stocks find the same effect, with stocks that have done well more likely to do badly over the next period, and vice versa.

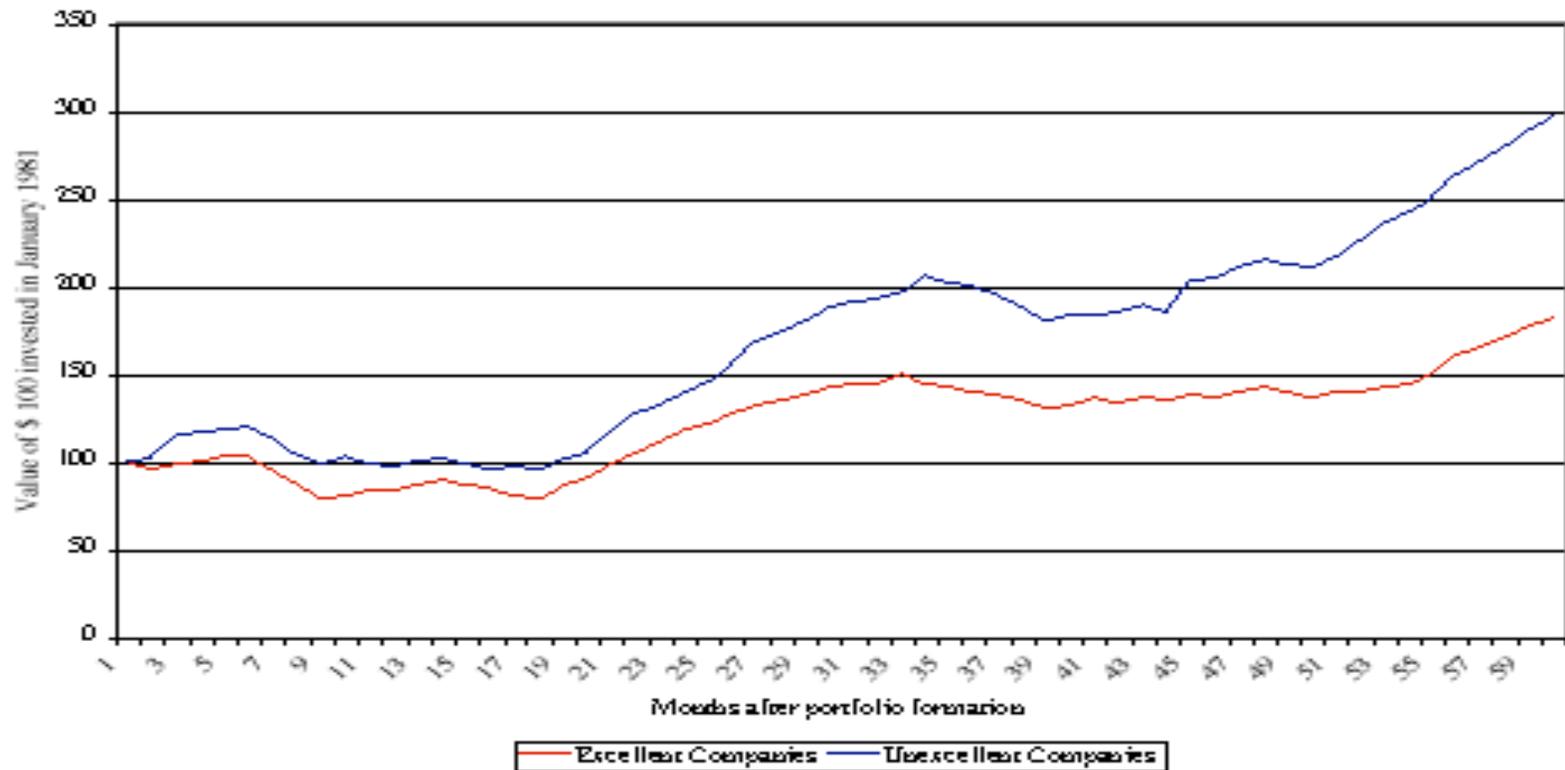
# Excess Returns for Winner and Loser Portfolios

Figure 6.5: Cumulative Abnormal Returns - Winners versus Losers



# Good Companies are not necessarily Good Investments

Figure 8.7: Excellent versus Unexcellent Companies



## IV. Activist Value Investing

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- An activist value investor having acquired a stake in an “undervalued” company which might also be “badly” managed then pushes the management to adopt those changes which will unlock this value.
  - If the value of the firm is less than its component parts:
    - push for break up of the firm, spin offs, split offs etc.
  - If the firm is being too conservative in its use of debt:
    - push for higher leverage and recapitalization
  - If the firm is accumulating too much cash:
    - push for higher dividends, stock repurchases ..
  - If the firm is being badly managed:
    - push for a change in management or to be acquired
  - If there are gains from a merger or acquisition
    - push for the merger or acquisition, even if it is hostile

# Blockbuster: Status Quo

**Current Cashflow to Firm**  
 EBIT(1-t) : 163  
 - Nt CpX 39  
 - Chg WC 4  
 = FCFF 120  
 Reinvestment Rate = 43/163  
 =26.46%

Reinvestment Rate  
26.46%

**Expected Growth in EBIT (1-t)**  
 $.2645 * .0406 = .0107$   
**1.07%**

Return on Capital  
4.06%

Stable Growth  
 $g = 3\%$ ; Beta = 1.00;  
 Cost of capital = 6.76%  
 ROC = 6.76%; Tax rate = 35%  
 Reinvestment Rate = 44.37%

Terminal Value<sub>5</sub> =  $104 / (.0676 - .03) = 2714$

Op. Assets 2,472  
 + Cash: 330  
 - Debt 1847  
 = Equity 955  
 - Options 0  
 Value/Share \$ 5.13

	1	2	3	4	5
EBIT (1-t)	\$165	\$167	\$169	\$173	\$178
- Reinvestment	\$44	\$44	\$51	\$64	\$79
FCFF	\$121	\$123	\$118	\$109	\$99

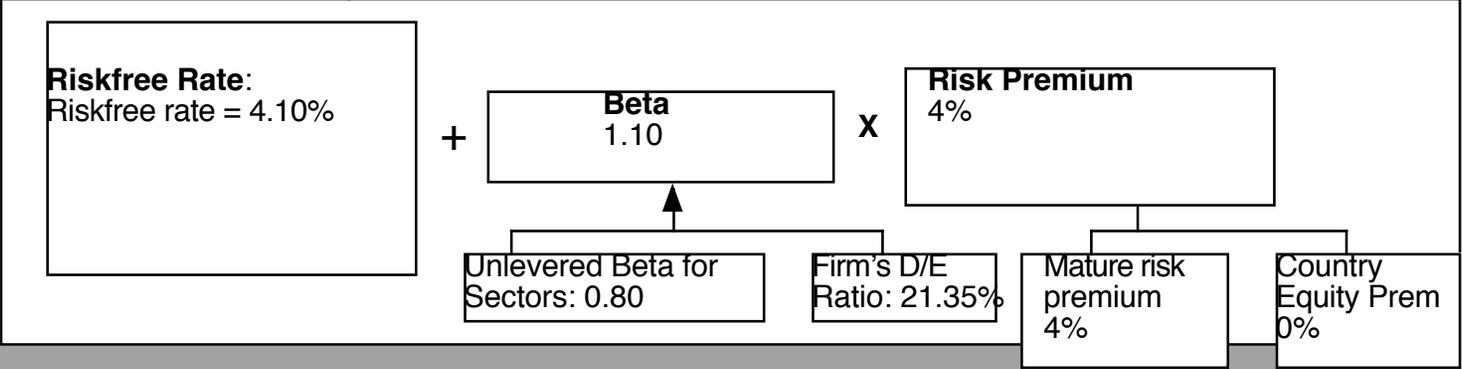
Term Yr  
 184  
 82  
 102

Discount at Cost of Capital (WACC) = 8.50% (.486) + 3.97% (0.514) = 6.17%

**Cost of Equity**  
8.50%

**Cost of Debt**  
 $(4.10\% + 2\%) (1 - .35)$   
 = 3.97%

**Weights**  
 E = 48.6% D = 51.4%



# Blockbuster: Restructured

**Current Cashflow to Firm**  
 EBIT(1-t) : 249  
 - Nt CpX 39  
 - Chg WC 4  
 = FCFF 206  
 Reinvestment Rate =  $43/249 = 17.32\%$

Reinvestment Rate  
17.32%

**Expected Growth in EBIT (1-t)**  
 $.1732 * .0620 = .0107$   
**1.07%**

Return on Capital  
6.20%

Stable Growth  
 $g = 3\%$ ; Beta = 1.00;  
 Cost of capital = 6.76%  
 ROC = 6.76%; Tax rate = 35%  
 Reinvestment Rate = 44.37%

Terminal Value<sub>5</sub> =  $156 / (.0676 - .03) = 4145$

Op. Assets 3,840  
 + Cash: 330  
 - Debt 1847  
 = Equity 2323  
 - Options 0  
 Value/Share \$ 12.47

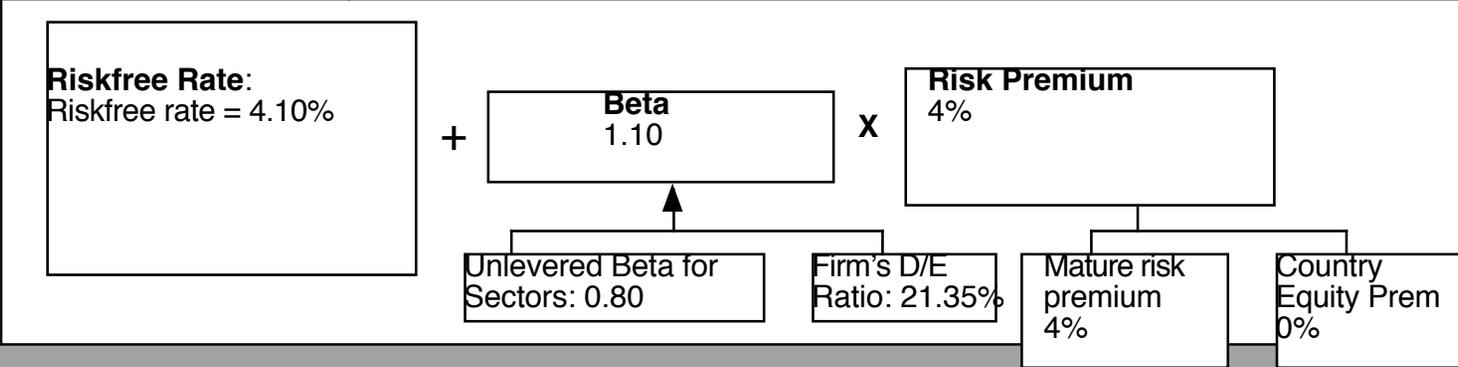
	1	2	3	4	5	Term Yr
EBIT (1-t)	\$252	\$255	\$258	\$264	\$272	280
- Reinvestment	\$44	\$44	\$59	\$89	\$121	124
FCFF	\$208	\$211	\$200	\$176	\$151	156

Discount at Cost of Capital (WACC) =  $8.50\% (.486) + 3.97\% (0.514) = 6.17\%$

**Cost of Equity**  
8.50%

**Cost of Debt**  
 $(4.10\% + 2\%) (1 - .35) = 3.97\%$

**Weights**  
 E = 48.6% D = 51.4%



# Determinants of Success at Activist Investing

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1. **Have lots of capital:** Since this strategy requires that you be able to put pressure on incumbent management, you have to be able to take significant stakes in the companies.
2. **Know your company well:** Since this strategy is going to lead a smaller portfolio, you need to know much more about your companies than you would need to in a screening model.
3. **Understand corporate finance:** You have to know enough corporate finance to understand not only that the company is doing badly (which will be reflected in the stock price) but what it is doing badly.
4. **Be persistent:** Incumbent managers are unlikely to roll over and play dead just because you say so. They will fight (and fight dirty) to win. You have to be prepared to counter.
5. **Do your homework:** You have to form coalitions with other investors and to organize to create the change you are pushing for.

Value investors  
focus assets in  
place

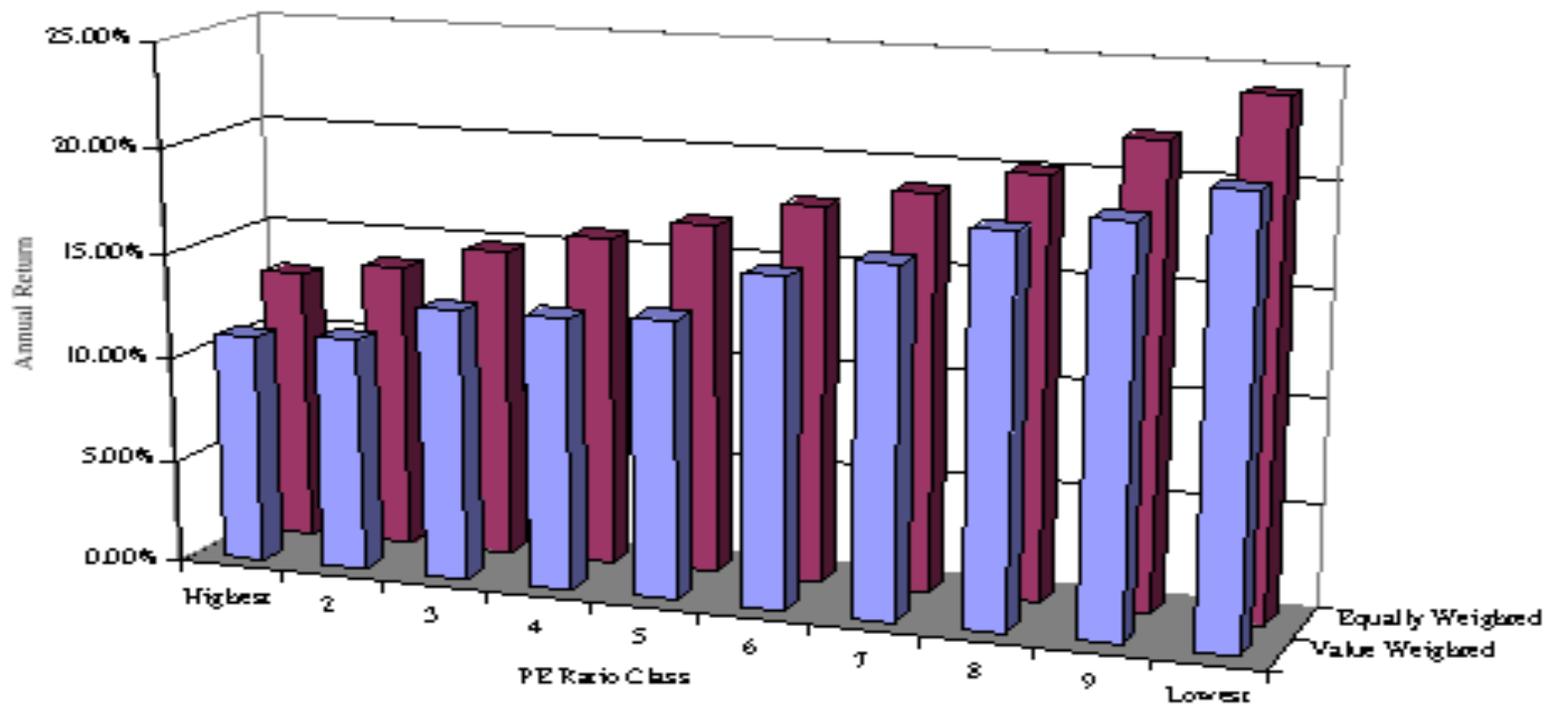
# Growth Investing

Assets		Liabilities	
Existing Investments Generate cashflows today Includes long lived (fixed) and short-lived(working capital) assets	Assets in Place	Debt	Fixed Claim on cash flows Little or No role in management <i>Fixed Maturity</i> <i>Tax Deductible</i>
Expected Value that will be created by future investments	Growth Assets	Equity	Residual Claim on cash flows Significant Role in management <i>Perpetual Lives</i>

Growth investors bet on growth  
assets: They believe that they can  
assess their value better than markets

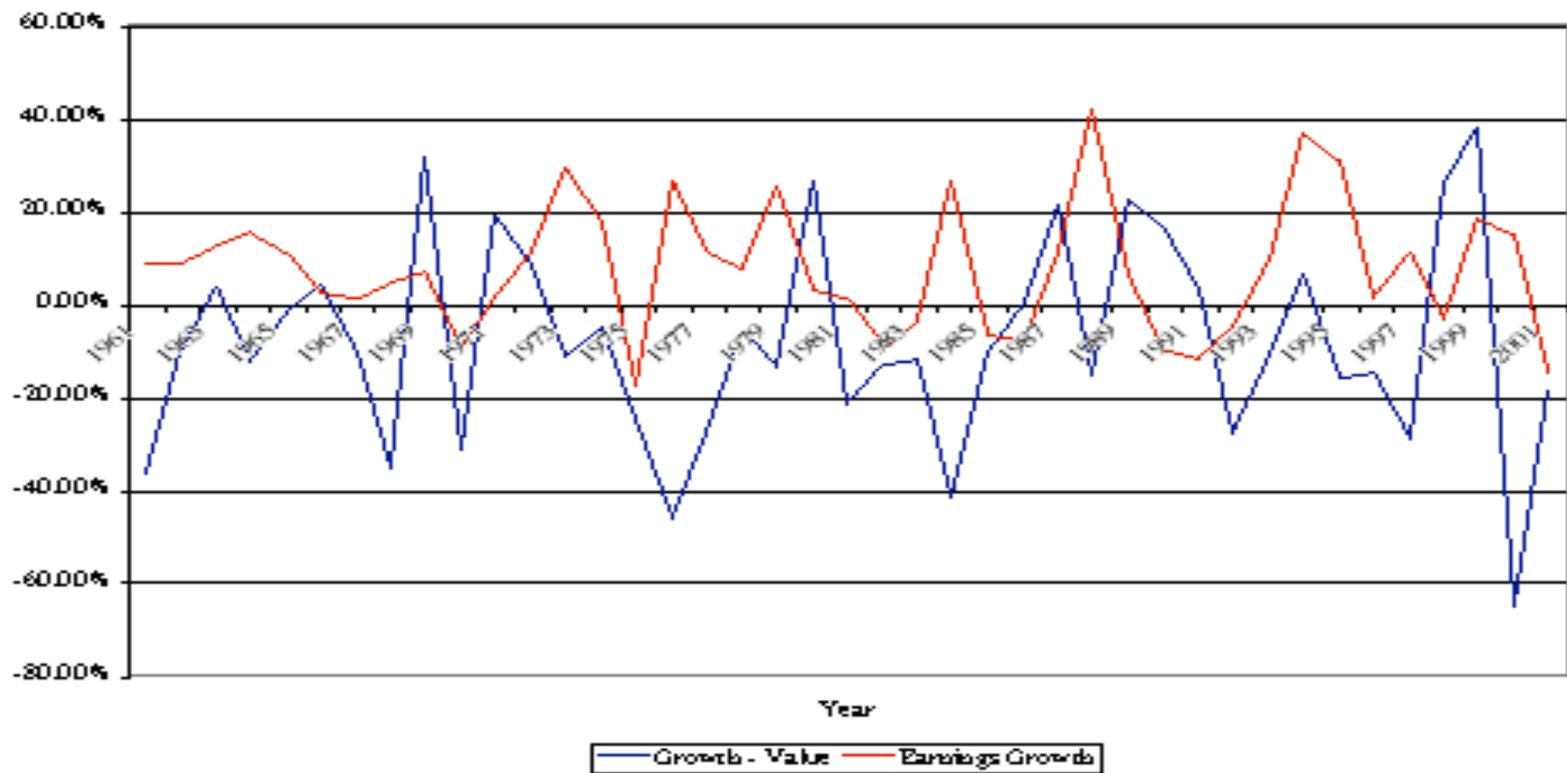
# Is growth investing doomed?

Figure 9.14: PE Ratios and Stock Returns - 1952-2001



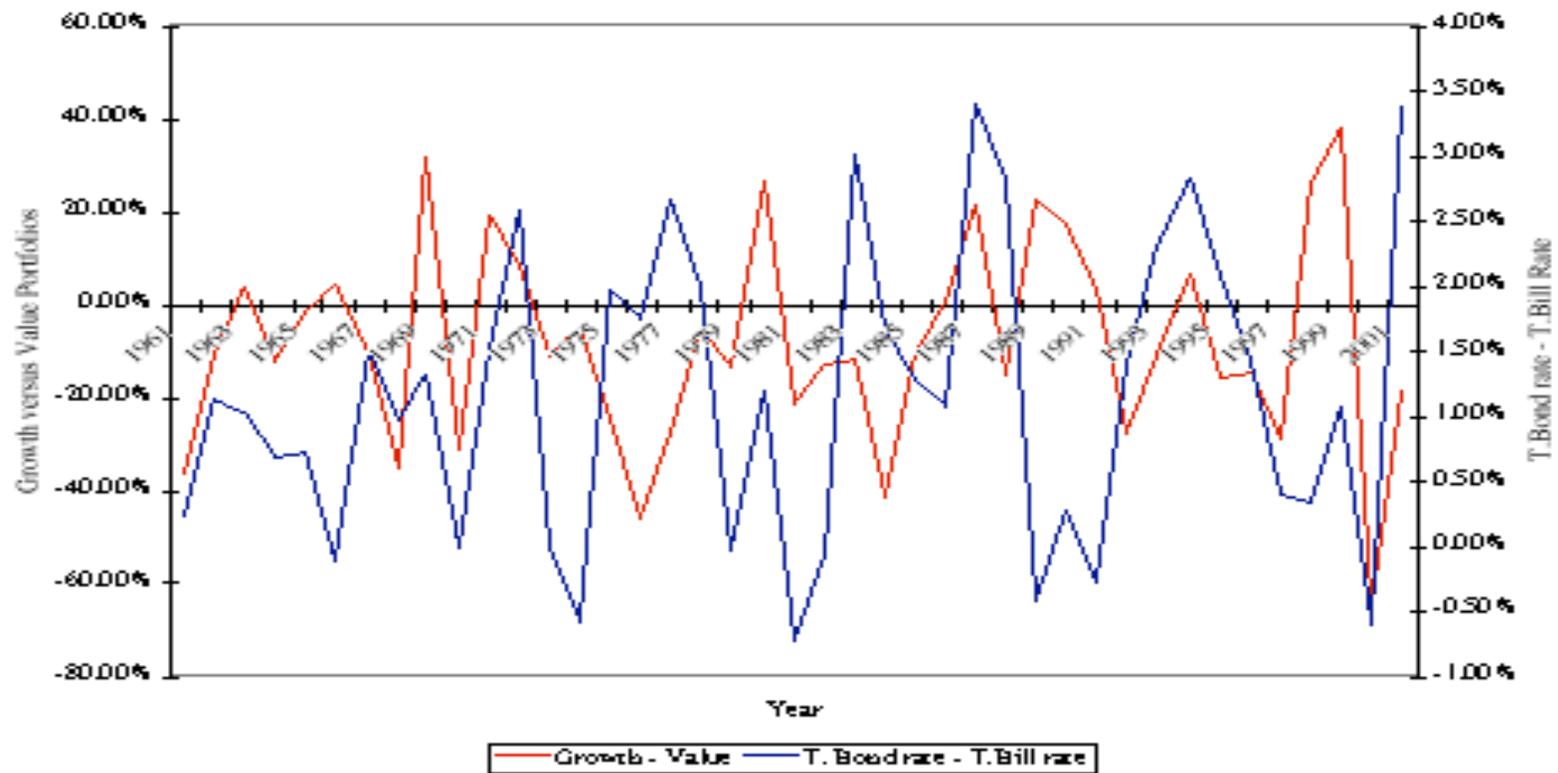
But there is another side ..

*Figure 9.15: Relative Performance of Growth and Value versus Earnings Growth*



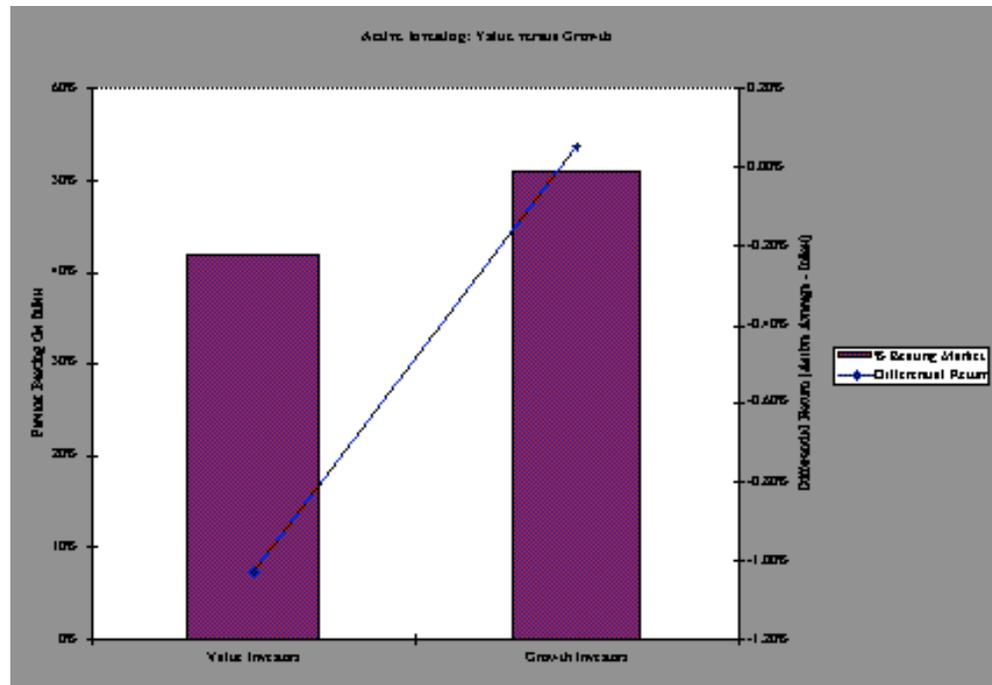
# Adding on ...

Figure 9.16: Relative Performance of Growth & Stocks versus Yield Curve



## Furthermore..

- And active growth investors seem to beat growth indices more often than value investors beat value indices.



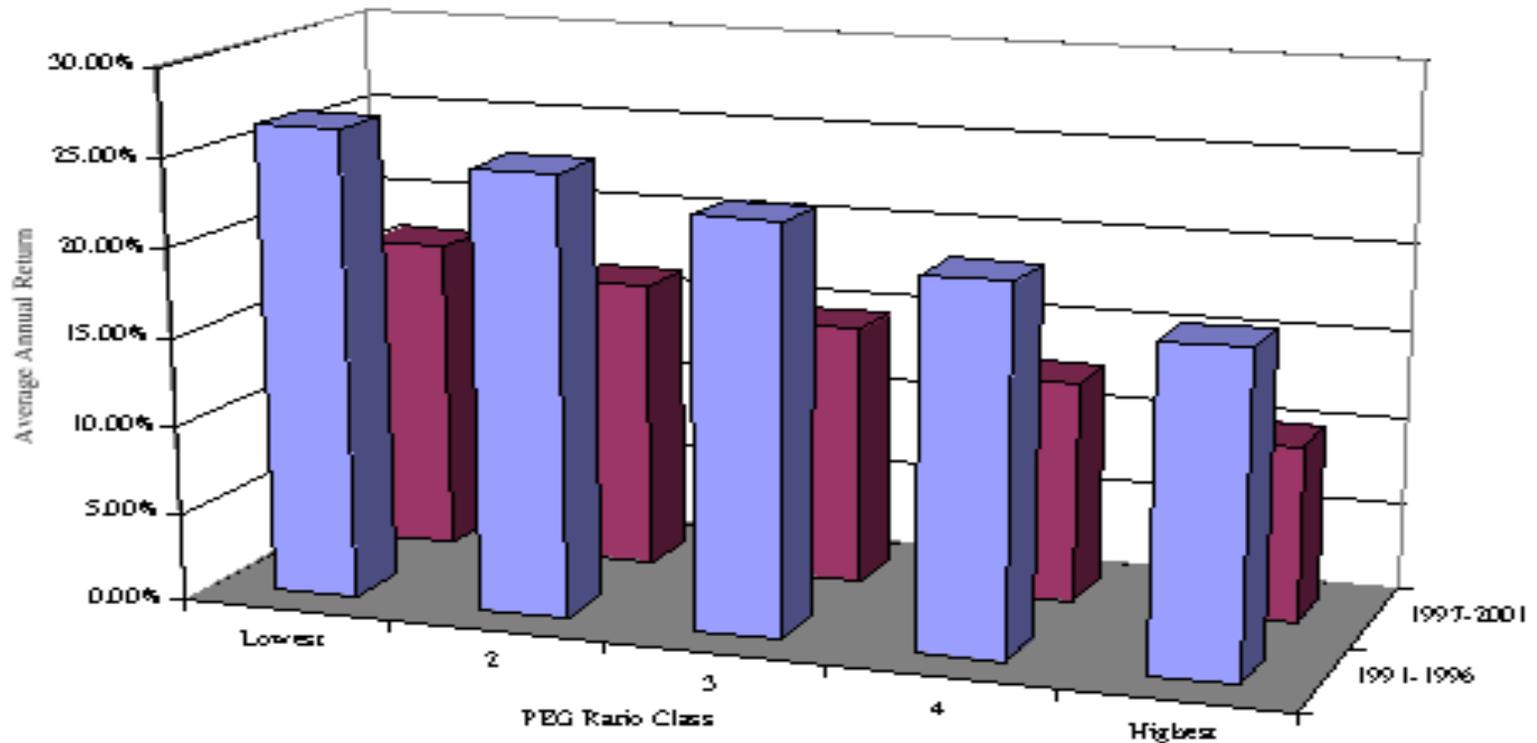
# Growth Investing Strategies

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- Passive Growth Investing Strategies focus on investing in stocks that pass a specific screen. Classic passive growth screens include:
  - PE < Expected Growth Rate
  - Low PEG ratio stocks (PEG ratio = PE/Expected Growth)
  - Earnings Momentum Investing (Earnings Momentum: Increasing earnings growth)
  - Earnings Revisions Investing (Earnings Revision: Earnings estimates revised upwards by analysts)
  - Small Cap Investing
- Active growth investing strategies involve taking larger positions and playing more of a role in your investments. Examples of such strategies would include:
  - Venture capital investing
  - Private Equity Investing

# I. Passive Growth Strategies

Figure 9.17: PEG Ratios and Annual Returns



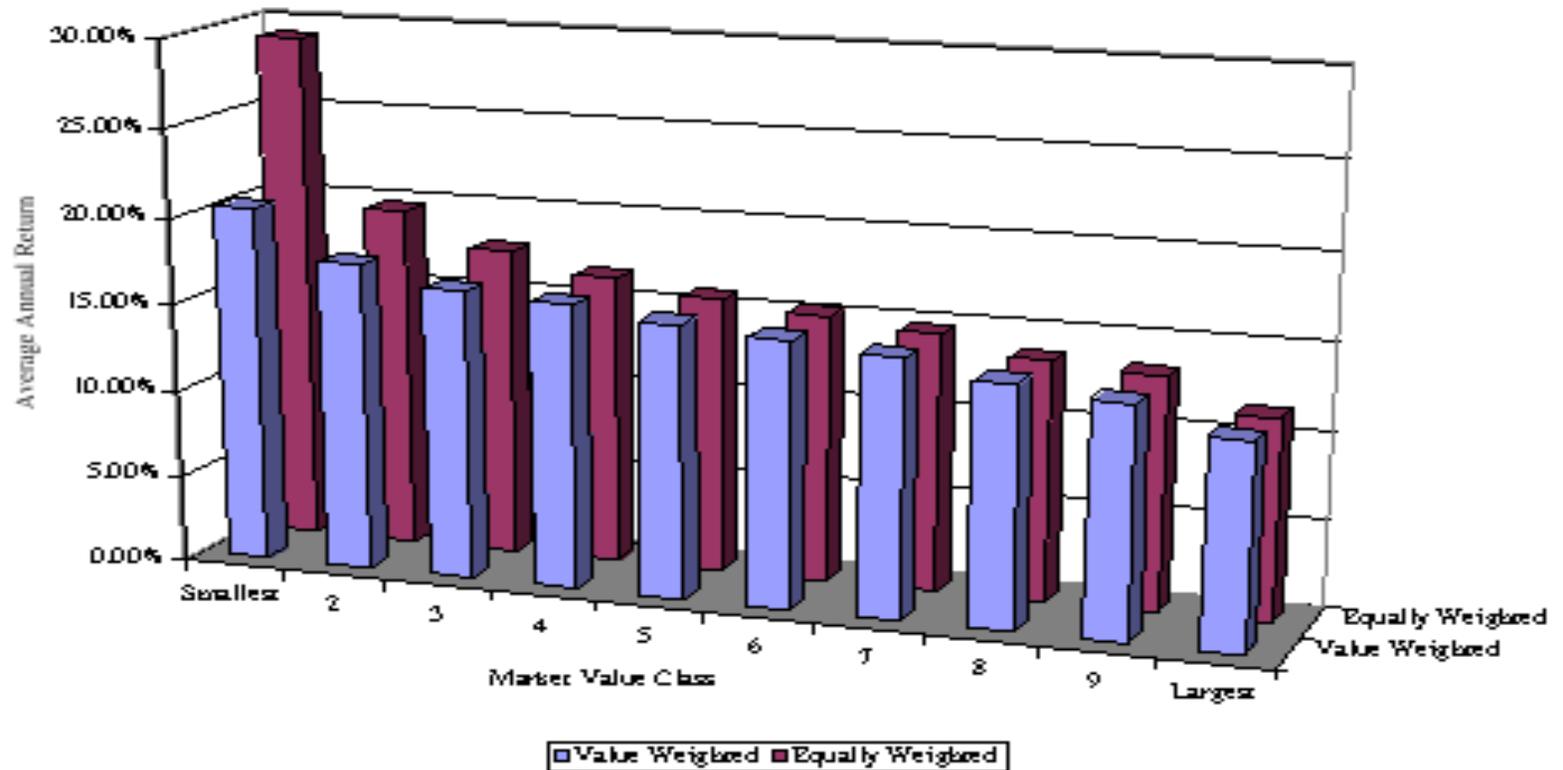
## II. Small Cap Investing

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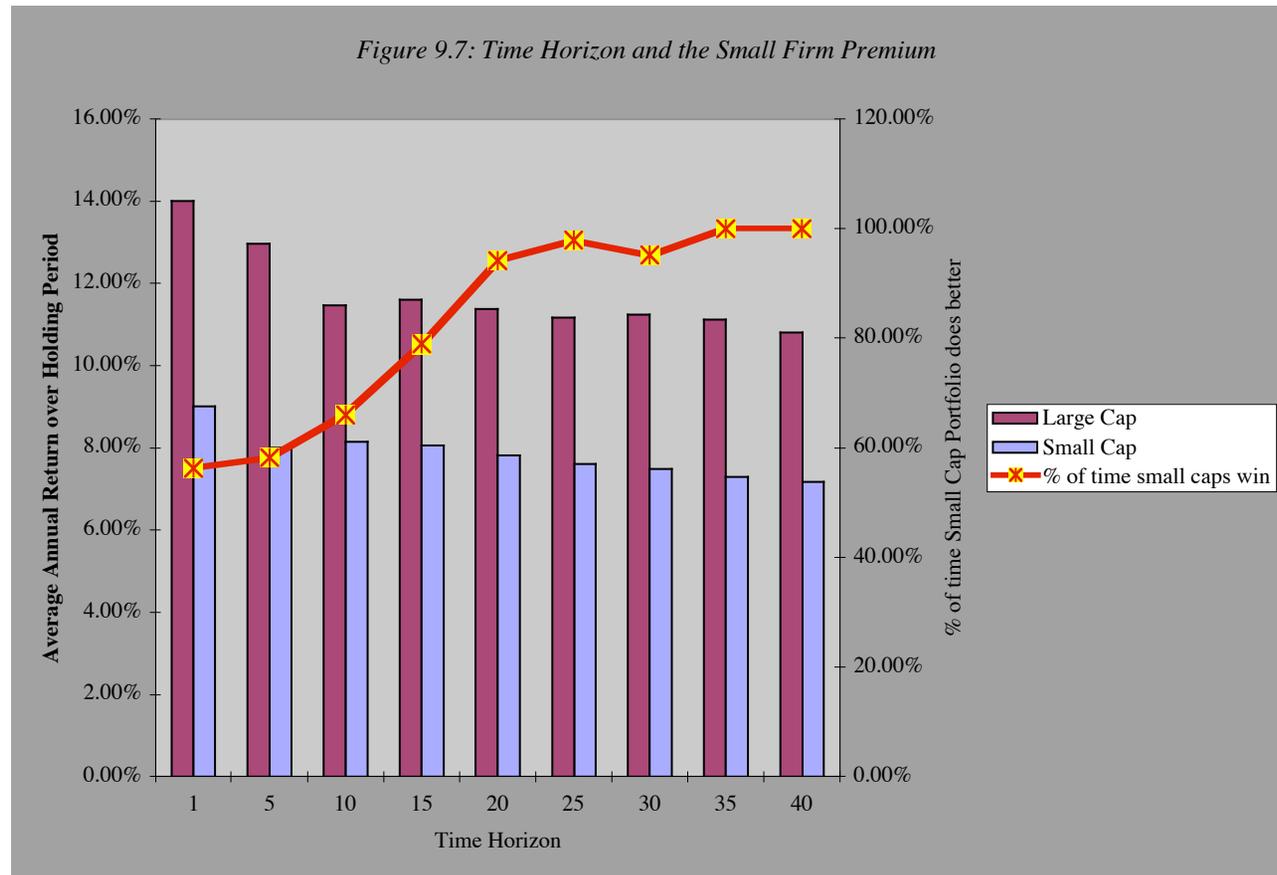
- One of the most widely used passive growth strategies is the strategy of investing in small-cap companies. There is substantial empirical evidence backing this strategy, though it is debatable whether the additional returns earned by this strategy are really excess returns.
- Studies have consistently found that **smaller firms** (in terms of market value of equity) **earn higher returns** than larger firms of equivalent risk, where risk is defined in terms of the market beta. In one of the earlier studies, returns for stocks in ten market value classes, for the period from 1927 to 1983, were presented.

# The Small Firm Effect

Figure 9.1: Annual Returns by Market Value Class - 1927 - 2001



# A Note of caution...



### III. Activist Growth Investing..

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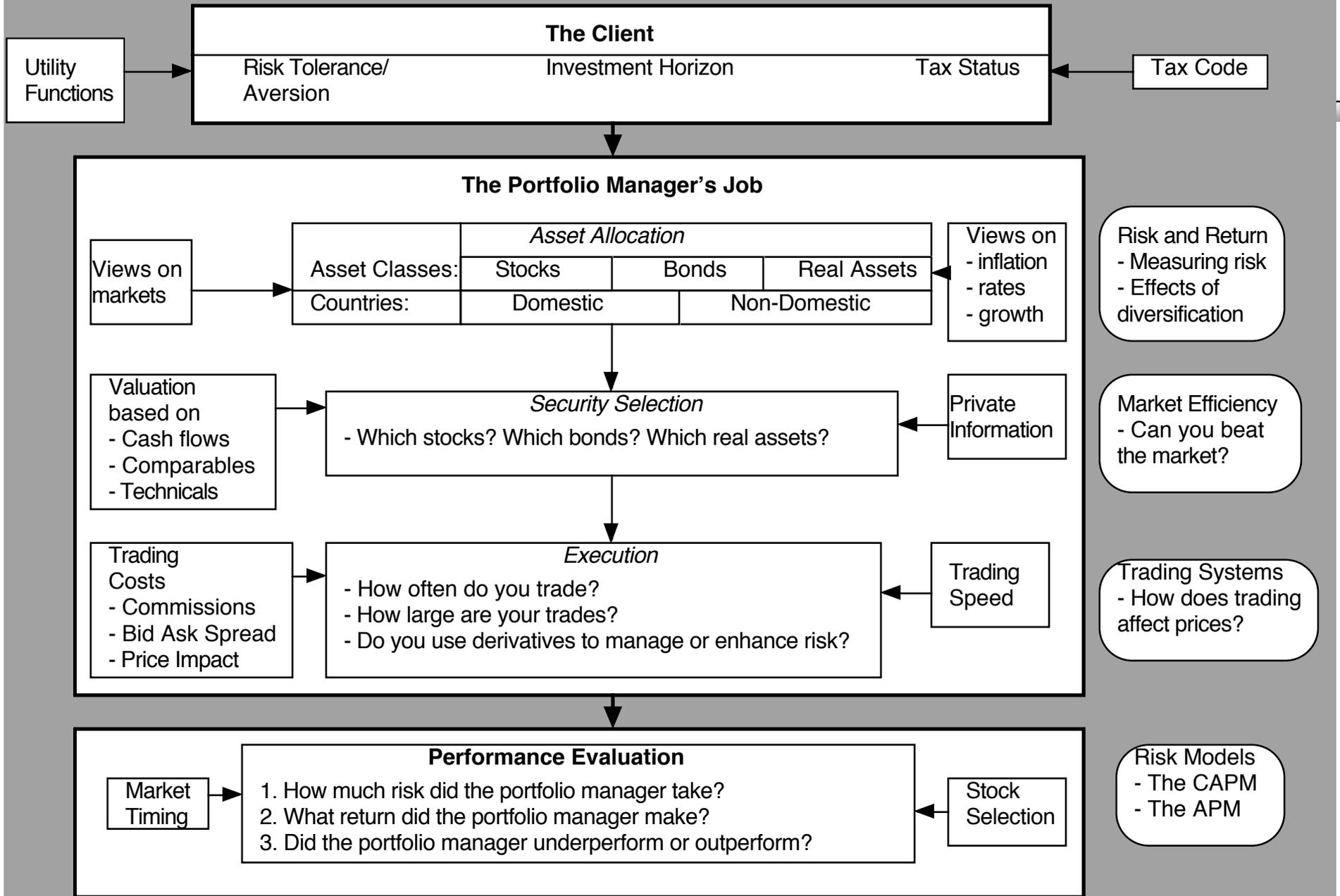
<i>Fund Type</i>	<i>1 Yr</i>	<i>3 Yr</i>	<i>5 Yr</i>	<i>10 Yr</i>	<i>20 Yr</i>
Early/Seed Venture Capital	-36.3	81	53.9	33	21.5
Balanced Venture Capital	-30.9	45.9	33.2	24	16.2
Later Stage Venture Capital	-25.9	27.8	22.2	24.5	17
All Venture Capital	-32.4	53.9	37.9	27.4	18.2
All Buyouts	-16.1	2.9	8.1	12.7	15.6
Mezzanine	3.9	10	10.1	11.8	11.3
All Private Equity	-21.4	16.5	17.9	18.8	16.9

## Are there great stock pickers?

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<i>Firm</i>	<i>Latest qtr.</i>	<i>One- year</i>	<i>Five- year</i>
Credit Suisse F.B.	-3.60%	36.90%	253.10%
Prudential Sec.	-12.3	36.2	216.1
U.S. Bancorp Piper J.	-1.4	28.5	208.8
Merrill Lynch	-1.9	28.1	162.2
Goldman Sachs	0	27.4	220.3
Lehman Bros.	-11.7	18.3	262.4
J.P. Morgan Sec.	2.9	11.6	N.A.
Bear Stearns	-6.4	11.4	184.9
A.G. Edwards	-1.7	9.8	194.8
Morgan Stanley D.W.	-2.8	9.5	148.8
Raymond James	-0.4	6.9	164.4
Edward Jones	-0.5	4.8	204.3
First Union Sec.	-12.3	1.8	N.A.
PaineWebber	-13.2	-3.2	153.6
Salomon S.B.	-1.8	-17	101.7
S&P 500 Index	-2.70%	7.20%	190.80%

# The Investment Process



# Arbitrage Investment Strategies

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- An arbitrage-based investment strategy is based upon buying an asset (at a market price) and selling an equivalent or the same asset at a higher price.
- A true arbitrage-based strategy is riskfree and hence can be financed entirely with debt. Thus, it is a strategy where an investor can invest no money, take no risk and end up with a pure profit.
- Most real-world arbitrage strategies (such as those adopted by hedge funds) have some residual risk and require some investment.

# The Performance of Hedge Funds

<i>Year</i>	<i>No of funds in sample</i>	<i>Arithmetic Average Return</i>	<i>Median Return</i>	<i>Return on S&amp;P 500</i>	<i>Average Annual Fee (as % of money under management)</i>	<i>Average Incentive Fee (as % of excess returns)</i>
1988-89	78	18.08%	20.30%		1.74%	19.76%
1989-90	108	4.36%	3.80%		1.65%	19.52%
1990-91	142	17.13%	15.90%		1.79%	19.55%
1991-92	176	11.98%	10.70%		1.81%	19.34%
1992-93	265	24.59%	22.15%		1.62%	19.10%
1993-94	313	-1.60%	-2.00%		1.64%	18.75%
1994-95	399	18.32%	14.70%		1.55%	18.50%
Entire Period		13.26%		16.47%%		

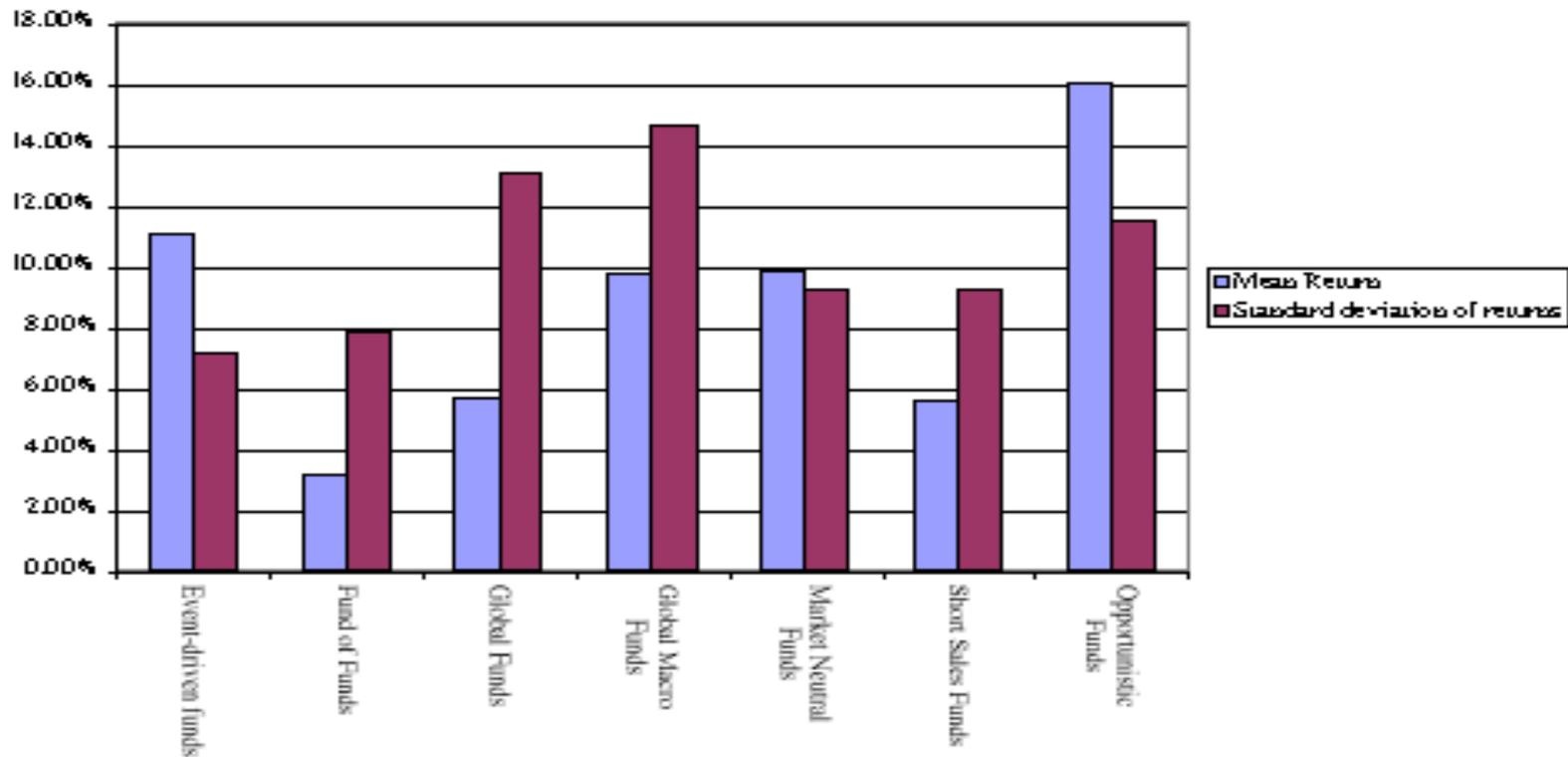
## Looking a little closer at the numbers...

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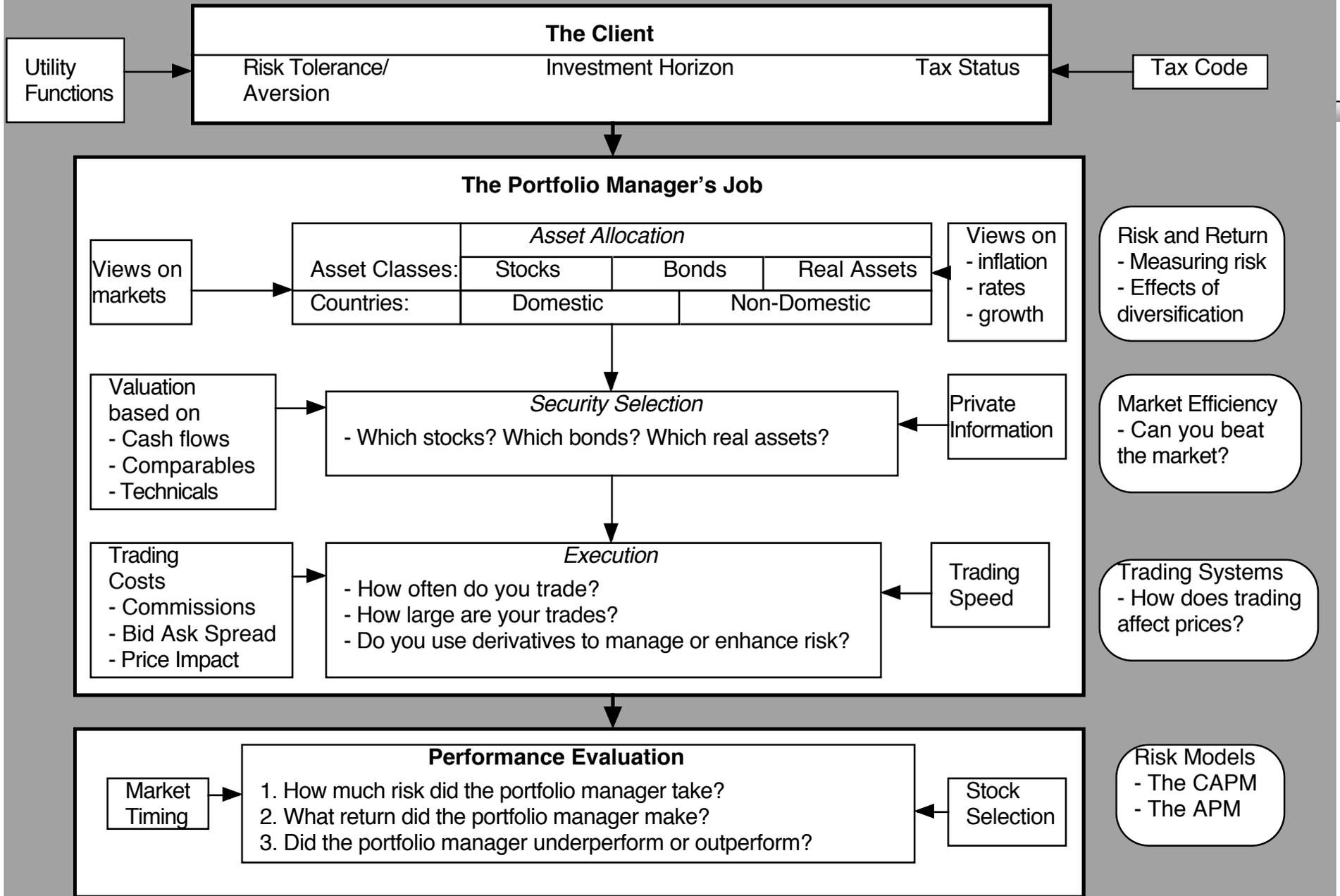
- The average hedge fund earned a lower return (13.26%) over the period than the S&P 500 (16.47%), but it also had a lower standard deviation in returns (9.07%) than the S & P 500 (16.32%). Thus, it seems to offer a better payoff to risk, if you divide the average return by the standard deviation – this is the commonly used Sharpe ratio for evaluating money managers.
- These funds are much more expensive than traditional mutual funds, with much higher annual fees and annual incentive fees that take away one out of every five dollars of excess returns.

# Returns by sub-category

Figure 11.10: Hedge Funds: Average Returns and Standard Deviations - 1989-1995



# The Investment Process



# Performance Evaluation: Time to pay the piper!

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## *Who should measure performance?*

- Performance measurement has to be done either by the client or by an objective third party on the basis of agreed upon criteria. It should not be done by the portfolio manager.

## *How often should performance be measured?*

- The frequency of portfolio evaluation should be a function of both the time horizon of the client and the investment philosophy of the portfolio manager. However, portfolio measurement and reporting of value to clients should be done on a frequent basis.

## *How should performance be measured?*

Against a market index (with no risk adjustment)

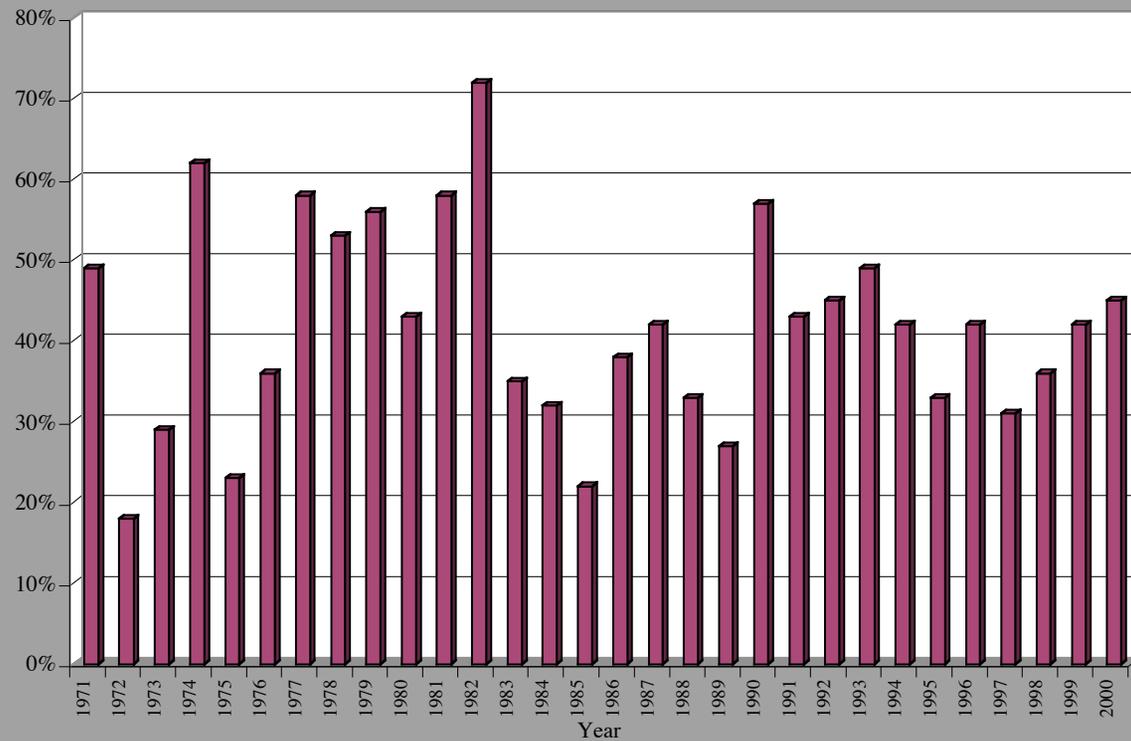
Against other portfolio managers, with similar objective functions

Against a risk-adjusted return, which reflects both the risk of the portfolio and market performance.

Based upon Tracking Error against a benchmark index

# I. Against a Market Index

Figure 13.5: Percent of Money Managers who beat the S&P 500



## II. Against Other Portfolio Managers

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- In some cases, portfolio managers are measured against other portfolio managers who have similar objective functions. Thus, a growth fund manager may be measured against all growth fund managers.
- The implicit assumption in this approach is that portfolio managers with the same objective function have the same exposure to risk.

### III. Risk-Adjusted Returns

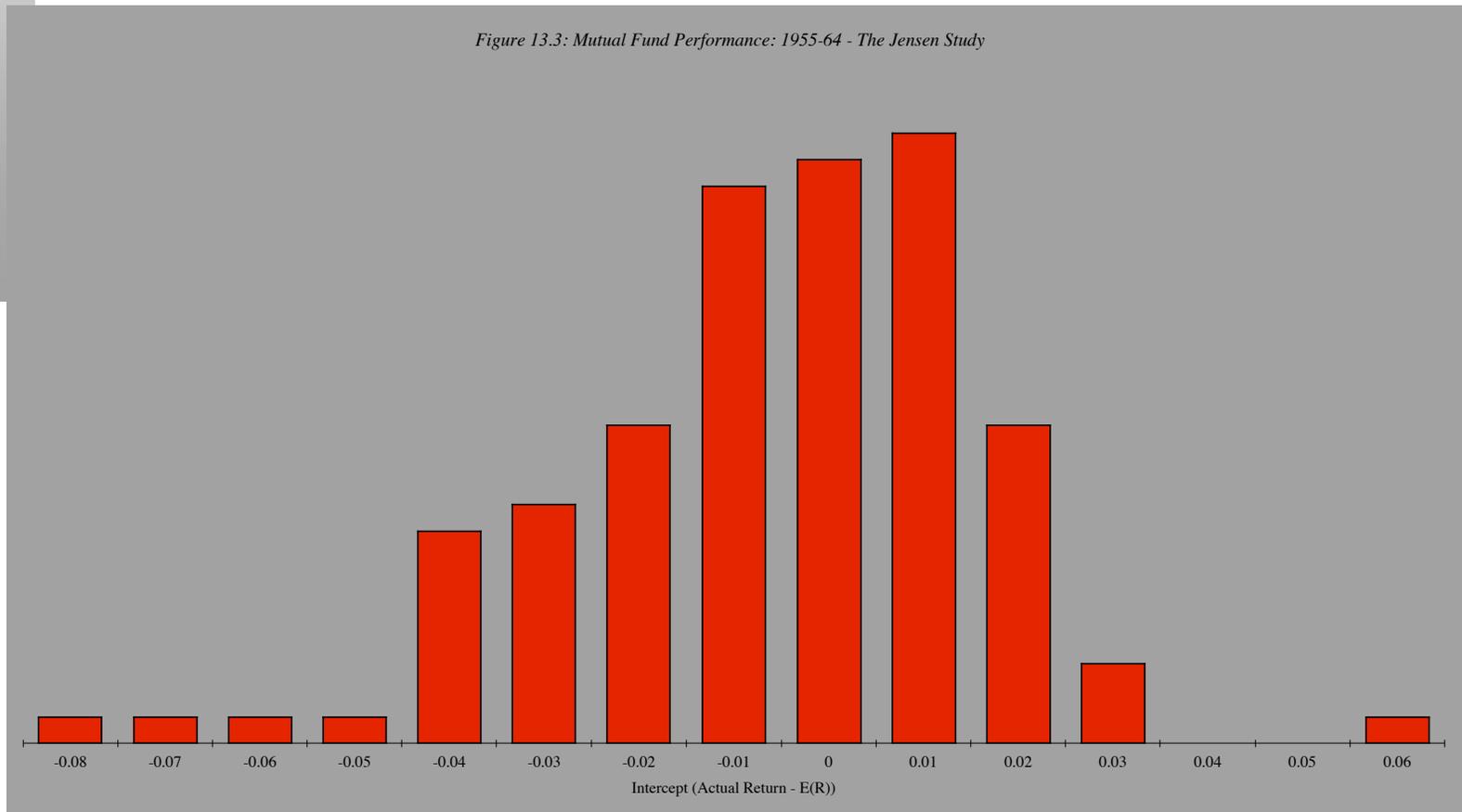
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- The fairest way of measuring performance is to compare the actual returns earned by a portfolio against an expected return, based upon the risk of the portfolio and the performance of the market during the period.
- All risk and return models in finance take the following form:  
$$\text{Expected return} = \text{Riskfree Rate} + \text{Risk Premium}$$

Risk Premium: Increasing function of the risk of the portfolio
- The actual returns are compared to the expected returns to arrive at a measure of risk-adjusted performance:  
$$\text{Excess Return} = \text{Actual Return} - \text{Expected Returns}$$
- The limitation of this approach is that there are no perfect (or even good risk and return models). Thus, the excess return on a portfolio may be a real excess return or just the result of a poorly specified model.

# The Performance of Mutual Funds..

Figure 13.3: Mutual Fund Performance: 1955-64 - The Jensen Study



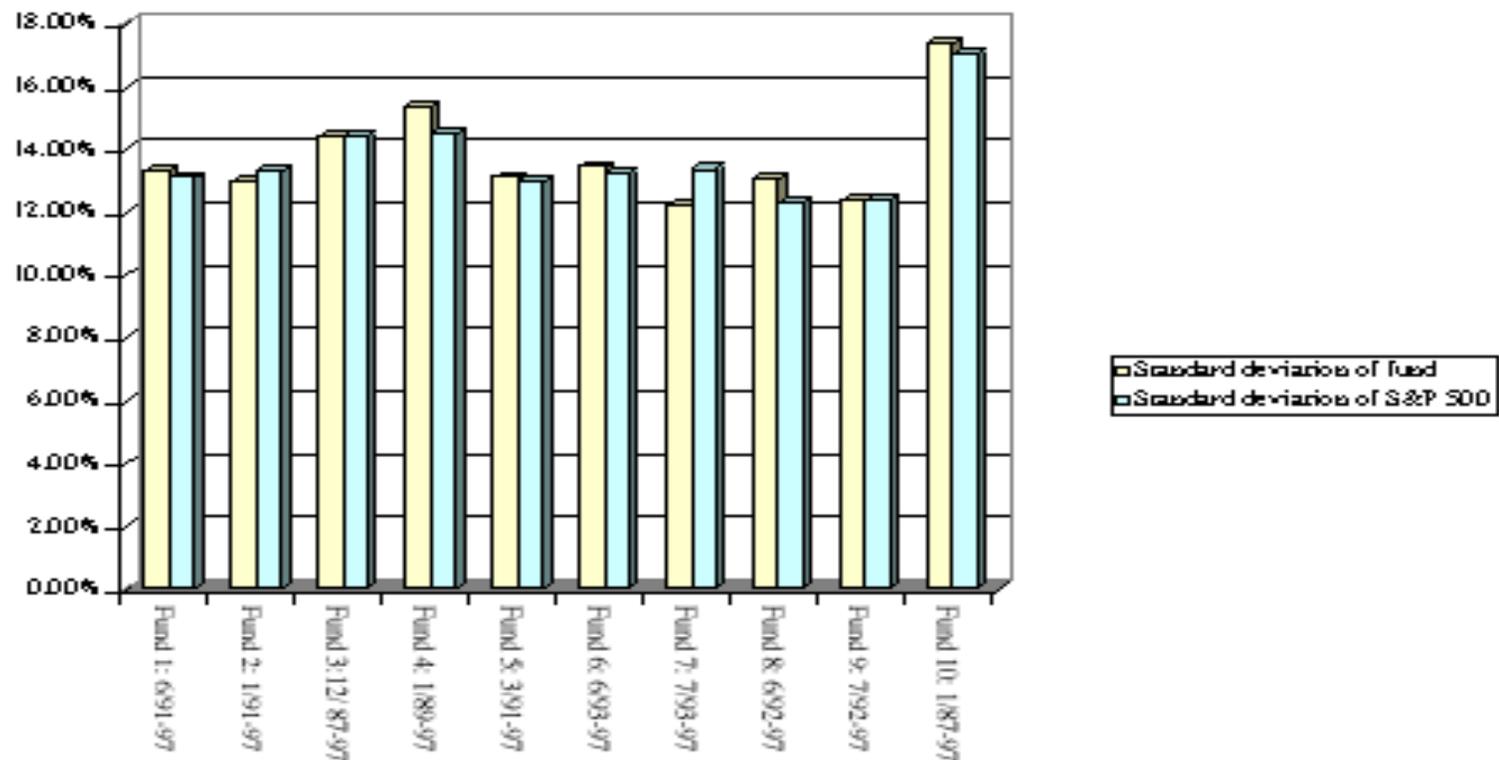
## IV. Tracking Error as a Measure of Risk

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- Tracking error measures the difference between a portfolio's return and its benchmark index. Thus portfolios that deliver higher returns than the benchmark but have higher tracking error are considered riskier.
- Tracking error is a way of ensuring that a portfolio stays within the same risk level as the benchmark index.
- It is also a way in which the “active” in active money management can be constrained.

# Enhanced Index Funds... Oxymoron?

Figure 13.21: Enhanced Index Funds: Standard deviation vs. S&P 500



# Finding an Investment Philosophy

	<i>Momentum</i>	<i>Contrarian</i>	<i>Opportunistic</i>
Short term (days to a few weeks)	<ul style="list-style-type: none"> <li>• <u>Technical momentum indicators</u> – Buy stocks based upon trend lines and high trading volume.</li> <li>• <u>Information trading</u>: Buying after positive news (earnings and dividend announcements, acquisition announcements)</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Technical contrarian indicators</u> – mutual fund holdings, short interest. These can be for individual stocks or for overall market.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Pure arbitrage in derivatives and fixed income markets.</u></li> <li>• <u>Technical demand indicators</u> – Patterns in prices such as head and shoulders.</li> </ul>
Medium term (few months to a couple of years)	<ul style="list-style-type: none"> <li>• <u>Relative strength</u>: Buy stocks that have gone up in the last few months.</li> <li>• <u>Information trading</u>: Buy small cap stocks with substantial insider buying.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Market timing</u>, based upon normal PE or normal range of interest rates.</li> <li>• <u>Information trading</u>: Buying after bad news (buying a week after bad earnings reports and holding for a few months)</li> </ul>	<ul style="list-style-type: none"> <li>• Near arbitrage opportunities: Buying discounted closed end funds</li> <li>• <u>Speculative arbitrage opportunities</u>: Buying paired stocks and merger arbitrage.</li> </ul>
Long Term (several years)	<ul style="list-style-type: none"> <li>• <u>Passive growth investing</u>: Buying stocks where growth trades at a reasonable price (PEG ratios).</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Passive value investing</u>: Buy stocks with low PE, PBV or PS ratios.</li> <li>• <u>Contrarian value investing</u>: Buying losers or stocks with lots of bad news.</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Active growth investing</u>: Take stakes in small, growth companies (private equity and venture capital investing)</li> <li>• <u>Activist value investing</u>: Buy stocks in poorly managed companies and push for change.</li> </ul>

# The Right Investment Philosophy

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- Single Best Strategy: You can choose the one strategy that best suits you. Thus, if you are a long-term investor who believes that markets overreact, you may adopt a passive value investing strategy.
- Combination of strategies: You can adopt a combination of strategies to maximize your returns. In creating this combined strategy, you should keep in mind the following caveats:
  - You should not mix strategies that make contradictory assumptions about market behavior over the same periods. Thus, a strategy of buying on relative strength would not be compatible with a strategy of buying stocks after very negative earnings announcements. The first strategy is based upon the assumption that markets learn slowly whereas the latter is conditioned on market overreaction.
  - When you mix strategies, you should separate the dominant strategy from the secondary strategies. Thus, if you have to make choices in terms of investments, you know which strategy will dominate.

## In closing...

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- Choosing an investment philosophy is at the heart of successful investing. To make the choice, though, you need to look within before you look outside. The best strategy for you is one that matches both your personality and your needs.
- Your choice of philosophy will also be affected by what you believe about markets and investors and how they work (or do not). Since your beliefs are likely to be affected by your experiences, they will evolve over time and your investment strategies have to follow suit.