

# Investing Notes

Lessons Learned



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# Contents

<b>1</b>	<b>Stock Market Investing Jargon</b>	<b>2</b>
1.1	Basics . . . . .	2
1.2	Stocks . . . . .	4
1.3	Bonds . . . . .	18
1.4	Security Trading . . . . .	22
1.5	Derivatives . . . . .	31
1.6	Miscellaneous . . . . .	34
<b>2</b>	<b>How The Masters Tell Us To Invest</b>	<b>43</b>
2.1	Philosophies Of Famous Investors . . . . .	45
2.2	Where The Masters Agree . . . . .	100
2.3	Investor Quotes . . . . .	101
<b>3</b>	<b>Market Cycles And The Psychology</b>	<b>112</b>
3.1	Indicators . . . . .	116
3.2	Predictions And Market Timing . . . . .	117
3.3	Howard Marks on Market Cycles . . . . .	122
3.4	Howard Marks On Credit Cycles . . . . .	138
3.5	Psychology And Psychological Biases . . . . .	145
<b>4</b>	<b>Investing Strategies</b>	<b>152</b>
4.1	Long-Term Investing . . . . .	157
4.2	Trading And Short-Term Investing . . . . .	177
4.3	Stocks To Watch Worksheet . . . . .	180
<b>5</b>	<b>Valuation</b>	<b>185</b>
5.1	Financial Statements (GAAP) . . . . .	188
5.2	Accounting And Accounting Shenanigans . . . . .	193
5.3	Risk Models . . . . .	198
5.4	Valuation Taxonomy . . . . .	200
5.5	Fundamental Analysis . . . . .	203
5.6	Technical Analysis . . . . .	255
5.7	Bonus: Damodaran's Valuation Tips (By Company Types) . . . . .	258
<b>6</b>	<b>Funds</b>	<b>292</b>
6.1	Index Funds . . . . .	292
6.2	Hedge Funds . . . . .	295

6.3	Mutual Funds . . . . .	295
6.4	Tactical Allocation Funds . . . . .	296
<b>7</b>	<b>Alternative Investments</b>	<b>297</b>
7.1	Private Equity . . . . .	301
7.2	Crypto . . . . .	301
7.3	Gold . . . . .	302
7.4	Collectibles . . . . .	303
7.5	Commodities . . . . .	303
7.6	Real Estate . . . . .	303
<b>8</b>	<b>Taxes [SK/EN]</b>	<b>304</b>
8.1	UK . . . . .	304
8.2	SK . . . . .	305
8.3	SK ↔ UK . . . . .	307
8.4	Interactive Brokers . . . . .	307
<b>9</b>	<b>Pension</b>	<b>309</b>
9.1	US . . . . .	309
9.2	UK . . . . .	310
<b>10</b>	<b>Brokers</b>	<b>313</b>
10.1	Brokerage Requirements . . . . .	313
10.2	SK/CZ . . . . .	314
10.3	UK . . . . .	317
10.4	Abroad (Especially USA) . . . . .	318
10.5	Brokers/Platforms For Real Estate . . . . .	318
<b>11</b>	<b>Various Tips And Miscellaneous</b>	<b>319</b>
11.1	Bank Accounts And Cash Tips . . . . .	321
<b>12</b>	<b>Portals And Tools</b>	<b>322</b>
12.1	Magazines . . . . .	322
12.2	Newspapers . . . . .	322
12.3	Newsletters . . . . .	322
12.4	Stock Screeners . . . . .	322
12.5	Membership . . . . .	323
12.6	Misc . . . . .	323
12.7	Various Portals . . . . .	324
<b>13</b>	<b>References</b>	<b>330</b>
13.1	Books . . . . .	330
13.2	YouTube Channels . . . . .	330

# 1 Stock Market Investing Jargon

## 1.1 Basics

- *Portfolio*
  - What investments you hold.
- *Assets*
  - Job, cash (if you turn it into assets), insurance (if something bad happens), stocks, education/skills.
- *Liabilities*
  - Home, cash (if you not use it it will inflate), cell phone, insurance (if nothing bad ever happen), car.
- *Equity*
  - Depending on the context, equity has been found to have varying meaning. In finance, equity refers to the ownership of assets after liabilities and debts have been settled or it can refer to stock or ownership of shares in a public company.
- *Negative equity*
  - TODO
- *Return on Investment (ROI)*
  - This refers to a metric that measures profit or loss generated by an investment in relation to the invested funds.
  - Where someone's asset, usually their home, falls in value so much that it becomes worth less than the mortgage or loan that funded it.
- *Commodities*
  - Constitute any type of solid material that can be bought or sold in bulk, from precious metals and oil to cocoa and coffee beans.
- *Capital*
  - *Money* or physical assets used to produce an income.
- *Capital markets*

## 1 Stock Market Investing Jargon

- The broad term for markets where equities and bonds are issued and traded.
- *Central bank*
  - The main monetary authority of a country. It issues the national currency and regulates the supply of credit - most notably by controlling interest rates.
- *Credit*
  - A polite word for debt; a promise to pay someone in the future for what one borrows today.
  - It is essentially a promise to pay something of value later, typically with interest charged by lender.
- *Credit Crunch*
  - A financial crisis which makes banks reluctant or unable to lend money, causing the rest of the economy to suffer.
- *Default*
  - When a person, institution or country fails to repay its debts.
- *Supply*
  - The total amount of goods and services which can be bought at a particular price. Together with demand, this is what powers a market economy.
- *Demand*
  - The total amount of goods and services people are willing and able to buy at a given price. Usually, as the price rises, people demand fewer goods.
- *Money supply*
  - The amount of money flowing around an economy.
- *Securities*
  - Financial contracts that grant someone a stake in an asset - this can mean everything from bonds and shares to complex derivatives.

## 1.2 Stocks

Companies want you to buy their stock so they can use your money to get new equipment, develop better products, and expand their operations. Your investment money strengthens the company.

- *Outstanding shares*
  - All shares available to a given company - both publicly and privately held.
  - Basically all stocks from a company.
- *Market Capitalization*
  - How much a company is worth in dollars. It's calculated as share price \* number\_of\_shares.
  - Classification:
    - \* Large cap: > \$10B
    - \* Mid cap: \$2-10B
    - \* Small cap: \$300M-2B - higher risk, higher volatility
    - \* Micro cap: \$50-300M
    - \* Nano cap: < \$50M
  - Micro cap and Nano cap is basically penny stock territory. Even much higher risk and volatility. But with big risks comes big rewards.
  - Everything under \$5 for a share is considered to be a penny stock.
  - Penny stocks are also called OTC (over the counter) or Pink Sheets.
  - If the price of a one stock is below 1 dollar, the company has basically 3 months to get that stock price up, or they will delisted as a company. Maybe they are near to bankruptcy.
- Three stock classifications you should know - size, industry classification, and whether it's growth or value. In 2009, Morningstar created a system of three relative sizes:
  - Large companies
    - \* Comprising the top 70% of U.S. market value.
  - Medium companies
    - \* Comprising the next 20% of U.S. market value.
    - \* These companies that have cleared their first hurdles without exhausting their growth potential. They've proven that they have a good thing going, but they haven't grown old and stodgy. Small caps have a lot of potential, but a lot of danger. Large caps already grown a lot. They still could do well, but not nearly as well as they did in their early years.

## 1 Stock Market Investing Jargon

- Small companies

- \* Comprising the next 10% of U.S. market value.

(Peter Lynch) Size of a company has a great deal to do with what you can expect to get out of the stock. Big companies don't have big stock moves. In certain markets they perform well, but you'll get your biggest moves in smaller companies. You don't buy stock in a giant such as Coca-Cola expecting to quadruple your money in two years. If you buy Coca-Cola at the right price, you might triple your money in six years, but you're not going to hit the jackpot in two. Sometimes a series of misfortunes will drive a big company into desperate straits, and, as it recovers, the stock will make a big move. These are extraordinary situations that fall into the category of turnarounds. In the normal course of business, multibillion-dollar enterprises simply cannot grow fast enough to become tenbaggers. Everything else being equal, you'll do better with the smaller companies.

- *Float*

- Float refers to the number of outstanding shares available to trade. When the company did the initial IPO, they released shares. The Float is equal to the supply level. Stocks with limited supply and high demand are the ones that move up or down the fastest.
- That number is typically the float, although there are 3 ways the number of shares can change. This outstanding float does not change when traders buy or sell stock, but there are three instances where it can change:
  1. Share Buyback Programs (see below)
  2. Secondary Offerings: when the company decides to sell more shares onto the open market to raise money (floats increase). This is common among small cap stocks and dilutes the value of the stock. Even if a company performs multiple secondary offerings, they are always called secondary (not third, fourth, etc).
  3. Stock Splits (see below)
- This is important to pay attention to because when a float is increased, there are more shares available to trade and will then require more buying and selling to move the price.
- Some day traders focus on finding stocks with low floats since this means that the stocks are more likely to make big moves (due to less liquidity).

- *Stock Split* (there is a *forward split* and also a *reverse split*)

- It can result in either an increase or a decrease in float (traditional splits will increase it while reverse splits will decrease it).
- When a company chooses to increase or decrease the amount of shares which increases or decreases the stock price by equal amount.

## 1 Stock Market Investing Jargon

- No value was added or lost, market capitalization is the same after the split.
- Reverse split - a company can decide this if a share price is too low, so that they will not be delisted. It's usually a bad sign.
- So if the company decreases its share price, smaller investors can get invested in that. If you have 1 share worth of \$100, and a company announces a stock split, it decreases its share to \$10 per each, then you have 10 shares instead of original one.
- Dividend yield is not changed. It is still the same percentage.
- Why companies are doing it? Attract investors with lower capital, because shares are cheaper.
- Since it's cheaper, it increases the liquidity. More trading.
- Mathematically, stock splits are completely irrelevant to investors but they are often a sign of good things to come. A company usually won't split its stock unless it's optimistic about the future. Think about it. Would you cut your stock price in half or more if the market was about to do the same? Of course not. Stock splits tend to happen when a company has done well, driven up the price of its stock through a split and expects to keep driving up the stock price after the split.
- (Warren Buffett) Stock splits have 3 consequences:
  - \* they increase transaction costs by promoting high share turnover
  - \* they attract shareholders with short-term, market-oriented views who unduly focus on stock market prices
  - \* as a result of both of those effects, they lead to prices that depart materially from intrinsic business value

With no offsetting benefits, splitting Berkshire's stock would be foolish. Not only that, Buffett adds, it would threaten to reverse over three decades of hard work that has attracted to Berkshire a shareholder group comprised of more focused and long-term investors than probably any other major public corporation.

- *Stock Buybacks*

- When the company decides to buy back some of the shares they have released onto the open market (floats decrease). Warren Buffett said that it makes sense when the market is valuing them at less than the company, and when the company has no other pressing need for cash.
  - \* When a company decides to buy back its own shares on public market from shareholders.
  - \* The reason why a company would do that is to use its cash to deplete a share count, then there is a less amount of shares, which would raise



## 1 Stock Market Investing Jargon

EPS (earning per share - so more money for investors, better P/E ratio) as long as their profit stays the same or goes up (because there are less shares that are counting against the amount of profit that's coming in).

- \* So if a company will buy some shares back, your shares (as an investor) are much more valuable, because there is less of them out there. Maybe it's a good thing to prefer companies that do share buyback.
- (Peter Lynch) Buying back shares brings up another important change in the market - the dividend becoming an endangered species. The old method of rewarding shareholders seems to have gone the way of black-footed ferret. It's true that interest rates are lower today than they were in 1989, so you'd expect yields on bonds and dividends on stocks to be lower. As stock prices rise, the dividend yield naturally falls. In the past, when a mature, healthy company routinely raised the dividend, it was a sign of prosperity. Cutting a dividend or failing to raise it was a sign of trouble. Lately, healthy companies are skimping on their dividends and using the money to buy back their own shares. Reducing the supply of shares increases the earnings per share, which eventually rewards shareholders, although they don't reap the reward until they sell. If anybody's responsible for the disappearing dividend, it's the U.S. government, which taxes corporate profits, then taxes corporate dividends at the full rate, for so-called unearned income. To help their shareholders avoid this double taxation, companies have abandoned the dividend in favor of the buyback strategy, which boosts the stock price.
- (Warren Buffett) Buffett fully supports significant stock repurchases at times when wide discrepancies exist between price and value. As shareholders, we find this encouraging and rewarding for two important reasons:
  - \* major repurchases at prices well below per-share intrinsic business value immediately increase, in a highly significant way, that value. When companies purchase their own stock, they often find it easy to get \$2 of present value for \$1. Corporate acquisition programs almost never do as well and, in a discouragingly large number of cases, fail to get anything close to \$1 of value for each \$1 expended.
  - \* by making repurchases when a company's market value is well below its business value, management clearly demonstrates that it is given to actions that enhance the wealth of shareholders, rather than to actions that expand management's domain but that do nothing for (or even harm) shareholders. Seeing this, shareholders and potential shareholders increase their estimates of future returns from the business. This upward revision, in turn, produces market prices more in line with intrinsic business value. These prices are entirely rational. Investors should pay more for a business that is lodged in the hands of a manager with demonstrated pro-shareholder leanings than for one in the hands of a self-interested manager marching to a different drummer. The key word is "demon-

## 1 Stock Market Investing Jargon

strated". A manager who consistently turns his back on repurchases, when these clearly are in the interest of owners, reveals more than he knows of his motivations. No matter how often or how eloquently he mouths some public relations-inspired phrase such as "maximizing shareholder wealth", the market correctly discounts assets lodged with him. His heart is not listening to his mouth - and, after a while, neither will the market.

There is only one combination of facts that makes it advisable for a company to repurchase its shares:

- \* the company has available funds - cash plus sensible borrowing capacity - beyond the near-term needs of the business
- \* the company finds its stock selling in the market below its intrinsic value, conservatively calculated

Buffett's opinion (1999) - *"I can't help but feel that too often today's repurchases are dictated by management's desire to "show confidence" or be in fashion rather than by a desire to enhance per-share value."*

Share repurchases of underpriced stock can be a value-enhancing way to allocate capital, though these are not always what they seem. In 1980s and early 1990s, share buy-backs were uncommon and Buffett credited managers who recognized that the purchase of a share priced at \$1 but with a value of \$2 would rarely be inferior to any other use of corporate funds. Alas, as often happens, the imitators stepped in and now you frequently see companies paying \$2 to buy back shares worth \$1. These value-destroying share repurchases often are intended to prop up a sagging share price or to offset the simultaneous issuing of stock under stock options exercised at much lower prices. Berkshire occasionally embarks on share repurchase programs: when the stock trades at a deep discount to intrinsic value.

- *Share dilution*
  - Company is creating more outstanding shares (just like IPO, but it's called Secondary Share Issuance).
  - It negatively impacts shares you hold. For some companies it is good because they can grow more rapidly.
- *Preferred Share*
  - Pays preferred dividend - it's high, fixed, and you have bigger priority than ordinary shareholder. Preferred share provides more stability than common share. It's similar to bond, but it offers more. Preferred share doesn't have covenants - so there is no such protection as with bonds.
  - They can be cumulative or non-cumulative.

## 1 Stock Market Investing Jargon

- Preferred shares can be converted to a fixed number of common shares, but common shares don't have this benefit. It also has preference in dividends, and preference in assets, in the event of liquidation. But nonvoting rights.
- *Par value* TODO
- *Rate floor* TODO

### Stock Markets and Exchanges

- Stock Exchanges (a few examples)
  - The Amsterdam Stock Exchange was established in 1602 by the Dutch East India Company (Verenigde Oostindische Compagnie, or "VOC") for dealings in its printed stocks and bonds. It was subsequently renamed the Amsterdam Bourse and was the first to formally begin trading in securities.
  - New York Stock Exchange, NYSE - founded 1792. World's largest stock exchange located in New York city over 14 billions worth of valued companies.
  - American Stock Exchange, Amex - founded 1842
  - National Association of Securities Dealers Automated Quotations, NASDAQ - founded 1971. It's the second largest stock exchange in the entire world. About 10 billion of valuation traded in here.
  - *FTSE* - British Stock exchange Something like NYSE in America, but in Britain.
  - Shanghai - index for all stocks traded on Shanghai exchange, mostly Chinese stocks - every single one of them.
- Market indexes (a few examples)
  - Dow Jones Industrial Average, DJIA or simply Dow
    - \* Consists of 30 biggest, well-known US companies. Those are chosen by the editors of The Wall Street Journal. The list doesn't change very often, maybe once a year or two years. That somehow become an index about how stock market is doing in general.
    - \* It was created by Charles H. Dow in 1884. He chose 11 very active stocks, originally 9 of which were railroads. In 1916, the DOW increased to 20 stocks and in 1928 in 30 stocks. The Dow is a benchmark for the entire stock market. It's an imperfect one, but popular because of its simplicity. Other indexes like the S&P500, NASDAQ composite, and Wilshire 5000 capture larger cross sections of the market and provide better benchmarks for comparing the performance of mutual funds, hedge funds, and other stocks pools. But the Dow persists. And it recently performed better than S&P 500 - in both during good and bad times. They are leading, extremely big companies. It represents the best of the big guns.

## 1 Stock Market Investing Jargon

- \* The chance of failure is small, and therefore buying them when they are cheap is usually a way to safely get a good price. You can use a dividend yield to find bargains (this is called as The Dow dividend strategy).
- \* The plan can be to spend 15 minutes once a year finding the 10 highest-yield Dow stocks, the invest in each. Every year thereafter, you repeat the process and adjust your portfolio by selling the stocks that no longer make the select group and buying the ones that replaced them.
- \* You can put your money uniformly into 10, or just lower 5 or high 5. Low 5 buys the five lowest priced of the 10 stocks. O'Higgins advocates this strategy because the lower prices should lead to higher percentage gains. And you'd then uniformly invest into those 5.
- \* In a research by an investment adviser Mark Pankin, it was shown that Low 5 was superior strategy. Alternative can be the high 5 - you'd put your money into 5 highest yielding of the 10 stocks.
- \* Another alternative is to buy DJIA on margin - this strategy should outperform the previous ones about selecting high dividend yield stocks from Dow. You can do it by yourself, or you can invest in ProShares Ultra Dow 30 ETF or the ProFunds Ultra Dow 10 mutual fund. Instead of borrowing the money from your broker, you just invest your cash. Leave the details of leveraging up to the fund to double the performance of the Dow.
- Standard & Poor's 500, S&P500 - it tracks the largest 500 US companies. This one is updated every month.
- The NASDAQ 100 - top 100 stocks from NASDAQ.
- DAX. 30 biggest in Germany index together. Something like Dow Jones 30 but in Germany.
- CAC 40. 40 biggest companies on France.
- Nikkei 225. 225 biggest companies traded in Japanese stock exchange indexed together.
- *Stock Market Hours*
  - The market is open from 9:30am-4pm EST Monday–Friday. There are holidays when the market is closed or closes at 1pm.
  - Pre-market and after-hours trading is available but liquidity is often very low because there aren't a lot of buyers or sellers trading after hours.
- *IPO*
  - When a company does an IPO, they sell a fixed number of shares onto the open market to raise money. This could be, for example, 10 million shares. If those shares are priced at \$10/share, they will raise \$100 million from the

## 1 Stock Market Investing Jargon

IPO. This money gets invested into the company for future growth (building factories, strategic investments, etc).

- Share prices of IPOs tend to be underpriced. That creates a perception of real opportunity.
- Steps
  1. Select an investment bank (underwriter) selection is done based on different criteria - reputation, quality of research, industry expertise, distribution and prior relationship with the bank.
  2. Due diligence & regulatory filings (an underwriter must file a lots of documents for the issuing company).
  3. Pricing after IPO is approved by SEC, the effective date is decided. The issuing company and the underwriters decide the offering price and number of shares to be sold on the day before effective date.
  4. Stabilization after the issue has been brought to the market, the underwriter has to provide analyst recommendations, after-market stabilization and create a market for the stock issued.
  5. Transition this is the final stage of the IPO process, that takes 2 days after the IPO once the "quite period" mandated by the SEC is over.

- *Market Types*

- *Primary Market*

- \* An IPO is one example of a primary market, which is when a company sells stocks or bonds to buyers.
    - \* Whether the company has sold shares before or not, in the primary market, the shares on offer are always new shares.
    - \* The primary market in securities is where new issues are sold by corporations to acquire new capital via the sale of bonds, preferred stock or common stock. The sale typically takes place through an investment banker. The secondary market is simply trading in outstanding securities. It involves transactions between owners after the issue has been sold to the public by the company. Consequently, the proceeds from the sale do not go to the company, as is the case with a primary offering. Thus, the price of the security is important to the buyer and seller.

- *Secondary Market*

- \* This is an exchange between equity holders.
    - \* Equities on the secondary market can be bought and sold electronically, physically, or over-the-counter, or OTC. OTC trades are between two parties without including an equity exchange.

- *Third Market*

## 1 Stock Market Investing Jargon

- \* OTC trading of shares listed on an exchange, between non-exchange listed brokers and institutional investors.
- \* Mostly well known stocks.
- \* May be open when exchange is closed or trading suspended.
- *Fourth Market*
  - \* Direct trading of securities between two parties with no broker intermediary.
  - \* Usually both parties are institutions.
  - \* Can save transaction costs.
  - \* No data are available regarding its specific size and growth.
- *Over-the-counter (OTC) Market*
  - This is a decentralized market in which market participants trade stocks, commodities, currencies, or other instruments directly between two parties and without a central exchange or broker. Over-the-counter markets do not have physical locations; instead, trading is conducted electronically.
  - Some of the products most commonly traded over-the-counter include bonds, derivatives, structured products, and currencies.
- *Penny Stocks*
  - According to the SEC, penny stocks are considered to be any stock trading below \$5 per share and can be a listed security or trade Over The Counter (OTC).
- *Penny stocks - why are they risky?*
  - OTCBB stocks are required to file minimal information with SEC.
  - Pink sheets stocks have no requirement to file with the SEC.
  - It's difficult or impossible to find credible information about the company!
  - There are no standards - listed stock companies have to fulfill certain standards otherwise they are delisted. But with major exchanges, there are standards so that ultimately investors can decide whether it is good to invest into a given company.
  - History - penny stocks companies are often newly formed, there is no or poor history.
  - Many companies are approaching bankruptcy, and everyone else gets paid before the investors gets paid.
  - Liquidity
    - \* It's a measure of how easy it is for someone to exchange an asset - for instance a house, gold bar, for money or other type of currency.

## 1 Stock Market Investing Jargon

- \* This is where a lot of danger can be associated with penny stocks, because it can be very hard to find a buyer of a penny stock.
  - Fraud - traders can manipulate with penny stock price by buying it and talking about it for larger audience (btw it's hard to find credible information about penny stocks), so that they are pumping there money; original person then just sells the stock for the profit and just walks away (pump and dump scheme).
- *Market Makers*
  - They create the bid-ask spread. They are large institutional banks that are both buyers and sellers of a stock. They create the spread, and they profit by selling shares between the spread. The larger the spreads, the more the market makers can profit.
  - Has two roles:
    - \* Broker to match buyers and sellers.
    - \* Dealer to maintain fair and orderly market.
- *Designated Market Maker (DMM)*
  - Maintains fair and orderly markets for an assigned set of listed firms.
  - It provides a best available bid and ask prices for market orders.
  - DMM buys in the absence of public buy orders or sell in the absence of public sell orders.
  - **DMM is a point of contact for a listed company.**
- *Electronic Communication Networks (ECN)*
  - If you think of the stock market as an island, there are many bridges we can take to get to the island. These bridges are called ECNs or Market Makers and they charge “tolls”, or fees, to use their networks.
  - ECN is a computer system that buys and sells orders for securities. It is an automated electronic system which takes up the role of a third party when it comes to execution of orders. This system is designed to allow trade orders entered by a market maker to execute either partially or entirely.
  - The introduction of ECN eliminated the need for middlemen between traders and brokerages. This is attributed to the ability of the ECN to connect brokerage firms with individual traders.
- *Routes*
  - Market Makers offer a route that connects individual traders to the market. When traders choose to use specific market makers or ECNs, they are direct routing. The advantage is that this can increase the order speed. Returning

## 1 Stock Market Investing Jargon

to the idea of an island, ARCA (short for archipelago), is a popular route. Other popular routes include NYSE, EDGX, JPCC, POST, INET.

- *Smart Routing*
  - Most brokers offer smart routing.
  - Instead of asking you to direct route your order, they will choose the route they feel is best. If they have arranged a discounted rate with a certain broker, they may use that route as a preferred route. They may also see if they have shares available from traders inside the firm before routing your order out to the “island”. This may not always be in the best interest of the trader. For that reason, some people choose to not use smart routing, and instead direct route my orders.
- *Thin Market*
  - A thin market means not many traders actively trade a particular stock.
- *Thick Market*
  - Here, traded markets and stocks will be crowded with traders.
  - Many times these stocks have very large floats, are very well capitalized, and trade slowly. This makes them great vehicles for long term and lower risk investment.
  - At the same time, that makes them unattractive for day traders. Even with high demand they rarely move that quickly.
- *Circuit Breaker Halts*
  - Stocks can be halted and paused from trading for several reasons.
  - During circuit breaker halts traders cannot trade the stock in any way.
  - Halts can last from 5 minutes to hours or days.
- *Money Market*
  - The function of the Money Market is to contribute to the economic stability and development of a country by providing short-term liquidity to governments, commercial banks, and other large organizations.
  - It is the web of dealers and investors in short-term lending - anything from a few hours to a year.
  - Types of instruments traded there:
    - \* *Certificate of Deposits (COD)* - Issued directly by commercial bank with maturity of three months to five years.
    - \* *Treasury Bills* - Issued by U.S. Treasury, with maturity of one, three, six, or twelve months.



## 1 Stock Market Investing Jargon

- \* *Commercial Paper* - Unsecured loan issued by large institutions with high credit rating to finance short-term cash flow needs.
  - \* *Short-term Mortgage-backed Securities* - An investment secured by a mortgage or a collection of mortgages traded on the secondary market.
  - \* *Banker's Acceptance* - Short-term debt instrument issued by a non-financial institution but guaranteed by a commercial bank.
  - \* *Repurchase Agreements* - Short-term form of borrowing that involves selling a security with an agreement to repurchase it at higher price at later date.
- Overview of the Capital Markets, key players:
    - Primary market: Corporations  $\leftarrow$  Banks  $\rightarrow$  Institutions (Fund Managers)  $\leftarrow$  Investors
    - Secondary market: Fund Managers (wants to sell)  $\leftrightarrow$  Investment bank (sales, trading and research)  $\leftrightarrow$  Stock exchange  $\leftrightarrow$  Investment bank (sales, trading and research)  $\leftrightarrow$  Fund Managers (wants to buy)

### Dividends

- *Dividend*
  - It is when you own a stock in a company, and that company will decide that it's gonna pay some of its own money to you as a shareholder.
  - You pay tax on dividends (perhaps about 15% if you are under \$400k per year, then 20%).
  - Why some companies pay dividends: slower growth companies. These are usually safer.
  - Why some are not paying dividends: faster growing companies usually want to hold onto their money to invest it or simply use the money to build their own business. Companies are, generally speaking, not paying dividends unless they are very confident their future profits are gonna be at least as good as they are now if not better. So if a company knows for sure that it will grow, it has a strong balance sheet, then it's usually paying dividends.
  - Companies that pay a high dividend rate (10% or more):
    1. You never know, perhaps the next year they won't pay dividends at all.
    2. It means, that such companies are paying off majority of their earnings meaning those earnings are not staying on the balance sheets. Perhaps if it would be needed, they wouldn't have enough cash to save their business.
    3. They are probably not planning to grow very much (if at all) in the future. Usually if a company wants to grow, it is spending money on hiring employees etc, not paying off earnings in dividends.

## 1 Stock Market Investing Jargon

- Bondholders get paid before stockholders! If a bondholder is not getting paid, a company is going under.
- *Special Dividend* - dividend paid on a special occasion just once.
- Chronologically:
  1. *Declaration date* - date when a company will announce that it will pay dividends. Quarterly usually.
  2. *Ex-dividend date* and *Record date* - a company will have your record as being a shareholder. There is usually some delay between buying a stock and being recognized as a shareholder and this is ex-dividend date, which is usually 2-4 business days prior to record date.
  3. *Payment / Payable date* - date when a company will pay you dividends.

So for example, if you buy stock on January 26th (before ex-dividend date), and sell on Record Date (January 30th for example, or you can sell it also exactly on ex-dividend date) you should still get dividend on Payable date (Feb 15th). You are still eligible to receive dividend even if you don't have a given stock any more.

- *Dividend Capturing*
  - Strategy when you cycle all your money through multiple companies for earning dividends. It's however not that easy, because companies' share prices tend to increase before ex-dividend date and they decrease after.
  - It might be possible to be profitable from this strategy, but it would require a lot of micromanagement, lots of trades within a week or so, so it is not long-term investing.
- *Dividend Aristocrats*
  - Companies that have increased their dividend every year for at least the past 25 years and are part of S&P 500 index.
- *Dividend Champions*
  - Almost like Dividend Aristocrats, but Dividend Champions are not necessarily members of the S&P 500 index.
  - For example McDonald's, AT&T, J&J, Cola-Cola.
- *Dividend Kings*
  - Companies that have increased their dividend every year for at least the past 50 years.
  - For example Colgate-Palmolive, J&J, Cola-Cola.
  - These companies usually perform well, and even better than S&P500, even (especially) during bear market. These companies are usually very stable.

## 1 Stock Market Investing Jargon

- *Dividend coverage ratio*
  - It's calculated as  $\text{EPS} / \text{DPS}$
  - If this ratio is between 2-3 - adequate coverage, company can afford this dividend
  - If below 2 - dividend cut can be soon
  - If above 5 - company may be holding back (is greedy), could have paid more
  - Ideally it's good to calculate it for a couple of last quarters, and see also the situation behind it and predict whether a dividend is stable, or is subject to correction
- *Dividend Reinvestment Plan (DRIP)*
  - Automatically reinvestment dividends instead of receiving them in cash.
  - You can setup it via broker. And some brokers even got DRIP discounts (for buying shares). There are usually no commission fees.
- *Blue Chip Stocks*
  - They are named after Blue Chips from Poker. Blue chip in Poker is a chip with the highest value.
  - They are stocks of a well established company, financially stable with large market capitalization (100B+). They are paying dividends and consistently raise them. There is lower risk when someone is investing in them. There is lot less volatility. People use to invest in these stocks and keep them for 5-10 years and more.
  - But they can still bankrupt!
  - Some examples:
    - \* Tech: IBM, Microsoft, Apple, Cisco, Verizon
    - \* Food: McDonald, Coca Cola,
    - \* Oil: Chevron, Exxon
    - \* Industrial: 3M, DuPont
    - \* Pharmaceuticals: J&J, Merck
    - \* Retail: Walmart, Nike, Home Deposit
    - \* Banking: American Express, JP Morgan, Visa, Goldman Sachs
    - \* Others: Boeing, Caterpillar, United Health
- *Dividend Growth Investing (DGI)*
  - Invest in blue chips stocks which dividends were historically growing.

## 1.3 Bonds

- Maybe it's good to switch to bonds later you are older.
- Bonds - good for short term goals. For example, I buy bonds for 100k, with interest rate 3%. Then after 5 years (maturity date) I will receive my original 100k, plus I got interests obtained during these 5 years. (=short-term high yielding bond....but is it possible to find such a bond?).
- Some people don't recommend to have high-yields bonds in the portfolio. See always historical evidence!
- *Par Value / Face Value*
  - The money amount the bond will be worth at its maturity. It's the amount returned to the bond investor by the issuer.
  - Par value refers to the "face value" of a security and the terms are interchangeable.
  - Par value and face value are most important with bonds, as they represent how much a bond will be worth at the time of the bond's maturity.
- *Coupon rate*
  - The rate of interest the bond issuer will pay on the face value of the bond expressed as a percentage (every year for example). They are paid on coupon date. Typically annually or semi-annually.
  - Interest rate issuer pays on bond, it is determined by 2 factors:
    - \* Credit quality
    - \* Bond duration (longer = higher risk)
- *Coupon dates* - date when issuer makes payments.
- *Maturity date* - date bond is worth face value,
- *Issue price* - price at which the bond issuer originally sells the bonds.
- Price of a bond:
  - The three factors affecting the price of a bond are *coupon*, *yield*, and *term to maturity*.
  - The relationship between price and coupon is a direct one - the higher the coupon, the higher the price.
  - The relationship between price and yield is an inverse one - the higher the yield the lower the price, all other factors held constant.
  - The relationship between price and maturity is not so clearly evident. Price changes resulting from changes in yields will be more pronounced, the longer the term to maturity.

## 1 Stock Market Investing Jargon

- Bond Characteristics:
    - *Intrinsic features*
      - \* *Coupon* - yield (interest income)
      - \* *Maturity* - term or serial (municipalities)
      - \* *Principal (Par/Face) value* - different from market value
      - \* Type of ownership - bearer or registered
    - *Types of Issues*
      - \* *Secured (senior) bonds*
      - \* *Unsecured bonds (debentures)*
      - \* *Subordinated (junior) debentures*
  - Bond Ratings
    - *Main Rating companies*
      - \* Moody's Investor Service: Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C, D
      - \* Standard & Poor's: AAA, AA, A, BBB, BB, B, CCC, CC, C, D
    - *Rating Categories*
      - \* BBB or higher investment grade
      - \* BB or lower speculative grade (junk bonds)
      - \* *Junk Bonds* are also known as *High Yield Bonds*
      - \* Before 1977 all junk bonds were "fallen angels", i.e. they started as investment grade and then were downgraded
    - *Non-rated bonds*
- Basic on ratings, there are:
- *U.S. Treasury bonds* (rated AA+)
  - *Investment-grade corporate bonds* (rated BBB or better)
  - *Below-investment-grade bonds* (BB or lower)
  - *Junk bonds* (rated below CC or even unrated)
- Some types and examples of bonds
    - *Zero coupon bonds* - they don't pay out regular coupon payments - so they don't pay any interests.
    - *Convertible bonds* - allow bond owners to convert debt into stocks.
    - *Callable bonds* *TODO*
    - *Bullet bonds* - entire face value paid upon maturity date, not during the period.

## 1 Stock Market Investing Jargon

- *Carter Bonds* TODO
- *UK premium bond* TODO
- *Savings bond*
  - \* Something issued by a government and it is me giving the government a loan for X amount of time. Government will pay me a small amount of interest for that loan and can't be cashed for at least 12 months after I buy it. After that 12 months, I can take out the cash for some small interest. But if I want maximum amount of interest, then I would have to wait 15-30 years.
  - \* They become much less popular, because interest rate on them is so much lower now vs in the 70s or 80s.

## Bond Markets

- The second oldest after gold it has much more money in it than stock market. Stocks vs Bonds in volume:
  - Global Publicly Traded Stocks: ~70 trillion dollars
  - Global Bonds: ~92 trillion dollars
- Bond market is divided by maturity
  - *Money Market*: <1 year
  - *Notes*: 1 to 10 years
  - *Bonds*: >10 years
- *The Global Bond-Market Structure*
  - Participating issuers
    - \* Federal governments
    - \* Agencies of the federal government
    - \* State and local political subdivisions (municipalities)
    - \* Corporations
    - \* International issues (Foreign bonds; Eurobonds)
  - Participating investors
    - \* Individual investors
    - \* Institutional investors (Life Insurance Companies, Commercial Banks, Property and Liability Insurance Companies, Pension Funds, Mutual Funds)
- *Government Bond Issues*

## 1 *Stock Market Investing Jargon*

- *Treasury Bills* – negotiable, non-interest bearing securities with original maturities of one year or less
- *Treasury Notes* – original maturities of 2 to 10 years
- *Treasury Bonds* – original maturities of more than 10 years

## 1.4 Security Trading

- *Pattern Day Trader Rules* (Margin accounts with US Brokers)
  - The Pattern Day Trader (PDT) Rule states that if a trader takes 3 or more day trades in a 5 day period, they are a day trader and they must maintain a minimum account balance of \$25,000 USD.
  - Pattern Day Trader (PDT) rule is a designation from the Securities and Exchange Commission (SEC) that is given to traders who make four or more day trades in their margin account over a five business day period. A day trade is when you purchase or short a security and then sell or cover the same security in the same day.
  - Essentially, if you have a \$5,000 account, you can only make three-day trades in any rolling five-day period. Once your account value is above \$25,000, the restriction no longer applies to you.
  - You usually don't have to worry about violating this rule by mistake because your broker will notify you. If you ignore their warnings, they will freeze your brokerage account for 90 days.
- *Loss Aversion*
  - This refers to the tendency of individuals to prefer avoiding losses to making gains.
  - As a consequence, they will often take an uncertain loss over a certain loss (of equivalent amount).
- *Capital Gains*
  - This is a taxable event that occurs when an asset like a stock or option is sold for more than the original purchase price.
- *Break Even Effect*
  - Investors who have lost money become less risk-averse; they actually often become risk seeking because they want to break even.
  - Like in casino - you lost money, you feel the urge to get it back.
- *Swing Trading*
  - In contrast to Day Trading, requires overnight hold times.
  - Swing traders will hold stocks for at least 1 night, but perhaps many nights. These are very short-term investments.
- *Beta*
  - It's a numeric value that is used to measure the fluctuation of a stock against changes happening in the stock market.



## 1 Stock Market Investing Jargon

- *High Frequency Trading (HFT)*
  - This is when a trader or institution utilizes powerful computers to automate trading and execute large orders at very high speeds.
- *Pump and Dump*
  - This is an investment scheme where untrue statements are made public about a stock with the purpose of artificially increasing the stock price.
- *Resistance Level*
  - This is the price level at which selling of a security is deemed strong enough to eliminate the increase in price.
- *A short squeeze*
  - It refers to a jump in a stock's price, forcing a large number of short sellers to close their position, which in effect pushes the price even higher.
- *Volatility*
  - How much action was there in the market - how up and down things were moving.
  - Volatility is a measure of the security's stability and is usually calculated as the standard deviation derived over a given period of time.
- *Volume*
  - Volume is a measure for the number of shares traded in a day - what you did when you have a lot of volatility.
  - A stock that trades 1 million shares in a day has a volume of 1 million. Some stocks trade tens of millions in volume each day while others trade just a few hundred thousand shares or less.
- *Margin*
  - Taking out a loan to invest in a stock or bond so it's whenever you want to invest money that is not yours.
  - You usually pay about 7% of margin interest per year. But if you have tons of money, then it can be maybe lower.
- *Margin Account*
  - Stock trading account in which you can invest an extra dollar for every dollar you have (for example) - so you can basically create a debt.
  - It can be powerful - but also dangerous. You can make so much more money investing on margin if you were picking the right stocks and doing the right things. On the other hand, you can lose everything because you cannot pay your debt.

## 1 Stock Market Investing Jargon

- If you have a trader, you have to have a margin account.
- Warren Buffett said that if you are smart you don't need it and if you are dumb you have no reason to use it.
- *Margin Call*
  - When you invested on margin and your brokerage requires you deposit more money or your shares will be sold off.
  - Every brokerage is different, you have to read what to do for your broker. But usually, if you won't pay some money they require, they will sold your shares.
- *Margin Rate*
  - The percentage a trader has to pay their broker in exchange for borrowing money.
- *Leveraging*
  - When someone borrows money for either invest it, or purchase an asset.
- *Leverage Rate (margin)*
  - The rate that your cash deposit will be multiplied to give you total buying power.
- *Bid (max buy)*
  - The highest quoted price that buyers are willing to pay for a security.
  - The bid is the price you get when you sell the stock.
  - Every stock has a bid. Lets say traders are bidding 10.00. Traders can put an order to buy at 10.00, and they will have to wait for a seller to come sell them shares. Alternatively, they can simply buy from a seller who is sitting on the ask at 10.02.
- *Ask (min sell)*
  - The lowest quoted price that sellers are willing to accept for a security.
  - The ask is the price you pay to buy the stock.
  - Every stock has an ask. Lets say traders are asking 10.02. Traders can put an order to sell at 10.02, and they will have to wait for a buyer to come buy shares from them. Alternatively, they can simply sell to a buyer who is sitting on the bid at 10.00.
  - Level 1 is the Current Bid Price vs the Current Ask Price. In the above example, 10.00 x 10.02.
  - The Spread is the difference between the Bid price and the Ask price. In the above example we have a 2 cent spread.

## 1 Stock Market Investing Jargon

- *Spread*
  - Difference between bid and ask, and is kept by a dealer, who is called a "market maker" on the OTC and a "specialist" on one of the exchanges. The dealer maintains fair and orderly trading by keeping an inventory of stock to satisfy demand when buyers and sellers can't be matched up. He's a middleman who purchase inventory at a price lower than they sell it.
  - The spread is biggest for stocks that are thinly traded because it takes fewer dealers to satisfy demand. Fewer dealers means less competition and, thus, bigger spreads.
  - The market knows the bid and ask prices based only on supply and demand, nobody is actually asking anybody for anything.
  - Your stock must move beyond the combined spread and commission costs just to break even.
- *Slippage*
  - This occurs when you put in your market order to buy/sell a stock and your order gets filled at a different price than quoted.
  - Slippage is the difference between the price you thought you would trade at, and the price the trade actually went through. This is the result of fast moving markets, volatile stocks, and spreads.
  - For high volatility stocks, there is usually lower slippage.
- *Direct deposit*
  - Is where your bank account is linked to the company you work for, so that they can pay you directly into your account each time (so you don't have to be paid by check or cash).
- *Market Order Types* - <https://thepoorswiss.com/5-most-used-stock-market-order-types-investing/>
  - A market orders tells the broker to get you shares at current market prices. If you send the order to buy 1,000 shares at 5.00, the broker will get you 1,000 shares, but since you haven't said the most you are willing to pay, they may give you shares at a higher price.
  - Through your broker account, you can submit orders to the stock exchange. When some conditions are met, your order will be filled and you will either buy or sell shares. Each order type can be a buy order or a sell order. That is the direction of the order. When you place an order, it may not be filled directly. For instance, you may have a set a price that is not possible when you put the order. The order will remain active for a certain amount of time. There are two main duration types for orders:
    - \* *Day order* (Time in force - day)

## 1 Stock Market Investing Jargon

- Valid only for the day you created it. Then it will be automatically canceled.
- If you have a trading order and it for some reason didn't go through for that day, it will expire by the end of that trading day.
- \* *Good-till-cancel order (GTC)* (Time in force - good till canceled)
  - It is valid for as long as it is not filled or canceled. Most brokers set a limit of 90 days for these orders.
  - If you have a trading order, it will go through as long as price is hit unless it was canceled by a brokerage or you.
- *Market Order*
  - \* Buying or selling shares at the price it is traded at a given moment. Buys stock immediately with the cheapest price available.
  - \* The default stock market order on all brokers is the Market Order. This is the simplest type of order. This order will simply buy or sell at the current market price. The broker will fill this order at the best available price. People use a Market Order when they really want to buy or sell as fast as possible.
  - \* Generally, you should not use a Market Order. There can be some significant differences over time in the price of a stock. Using a Stock Market Order can make a large difference.
- *Limit order*
  - \* Buying or selling shares at a certain price you decide. The Limit Order should be the most used stock market order type. It is very simple and should be your default order type!
  - \* A Limit Order has a limit at which you want to buy or sell. If you have a Buy Limit Order at \$50, the order will be filled once there are people selling at \$50 or below. On the other hand, if you have a Sell Limit order at \$100, it will be filled once there are people buying at \$100 or more.
  - \* A limit order is when you ask your broker to buy you shares and state the most you are willing to pay. A limit order of 1,000 at 5.05 will not fill higher than that price. That means if the price moves quickly, you may not get 1,000 shares.
- *Stop Order*
  - \* The Stop Order is a bit different than the Limit Order. It is not really a real order. It will place a Market Order once the share reaches a certain price.
  - \* A Sell Stop is always placed below the market price. The idea is to limit your losses by selling if the price goes down too much. For instance, if you use a Sell Stop Order at \$100, once the price of the stock falls to

## 1 Stock Market Investing Jargon

\$100, a Market Order will be placed on the market. That means that as soon as it reaches \$100, you will sell at the best available price.

- \* A Buy Order, on the other hand, is placed above the market price. This is more rarely used. The idea is to buy once the price goes up. This can be useful if you are shorting the stock and want to protect your returns. The principle is exactly the same. If you use a Buy Order at \$50, as soon as the price increases to \$50, a Market order will be placed. You will then buy at the best available price. You need to be aware that if the market is moving very fast, your order could be filled at a very different than your order.
- \* There are very few cases where you would need to need this kind of stock market order. It could make sense to use it to cut your losses if you do some investing in individual shares. However, if you are mostly a passive investor, you will not need these kinds of limits.
- \* Stop orders are a versatile order that can be great for getting in and out of trades. When you place a stop order you are saying that you want to get in or out of a trade when prices hit your stop price and once they do, it turns into a market order and will execute at the next available price. Stop orders are mainly used for protecting long or short positions once you get into a trade.

### – Stop Limit Order

- \* Very similar to Stop Order. Once again, it is not really an order per se. It will emit a Limit Order once a certain price is reached.
- \* The only difference with the Stop Order is that it places a Limit Order instead of a Market Order. This is a significant difference. Once the share price reaches the price of the Stop Order you know that the order will be filled. Now, if the share price reaches the Stop Limit Order price, you do not have this guarantee. It will depend on the Limit Price you set.
- \* Let's say you want to sell shares of X if the price goes below 100 but you do not want to sell at less than 99.50. For this, you can use a Stop Limit Order with a price of 100 and a limit of 99.50. If the market goes down below 99.50 before the limit order was filled, it will not be filled. That will protect you from selling lower than you want. On the other, if you really wanted to sell, you may be left with your shares and the price may go down even more.
- \* Stop Limit Order offers a little more safety than the Stop Order. However, there is no guarantee that the order will be filled. This is a bit of a trade-off between speed of execution and price.
- \* A stop limit order refers to an order placed with a broker and combines the features of both stop and limit orders making a more technical order.

### – *Trailing Stop Order*

- \* This last stock market order is the most complicated to understand but it is also the most powerful. A Trailing Stop Order can be very useful. But there is often little reason to use it, compared to a Market Order.
- \* Jason Kelly loves Trailing Stop Order and uses 10% trailing stop for example. To him, this is one of the least stressful ways to maximize profits. But he says that using it is usually a trader's mind-set, and in most cases you'll be better served by an investor's mindset. If you did thorough research and believe in the company, it should be better to buy more shares at the cheaper price, not to dump the first ones. Not always, though, and in cases where you want to stop the loss but leave room for recovery, a trailing stop will be your friend.
- \* As its name indicates, this order will trail the price of a share. You can either trail with a fixed amount or with a percentage. The trailing effect will be done as the price is going up for a Sell Order and as the price is going down for a Buy Order.
- \* The most common usage is for a sell order. You can use a Trailing Stop Sell Order to secure the returns on a long position. You must set the price of the Trailing Stop Order below the current price. The trailing price will go up with the share price but will not go down.
- \* For instance, you bought shares of IBRK at 30 USD. They are now at 40 USD. You want to sell if they fall back below 35 USD. You set a Trailing Stop Sell Order at a price of 35 USD and with a trailing amount of 5 USD. If the price increases to 42 USD, the trailing price will rise to 37 USD. If the price decreases to 38 USD, the trailing price will stay at 37 USD. Now, if the price recovers and goes all the way to 50 USD, the trailing stop will now be at 45 USD. If the price goes below 45 USD, your broker will generate a Market Order and this will sell your shares at the market price.
- \* The other usage is when you have a short position of some shares. And you want to sell if the market goes up again. A Trailing Stop Buy Order works exactly the same way but with a reverse direction. The price must be above the current price.
- \* A Trailing Stop Order can be a powerful tool. But this is not generally something you are going to use if you are in the for the long-term. This is more a tool for active traders and for people who trade in single shares.
- \* The Trailing Stop Order also exists in a Trailing Stop Limit Order variant. This is exactly the same difference as for the Stop Order And Stop Limit Order. Instead of submitting a Market Order, it will submit a Limit Order.

- *Stop Loss*

## 1 Stock Market Investing Jargon

- When you don't want your shares to be bought or sold above or under a certain amount.
- *Buy to Open*
  - This is a reference to stock options - when you want to purchase options contracts.
- *Sell to Close*
  - This is a reference to stock options - when you want to sell options contracts.
- *Long Side Trading*
  - When traders are “long” a stock, they are buying shares.
  - This means they have a “long” position and expect the stock to go up. These traders will profit when the stock moves up, or will lose money when the stock moves down. They also have a “bullish” position.
- *Scaling In or Scaling Out*
  - To enter or to exit a position a trader may “scale.”
  - This technique, when used to scale in, means buying a partial position at 5.50, and adding (or scaling) with a 2nd position at 6.00. Due to scaling in with equal sizes, the trader has a cost average of 5.75.
- *Divergence*
  - Divergence is a trading concept that forms when a stock's price diverges from a momentum oscillator which typically indicates a reversal.
- *Market Trend*
  - Market trend represents the general direction in a market or a security over a given period time, which can last from a couple days to many months or years.
- *Days to Cover*
  - Brokers will give traders who borrow shares a certain number of days to cover. This could be 7 days, 14 days, etc.
  - By the end of this period if the trader has not covered their position, the broker can do it manually and will charge the trader a liquidation fee.
- *Short Squeeze*
  - This is when a stock suddenly starts moving up, and traders who are holding short positions start buying to cover their position, or their broker covers their position for them because they've hit a max loss on their account.
- *Buying Power*

## *1 Stock Market Investing Jargon*

- Your buying power is your cash balance plus your margin. In the case of 4x leverage with a \$100k cash balance, you have \$400k in buying power. If you take a trade for \$250k, you will have \$150k in remaining buying power.
- *Average True Range (ATR)*
  - The Average True Range is a trading term used to measure the volatility of a stock or index and tells us the average price range a stock typically trades in.



## 1.5 Derivatives

- *Derivative*
  - Derivatives are securities with prices that are dependent on, or derived from, one or more separate underlying assets such as options or future contracts.
  - Total value of credit default swaps and other derivatives hits 1.144 trillion in 2008 - 22x the GDP of the entire world.
  - Derivatives market is a zero-sum game - for every winner there is someone who loses in similar magnitude. Unlike in the stock market, where shares in companies can all rise as they grow and flourish, everyone can make money.
- Types of derivative contracts
  - *Derivative contract*, which derives its value from an underlying asset such as a stock, currency, or commodity, hence the name derivative.
  - *Forward contract*, which is an agreement between two parties to exchange an asset for a pre-specified price on a specified date in the future. Forward contracts are negotiated directly between two parties in the OTC markets.
  - *Futures contract*, which similar to a forward contract. Future is a contract to buy a certain commodity or investment at a particular price at some point in the future (the delivery date). It is an agreement to exchange an underlying asset for a pre-specified price at a specified date in the future. The major differences are: a) futures contract have standardized contract terms, b) futures contracts are traded over the exchange rather than over the counter, c) future contracts involve margins d) futures contracts are settled daily. Usually, a futures contract is not arranged directly between the buyer and seller, but via the futures exchange, which acts as a middleman.
  - *Option contract*, is an agreement that gives its holder the right, rather than the obligation, to buy or sell an investment at a particular price on a given day. It's placing a bet about a certain stock to be above or below a certain threshold on a certain date. They can be resold at any time before they expire.
  - *Swap contract*, which is a derivative in which two counter-parties exchange cash flows over a period of time. Often one leg will be a fixed payment, while the other will be a floating payment.
- *Credit default swaps*
  - Derivatives used to bet against banks' creditworthiness.
- *Warrants*
  - They are options to buy from the company.

## Options

- Excellent videos from Dominik Kovarik (in Czech language) [here](#).
  - You are buying options for 3 possible reasons:
    - Call option - bet that stock will be higher than it is today on a certain level on a certain date. This is so called bullish bet. It is an option to buy (usually more, for example 100) shares of an asset. It can be traded just like a share of stock.
    - Put option - bet that stock will be lower than it is today on a certain level on a certain date. This is so called bearish bet. Limited reward (stock price goes to 0), limited risk (we can lose what we paid for the option).
    - You want to hedge a position.
  - They can:
    1. Make you more money than you ever dreamed.
    2. Lose you more money than you ever dreamed in your worst nightmare.
    3. Save you more money than you ever dreamed.
- Options should be only a supplements! Don't go heavily on options!
- *Strike price*
    - Stock price in which an option can be exercised.
    - Strike price minus current price gives us certain spread.
    - In terms of call options, higher strike (so also higher spread) means cheaper it will be to buy shares, because there is higher risk - it's less likely that the strike price will be hit.
    - Also expiration date is important, more time → less risk → more expensive.
  - *Premium*
    - It's the money paid by the buyer of the options contract to the seller.
    - The person that receives the money is the seller.
  - Six factors affect the value of call options on stocks:
    - The current price of the stock.
    - The time remaining until the option expires.
    - The dividend on the stock.
    - Increases in underlying stock volatility.
    - The risk-free interest rate.
    - The exercise price of the option.

## 1 Stock Market Investing Jargon

- If you are creating options:
  - Call option
    - \* If you think the stock will be lower or neutral. This is probably the most risky strategy. Only for pros.
    - \* See [this video](#).
    - \* There is limited profit, but unlimited loss. Profit is given by the premium we set when creating this option.
  - Put option
    - \* If you think the stock will be higher or neutral. So it is exactly the opposite scenario where you buy a put option.
    - \* See [this video](#).
    - \* There is a very big risk and small potential reward. Time is the best benefit. If you are buying a put options, then the time is the biggest enemy.
- Call options differ from forward contracts in that calls have unlimited upside potential and limited downside potential, whereas the gains and losses from a forward contract are both unlimited. Therefore, since call options do not have the downside potential of forwards, they represent only the “good half” (the upside potential) of the forward contract. The “bad half” of the long forward position is the unlimited downside potential that is equivalent to being short a put. This is consistent with put-call parity where being long a call and short a put yields the same payoff as a forward contract.
- See when call is “in-the-money” and call is “out-the-money” (if you lost a premium for your call).
- *Binary Options*
  - A low cost, limited risk way to trade a wide range of the most popular stock indices, commodities, Forex, bitcoin and economic reports.
  - You can trade them with Nadex trading platform.
  - Advantages:
    - \* Capped gains and losses.
    - \* Trading opportunities (even if underlying asset doesn’t have a good liquidity).
    - \* Risk management - you always know your worst case scenario and your profit goal.

## 1.6 Miscellaneous

- *Alpha*
  - TODO
- *Beta*
  - It is typically used by investors to evaluate the risk of investing into a certain stock. It basically consider weekly (or daily, but that's probably with a lot of noise) returns in percentage, which is done for a certain stock, and then the same thing is repeated for example for S&P500. Then you can use slope or linear regression, Xs will be S&P500 values, and Ys will be values about a given stock. Resulting Beta is a single floating point number.
  - A stock that swings more than the market over time has a beta greater than 1.0. If a stock moves less than the market, the stock's beta is less than 1.0. High-beta stocks tend to be riskier but provide the potential for higher returns; low-beta stocks pose less risk but typically yield lower returns.
  - Beta is usually calculated as covariance (measure of stock's return relative to that of the market) divided by variance (measure of how the market moves relative to its mean).
- *Privatization*
  - When a company or institution which was previously government-owned is sold off to a privately owned entity.
- *Fiscal Expenditure*
  - "Printing money & Buying government bonds".
  - This is more effective than quantitative easing in terms of stimulating the real economy, because it goes to individuals and businesses that can spend and reinvest.
  - This also contains cash stimulus packages.
- *Subsidy*
  - A sum of cash given by someone - usually a government - to support a particular business or industry.
  - They are often reviled as a form of protectionism.
- *Reconciliation*
  - It is an accounting process in which two sets of records are compared to make sure that the figures are in agreement. These sets of records are usually account balances.
  - In simpler terms, reconciliation is a process that confirms whether the money leaving an account is the same amount that is spent.

## 1 Stock Market Investing Jargon

- *Unicorn*
  - A unicorn refers to a start-up company that has attained a \$1 billion market value as valuated by either a private or public investment firm.
- *ESG Investing* - Environment, Social, and Governance components in stocks.
- *Free-riding*
  - Free-riding describes an instance where an investor purchases a security and sells it before settling the original purchase.
  - This is a trading violation, also called a good faith violation, where a trader's account is frozen as a result of purchasing a security and selling it before paying for it in cash.
  - It happens when you sell a stock in a cash account and then use the unsettled funds to purchase another stock but before the funds settle you close the new purchase.
- *Crossed Market*
  - A crossed market refers to a temporary situation where bid prices associated with a particular asset or security is higher than the asking price.
- *Special Purpose Acquisition Company (SPAC)*
  - This company has no commercial operations, it is formed (IPO) solely for the purpose of raising capital through an IPO in order to acquire an existing private company. It is basically formed by sponsors or investors. Blank Check companies - the IPO stage, the investors don't know what target private company SPACs sponsors or investors are going to be purchasing or acquiring until the acquisition is made.
  - So they'll take IPO money and will tell investors what company they are targeting, and then they'll purchase a certain company.
  - The money goes into interest bearing trust account. The money has to be used for that purpose. If not, after typically 2 years, the money is liquidated and goes back to the investors.
  - Examples: NKLA (Nikola was a private company and it was acquired through the SPAC called VTIQ) and SPCE.
  - They still need to go through the underwriter, such as Goldman Sachs, but the SPACs are typically a "backdoor" way to go public, avoiding a lot of scrutiny and the deals are typically done a lot quicker.
- *FINRA (Financial Industry Regulatory Authority)*
  - Regulates bond market to some extent (stocks are on stock exchange, but there is no such thing as bond exchange).

## 1 Stock Market Investing Jargon

- Types of business combinations:
  - *Acquisition* (two survivors) - the purchasing company acquires >50% of shares of target company and both companies survive.
  - *Merger* (one survivor) - the purchasing company buys the selling company's assets so only the purchasing company survives. Mergers are deals that unite two separate companies into a single new company.
  - *Amalgamation* (no survivors) - in corporate finance, it is a combination of two or more companies into a single larger company. None of the pre-existing companies exists any more. In accounting, it is a combination of financial statements (sometimes also referred to as consolidation).
  - *Spin-off* - when a company sells some part, or put some parts into other individual companies.
- *Yield Curve*
  - It's mostly about debt.
  - Normal Yield Curve - Shorter term of a loan pays a lower interest rate. Longer term loan gradually gets higher interest rate.
  - Inverted Yield Curve - Shorter term maturity pays a higher interest rate than a longer term one. The reason behind this is that the investors are not confident enough in economy in returns they can get in a short term. So they want to "lock in" longer term loans. So it's investor sentiment to causing yield curve to invert.
- Banks are making these:
  - ETC - Exchange Traded Commodity
  - ETN - Exchange Traded Note
- *Value premium* refers to the observation that value stocks tend to return better than growth stocks on a risk-adjusted basis.
- *A Ponzi scheme*
  - It is a fraudulent investing scam promising high rates of return with little risk to investors. The Ponzi scheme generates returns for early investors by acquiring new investors.
  - With Ponzi schemes, investors give money to a portfolio manager. Then, when they want their money back, they are paid out with the incoming funds contributed by later investors.
  - With a pyramid scheme, the initial schemer recruits other investors who in turn recruit other investors and so on.
- *Cigar Butt Investing*

## 1 Stock Market Investing Jargon

- Essentially, the approach focuses on buying beaten-down companies trading below a conservative assessment of their liquidation values.
- Warren Buffett gave the strategy this name.
- A foolish method of investing akin to taking the last puff of a cigar, it is the purchase of a stock at a sufficiently low price that there will be some short-term profit, though the business's long-term performance is likely to be terrible.
- Tenbagger
  - You have to establish target market cap and ask if it is even realistic to achieve such high valuation.
  - You may have thought that a tenbagger can only happen with some wild penny stock. Actually there are numerous tenbaggers in companies you'll recognize. Those can be companies whose products you've admired and enjoyed.
  - Wall Street professionals - there are many obstacles between them and tenbaggers. Under the current system, a stock isn't truly attractive until a number of large institutions have recognized its suitability and an equal number of respected Wall Street analysts have put it on the recommended list. With so many people waiting for others to make the first move, it's amazing that anything gets bought. The fund manager most likely is looking for reasons not to buy exciting stocks, so that he can offer the proper excuses if those exciting stocks happen to go up. Success is one thing, but it's more important not to look bad if you fail. There's an unwritten rule on Wall Street: "You'll never lost your job losing your client's money in IBM." Also, there are various funds restrictions set by SEC, such as: they cannot own more than 10% of the shares in any given company, nor more than 5% of fund's assets in any given stock, or market-capitalization rule - they cannot own a stock in any company below, say, \$100-million size.
- *Angel Investing*
  - Investing in technology startups.
- *Consolidation model*
  - Its purpose is for internal budgeting and planning. Also in valuation, for investment banking or equity research.
- Some expressions:
  - Dog - stock that is perceived to be really bad - it can never do anything right.
  - Market is in the red - stock market went down in a given day.
  - Market is in the green - stock market went up in a given day.

## 1 Stock Market Investing Jargon

- Comeback - stock was down considerably, but finished the day break even or went higher than it was.
- Market sentiment - how confident or not confident people are in regards to the stock market at some time.
- Things went south - a stock or the stock market was up a good amount, but then went way down.
- Maxed out - when you have everything invested into one or a few stocks. No more money to invest.
- Being long in a stock - having a stock in a long term because you believe that a stock is going to do great.
- Being short in a stock - having a stock in a short term because you believe that a stock is going down over time (or in some point).
- It's a hold ("that stock gets a hold") - if you are new investor, you don't buy it. If you already bought it, then you will want to hold it (wait and see). There are 3 things investors use to say: a stock is a buy, sell, or a hold.
- Popped / Pop. Means that stock went up by a substantial amount.
- Crashed / crash. Means that stock or stock market went down by a substantial amount.
- Point - a \$1 move in stock price.
- Round lot - a block of 100 shares.
- *Random Walk Hypothesis*
  - Developed by Professor Eugene Fama in early 1960s.
  - It says a stock's past price movements are of absolutely no help in predicting future movements. In other words it's a random process, like tossing a coin. Likewise, the hypothesis says, the fact that a stock's price has risen for the last ten days tells you nothing about what it will do tomorrow.
- *Momentum Investing*
  - Also, another form of relying on past stock price movements.
  - It, too, exists in contravention of the random walk hypothesis.
  - As Howard Marks sees it, investors who practice this approach operate under the assumption that they can tell when something that has been rising will continue to rise. Momentum investing might enable you to participate in a bull market that continues upward, but Howard Marks see a lot of drawbacks. *"If something cannot go on forever, it will stop."*
- *Efficient Market Hypothesis*
  - The efficient market hypothesis states that



## 1 Stock Market Investing Jargon

- \* There are many participants in the markets, and they share roughly equal access to all relevant information. They are intelligent, objective, highly motivated and hardworking. Their analytical models are widely known and employed.
  - \* Because of the collective efforts of these participants, information is reflected fully and immediately in the market price of each asset. And because market participants will move instantly to buy any asset that's too cheap or sell one that's too dear, assets are priced fairly in the absolute and relative to each other.
  - \* Thus, market prices represent accurate estimates of assets' intrinsic value, and no participant can consistently identify and profit from instances when they are wrong.
  - \* Assets therefore sell at prices from which they can be expected to deliver risk-adjusted returns that are "fair" relative to other assets. Riskier assets must offer higher returns in order to attract buyers. The market will set prices so that appears to be the case, but it won't provide a "free lunch". That is, there will be no incremental return that is not related to (and compensatory for) incremental risk.
- All information is immediately reflected in stock prices as soon as it becomes available so that there is no way for an investor to get market-beating returns. Depending which form of efficiency you believe exists, you can decide on an investment strategy philosophy:
    - \* Weak form - the current stock price reflects the information contained in all past prices. Implication - charts and technical analysis that use past prices alone would not be useful in finding undervalued stocks. If you believe in this one, you might use charts and technical analysis.
    - \* Semi-strong form - the current stock price reflects the information contained not only in past prices but all public information (including financial statements and news reports) and no approach that was predicated on using and massaging this information would be useful in finding undervalued stocks. If you believe in this one, you can still use 10k reports and private information and find undervalued stocks.
    - \* Strong form - the current stock price reflects all the public and private information. Because even when the insiders trade, it pushes up/down the stock price. Implication - even insiders can't beat the market.
  - Good test for skepticism - *"And who doesn't know that?"*
  - Seth Klarman's opinion - most of these characteristics are not permanent. Something broadly accepted can become controversial or even taboo. Information can become more or less available. Thus, an asset class deemed close to efficient at one point may become quite inefficient at another.

## 1 Stock Market Investing Jargon

- Paul Johnson’s opinion - Inverting these conditions yields a test of market inefficiency. For instance, if an asset is not widely known and broadly followed, it might be inefficiently priced.
- Howard Marks’s opinion - he used to use word efficient, but in the sense of "speedy, quick to incorporate information", not "right". He agrees that because investors work hard to evaluate every new piece of information, asset prices immediately reflect the consensus view of information’s significance. He do not, however, believe the consensus view is necessarily correct. According to him, however, some asset classes are quite efficient. In most of these:
  - \* the asset class is widely known and has a broad following
  - \* the class is socially acceptable, not controversial or taboo
  - \* the merits of the class are clear and comprehensible, at least on the surface
  - \* information about the class and its components is distributed widely and evenly

According to him, an inefficient market is one that is market by at least one of the following characteristics:

- \* Market prices are often wrong. Because access to information and the analysis thereof are highly imperfect, market prices are often far above or far below intrinsic values.
- \* The risk-adjusted return on one asset class can be far out of line with those of other asset classes. Because assets are often valued at other-than-fair prices, an asset class can deliver a risk-adjusted return that is significantly too high (a free lunch) or too low relative to other asset classes.
- \* Some investors can consistently outperform others. Because of the existence of a) significant misvaluations and b) differences among participants in terms of skill, insight and information access, it is possible for misvaluations to be identified and profited from with regularity.

Marks concluded that no market is completely efficient or inefficient and it’s just a matter of degree. He strongly believes that mainstream securities markets can be so efficient that it’s largely a waste of time to work at finding winners there. Inefficiency is a necessary condition for superior investing.

The theory should inform our decisions but not dominate them. If we entirely ignore theory we can make big mistakes. We can fool ourselves into thinking it’s possible to know more than everyone else and to regularly beat heavily populated markets. We can buy securities for their returns but ignore their risk. We can buy 50 correlated securities and mistakenly think we’ve diversified.

The image here is of the efficient-market-believing finance professor who takes a walk with a student.

## 1 Stock Market Investing Jargon

- \* "Isn't that a \$10 bill lying on the ground?" asks the student.
- \* "No, it can't be a \$10 bill. If it were, someone would have picked it up by now." answers the professor.
- \* The professor walks away, and the student picks it up and has a beer.
- Aswath Damodaran's opinion - market goes through cycles of inefficiencies and efficiencies. Sometimes it is very inefficient and sometimes it gets more efficient. He believes that markets are most efficient to most people at most times. Markets are composed of human beings that have to believe that they can beat the market for markets to become efficient. He believes that there are some inefficiencies that are created partly by trading costs, by information problems, and by behavioral factors. And our job as investors is to find out these little inefficiencies.
- Market Efficiency is a model, not a reality. Real life markets cannot be perfectly efficient.
- Peter Lynch also found it difficult to integrate the efficient-market hypothesis (that everything in the stock market is "known" and prices are always "rational") with the random-walk hypothesis (that the ups and downs of the market are irrational and entirely unpredictable). It's very hard to support the popular academic theory that the market is irrational when you know somebody who just made a twenty-fold profit in a stock and could explain in advance why the stock was going to rise.
- Philip Fisher's opinion (Fisher refers to strong efficiency)
  - \* This concept holds that at any one time the market "efficient" prices are assumed to reflect fully and realistically all that is known about the company. Unless someone has some significant, illicit inside information, there is no way genuine bargains can be found, since the favorable influences that make a potential buyer believe that an attractive situation exists are already reflected in the price of stock!
  - \* Efficient market theory grew out of the academic School of Random Walkers. These people found that it was difficult to identify technical trading strategies that worked well enough after transactions costs to provide an attractive profit relative to the risks taken. Fisher doesn't disagree with this. Fisher believed that it is very, very tough to make money with in and out trading based on short-term market forecasts. Perhaps the market is efficient in this narrow sense of the word.
- Warren Buffett's opinion: amazingly, EMT was embraced not only by academics, but by many investment professionals and corporate managers as well. Observing correctly that the market was frequently efficient, they went on to conclude incorrectly that it was always efficient. The difference between these propositions is night and day.

## 1 Stock Market Investing Jargon

- *Modern Monetary Theory (MMT)* - TODO
- *Modern Portfolio Theory* - TODO
- *RIAs* TODO
- *ELOB* - database, that contains electronic limit order book TODO
- *(Spatial) Arbitrage* TODO
- Compensated risk and uncompensated risk TODO
- *American Depository Receipts (ADRs)* - Certificates of ownership issued by a U.S. bank that represents indirect ownership of a certain number of shares of a specific foreign firm on deposit in a U.S. bank. It May represent multiple shares. TODO
- *Positive and negative swap lines* TODO
- *Annuities* TODO
- GICs TODO
- *Purchasing Manager's Index (PMI)* - TODO
- *Risk Premium* TODO
- Repurchase Agreement (REPO) (+Collateral) TODO
- MBS, CDS, CDO - TODO
- *Capital Raising Process (Underwriting)* - TODO
- HSA account TODO

## 2 How The Masters Tell Us To Invest

- List of Famous Investors
  - Benjamin Graham
  - Warren Buffet
  - Philip Fisher
  - Peter Lynch
  - Howard Marks
  - Joel Greenblatt
  - Kevin O’Leary
  - Christopher C, Davis
  - Paul Johnson
  - Seth A. Klarman
  - Charlie Munger
  - Peter Schiff
  - Doug Casey
  - Ray Dalio
  - Rick Rule
  - John Galbraith
  - Charlie Ellis
  - Bruce Newberg
  - Michael Milken
  - Jacob Rothschild
  - Todd Combs
  - Roger Altman
  - Peter Kaufman
  - Doug Kass
  - Oscar Schafer
  - Jim Tiscg
  - Ajit Jain

## *2 How The Masters Tell Us To Invest*

- Stanley Druckenmiller
- George Soros
- Jack Ma
- Jim Chanos
- Jeremy Grantham
- Andrew Left - short seller
- John Templeton
- List Of Famous Traders
  - Paul Tudor Johns
  - Richard Dennis
  - Ed Seykota
  - William O’Neil
  - Michael Marcus
  - Bruce Kovner

## 2.1 Philosophies Of Famous Investors

This section provides a lot of philosophies and ideas created by a few of the most famous investors. However, we didn't include all of the ideas here - rather, we kept the most significant points and strategies here, and we decided to keep some minor thoughts in many other chapters across this book, especially in chapters 3 and 4.

### Benjamin Graham

- He insisted on paying a fair price for a stock no matter how bright its prospects were. That's a value approach to investing. However, he recognized the importance of a company's ability to grow earnings. This combination of value and growth is the foundation of good investing.
- Nobody ever knows what the market will do, but we can profit by reacting intelligently to what it does do. It's a voting machine in the short term (reflecting a voter-registration test that requires only money, not intelligence or emotional stability), but a weighing machine in the long term.
- Because we are all members of the general public and the public is usually wrong, we should rely on hard measurements to counteract our emotions and give ourselves something to feel secure about.
- Stocks have business valuations and market valuations. The first is what the company would be worth if it was liquidated, the second is the price the market has placed on the stock.
- We should know a stock's margin of safety, which is a general feel for how much that stock can drop in price and still be a good investment. Central to determining a stock's margin of safety is knowing the difference between its business valuation and market valuation. Graham was deliberately vague in describing a stock's margin of safety. He said that investment analysis is not an exact science. There are hard factors like book value financial statements, and debt, but there are subjective factors like quality of management and nature of the business.
- Long-term debt is very bad because it reduces the company's business valuation. The bills need to be paid even when brilliant managers make mistakes.
- Investors should buy a stock that has Price/Book ratio  $< 0.66$ . And even at that low price, Graham wanted to see a low P/E ratio, which usually accompanies a low price/book ratio.

### Philip Fisher

- Warren Buffett was so impressed with his book *Common Stocks and Uncommon Profits*, that he met him personally. In 1969, Buffett told Forbes that "I'm 15 percent Fisher and 85 percent Benjamin Graham."

## *2 How The Masters Tell Us To Invest*

- A company's profit margin coupled with its ability to maintain and improve them will tell you everything you need to know about its earning power.
- Invest in companies with the power to earn a profit and outpace their competition. That's a growth approach to investing. To find superior companies, Fisher was willing to look beyond hard numbers to factors that are not measurable, such as capabilities of management and the perception of those who know the company.
- Buy businesses with the ability to grow sales and profits over the years at rates greater than their industry average.
- Look for capable management. The best management is willing to sacrifice immediate profits for long-term gains and maintains integrity and honesty with shareholders.
- Sales are key to everything. Profits must follow sales. Sales are irrelevant if they don't produce profit. You should know a company's profit margins.
- Profits must be realized soon enough to be useful. You should look for positive cash flow and a healthy cash reserve so the company can meet obligations without borrowing.
- Lowest-cost producers have an edge in all phases of the economy. Combined with a high profit margin, low-cost production is Fisher's version of Graham's margin of safety.
- Circle of competence.
- Because of the extensive research needed to uncover superior companies, you should own just a handful at any given time. A few superior companies beats a slew of mediocre ones.
- The hearth of successful investing is knowing how to find the minority of stocks that in the years ahead will have spectacular growth in their per-share earnings. If the right stocks are bought and held long enough, they will always produce some profit. However, to produce close to the maximum profit, the kind of spectacular profit, some consideration must be given to timing. However, conventional studies of the near-term economic prospect do not provide the right method or approach to the proper timing of buying. In contrast to guessing which way general business or the stock market may go, an investor should be able to judge with only a small probability of error what the company into which he wants to buy is going to do in relation to business in general. All types of common stock investors might well keep one basic thought in mind - the current phase of the business cycle is but one of at least five powerful forces. All of these forces, either by influencing mass psychology or by direct economic operation, can have an extremely powerful influence on the general level of stock prices. The other four influences are the trend of interest rates, the over-all government attitude toward investment and private enterprise,



the long-range trend to more and more inflation, and - possibly most powerful of all - new inventions and techniques as they affect old industries. These forces are seldom all pulling stock prices in the same direction at the same time. Nor is any one of them necessarily going to be of vastly greater importance than any other for long periods of time. So complex and diverse are these influences that the safest course to follow will be the one that at first glance appears to be the most risky. This is to take investment action when matters you know about a specific company appear to warrant such action. Be undeterred by fears or hopes based on conjectures, or conclusions based on surmises.

### **What to buy**

How Philip Fisher used to find a growth stock:

1. Ask relatives, scientists, financial groups, invest mentors, and so on. Few hours' conversation with an outstanding investment man usually, occasionally with a business executive or scientist. Then, if a company might be exciting, he will start with the investigation - step 2.
2. Here, he didn't approach management nor spend hours and hours going over old annual reports and making minute studies of minor year-by-year changes in the balance sheet. He didn't ask every stockbroker he knew what they think of the stock. However, he used to glance over the balance sheet to determine the general nature of the capitalization and financial position. If there is an SEC prospectus, he read with care those parts covering breakdown of total sales by product lines, competition, degree of officer or other major ownership of common stock, all earning statement figures throwing light on depreciation, profit margins, extent of research activity, and abnormal or non-recurring costs in prior years' operations.
3. Then, if he still liked a company, he used his "scuttlebutt" method. He tries to contact every key customer, supplier, competitor, ex-employee, or scientist in a related field that he knew or whom he could approach through mutual friends. If he couldn't find a good amount of information, he gave up and move on to something else. All 15 points described below must be passed.
4. Then, if all is good (this can be 3 companies out of 250), he approached management - but he was fully prepared for that. It's good to already know the weaknesses of a given business prior to the meeting. Fisher believed that you should visit the management with having at least 50% of all the knowledge you need to make the investment.

Philip Fisher compiled a list of criteria he considered to be very important:

1. [Expanding market]
  - Company must have a products/services with sufficient market potential to make possible a sizable increase in sales for at least several years.

## 2 *How The Masters Tell Us To Invest*

- Companies with stagnating or declining sales - for bargain hunters or speculators, but it's not for investors seeking the greatest possible gains. Also be aware of situation in which there is a large increase in sales for a period of very few years, after which sales stop growing. In the second case, an investor can make profit by buying early enough.
- Not even the most outstanding growth companies need necessarily be expected to show sales for every single year larger than those of the year before. Sales growth should not be judged on an annual basis, but, say, by taking units of several years each.
- Correctly judging the long-range sales curve of a company is of extreme importance to the investor. Superficial judgment can lead to wrong conclusions.

### 2. [Develop New Products]

- Management must have a determination to continue to develop products or processes that will still further increase total sales potentials when the growth potentials of currently attractive product lines have largely been exploited.
- Companies which have a significant growth prospect for the next few years because of new demand for existing lines, but which have neither policies nor plans to provide for further developments beyond this may provide a vehicle for a nice one-time profit. They are not apt to provide the means for the consistent gains over ten or 25 years that are the surest route to financial success.
- The investor usually obtains the best results in companies whose engineering or research is to a considerable extent devoted to products having some business relationship to those already within the scope of company activities. This doesn't mean that a desirable company may not have a number of divisions, some of which have product lines quite different from others. It does mean that a company with research centered around each of these divisions will usually do much better than a company working on a number of unrelated new products which, if successful, will land it in several new industries unrelated to its existing business.

### 3. [Efficient R&D]

- How effective are the company's research and development efforts in relation to its size?
- Just looking at numbers about how much money companies spend for R&D can be misleading, unless a great deal of further knowledge is obtained. Companies vary enormously in what they include or exclude as R&D expense. Also, does the management really understand the nature of the research? What about the coordination of such an activity between the top-level management and researchers or managers?

## 2 *How The Masters Tell Us To Invest*

- A worthwhile method is to make a close study of how much in dollar sales or net profits has been contributed to a company by the results of its research organization during a particular span such as the prior 10 years. An organization which in relation to the size of this activities has produced a good flow of profitable new products during such a period will probably be equally productive in the future as long as it continues to operate under the same general methods.
4. [Sales]
- Company must have an above-average sales organization.
  - Without sales, survival is impossible. It is the making of repeat sales to satisfied customers that is the first benchmark of success. Check relative efficiency of a company's sales, advertising, and distributive organizations.
5. [Profit Margin]
- Company must have a worthwhile profit margin.
  - Sales are only of value when and if they lead to increased profits. The first step in examining profits is to study a company's profit margin, that is, to determine the number of cents of each dollar of sales that is brought down to operating profit. Such a study should be made for a series of years not for a single year. It then becomes evident that nearly all companies have broader profit margins (and also greater total dollar profits) in years when an industry is unusually prosperous. However, it also becomes clear that the marginal companies (ones with the smaller profit margins) nearly always increase their profit margins by a considerably greater % in the good years than do the lower-cost companies, whose profit margins also get better but not to so great a degree. This usually causes the weaker companies to show a greater % increase in earnings in a year of abnormally good business than do the stronger companies in the same field. However, it should also be remembered that these earnings will decline correspondingly more rapidly when the business tide turns. For this reason Fisher believes that the greatest long-range investment profits are never obtained by investing in marginal companies. The only reason for considering a long-range investment in a company with an abnormally low profit margin is that there might be strong indications that a fundamental change is taking place within the company. When such internal changes are taking place in a corporation which in other respects pretty well qualifies as the right type of long-range investment, it may be an unusually attractive purchase.
  - So far as older and larger companies are concerned, most of the really big investment gains have come from companies having relatively broad profit margins. Usually they have among the best such margins in their industry.
  - In regard to young companies, and occasionally older ones, there is an important deviation from this rule - such companies will at times deliberately

elect to speed up growth by sending all or a very large part of the profits they would otherwise have earned on even more research or on even more sales promotion than they would otherwise have earned on even more research or even more sales promotion than they would otherwise be doing. It's important to make sure in such instances that it is actually still further research, sales promotion, or still more of any other activity which is being financed today so as to build for the future, that is the real cause of the narrow or non-existent profit margin.

- When low margin is caused by activities needed for the growth, such as research sales promotion etc, a company with apparently poor profit margin may be an unusually attractive investment. However, with the exception of companies of this type in which the low profit margin is being deliberately engineered in order to further accelerate the growth rate, investors desiring maximum gains over the years had best stay away from low-profit-margin or marginal companies.

6. [Future Profit Margin]

- Company must maintain or improve profit margins.
- The success of a stock purchase does not depend on what is generally known about a company at the time the purchase is made. Rather it depends upon what gets to be known about it after the stock has been purchased. Therefore it is not the profit margins of the past but those of the future that are basically important to the investor.
- Some companies are in seemingly fortunate position that they can maintain profit margins simply by raising prices. This is usually because they are in industries in which the demand for their products is abnormally strong or because the selling prices of competitive products have gone up even more than their own. But maintaining profit margins in this way usually proves a relatively temporary matter.
- Some companies achieve great success by maintaining capital-improvement or product-engineering departments. The sole function of such departments is to design new equipment that will reduce costs and thus offset or partially offset the rising trend of wares.
- None of these things can be brought about in a day. They all require close study and considerable planning ahead. The prospective investor should give attention to the amount of ingenuity of the work being done on new ideas for cutting costs and improving profit margins.

7. [Great Labor Relations]

- Company must have outstanding labor and personnel relations.
- The effect of production of frequent and prolonged strikes is obvious to anyone making even the most cursory review of corporate financial statements.

The difference in the degree of profitability between a company with good personnel relations and one with mediocre personnel relations is far greater than the direct cost of strikes. It's about increasing productivity per worker when the workers are fairly treated by their employer.

- Unionization is by no means a sign of poor labor relations. Record of constant and prolonged strikes is a good indication of bad labor relations, the complete absence of strikes is not necessarily a sign of fundamentally good relations. Sometimes the company with no strikes is too much like the henpecked husband. Absence of conflict may not mean a basically happy relationship so much as fear of the consequences of conflict.
- Companies with good labor relations usually are ones making every effort to settle grievances quickly. The small individual grievances that take long to settle and are not considered important by management are ones that smolder and finally flare up seriously.
- If management doesn't feel a responsibility to make ordinary employees feel they are wanted, needed, and part of the business picture, and if nothing is done to build up the dignity of the individual worker, management with this attitude do not usually provide the background for the most desirable type of investment.

### 8. [Executive Relations]

- Company must have outstanding executive relations.
- There must be a good executive climate. Promotions are based on ability, not factionalism. Salary adjustments are reviewed regularly so that executives feel that merited increases will come without having to be demanded. Salaries are at least in line with the standard of the industry and the locality. The further a corporation departs from these standards, the less likely it is to be a really outstanding investment.

### 9. [Management]

- Company must have depth to its management.
- All humans are finite, so even for smaller companies the investor should have some idea of what can be done to prevent corporate disaster if the key man should no longer be available. Sooner or later a company will reach a size where it just will not be able to take advantage of further opportunities unless it starts developing executive talent in some depth. This point will vary between companies, depending on the industry in which they are engaged and the skill of the one-man management.
- Delegation of authority - from very top on down, each level of executives must be given real authority to carry out assigned duties in as ingenious and efficient way as possible. Capable people must be developed to handle the still further growth that will lie ahead.

- Also, top management must welcome and evaluate suggestions from personnel even if, at times, those suggestions carry with them adverse criticism of current management practices.

10. [Cost Analysis]

- How good are the company's cost analysis and accounting controls?
- No company is going to continue to have outstanding success for a long period of time if it cannot break down its overall costs with sufficient accuracy and detail to show the cost of each small step in its operation. Only in this way will a management know what most needs its attention. Only in this way can management judge whether it is properly solving each problem that does need its attention.

11. [Great Industry Specifics]

- Are there other aspects of the business somewhat peculiar to the industry involved, which will give the investor important clues as to how outstanding the company may be in relation to its competition?
- Matters of this sort are bound to differ considerably from each other - those which are of great importance in some lines of business can, at times, be of little or no importance in others. Here can belong patterns, technical know-how and skill, knowledge of customer problems, sales and service organization, customer goodwill, and many more.
- As has been true many times before and since, it is the constant leadership in engineering, not patents, that is the fundamental source of protection. The investor must be at least as careful not to place too much importance on patent protection as to recognize its significance in those occasional places where it is a major factor in appraising the attractiveness of a desirable investment.

12. [Long-range On Profits]

- Company must have short-range or long-range outlook in regard to profits.
- Some companies will conduct their affairs so as to gain the greatest possible profit right now. Others will deliberately curtail maximum immediate profits to build up good will and thereby gain greater overall profits over a period of years. Treatment of customers and vendors gives frequent examples of this. One company will constantly make the sharpest possible deals with suppliers. Another will at times pay above contract price to a vendor who has had unexpected expense in making delivery, because it wants to be sure of having a dependable source of needed raw materials or high-quality components available when the market has turned and supplies may be desperately needed. The difference in treatment of customers is equally noticeable. The company that will go to special trouble and expense to take care of the needs of a regular customer caught in an unexpected jam may show lower profits on the particular transaction, but far greater profits over the years.

- The investor wanting maximum results should favor companies with a truly long-range outlook concerning profits.

13. [Low Risk for Dilution]

- In the foreseeable future will the growth of the company require sufficient equity financing so that the larger number of shares then outstanding will largely cancel the existing stockholders' benefit from this anticipated growth?
- The intelligent investor should not buy common stocks simply because they are cheap but only if they give promise of major gain to him. It's not just about corporation's cash position, but also about the corporate structure, percentage of capitalization in various classes of securities etc.
- What really matters is whether the company's cash plus further borrowing ability is sufficient to take care of the capital needed to exploit the prospects of the next several years. If it is, and if the company is willing to borrow to the limit of prudence, the common stock investor need have no concern as to the more distant future. Near term financing will have produced enough increase in earnings, by the time still further financing is needed some years hence, to have brought the stock to a substantially higher price level.
- If this borrowing power is not now sufficient, however, equity financing becomes necessary. In this case, the attractiveness of the investment depends on careful calculations as to how much the dilution resulting from the greater number of shares to be outstanding will cut into the benefits to the present common stockholder that will result from the increased earnings this financing makes possible. It is well to consider that all senior convertible issues have been converted and that all warrants, options, etc., have been exercised when calculating the real number of common shares outstanding.
- If equity financing will be occurring within several years of the time of common stock purchase, and if this equity financing will leave common stockholders with only a small increase in subsequent per-share earnings, only one conclusion is justifiable. This is that the company has a management with sufficiently poor financial judgment to make the common stock undesirable for worthwhile investment. Unless this situation prevails, the investor need not be deterred by purely financial considerations from going into any situation which, because of its high rating on the remaining 14 points covered, gives promise of being outstanding. Conversely, from the standpoint of making maximum profits over the years, the investor should never go into a situation with a poor score on any of the other 14 points, merely because of great financial strength or cash position.

14. [Communicates Risks Too]

- Does the management talk freely to investors about its affairs when things are going well but "clam up" when troubles and disappointments occur?

- It is the nature of business that in even the best-run companies unexpected difficulties, profit squeezes, and unfavorable shifts in demand for their products will at times occur. Great companies will constantly be trying to produce and sell new products and new processes. There will be extra unbudgeted costs, unexpected delays and heartbreaking expenses. These disappointments are an inevitable part of even the most successful business. If met forthrightly and with good judgment, they are merely one of the costs of eventual success. They are frequently a sign of strength rather than weakness in a company.
- How a management reacts to such matters can be a valuable clue to the investor. The management that does not report as freely when things are going badly as when they are going well usually "clams up" in this way for one of several rather significant reasons. It may not have a program worked out to solve the unanticipated difficulty. It may have become panicky. It may not have an adequate sense of responsibility to its stockholders, seeing no reason why it should report more than what may seem expedient at the moment.
- In any event, the investor will do well to exclude from investment any company that withholds or tries to hide bad news.

15. [Unquestionable Integrity]

- Does the company have a management of unquestionable integrity?
- The management of a company is always far closer to its assets than is the stockholder. The number of ways management can benefit at the expense of the ordinary stockholder is almost infinite. One way is to put themselves on the payroll at salaries far above the normal worth of the work performed. Another is to own properties they sell or rent to the corporation at above-market rates. Another method for insiders to enrich themselves is to get the corporation's vendors to sell through certain brokerage firms which perform little if any service for the brokerage commissions involved but which are owned by these same insiders and relatives or friends. Probably most costly of all to the investor is the abuse by insiders of their power of issuing common stock options. They can pervert this legitimate method of compensating able management by issuing to themselves amounts of stock far beyond what an unbiased outsider might judge to represent a fair reward for services performed.
- There is only one real protection against abuses like these. Invest into companies the managements of which have a highly developed sense of trusteeship and moral responsibility to their stockholders. No matter how strong are other 14 points, if there is a serious question of the lack of a strong management sense of trusteeship for stockholders, the investor should never seriously consider participating in such an enterprise.



## **When to sell**

(financial reasons, not personal)

- When a mistake has been made in the original purchase and it becomes increasingly clear that the factual background of the particular company is, by a significant margin, less favorable than originally believed. The proper handling of this type of situation is largely a matter of emotional self-control. And being honest with yourself. More money has probably been lost by investors holding a stock they really did not want until they could "at least come out even" than from any other single reason.

While losses should never cause strong self-disgust or emotional upset, neither should they be passed over lightly. They should always be reviewed with care so that a lesson is learned from each of them. If the particular elements which caused a misjudgment on a common stock purchase are thoroughly understood, it is unlikely that another poor purchase will be made through misjudging the same investment factors.

- When a company no longer qualifies in regard to the 15 points outlined above. This is why investors should be constantly on their guard. It explains why it is of such importance to keep at all times in close contact with the affairs of companies whose shares are held. Companies usually deteriorate in this way because of:
  - there has been a deterioration of management, or
  - the company no longer has the prospect of increasing the markets for its product in the way it formerly did.

When any of these things happen to the affected stock should be sold at once, regardless of how good the general market may look or how big the capital gains tax may be.

Maybe it exhausted growth prospects of its market. From this point it will only do about as well as industry as a whole. Here, selling might take place at a more leisurely pace than if management deterioration had set in. Possibly part of the holding might be kept until a more suitable investment could be found. The amount of capital gains tax, no matter how large, should seldom prevent the switching of such funds into some other situation which, in the years ahead, may grow in a manner similar to the way in which this investment formerly grew.

- Another opportunity arises.

Once a stock has been properly selected and has borne the test of time, it is only occasionally that there is any reason for selling it at all - outside of those reasons (and personal ones).

- Another and even more costly reason why an investor should never sell out of an outstanding situation because of the possibility that an ordinary bear market

may be about to occur. Frequently, in the past, as many investors were fooling themselves, the bear market never came and the stock went right on up after their selling. And when a bear market has come, investors actually aren't going back into the same shares before they had gone up above his selling price. Usually they either waited for them to go far lower than they actually dropped, or, when they were way down, fear of something else happening still prevented their reinstatement.

- Also, do not sell because the stock is overpriced. What is overpriced? Any really good stock will sell and should sell at a higher ratio to current earnings than a stock with a stable rather than an expanding earning power. After all, this probability of participating in continued growth is obviously worth something. A stock can be somewhat ahead of itself.
- If the job has been correctly done when a common stock is purchased, the time to sell it is - almost never.

### **Don't-s for investors**

#### 1. Don't buy into promotional companies

- No matter how appealing promotional companies may seem at first glance, their financing should be left to specialized groups. Such groups have management talent available to bolster up weak spots as unfolding operations uncover them. Those who are not in a position to supply such talent and to convince new managements of the need of taking advantage of such help will find investing in promotional companies largely a disillusioning experience. There are enough spectacular opportunities among established companies that ordinary individual investors should make it a rule never to buy into a promotional enterprise, no matter how attractive it may appear to be.
- The heart of successful investing is finding companies which are developing new products and processes or exploiting new markets. Companies that have just started or are about to be started are frequently attempting to do just this. Many of them are formed to develop a colorful new invention. Many are started to participate in industries in which there is great growth potential. Young companies not yet earning a profit on their operations may at first glance appear to be of investment value. Or buying IPO companies. It's probably better to deal with established companies, you can observe the company's production, sales, cost accounting, management teamwork, and all other aspects of its operations. Perhaps even more important, he can obtain the opinion of other qualified observers who are in a position to observe regularly some or all of these points of relative strength or weakness in the company under consideration. In contrast, when a company is still in the promotional stage, all an investor can do is look at a blueprint and guess what the problems and the strong points may be. This is a much more difficult thing to do.

2. Don't ignore a good stock just because it is traded "over the counter"
  - These are unlisted stocks - stocks not listed on any exchange. Rules for the investor are not too different from those for listed securities.
3. Don't buy a stock just because you like to "tone" of its annual report
  - Allowing the general wording and tone of an annual report to influence a decision to purchase a common stock is much like buying a product because of an appealing advertisement on a billboard. The product may be just as attractive as the advertisement. It also may not be. It is well to remember that annual reports nowadays are generally designed to build up stockholder good will. It is important to go beyond them to the underlying facts. Like any other sales tool they are prone to put a corporation's "best foot forward". They seldom present balanced and complete discussions of the real problems and difficulties of the business. Often they are too optimistic.
  - When these reports fail to give proper information on matters of real significance to the investor - companies which follow such policies are usually not the ones most likely to provide the background for successful investment.
4. Don't assume that the high price at which a stock may be selling in relation to earnings is necessarily an indication that further growth in those earnings has largely been already discounted in the price
5. Don't quibble over eighths and quarters
  - For smaller investor - if the stock seems the right one and the price seems reasonably attractive at current levels, buy "at the market". The extra quarter or half point that may be paid is insignificant compared to the profit that will be missed if the stock is not obtained. Should the stock not have this sort of long-range potential, Fisher believes the investor should not have decided to buy it in the first place. (It's not that simple for larger investor wanting maybe thousands of shares or more.)
6. Don't over-stress diversification
  - There is a disadvantage of having "eggs in too many baskets". It's impossible to keep watching all the baskets after the eggs get put into them. Investors have been so oversold on diversification that fear of having too many eggs in one basket has caused them to put far too little into companies they thoroughly know and far too much in others about which they know nothing at all. It never seems to occur to them, much less to their advisers, that buying a company without having sufficient knowledge of it may be even more dangerous than having inadequate diversification.
  - Some companies even have a considerable degree of diversification within the company itself.

## 2 *How The Masters Tell Us To Invest*

- The breadth and depth of a company's management personnel-that is, how far a company has progressed away from one-man management-are also important factors in deciding how much diversification protection is intrinsically needed.
- The relationship between the industries involved will also be a factor. For example, an investor with ten stocks in equal amounts, but 8 of them bank stocks, may have completely inadequate diversification. In contrast, the same investor with each of his ten stocks in a completely different industry may have far more diversification than he really needs.
- Each case is different and no precise rules can be laid down, but Fisher suggests the following as minimum diversification needs:
  - a) All investments might be confined solely to the large entrenched type of properly selected growth stocks. Here, an investor might have a minimum goal of 5 such stocks in all. This means that he would not invest over 20% of his total original commitment in any one of these stocks. Original holding though - so if one grows more rapidly than the rest, say it's 40%, he shouldn't disturb such a holding.
  - b) Some or all of his investments might fall into the category of stocks about midway between the young growth companies with their high degree of risk and the institutional type of investment described above. These would be companies with a good management team rather than one-man management. At least two of such companies should be considered as necessary to balance each single company of the type A. In other words, if only companies in this B group were involved, an investor might start out with 10% of his available funds in each. This would make a total of 10 stocks in all.
  - c) Finally there are the small companies with staggering possibilities of gain for successful, but complete or almost complete loss of investment for the unsuccessful. The amount, if any, of such securities in an investment list should vary according to the circumstances and goals of the particular investor.

Here, never put any funds into these that you cannot afford to lose. Also, larger investors should never at the time of the original investment put over 5% of available funds into only one such company. One of the risks of the small investor is that he may be too small to obtain the spectacular prospects of this type of investment and still get the benefits of proper diversification.

One characteristic of this type of company should be kept in mind from the standpoint of diversification. They entail so much risk and offer such promising prospects that, in time, one of two things usually happens. Either they fail, or else they grow in trade position, management depth,

and competitive strength to a point where they can be classified in the B rather than the C group. When this happens, the shares held in them usually have advanced so spectacularly in market price that, depending on what has happened to the value of an investor's other holdings during the period, they may then represent a considerably greater % of the total portfolio than they formerly did. However, B stocks are much safer than C stocks that they may be retained in greater volume without sacrificing proper diversification. Therefore, if a company has changed in this way, there is seldom reason to sell stock—at least not on the ground that the market rise has resulted in this company representing too great a percentage of total holdings. So it no longer carried with it the element of extreme investment risk. When this point had been reached, a considerably larger percentage of total investment might be held in these companies without violating principles of prudent diversification.

- Usually a very long list of securities is not a sign of the brilliant investor, but of one who is unsure of himself. If the investor owns stock in so many companies that he cannot keep in touch with their managements directly or indirectly, he is rather sure to end up in worse shape than if he had owned stock in too few companies. An investor should always realize that some mistakes are going to be made and that he should have sufficient diversification so that an occasional mistake will not prove crippling. However, beyond this point he should take extreme care to own not the most, but the best. In the field of common stocks, a little bit of a great many can never be more than a poor substitute for a few of the outstanding.

### 7. Don't be afraid of buying on a war scare

- Every time the international stresses of our world produce either a war scare or an actual war, common stocks reflect it. This is a psychological phenomenon which makes little sense financially. Every time major war has broken out anywhere in the world or whenever American forces have become involved in any fighting whatsoever, the American stock market has always plunged sharply downward. But historically, the stocks usually rebounded sharply as the war scare subsided. Modern war always causes governments to spend far more than they can possibly collect from their taxpayers while the war is being waged. This causes a vast increase in the amount of money, so that each individual unit of money, such as a dollar, becomes worth less than it was before. It takes lots more dollars to buy the same number of shares of stock. This is the classic form of inflation. In other words, war is always bearish on money. To sell stock at the threatened or actual outbreak of hostilities so as to get into cash is extreme financial lunacy. Actually just the opposite should be done. In an investor has about decided to buy a particular common stock and the arrival of a full-blown war scare starts knocking down the price, he should ignore the scare psychology of the moment and definitely begin buying. This

is the time when having surplus cash for investment becomes least, not most, desirable. However - how fast should he buy? How far down will the stock go? There is no way of knowing. Therefore, the thing to do is to buy but buy slowly and at a scale-down on just a threat of war. If war occurs, then increase the tempo of buying significantly. Just be sure to buy into companies either with products or services the demand for which will continue in wartime, or which can convert their facilities to wartime operations.

- Do stocks actually become more valuable in war time, or is it just money which declines in value? That depends on circumstances - which country is defeated. The money of defeated side is likely to become completely or almost worthless, and common stocks would lost most of their value. It would then make little difference what investors might have done.
- The reason for buying stocks on war or fear of war is not that war, in itself, is ever again likely to be profitable to American stockholders. It is just that money becomes even less desirable, so that stock prices, which are expressed in units of money, always go up.

8. Don't be influenced by what doesn't matter

- There are certain superficial financial statistics which are frequently given an undeserved degree of attention by many investors. Maybe they have very little to do with your investment case. For example, price ranges at which a stock has sold in former years. The price at which the stock sold 4 years ago may have little or no relationship to the price at which it sells today. The company may have developed a host of able new executives, a series of new and highly profitable products, or any number of similar desirable attributes that make the stock intrinsically worth four times as much in relation to the price of other stocks as it was worth 4 years ago.
- Similarly, many investors will give heavy weight to the per-share earnings of the past 5 years in trying to decide whether a stock should be bought. What counts is knowledge of background conditions. An understanding of what probably will happen over the next several years is of overriding importance. The investor is constantly being fed a diet of reports and so-called analyses largely centered around these price figures for the past 5 years. He should keep in mind that it is the next five years' earnings, not those of the past 5 years, that now matter to him.
- Also, some investors pay undue attention to unrelated statistics on past price ranges and per-share earnings. This is the belief that whatever has happened for a number of years is bound to continue indefinitely. In other words, some investors will find a stock the per-share earnings and market price of which ave risen in each of the past 5 or 10 years. They will conclude that this trend is almost certain to continue indefinitely. This might happen, but in view of the uncertainty in timing the results of research and of the costliness

of bringing out the new products that make this type of growth possible, it is quite common for even the most outstanding growth companies to have occasional one- to three-year dips in their rate of earnings. Such dips can produce sharp declines in their shares. Therefore, to give emphasis to this kind of past earning record, rather than to the background conditions that can control the future earning curve, may prove very costly. But still, past earnings and price ranges shouldn't be completely ignored. They are helpful as long as it is realized they are only auxiliary tools to be used for specialized purposes and not major factors in deciding the attractiveness of a common stock. Thus, for example, a study of per-share earnings for various prior years will throw considerable light on how cyclical a stock may be, that is, on how much the company's profits will be affected by the varying stages of the business cycle. More important, comparing past per-share earnings with price ranges will furnish the price-earnings ratio at which the stock sold in the past. This serves as a base from which to start measuring what the price-earnings ratio may be in the future. But it must be kept in mind that it is the future and not the past which governs.

9. Don't fail to consider time as well as price in buying a true growth stock

- When the indications are strong that there will be an increase in value coming, deciding the time you will buy rather than the price at which you will buy may bring you a stock about to have extreme further growth at or near the lowest price at which that stock will sell from that time on. After all, this is exactly what you should be trying to do when you make any stock purchase.

10. Don't follow the crowd

- Some investment fads and misinterpretations of facts may run for several months or several years. In the long run, however, realities not only terminate them, but frequently, for a time, cause the affected stocks to go too far in the opposite direction. The ability to see through some majority opinions to find what facts are really there is a trait that can bring rich rewards in the field of common stocks. It is not easy to develop, however, for the composite opinion of those with whom we associate is a powerful influence upon the minds of us all. There is one factor which all of us can recognize, however, and which can help powerfully in not just following the crowd. This is realization that the financial community is usually slow to recognize a fundamentally changed condition, unless a big name or a colorful single event is publicly associated with that change. For example a widely known man is put in as the new president. Recognizing such situations-prior to the price spurt that will inevitably accompany the financial community's correction of its appraisal-is one of the first and simplest ways in which the fledgling investor can practice thinking for himself rather than following the crowd.

**Philip Fisher on conservative investments**

1. A corporation of the size and type to provide a conservative investment is necessary a complex organization. It must have superiority in production, marketing, research, and financial skills. So it's a very low-cost producer or operator in its field, has outstanding marketing and financial ability and a demonstrated above-average skill on the complex managerial problem of attaining worthwhile results from its research or technological organization.
  - Low-cost production (comparing its competition) - it must also give promise of continuing to be so in the future. Greater-than-average profit margin should enable a company to earn enough to generate internally a significant part or perhaps all of the funds required for financing growth. This avoids much or even all of the need for raising additional long-term capital that can a) result in new shares being issued and diluting the value of already outstanding shares and/or b) create an additional burden of debt, with fixed interest payments and fixed maturities (which must largely be met from future earnings) which greatly increase the risks of the common-stock owners. This can be applied to both, manufacturing companies, as well as companies that are in service lines, retailing, or one of the many subdivisions of the financial world such as banking or insurance. So this was about low-cost production or operations.
  - Strong marketing organization - recognizing changes in public taste and then reacting promptly to these changes is not enough. As has been said before, in the business world customers simply do not beat a path to the door of the man with the better mousetrap. In the competitive world of commerce it is vital to make the potential customer aware of the advantages of a product or service. This awareness can be created only by understanding what the potential buyer really wants (sometimes when the customer himself doesn't clearly recognize why these advantages appeal to him) and explaining it to him not in the seller's terms but in his terms. Whether this is best done by advertising, by salesmen making calls, by specialized independent marketing organizations, or by any combination of these depends on the nature of the business. An efficient producer or operator with weak marketing and selling may be compared to a powerful engine that, because of a loose pulley belt or badly adjusted differential, is producing only a fraction of the results it otherwise would have attained.
  - Outstanding research and technical effort - technological efforts are now channeled in two directions: to produce new and better products (in this connection, research scientists may, of course, do somewhat more for a chemical company than for a grocery chain) and to perform services in a better way or at a lower cost than in the past.
  - Financial skill - through skillful budgeting and accounting, the truly outstanding company can create an early-warning system whereby unfavorable influences that threaten the profit plan can be quickly detected. Remedial ac-



tion can then be taken to avoid the painful surprises that have jolted investors in many companies.

- Fundamentally it should never be forgotten that, in a world where change is occurring at a faster and faster pace, nothing long remains the same. It is impossible to stand still. A company will either grow or shrink. A strong offense is the best defense. Only by growing better can a company be sure of not growing worse. Companies that have failed to go uphill have invariably gone downhill—and, if that has been true in the past, it will be even more true in the future. This is because, in addition to an ever-increasing pace of technological innovation, changing social customs and buying habits and new demands of government are altering at an ever-increasing pace the rate at which even the stodgiest industries are changing.
2. The people factor - a corporate chief executive dedicated to long range growth who has surrounded himself with and delegated considerable authority to an extremely competent team in charge of the various divisions and functions of the company. These people must be engaged not in an endless internal struggle for power but instead should be working together toward clearly outlined corporate goals - e.g. if an investment is to be a truly successful one, is that top management take the time to identify and train qualified and motivated juniors to succeed senior management whenever a replacement is necessary.
- There must always be a conscious and continuous effort, based on fact, not propaganda, to have employees at every level, from the most newly hired blue-collar or white-collar worker to the highest levels of management, feel that their company is a good place to work.
  - Of one thing the investor can be certain: A large company's need to bring in a new chief executive from the outside is a damning sign of something basically wrong with the existing management—no matter how good the surface signs may have been as indicated by the most recent earnings statement. It may well be that the new president will do a magnificent job and in time will build a genuine management team around him so that such a jolt to the existing organization will never again become necessary. Consequently, in time such a stock may become one worthy of a wise investor. But such rebuilding can be so long and risky a process that, if an investor finds this sort of thing happening in one of his holdings, he will do well to review all his investment activities to determine whether his past actions have really been proceeding from a sound base.
  - The annual salaries of top management of all publicly owned companies are made public in the proxy statements. If the salary of the number-one man is very much larger than that of the next two or three, a warning flag is flying. If the compensation scale goes down rather gradually, it isn't.
  - Management must be willing to submit itself to the disciplines required for

sound growth. The true investment objective of growth is not just to make gains but to avoid loss.

3. Investment characteristics of some businesses

- In inflationary periods the matter of profitability becomes even more important. Usually when prices and, therefore, costs are rising on a broad front, a business can, in time, pass these costs along through higher prices of its own. However, this often cannot be done immediately. During the interim, obviously a much smaller bite is taken out of the profits of the broad-profit-margin company than occurs for its higher-cost competition, since the higher-cost company is probably facing comparably increased costs of doing business.
- Profitability can be expressed in two ways. The fundamental way, which is the yardstick used by most managements, is the return on invested assets. This is the factor that will cause a company to decide whether to go ahead with a new product or process. What percent return can the company expect on the part of its capital invested in this particular way in comparison to what the return might be if the same amount of its assets was employed in some other way?
- In today's highly fluid and competitive business world, obtaining well-above-average profit margins or a high return on assets is so desirable that, whenever a company accomplishes this goal for any significant period of time, it is bound to be faced with a host of potential competitors. If the potential competitors actually enter the field, they will cut into markets the established company now has. Normally, when potential competition becomes actual competition the ensuing struggle for sales results in anything from a minor to a major reduction in the high profit margin that had theretofore existed. High profit margins may be compared to an open jar of honey owned by the prospering company. The honey will inevitably attract a swarm of hungry insects bent on devouring it. In the business world there are but two ways a company can protect the contents of its honey jar from being consumed by the insects of competition. One is by monopoly, which is usually illegal, although, if the monopoly is due to patent protection, it may not be. In any event, monopolies are likely to end quite suddenly and do not commend themselves as vehicles for the safest type of investing. The other way for the honey-jar company to keep the insects out is to operate so much more efficiently than others that there is no incentive for present or potential competition to take action that will upset the existing situation.
- Lower production costs and greater ability to attract new customers because of a well-recognized trade name are not the only ways that scale can consistently give a company competitive strength.

4. Price of conservative investment

## 2 *How The Masters Tell Us To Invest*

- Every significant price move of any individual common stock in relation to stocks as a whole occurs because of a changed appraisal of that stock by the financial community.
- The matter of “appraisal” is the heart of understanding the seeming vagaries of price-earnings ratios. It should never be forgotten that an appraisal is a subjective matter. It has nothing necessarily to do with what is going on in the real world about us. Rather, it results from what the person doing the appraising believes is going on, no matter how far from the actual facts such a judgment may be. In other words, any individual stock does not rise or fall at any particular moment in time because of what is actually happening or will happen to that company. It rises or falls according to the current consensus of the financial community as to what is happening and will happen regardless of how far off this consensus may be from what is really occurring or will occur.
- There can be a wide variations between the financial community’s appraisal of a stock and the true set of conditions affecting it that may last for several years. Always, however—sometimes within months, sometimes only after a much longer period of time—the bubble bursts. When a stock has been selling too high because of unrealistic expectations, sooner or later a growing number of stockholders grow tired of waiting. Their selling soon more than exhausts the buying power of the small number of additional buyers who still have faith in the old appraisal. The stock then comes tumbling down. Sometimes the new appraisal that follows is quite realistic. Frequently, however, as this re-examination evolves under the emotional pressure of falling prices, the negative is overemphasized, resulting in a new financial-community appraisal that is significantly less favorable than the facts warrant and that may then prevail for some time. However, when this happens, much the same thing occurs as when the appraisal is too favorable. The only difference is that the process is reversed. It may take months or years for a more favorable image to supplant the existing one.
- On the lowest end of the risk scale and most suitable for wise investment is the company that measures quite high in regard to the first three dimensions but currently is appraised by the financial community as less worthy, and therefore has a lower price-earnings ratio, than these fundamental facts warrant. Next least risky and usually quite suitable for intelligent investment is the company rating quite high in regard to the first three dimensions and having an image and therefore a price-earnings ratio reasonably in line with these fundamentals. This is because such a company will continue to grow if it truly has these attributes. Next least risky and, in my opinion, usually suitable for retention by conservative investors who own them but not for fresh purchase with new funds are companies that are equally strong in regard to the first three dimensions but, because these qualities have become almost

legendary in the financial community, have an appraisal or price-earnings ratio higher than is warranted by even the strong fundamentals. In Fisher's opinion there are important reasons such stocks should usually be retained, even though their prices seem too high: If the fundamentals are genuinely strong, these companies will in time increase earnings not only enough to justify present prices but to justify considerably higher prices. Meanwhile, the number of truly attractive companies in regard to the first three dimensions is fairly small. Undervalued ones are not easy to find. The risk of making a mistake and switching into one that seems to meet all of the first three dimensions but actually does not is probably considerably greater for the average investor than the temporary risk of staying with a thoroughly sound but currently overvalued situation until genuine value catches up with current prices. Investors who agree with me on this particular point must be prepared for occasional sharp contractions in the market value of these temporarily overvalued stocks. On the other hand, it is my observation that those who sell such stocks to wait for a more suitable time to buy back these same shares seldom attain their objective. They usually wait for a decline to be bigger than it actually turns out to be. The result is that some years later when this fundamentally strong stock has reached peaks of value considerably higher than the point at which they sold, they have missed all of this later move and may have gone into a situation of considerably inferior intrinsic quality.

- Continuing up our scale of ascending risks, we come next to the stocks that are average or relatively low in quality in regard to the first three dimensions but have an appraisal in the financial community either lower than, or about in line with, these not very attractive fundamentals. Those with a poorer appraisal than basic conditions warrant may be good speculations but are not suitable for the prudent investor. In the fast-moving world of today there is just too much danger of adverse developments severely affecting such shares.
- Finally we come to what is by far the most dangerous group of all: companies with a present financial-community appraisal or image far above what is currently justified by the immediate situation. Purchase of such shares can cause the sickening losses that tend to drive investors away from stock ownership in droves and threaten to shake the investment industry to its foundations.
- Regarding appraisals - there are three separate appraisals: the current financial-community appraisal of the attractiveness of common stocks as a whole, of the industry of which the particular company is a part, and, finally, of the company itself.
- The conservative investor must be aware of the nature of the current financial-community appraisal of any industry in which he is interested.
- The further into the future profits will continue to grow, the higher the price-earnings ratio an investor can afford to pay. This rule, however, should be applied with great caution. It should never be forgotten that the actual vari-

ations in price-earnings ratio will result not from what will actually happen but from what the financial community currently believes will happen. In a period of general market optimism a stock may sell at an extremely high price-earnings ratio because the financial community quite correctly envisages many years of great growth ahead. But many years will have to elapse before this growth is fully realized.

- The only true test of whether a stock is “cheap” or “high” is not its current price in relation to some former price, no matter how accustomed we may have become to that former price, but whether the company’s fundamentals are significantly more or less favorable than the current financial community appraisal of that stock.
- As previously mentioned, there is a third element of investment community appraisal that also must be considered, along with its appraisal of the industry and of the particular company. Only after all three are blended together can a worthwhile judgment be reached as to whether a stock is cheap or high at any given time. This third appraisal is that of the outlook for stocks in general.
- The level of stocks as a whole is not solely a matter of image but results partly from the financial community’s current appraisal of the degree of attractiveness of common stocks and partly from a certain purely financial factor from the real world. This real-world factor is mainly involved with interest rates. When interest rates are high in either the long- or short-term money markets, and even more so when they are high in both, there is a tendency for a larger part of the pool of investment capital to flow toward those markets, so the demand for stocks is less. Stocks may be sold to transfer funds to these markets. Conversely, when rates are low, funds flow out of those markets and into stocks. Therefore, higher interest rates tend to lower the level of all stocks and lower interest rates to raise that level. Similarly, when the public is in a mood to save a larger percentage of its income, more funds flow into the total capital pool and there is a more bullish pull on stock prices than when the pool of capital funds is rising more slowly. However, this is a much smaller influence than is the level of interest rates.
- The price of any particular stock at any particular moment is determined by the current financial-community appraisal of the particular company, of the industry it is in, and to some degree of the general level of stock prices. Determining whether at that moment the price of a stock is attractive, unattractive or somewhere in between depends for the most part on the degree these appraisals vary from reality. However, to the extent that the general level of stock prices affects the total picture, it also depends somewhat on correctly estimating coming changes in certain purely financial factors, of which interest rates are by far the most important.
- Stay or sell in anticipation of possible market downturns. Putting it in the

simplest mathematical terms, both the odds and the risk/reward considerations favor holding. There is a much greater chance of being wrong in estimating adverse short-term changes for a good stock than in projecting its strong, long-term price appreciation potential. Fisher had a belief that the short-term price movements are so inherently tricky to predict that he does not believe it possible to play the in and out game and still make the enormous profits that have accrued again and again to the truly long-term holder of the right stocks.

### **Summary of Philip Fisher's key factors in evaluating promising firms**

*"My philosophy calls for making a relatively small number of investments but only in unusually promising companies. Obviously, I am looking for signs of growth potential in the companies I study. As important, I am trying, through my analysis, to avoid risk."*

### **Functional factors**

1. The firm must be one of the lowest-cost producers of its products or services relative to its competition, and must promise to remain so.
  - a) A comparatively low break-even will enable this firm to survive depressed market conditions and to strengthen its market and pricing position when weaker competitors are driven out of the market.
  - b) A higher than average profit margin enables the firm to generate more funds internally to sustain growth without as much dilution caused by equity sales or strain caused by over-dependence on fixed-income financing.
2. A firm must have a strong enough customer orientation to recognize changes in customer needs and interests and then to react promptly to those changes in an appropriate manner. This capability should lead to generating a flow of new products that more than offset lines maturing or becoming obsolete.
3. Effective marketing requires not only understanding of what customers want, but also explaining to them (through advertising, selling or other means) in terms the customer will understand. Close control and constant monitoring of the cost/effectiveness of market efforts are required.
4. Even nontechnical firms today require a strong and well-directed research capability to (a) produce newer and better products, and (b) perform services in a more effective or efficient way.
5. There are wide differences in the effectiveness of research. Two important elements of more productive research are (a) market/ profit consciousness, and (b) the ability to pool necessary talent into an effective working team.
6. A firm with a strong financial team has several important advantages:

## *2 How The Masters Tell Us To Invest*

- a) Good cost information enables management to direct its energies toward those products with the highest potential for profit contribution.
  - b) The cost system should pinpoint where production, marketing, and research costs are inefficient even in sub-parts of the operation.
  - c) Capital conservation through tight control of fixed and working capital investments.
7. A critical finance function is to provide an early warning system to identify influences that could threaten the profit plan sufficiently ahead of time to devise remedial plans to minimize adverse surprises.

### **People factors**

- 1. To become more successful, a firm needs a leader with a determined entrepreneurial personality combining the drive, the original ideas, and the skills necessary to build the fortunes of the firm.
- 2. A growth-oriented chief executive must surround himself with an extremely competent team and to delegate considerable authority to them to run the activities of the firm. Teamwork, as distinct from dysfunction struggles for power, is critical.
- 3. Attention must be paid to attracting competent managers at lower levels and to training them for larger responsibilities. Succession should largely be from the available talent pool. The need to recruit the chief executive from outside is a particularly dangerous sign.
- 4. The entrepreneurial spirit must permeate the organization.
- 5. More successful firms usually have some unique personality traits—some special ways of doing things that are particularly effective for their management team. This is a positive not a negative sign.
- 6. Management must recognize and be attuned to the fact that the world in which they are operating is changing at an ever increasing rate.
  - a) Every accepted way of doing things must be reexamined periodically, and new, better ways sought.
  - b) Changes in managerial approaches involve necessary risks, which must be recognized, minimized and taken.
- 7. There must be a genuine, realistic, conscious and continuous effort to have employees at every level, including the blue collar workers, believe that their company is really a good place to work.
  - a) Employees must be treated with reasonable dignity and decency.
  - b) The firm's work environment and benefits programs should be supportive of motivation.

## *2 How The Masters Tell Us To Invest*

- c) People must feel they can express grievances without fear and with reasonable expectation of appropriate attention and action.
  - d) Participatory programs seem to work well and be an important source of good ideas.
8. Management must be willing to submit to the disciplines required of sound growth. Growth requires some sacrifice of current profits to lay the foundation for worthwhile future improvement.

### **Business characteristics**

1. Although managers rely heavily on return of assets in considering new investments, investors must recognize that historic assets stated at historic costs distort comparisons of firms' performance. Favorable profit to sales ratios, notwithstanding differences in turnover ratios, may be a better indicator of the safety of an investment, particularly in an inflationary environment.
2. High margins attract competition, and competition erodes profit opportunities. The best way to mute competition is to operate so efficiently that there is no incentive left for the potential entrant.
3. Efficiencies of scale are often counterbalanced by the inefficiencies of bureaucratic layers of middle management. In a well-run firm, however, the industry leadership position creates a strong competitive advantage that should be attractive to investors.
4. Getting there first in a new product market is a long step toward becoming first. Some firms are better geared to be there first.
5. Products are not islands. There is an indirect competition, for example, for consumers' dollars. As prices change, some products may lose attractiveness even in well-run, low-cost companies.
6. It is hard to introduce new, superior products in market arenas where established competitors already have a strong position. While the new entrant is building the production, marketing power, and reputation to be competitive, existing competitors can take strong defensive actions to regain the market threatened. Innovators have a better chance of success if they combine technology disciplines, e.g., electronics and nucleonics, in a way that is novel relative to existing competitive competencies.
7. Technology is just one avenue to industry leadership. Developing a consumer "franchise" is another. Service excellence is still another. Whatever the case, a strong ability to defend established markets against new competitors is essential for a sound investment.



### **Summary of Philip Fisher's strategy**

1. Buy into companies that have disciplined plans for achieving dramatic long-range growth in profits and that have inherent qualities making it difficult for newcomers to share in that growth. There are so many details, both favorable and unfavorable, that should also be considered in selecting one of these companies that it is obviously impossible in a monograph of this length to cover them adequately.
2. Focus on buying these companies when they are out of favor; that is, when, either because of general market conditions or because the financial community at the moment has misconceptions of its true worth, the stock is selling at prices well under what it will be when its true merit is better understood.
3. Hold the stock until either (a) there has been a fundamental change in its nature (such as a weakening of management through changed personnel), or (b) it has grown to a point where it no longer will be growing faster than the economy as a whole. Only in the most exceptional circumstances, if ever, sell because of forecasts as to what the economy or the stock market is going to do, because these changes are too difficult to predict. Never sell the most attractive stocks you own for short-term reasons. However, as companies grow, remember that many companies that are quite efficiently run when they are small fail to change management style to meet the different requirements of skill big companies need. When management fails to grow as companies grow, shares should be sold.
4. For those primarily seeking major appreciation of their capital, de-emphasize the importance of dividends. The most attractive opportunities are most likely to occur in the profitable, but low or no dividend payout groups. Unusual opportunities are much less likely to be found in situations where high percentage of profits is paid to stockholders.
5. Making some mistakes is as much an inherent cost of investing for major gains as making some bad loans is inevitable in even the best run and most profitable lending institution. The important thing is to recognize them as soon as possible, to understand their causes, and to learn how to keep from repeating the mistakes. Willingness to take small losses in some stocks and to let profits grow bigger and bigger in the more promising stocks is a sign of good investment management. Taking small profits in good investments and letting losses grow in bad ones is a sign of abominable investment judgment. A profit should never be taken just for the satisfaction of taking it.
6. There is a relatively small number of truly outstanding companies. Their shares frequently can't be bought at attractive prices. Therefore, when favorable prices exist, full advantage should be taken of the situation. Funds should be concentrated in the most desirable opportunities. For those involved in venture capital and quite small companies, say with annual sales of under \$25,000,000, more diversification may be necessary. For larger companies, proper diversification requires investing

in a variety of industries with different economic characteristics. For individuals (in possible contrast to institutions and certain types of funds), any holding of over twenty different stocks is a sign of financial incompetence. Ten or twelve is usually a better number. Sometimes the costs of the capital gains tax may justify taking several years to complete a move toward concentration. As an individual's holdings climb toward as many as twenty stocks, it nearly always is desirable to switch from the least attractive of these stocks to more of the attractive. It should be remembered that ERISA stands for Emasculated Results: Insufficient Sophisticated Action.

7. A basic ingredient of outstanding common stock management is the ability neither to accept blindly whatever may be the dominant opinion in the financial community at the moment nor to reject the prevailing view just to be contrary for the sake of being contrary. Rather, it is to have more knowledge and to apply better judgment, in thorough evaluation of specific situations, and the moral courage to act "in opposition to the crowd" when your judgment tells you you are right.
8. In handling common stocks, as in most other fields of human activity, success greatly depends on a combination of hard work, intelligence, and honesty.

### **Warren Buffett**

- He believes in examining businesses, not stock prices. Once he finds a quality business, he buys it at a bargain price. His investment style combines the best of Graham and Fisher because he buys thriving companies at a discount. That's a combination of value and growth investing.
- Never speculate about the direction of prices. Look instead at individual companies and what makes them superb.
- Reverse your emotions. Be fearful when others are greedy, and be greedy when others are fearful.
- Quality companies:
  - Have honest management teams that communicate with shareholders in a candid fashion and always act with the interests of shareholders in mind.
  - Earn more cash than is necessary to stay in business and direct that cash wisely. They either invest in activities that earn more than they cost, or return the cash to shareholders in the form of increased dividends or stock buybacks. To determine how wisely a company has directed its cash, look at its return on equity.
  - Have high net profit margins.
  - Increase their market value by more than the value of earnings they retain.

## 2 How The Masters Tell Us To Invest

- Determine bargain prices by comparing a company's value to its stock price. Buy when the stock is considerably lower than the company's value. This is a straight-forward use of Graham's margin of safety.
- Focus your portfolio on a few good companies. Concentrating on good stocks is safer than diversifying across mediocre ones.
- Just as a business puts more money into its most successful ventures, you should invest more money in your stocks that are performing well.
- Do your research, do it well, and disregard the opinions of others.
- Buffet is concerned with whether or not a company's earnings grew enough to justify the cost of reinvesting the previous year's earnings, and the ones before that, and so on. That's why he looks at return on equity instead of plain earnings. It's just as important to know what a company does with what it earns as it is to know what it earns.
- Buffet determines the value of a company by projecting its future cash flows and discounting them back to the present with the rate of long-term U.S. government bonds.
- Buffett on picking the right person after Buffett dies, on the investment side of Berkshire's business: *"Picking the right person(s) will not be an easy task. It's not hard, of course, to find smart people, among them individuals who have impressive investment records. But there is far more to successful long-term investing than brains and performance that has recently been good. Over time, markets will do extraordinary, even bizarre, things. A single, big mistake could wipe out a long string of successes. We therefore need someone genetically programmed to recognize and avoid serious risks, including those never before encountered. Certain perils that lurk in investment strategies cannot be spotted by use of the models commonly employed today by financial institutions. Temperament is also important. Independent thinking, emotional stability, and a keen understanding of both human and institutional behavior is vital to long-term investment success. I've seen a lot of very smart people who have lacked these virtues. Also, we need to keep the people we hire."*
- (Warren Buffett) In 1988 letter (from OTC → NYSE): In two respects our goals probably differ somewhat from those of most listed companies.
  - First, we do not want to maximize the price at which Berkshire shares trade. We wish instead for them to trade in a narrow range centered at intrinsic business value. Charlie and I are bothered as much by significant overvaluation as significant undervaluation. Both extremes will inevitably produce results for many shareholders that will differ sharply from Berkshire's business results. If our stock price instead consistently mirrors business value, each of

our shareholders will receive an investment result that roughly parallels the business results of Berkshire during his holding period.

- Second, we wish for very little trading activity. If we ran a private business with a few passive partners, we would be disappointed if those partners, and their replacements, frequently wanted to leave the partnership. Running a public company, we feel the same way. Our goal is to attract long-term owners who, at the time of purchase, have no timetable or price target for sale but plan instead to stay with us indefinitely. We don't understand the CEO who wants lots of stock activity, for that can be achieved only if many of his owners are constantly exiting.

### **Warren Buffett on finance and investing**

- Buffett thinks most markets are not purely efficient and that equating volatility with risk is a gross distortion.
- Assessing investment risk requires thinking about a company's management, products, competitors, and debt levels. The inquiry is whether after-tax returns on an investment are at least equal to the purchasing power of the initial investment plus a fair rate of return. The primary relevant factors are the long-term economic characteristics of a business, the quality and integrity of its management, and future levels of taxation and inflation. Maybe these factors are vague, particularly compared with the seductive precision of beta, but the point is that judgments about such matters cannot be avoided, except to an investor's disadvantage.
- Graham held that price is what you pay and value is what you get. These two things are rarely identical, but most people rarely notice any difference.
- Another prudential legacy from Graham is his margin-of-safety principle. This principle holds that one should not make an investment in a security unless there is a sufficient basis for believing that the price being paid is substantially lower than the value being delivered. Buffett follows the principle devotedly, noting that Graham had said that if forced to distill the secret of sound investment into three words, they would be: margin of safety. Over 40 years after first reading that, Buffett still thinks those are the right words. While modern finance theory enthusiasts cite market efficiency to deny there is a difference between price (what you pay) and value (what you get), Buffett and Graham regard it as all the difference in the world.
- That difference also shows that the term "value investing" is a redundancy. All true investing must be based on an assessment of the relationship between price and value. Strategies that do not employ this comparison of price and value do not amount to investing at all, but to speculation - the hope that price will rise, rather than the conviction that the price being paid is lower than the value being obtained. Many professionals make another common mistake, Buffett notes, by distinguishing

between "growth investing" and "value investing". Growth and value, Buffett says, are not distinct. They are integrally linked since growth must be treated as a component of value.

- Buffett's arbitrage (see this [link](#)) - what he did when Berkshire had too much cash.
  - The goal was to exploit tiny price differentials that might exist between, say, Royal Dutch stock trading in guilders in Amsterdam, pounds in London, and dollars in New York. Some people might call this scalping: it won't surprise you that practitioners opted for the French term, arbitrage. Since World War I the definition of arbitrage - or "risk arbitrage", as it is now sometimes called - has expanded to include the pursuit of profits from an announced corporate event such as sale of the company, merger, recapitalization, reorganization, liquidation, self-tender, etc. In most cases the arbitrageur expects to profit regardless of the behavior of the stock market. The major risk he usually faces instead is that the announced event won't happen.
  - To evaluate arbitrage situations you must answer 4 questions:
    - \* How likely is it that the promised event will indeed occur?
    - \* How long will your money be tied up?
    - \* What chance is there that something still better will transpire - a competing takeover bid, for example?
    - \* What will happen if the event does not take place because of anti-trust action, financing glitches, etc?
  - Berkshire's arbitrage activities differ from those of many arbitrageurs. First, they participate in only a few, and usually very large, transactions each year. Most practitioners buy into a great many deals - perhaps 50 or more per year. With that many irons in the fire, they must spend most of their time monitoring both the progress of deals and the market movements of the related stocks. This is not how Munger and Buffett wish to spend their lives. What's the sense in getting rich just to stare at a ticker tape all day?
  - Also, they participate only in transactions that have been publicly announced. They don't trade on rumors or try to guess takeover candidates. They just read the newspapers, think about a few of the big propositions, and go by their own sense of probabilities.
  - Their arbitrage positions are a substitute for short-term cash equivalents. They engage in arbitrage from time to time - sometimes on a large scale - but only when they like the odds.
- An investor cannot obtain superior profits from stocks by simply committing to a specific investment category or style. He can earn them only by carefully evaluating facts and continuously exercising discipline. Investing in arbitrage situations, per se, is no better a strategy than selecting a portfolio by throwing darts.

- "You can't go broke taking a profit" - can you imagine a CEO using this line to urge his board to sell a star subsidiary? In Buffett's view, what makes sense in business also makes sense in stocks: an investor should ordinarily hold a small piece of an outstanding business with the same tenacity that an owner would exhibit if he owned all of that business.
- Obviously, every investor will make mistakes. But by confining himself to a relatively few, easy-to-understand cases, a reasonably intelligent, informed and diligent person can judge investment risks with a useful degree of accuracy.
- Buffett's goal is to find an outstanding business at a sensible price, not a mediocre business at a bargain price. They are trying to buy a businesses with favorable long-term economics.
- Buffet's equity-investing strategy is that he select his marketable equity securities in much the way he would evaluate a business for acquisition in its entirety. They want the business to be one
  1. that they can understand
  2. with favorable long-term prospects
  3. operated by honest and competent people
  4. available at a very attractive price
  - What's attractive? Most analysts feel they must choose between 2 approaches customarily thought to be in opposition: "value" and "growth". Indeed, many investment professionals see any mixing of the two terms as intellectual cross-dressing. Buffett and Munger view that as a fuzzy thinking (it must be confessed that Buffett engaged himself some years ago). In Buffet's opinion, the two approaches are joined at the hip: growth is always a component in the calculation of value, constituting a variable whose importance can range from negligible to enormous and whose impact can be negative as well as positive.
  - In addition, Buffet thinks that the term "value investing" is redundant. What is investing if it is not the act of seeking value at least sufficient to justify the amount paid? Consciously paying more for a stock than its calculated value - in the hope that it can soon be sold for a still-higher price - should be labeled speculation.
  - Whether appropriate or not, the term "value investing" is widely used. Typically, it connotes the purchase of stocks having attributes such as a low ratio of price to book value, a P/E ratio or a high dividend yield. Unfortunately, such characteristics, even if they appear in combination, are far from determinative as to whether an investor is indeed buying something for what it is worth and truly operating on the principle of obtaining value in his investments. Correspondingly, opposite characteristics - a high ratio of P/B value, high P/E ratio, and a low dividend yield - are in no way inconsistent with a "value" purchase.

## 2 *How The Masters Tell Us To Invest*

- Similarly, business growth, per se, tells us little about value. It's true that growth often has a positive impact on value, sometimes on of spectacular proportions. But such an effect is far from certain. Growth benefits investors only when the business in point can invest at incremental returns that are enticing - in other words, only when each dollar used to finance the growth creates over a dollar of long-term market value. In the case of a low-return business requiring incremental funds, growth hurts the investor.
- In *The Theory of Investment Value*, written in 1938, John Burr Williams set forth the equation for value, which we condense here: "The value of any stock, bond or business today is determined by the cash inflows and outflows - discounted at an appropriate interest rate - that can be expected to occur during the remaining life of the asset." Note that the formula is the same for stocks as for bonds. There is an important difference between the two: a bond has a coupon and maturity date that define future cash flows; but in the case of equities, the investment analyst must himself estimate the future "coupons." Furthermore, the quality of management affects the bond coupon only rarely - chiefly when management is so inept or dishonest that payment of interest is suspended. In contrast, the ability of management can dramatically affect the equity "coupons".
- The investment shown by the discounted-flows-of-cash calculation to be the cheapest is the one that the investor should purchase - irrespective of whether the business grows or doesn't, displays volatility or smoothness in its earnings, or carries a high price or low price in relation to its current earnings and book value. Moreover, though the value equation has usually shown equities to be cheaper than bonds, that result is not inevitable: when bonds are calculated to be the more attractive investment, they should be bought.
- Though the mathematical calculations required to evaluate equities are not difficult, an analyst can easily go wrong in estimating future "coupons". At Berkshire, they attempt to deal with this problem in two ways:
  - \* First, they try to stick to businesses they believe they understand. That means they must be relatively simple and stable in character. If a business is complex or subject to constant change, they are not smart enough to predict future cash flows. What counts for most people in investing is not how much they know, but rather how realistically they define what they don't know. An investor needs to do very few things right as long as he or she avoids big mistakes.
  - \* Second, they insist on a margin of safety in the purchase price. If they calculate the value of a common stock to be only slightly higher than its price, they are not interested in buying. They believe that this principle is the cornerstone of investment success.
- Buffet and Munger on fast-changing industry environment - these may offer the

chance for huge wins, but it precludes the certainty they seek. They welcome change - fresh ideas, new products, innovative processes, and the like cause that the USA's standard of living will rise. However, as investors, their reaction to a fermenting industry is much like their attitude toward space exploration: they applaud the endeavor but prefer to skip the ride.

- A few thoughts about index funds: most investors (both institutional and individual) will find that the best way to own common stocks is through an index fund that charges minimal fees. Those following this path are sure to beat the net results (after fees and expenses) delivered by the great majority of investment professionals. But there are few thoughts worth remembering. Intelligent investing is not complex, though that is far from saying that it is easy. What an investor needs is the ability to correctly evaluate \*selected\* businesses - you don't have to be an expert on every company, or even many. You only have to be able to evaluate companies within your circle of competence. The size of that circle is not very important; knowledge its boundaries, however, is vital. To invest successfully, you need not understand beta, efficient markets, modern portfolio theory, option pricing, or emerging markets. You may, in fact, be better off knowing nothing of these. In Buffett's view, investment students need only two well-taught courses (instead of those that are taught at most business schools) - how to value a business, and how to think about market prices.
  - Your goal as an investor should simply be to purchase, at a rational price, a part interest in an easily understandable business whose earnings are virtually certain to be materially higher 5, 10, and 20 years from now. Over time, you will find only a few companies that meet these standards - so when you see one that qualifies, you should buy a meaningful amount of stock. You must also resist the temptation to stray from your guidelines: if you aren't willing to own a stock for 10 years, don't even think about owning it for 10 minutes. Put together a portfolio of companies whose aggregate earnings march upward over the years, and so also will the portfolio's market value.
  - Many investors have had experiences ranging from mediocre to disastrous results, but American business has delivered terrific results in the last couple of dozens of years. There have been three primary causes:
    1. high costs - because usually investors traded excessively or spent far too much on investment management
    2. portfolio decisions based on tips and fads rather than on thoughtful, quantified evaluation of businesses
    3. start-and-stop approach to the market marked by untimely entries (after an advance has been long underway) and exits (after periods of stagnation or decline). Investors should remember that excitement and expenses are their enemies. And if they insist on trying to time their participation in equities, they should try to be fearful when others are greedy and greedy



only when others are fearful

- Leverage can be lethal to businesses. Companies with large debts often assume that these obligations can be refinanced as they mature. That assumption is usually valid. Occasionally, though, either because of company-specific problems or worldwide shortage of credit, maturities must actually be met by payment. For that, only cash will do the job. Even a short absence of credit can bring a company to its knees. In September 2008, in fact, its overnight disappearance in many sectors of the economy came dangerously close to bringing our entire country to its knees. Having a lot of liquidity lets them sleep well. Moreover, during the episodes of financial chaos that occasionally erupt in the economy, they will be equipped both financially and emotionally to play offense while others scramble for survival.

### **Warren Buffett on mergers and acquisitions**

- Berkshire's acquisition policy is the double-barred approach: buying portions or all of business with excellent economic characteristics and run by managers Buffett and Munger like, trust, and admire. Contrary to common practice, Buffett argues that in buying all of a business, there is rarely any reason to pay a premium.
- The rare cases involve businesses with franchise characteristics - those that can raise prices without impairing sales volume or market share and only require incremental capital investment to increase both. Even ordinary managers can operate franchise businesses to generate high returns on capital. The second category of rare cases is where extraordinary managers exist who can achieve the difficult feat of identifying underperforming businesses, and apply extraordinary talent to unlock hidden value.
- These two categories are extremely limited, and certainly do not explain the hundreds of high-premium takeovers that occur annually. Buffett attributes high-premium takeovers outside those unusual categories to 3 motives of buying managers: the thrill of an acquisition, the thrill of enhanced size, and excessive optimism about synergies.
- Buffett describes acquisitions as "buyer sells part of itself to acquire seller".
- Most acquisitions are value-decreasing, Buffett says. Finding the best value-enhancing transactions requires concentrating on opportunity costs, measured principally against the alternative of buying small pieces of excellent businesses through stock market purchases. Such concentration is alien to the manager obsessed with synergies and size, but a vital part of Berkshire's double-barreled investment approach.
- Berkshire has additional advantages in acquisitions: a high quality stock to pay with and a substantial amount of managerial autonomy to offer once a deal is done

- both rare in an acquiring company, Buffett says. Buffet also puts his money where his mouth is, reminding prospective sellers that Berkshire has acquired many of its businesses from family or other closely held groups, and inviting them to check with every previous seller about Berkshire's initial promises measured against its later actions. In short, Berkshire seeks to be the buyer of choice for attractive business sellers - a lesson so important that it explains why Buffett prefers to retain rather than sell even those acquired businesses that struggle against business headwinds.
- Over time, the skill with which a company's managers allocate capital has an enormous impact on the enterprise's value. Almost by definition, a really good business generates far more money (at least after its early years) than it can use internally. The company could, of course, distribute the money to shareholders by way of dividends or share repurchases. But often the CEO asks a strategic planning staff, consultants or investment bankers whether an acquisition or two might make sense. That's like asking your interior decorator whether you need a \$50,000 rug.
  - *"At Berkshire, our managers will continue to earn extraordinary returns from what appear to be ordinary businesses. At a first step, these managers will look for ways to deploy their earnings advantageously in their businesses. What's left, they will send to Charlie and me. We then will try to use those funds in ways that build per-share intrinsic value. Our goal will be to acquire either part or all of businesses that we believe we understand, that have good, sustainable underlying economics, and that are run by managers whom we like, admire and trust."*
  - Berkshire is looking for:
    1. Large purchases
    2. Demonstrated consistent earning power (future projections are of no interest to them, nor are turnaround situations)
    3. Businesses earning good returns on equity while employing little or no debt
    4. Management in place (they can't supply it)
    5. Simple businesses (if there is lots of technology, they won't understand it)
    6. An offering price (they don't want to waste their time or that of the seller by talking, even preliminarily, about a transaction when price is unknown)
  - Berkshire offers some advantages that most buyers do not. Practically all of these buyers will fall into one of two categories:
    1. A company located elsewhere but operating in your business or in a business somewhat akin to yours. Such a buyer - no matter what promises are made - will usually have managers who feel they know how to run your business operations and, sooner or later, will want to apply some hands-on "help". If the acquiring company is much larger, it often will have squads of managers,

recruited over the years in part by promises that they will get to run future acquisitions. They will have their own way of doing things and, even though your business record undoubtedly will be far better than theirs, human nature will at some point cause them to believe that their methods of operating are superior. You and your family probably have friends who have sold their businesses to larger companies, and I suspect that their experiences will confirm the tendency of parent companies to take over the running of their subsidiaries, particularly when the parent knows the industry, or think it does.

2. A financial maneuver, invariably operating with large amounts or borrowed money, who plans to resell either to the public or to another corporation as soon as the time is favorable. Frequently, this buyer's major contribution will be to change accounting methods so that earnings can be presented in the most favorable light just prior to his bailing out. This sort of transaction is becoming much more frequent because of a rising stock market and the great supply of funds available for such transactions.

Berkshire is another kind of buyer - a rather unusual one. Berkshire buys to keep, but Berkshire doesn't have, and doesn't expect to have, operating people in Berkshire's parent organization. All of the businesses they own are run autonomously to an extraordinary degree. In most cases, the managers of important businesses Berkshire has owned for many years have not been to Omaha or even met each other. When Berkshire buys a business, the sellers go on running it just as they did before the sale - Berkshire adapts to their methods rather than vice versa. The areas Buffett gets involved are in capital allocation and selection and compensation of the top man. Other personnel decisions, operating strategies etc are his bailiwick. Some Berkshire managers talk over some of their decisions with Buffett, some don't. It depends upon their personalities and, to an extent, upon their own personal relationship with Buffett. If a company decides to do business with Berkshire, they would pay in cash. The business would not be used as collateral for any loan by Berkshire. There would be no brokers involved.

### **Peter Lynch**

- Invest where you already spend most of your time. Lynch recalls several good investments he discovered by just living his life. Look where you work, pay attention to what you buy, and observe the buying habits of those around you.
- He recommends looking at company size first. Big companies make small stock moves, small companies make big stock moves. It's important to know the size of companies you're considering. After that, you should divide them into 6 categories: slow growers, stalwarts, cyclicals, fast growers, turnarounds, and asset plays. The intent here is simply to know what kind of company you're investing in. Don't

## *2 How The Masters Tell Us To Invest*

expect fast growth from a slow grower. It's important to know what you are buying. And also, companies move from category to category over time.

- Protect against trouble by investing in companies with a lot of cash and little debt. This can be seen as Lynch's margin of safety.
- Check P/E ratio and other measures of value. Lynch's rule of thumb is that a company's P/E ratio should equal its earnings growth rate. "If the P/E is less than the growth rate, you may have found yourself a bargain."
- You want company insider buying the stock, and you want the company itself buying back shares.
- Lynch finds opportunities in both value and growth stocks.
- Know why you buy. Deliver a two-minute monologue to yourself summarizing the reasons you're buying.
- Lynch invests in the old-fashioned way - he owned stocks where results depend on ancient fundamentals - a successful company enters new markets, its earnings rise, and the share price follows along. Or a flawed company turns itself around. His typical winner generally takes 3-10 years or more to play out.
- Shorting a stock. During all the time you borrow the shares, the rightful owner gets all the dividends and other benefits, so you are out of money there. The scary part about shorting stock is that even if you're convinced that the company's in lousy shape, other investors might not realize it and might even send the stock price higher. And if you don't have an extra money to put into your account to hold your position, you may be forced to liquidate at a huge loss. Also, if you've shorted something that's going up, you began to realize that there's nothing to stop it from going to infinity, because there's no ceiling on a stock price. Infinity is where a shorted stock always appears to be heading. Among all the tales of successful short sellers are the horror stories of shorters who watched helplessly as their favorite lousy stocks soared higher and higher, against all reason and logic, forcing them into the poorhouse.
- Derivatives. Lynch never bought a future nor an option in his entire investing career. It's hard enough to make money in regular stocks without getting distracted by these side bets, which he's told are nearly impossible to win unless you're a professional trader. Very nasty thing about options is that they are expensive. They may not see expensive, until you realize that you have to buy 4-5 sets of them to cover stock for a year. Options are a zero-sum game, don't forget. Options don't finance anything, you are not contributing something to the growth of the country. That's what stocks are for. There's a lot of talk these days about the use of futures and options as portfolio insurance to protect your investments in stocks. But you have to buy a new contracts regularly once old ones expires, and it's expensive.

You can waste 5-10% of your entire investment stake every year to protect yourself from a 5-10% decline.

**Favorable attributes of a good business**

- It sounds dull, or even better, ridiculous. Perfectly simple business with perfectly boring name. The trick is to find such company that no one cares about, and no one realizes how profitable it is.
- It does something dull. When a company with a boring name does something boring, it's even better. Look for terrific earnings and strong balance sheet. And then, when it becomes trendy and overpriced, you can sell all our shares to the trend-followers.
- It does something disagreeable. Or disgusting, or dirty such as removing dirty sludge and oil from machines. Again, look for increased earnings.
- It's a spin-off or division or parts of companies that are separate, freestanding entities - often result in astoundingly lucrative investments. They must have strong balance sheets and be well-prepared to succeed as independent entities. Once these companies are granted their independence, the new management, free to run its own show, can cut costs and take creative measures that improve the near-term and long-term earnings. Spin-off companies are often misunderstood and get little attention from Wall Street. Month or two after a spin-off is completed, you can check to see if there is heavy insider buying among the new officers and directors.
- The institutions don't own it, and the analysts don't follow it. If you find a stock with little or no institutional ownership, you've found a potential winner. Also, once-popular stocks that professionals have abandoned.
- Rumors: it's involved with toxic waste and/or mafia. Waste management is a very good industry for example. It disturbs people and it's sewage and toxic waste dumps.
- There is something depressing about it. Mortality and burials companies.
- It's a no-growth industry. That's where the biggest winners are developed according to Lynch. For every single product in a hot industry, there are a thousand MIT graduates trying to figure out how to make it cheaper in Taiwan. As soon as a computer company designs the best word-processor, ten other competitors are spending \$100 million to design a better one, and it will be on the market in 8 months. This doesn't happen with bottle caps or motel chains. In no-growth industry, especially one that's boring and upsets people, there's no problem with competition, so good competitive moat.
- It's got a niche. Also a competitive moat. Once you've got an exclusive franchise in anything, you can raise prices. Drug companies and chemical companies have

niches - products that no one else is allowed to make. It took years to get patent for something and once it's approved, all the rival companies with their billions in research dollars can't invade the territory.

- Insiders are buying. You can be certain that at a minimum, the company will not go bankrupt in the next 6 months. Especially when employees with lower salaries (than CEOs and management) are buying. Insider selling usually means nothing, and it's silly to react to it. If nine officers were selling majority of their shares, it's different thing of course. But in normal situations insider selling isn't an automatic sign of trouble within a company. Maybe they need a money to pay their children's tuition of buy a new house, or just rebalance their portfolio. But there's only one reason that insiders buy - they think that stock price is undervalued and will eventually go up.
- Company is buying back shares. It is the simplest and best way a company can reward its investors. When stock is bought in by the company, it's taken out of circulation, therefore shrinking the number of outstanding shares. This can have a magical effect on earnings per share, which in turn has a magical effect on the stock price. Similar result can a company get by cutting costs or selling more widgets. The common alternatives to buying back shares are: raising the dividend, developing new products, starting new operations, and making acquisitions. Reverse of buying shares is adding more shares - diluting. This can be beneficial for raising cash to help survive a financial crisis for example.

### **Stocks to avoid**

- Hottest stock in the hottest industry with the most favorable publicity that every investor hears about. These stocks goes up fast (months or a year), usually out of sight of any of the known landmarks of value, but there is nothing but hope, they fall just as quickly. If you aren't clever at selling hot stocks (and the fact that you've bought them is a clue that you won't be), you'll soon see your profits turn into losses, because when the price falls, it's not going to fall slowly, nor it's likely to stop at the level where you jumped on. Check earnings and balance sheet!
- Beware the next something. "The next something" is almost never the next something. In fact, when people tout a stock as the next something, it often marks the end of prosperity not only for the imitator but also for the original to which it is being compared.
- Avoid foolish acquisitions.
- Wait for earnings. Why not put off buying the stock until later, when the company has established a record? Wait for the earnings. You can get tenbaggers in companies that have already proven themselves. When in doubt, tune in later.

## *2 How The Masters Tell Us To Invest*

- Beware the middleman. The company that sells 25 to 50% of its wares to a single customer is in a precarious situation. If the loss of one customer would be catastrophic to a supplier, I'd be wary of investing in the supplier.
- Beware the stock with the exciting name. As often as a dull name in a good company keeps early buyers away, a flashy name in a mediocre company attracts investors and gives them a false sense of security. Especially if there is "advanced", "leading", "micro", or something with X in it, people will fall in love with it.

### **When to sell**

- Lynch stays in the market forever, and he is rotating stocks depending on the fundamental situations. Rotating in and out of stocks depending on what has happened to the price as it relates to the story. For instance, if a stalwart has gone up 40%, and nothing wonderful has happened with the company to make me think there are pleasant surprises ahead, it's good to sell the stock and replace it with another stalwart that is attractive and hasn't gone up. If you don't want to sell all of it, then you can sell some of it.
- By successfully rotating in and out of several stalwarts for modest gains, you can get the same result as you would with a single big winner: six 30% moves compounded equals a four-bagger plus, and six 25% moves compounded is almost four-bagger.
- Lynch keeps fast growers as long as the earnings are growing and the expansion is continuing, and no impediments have come up. Every few months it's good to recheck the story as if you were hearing it for the first time. The same for cyclicals and turnarounds. Get out of situations in which the fundamentals are worse and the price has increased, and into situations in which the fundamentals are better and the price is down.
- A price drop in a good stock is only a tragedy if you sell at that price and never buy more. Price drop is an opportunity to load up on bargains from among your worst performers and your laggards.
- Lynch always detested stop orders.
- Don't exit prematurely because of someone else's opinion! It's a shame to sell if you've found the right stock and bought it, all the evidence tells you it's going higher, and everything is working in your direction.
- If interest rates goes up, stock market goes down.
- It's normally harder to stick with a winning stock after the price goes up than it is to believe in it after the price goes down. Lynch advises that if you feel there's a danger of being faked out, it's good to review the reasons why you bought it in the first place.

- According to Lynch, there are some “timing” opportunities in general:
  - The end of the year tax selling - the severe drops are between October and December (some studies shows September and October). If you have a list of companies that you’d like to own if only the stock price were reduced, the end of the year is a likely time to find the deals you’ve been waiting for.
  - During collapses, drops, burps, hiccups, free-falls, that occur in the stock market every few years.

### Company categorization and strategies

Once the size of the company relative to others in a particular industry is established, the next step is to place it into one of six general categories (there are many other possible ways of classifying stocks, but these should cover all useful distinctions that any investor has to make):

#### 1. Slow growers (low risk, low gain)

- Usually large and aging companies, they are expected to grow slightly faster than the GNP. They didn’t start out that way. They started as fast growers and eventually pooped out - maybe they had gone as far as they could, or else they got too tired to make the most of their changes. When an industry at large slows down (as they always seem to do), most of the companies within the industry lose momentum as well.
- Sooner or later every popular fast-growing industry becomes a slow-growing industry, and numerous analysts are fooled. There is always a tendency to think that things will never change, but inevitably they do.
- Another sign of a slow grower is that it pays a generous and regular dividend. Companies pay generous dividends when they can’t dream up new ways to use the money to expand the business.
- We won’t find a lot of 2-4% growers in Lynch’s portfolio, because if companies aren’t going anywhere fast, neither will the price of their stocks. If growth in earnings is what enriches a company, then what’s the sense of wasting time on slow growers?
- If you start thinking about slow grower, it’s probably for its dividends, so you have to carefully check whether a company can give you them in the future. Also payout ratio - low % means that the company has a cushion in hard times. It can earn less money and still retain the dividend. If the percentage is higher, the dividend is riskier.
- **Selling** - if the price goes up by 30-50%, the company has lost market share for 2 consecutive years, no new products are being developed, spending on research and development is curtailed, and the company appears to be resting on its laurels. Two recent acquisitions of unrelated business look like



diworsefications and the company announces it is looking for further acquisitions "at the leading edge of technology". The company has paid so much for its acquisitions that the balance sheet has deteriorated from no debt and millions in cash to no cash and millions in debt. Even at a lower stock price the dividend yield will not be high enough to attract much interest from investors.

### 2. **Stalwarts (low risk, moderate gain)**

- These are companies such as Coca-Cola. These multibillion-dollar hulks are not exactly agile climbers, but they're faster than slow growers. These have 10-12% annual growth in earnings. Depending on when you buy them and at what price, you can make a sizable profit in stalwarts. But it depends on how long it can take to make some money on a given stalwart. If you own a stalwart and the stock's gone up 50% in a year or two, you have to wonder if maybe that's enough and begin to think about selling. How much you can expect to squeeze out of Colgate-Palmolive? You aren't going to become a millionaire off it the way you could with fast growers, unless there is some startling new development. Fifty percent in two years is what you'd be delighted to get from stalwart in most normal situations. With stalwarts you have to consider taking profits more readily. They are stocks that Lynch generally buys for a 30-50% gain, then sell and repeat the process with similar issues that haven't yet appreciated.
- Lynch always keeps some stalwarts in his portfolio because they offer pretty good protection during recessions and hard times.
- If you start thinking about stalwart, then the key issues are the price, P/E ratio, whether the stock already has had a dramatic run-up in price in recent months, and what, if anything, is happening to accelerate the growth rate. Also check the company's long term growth rate, and whether it has kept up the same momentum in recent years.
- If you're planning to keep the company forever, see how the company has fared during previous recessions and market drops.
- **Selling** - rotating them frequently with others in the category. There is no point in expecting a quick tenbagger in a stalwart, and if the stock price gets above the earnings line, or if the p/e strays too far beyond the normal range, you might think about selling it and waiting to buy it back later at a lower price - or buying something else. New products introduced in the last 2 years have had mixed results, and others still in the testing stage are a year away from the marketplace. The stock has a P/E of 15 while similar-quality companies in the industry have P/E of 11-12. No officers or directors have bought shares in the last year. A major division that contributes 25% of earnings is vulnerable to an economic slump that's taking place. The company's growth rate has been slowing down, and though it's been maintaining profits by cutting costs, future cost-cutting opportunities are limited.

3. **Fast growers (high gain, high risk)**

- These are small, aggressive new enterprises that grow at 20-25% a year. If you choose wisely, this is the land of 10-40 baggers, and even 200-baggers. Fast-growing company doesn't necessarily have to belong to a fast growing industry. Actually, Lynch prefers slower industries. These enterprises learned to succeed in one place, and then to duplicate the winning formula over and over, mall by mall, city by city. The expansion into new markets results in the phenomenal acceleration in earnings that drives the stock price to the highs.
- There is plenty of risk in fast growers, especially in the younger companies that tend to be overzealous and under-financed. Also, Wall Street does not look kindly on fast growers that run out of stamina and turn into slow growers, and when that happens, the stocks are beaten down accordingly. While slow fast growers risk extinction, the larger fast growers risk a rapid devaluation when they begin to falter. Once a fast grower gets too big, there is simply no place for it to stretch out. But for as long as they can keep it up, fast growers are the big winners in the stock market. Look for good balance sheets and those that are making substantial profits. The trick is to figuring out when they'll stop growing, and how much to pay for the growth.
- If you start thinking about fast grower, then where and how can it continue to grow? Can it successfully duplicate its business model in another city or state - did it already proven? What about debt and niche? Does the idea work elsewhere? Does the product that's supposed to enrich the company is a major part of the company's business? What the growth rate in earnings has been in recent years (20-25% are the best). Lynch is worried about companies with the growth faster than 25%. Those 50% are usually in hot industries, that can drop down very quickly. Is there still a room to grow? Is the stock selling at a P/E ratio at or near the growth rate?
- **Selling** - the trick here is not to lose the potential tenbagger. The main thing to watch for is the end of the second phase of rapid growth. Unlike the cyclical where the P/E ratio gets smaller near the end, in a growth company the P/E usually gets bigger, and it may reach absurd and illogical dimensions. Same store sales are down 3% in the last quarter. New store results are disappointing. Top executives or key employees leave to join a rival firm. The stock is selling at a P/E of 30, while the most optimistic projections of earnings growth are 15-20% for the next 2 years.

4. **Cyclicals (low risk and high gain, or high risk and low gain, depending on how adept you are at anticipating cycles)**

- These are companies whose sales and profits rise and fall in regular if not completely predictable fashion. In a growth industry, business just keeps expanding, but in a cyclical industry, it expands and contracts, then expands

and contracts again. Autos, airlines, tire companies, steel companies, chemical companies are all cyclical. For example Ford is a cyclical.

- Coming out of a recession and into a vigorous economy, the cyclicals flourish and their stock prices tend to rise much faster than the price of the stalwarts. This is understandable, since people buy new cars and take more airplane trips in a vigorous economy, and there's greater demand for steel, chemicals, etc. But going other direction, you can lose more than 50% of your investment very quickly if you buy cyclicals in the wrong part of the cycle, and it may be years before you'll see another upswing.
- Cyclicals are the most misunderstood of all the types of stocks. It is here that the unwary stock-picker is most easily parted from his money, and in stocks that he considers safe. Because the major cyclicals are large and well-known companies, they are naturally lumped together with the trusty stalwarts.
- Timing is everything in cyclicals, and you have to be able to detect the early signs that business is falling off or picking up. It's really good to have an edge when investing into cyclicals.
- If you start thinking about cyclical company, then you think about business conditions, inventories, and prices. Keep a close watch on inventories and supply-demand relationship. Watch for new entrants into the market, which is usually a dangerous development. Anticipate a shrinking P/E over time as business recovers and investors look ahead to the end of the cycle, then peak earnings are achieved. Try to figure out the end of the cycle, there always are. It is much easier to predict an upturn in a cyclical industry than it is to predict a downturn.
- **Selling** - The best time is toward the end of the cycle, but it's difficult to do. Rising inventories, falling commodity prices, of the future price of a commodity is lower than the current price. Competition businesses. Final demand for the product is slowing down. The company has tried to cut costs but still can't compete with foreign producers.

### 5. Asset plays (low risk, moderate-high gain, if you are sure of the value of the assets)

- This is any company that's sitting on something valuable that you know about, but that the Wall Street crowd has overlooked. Local edge can be used to greatest advantage. The asset may be as simple as a pile of cash. Sometimes it's real estate.
- Asset opportunities are everywhere. They require a working knowledge of a company that owns the assets, but once that's understood, all you need is patience.
- If you start thinking about asset play, then you have to determine what are the assets and how much are they worth. Is the company taking on new debt, making the assets less valuable?

- It's hard for amateurs to find a good asset stock!
- **Selling** - The institutional ownership has risen from 25% five years ago to 60% today. The reduction in the corporate tax rate considerably reduces the value of the company's tax-loss carry forward. The division that was expected to be sold for \$20 million only brings \$12 million in the actual sale.

#### 6. Turnarounds (high gain, high risk)

- They are battered and depressed. These are not slow growers, these are no growers. These aren't cyclical that rebound, these are potential fatalities. These can be ex-cyclicals that went so far down in a down cycle that people think that it can never come back up. A poorly managed cyclical is always a potential candidate for the kind of trouble that can end up being a fatality.
- These stocks make up lost ground very quickly. The best thing about investing in successful turnarounds is that of all the categories of stocks, their ups and downs are least related to the general market.
- In the absolute dollars, Lynch get his greatest profits from the revival of turnarounds. But he also bought lots of companies that went bankrupt. In spite of this, the occasional major success makes the turnaround business very exciting and very rewarding as well. But be careful and try to stay away from the tragedies where the outcome is unmeasurable.
- There are many kinds of turnarounds. For example, there are perfectly-good-company-inside-a-bankrupt-companies. Or, the restructuring-to-maximize-shareholder-values kind of turnaround. Restructuring is a company's way of ridding itself of certain unprofitable subsidiaries it should never have acquired in the first place. Lynch calls it diworsification. The only positive aspect is that some companies that diworsefy themselves into sorry shape are future candidates for turnarounds.
- If you start thinking about turnaround, then you are asking questions about - has the company gone about improving its fortunes and is the plan working so far? Can the company survive a raid by its creditors? How much cash it has? How much debt? What is the debt structure? How long it can operate while working out its problems without going bankrupt? How the company is supposed to be turning around? Has it rid itself of unprofitable divisions? Are costs being cut? If so, what will the effect be?
- **Selling** - Debt, which has declined for 5 straight quarters, just those in the latest quarterly report. Inventories are rising at twice the rate of sales growth. The P/E is inflated relative to earnings prospects. The company's strongest division sells 50% of its output to one leading customer, and that leading customer is suffering from a slowdown in its own sales.

Companies don't stay in the same category forever. Some companies can fall into two categories at once. Disney has been in all category over its lifetime. Also, putting stocks

in categories is the first step in developing the story!! Now at least you know what kind of story it's supposed to be. The next step is filling the details that will help you guess how the story is going to turn out. Getting the story is a lot easier if you understand the basic business. Simpler it is, the better. When somebody says "Any idiot could run it", then it's a plus, because sooner or later any idiot probably is going to be running it. If it's a choice between owning stock in a fine company with excellent management in a highly competitive and complex industry, or a humdrum company with mediocre management in a simple-minded industry with no competition, Lynch would prefer the latter. "Any idiot can run this business" is one characteristic of the perfect company, the kind of stock Lynch wants.

So firstly you decided what category a stock is in, then P/E ratio (check Chapter Valuation) has given you a rough idea of whether the stock is currently roughly undervalued or overvalued, and then the next step for Lynch is to learn as much possible about what the company is doing. It's story must be developed.

### **Some takeaways from Peter Lynch**

- don't overestimate the skill and wisdom of professionals
- look for opportunities that haven't yet been discovered and certified by Wall Street - companies that are "off the radar scope"
- the average person is exposed to interesting local companies and products years before the professionals
- common stocks are not for everyone, not even for all phase of a person's life
- by putting your stocks into categories you'll have a better idea of what to expect from them.
- big companies have small moves, small companies have big moves
- consider the size of a company if you expect it to profit from a specific product
- look for small companies that are already profitable and have proven that their concept can be replicated
- be suspicious of companies with growth rates or 500-100% a year
- avoid hot stocks in hot industries
- long shots almost never pay off
- it's better to miss the first move in a stock and wait to see if a company's plans are working out
- carefully consider P/E ratio. If the stock is grossly overpriced, even if everything else goes right, you won't make any money.

## *2 How The Masters Tell Us To Invest*

- look for companies that consistently buy back their own shares
- study the dividend record of a company over the years and also how its earnings have fared in past recessions
- look for companies with little or no institutional ownership
- devote at least an hour a week to investment research
- buying stocks based on stated book value alone is dangerous and illusory. It's real value that counts.
- When doubt, tune in later
- according to Lynch, some people are satisfied with 25% or more of annual return from stock market. Satisfied? At that rate they'd soon own half the USA. Sometimes you make 30%, sometimes 2%, or even lose 20%. That's part of the scheme of things, you have to accept it. If you expect to make 30% year after year, you're more likely to get frustrated at stocks for defying you, and your impatience may cause you to abandon your investments at precisely the wrong moment. Or you can take unnecessary risks in the pursuit of illusory payoffs. Your long-term gains can be maximized only by sticking to a strategy through good years and bad.
- Lynch advised, that in small portfolios, he'd be comfortable owning between 3-10 stocks
- Lynch used to keep not more than 30-40% in growth stocks (so, not 100%!), 10-20% in stalwarts, 10-20% in cyclical, and the rest in turnarounds.
- Lynch was rotating funds between stocks. That was a very important strategy to his success. The more stocks you own, the easier it is.
- trying to predict the direction of the market over 1 or 2 years is impossible.
- to come out ahead you don't have to be right all the time, or even a majority of the time
- different categories of stocks have different risks and rewards
- you can make serious money by compounding a series of 20-30% gains in stalwarts
- stock prices often move in opposite directions from the fundamentals but long term, the direction and sustainability of profits will prevail
- selling an outstanding fast grower because its stock seems slightly overpriced is a losing technique
- companies don't grow for no reason, nor do fast growers stay that way forever
- dangerous things investors say

## 2 How The Masters Tell Us To Invest

- If it's gone down this much already, it can't go much lower. There is simply no rule that tells you how low a stock can go in principle.
- You can always tell when a stock's hit bottom. Bottom fishing is a popular investor pastime, but it's usually the fisherman who gets hooked. Trying to catch the bottom on a falling stock is like trying to catch a falling knife. It's good idea to wait until the knife hits the ground and sticks, then vibrates for a while and settles down before you try to grab it.
- If it's gone this high already, how can it possibly go higher. Shame on all those experts who advise clients to sell automatically after they double their money. They'll never get a tenbagger doing that.
- It's only \$3 a share, what can I lose? Whether a stock costs \$50 a share or \$1 a share, if it goes to zero, you still lose everything. A lousy cheap stock is just as risky as a lousy expensive stock.
- Eventually they always come back.
- Conservative stocks don't fluctuate much. Companies are dynamic and prospects change. There simply isn't a stock you can own that you can afford to ignore.
- It's taking too long for anything to ever happen. If you give up on a stock because you're tired of waiting for something wonderful to happen, then something wonderful will begin to happen the day after you get rid of it. It takes remarkable patience to hold on to a stock in a company that excites you, but which everybody else seems to ignore. You begin to think everybody else is right and you are wrong. But where the fundamentals are promising, patience is often rewarded. It can take 2 or even 15 years.
- The stock's gone up, so I must be right, or the stock's gone down so I must be wrong. A stock's going up or down after you buy it only tells you that there was somebody who was willing to pay more - or less - for the identical merchandise.

### Howard Marks

Note: We wrote quite a lot about Howard Marks in Chapter 3.

- There are two sources of errors:
  - **analytical/intellectual** - we collect too little information or incorrect information. Or perhaps we apply the wrong analytical processes or omit ones we should have performed. "Failure of imagination" can belong into this category as well - either being unable to conceive of the full range of possible outcomes or not fully understanding the consequences of the more extreme occurrences.
  - **psychological/emotional** - greed and fear, willingness to suspend disbelief and skepticism, ego and envy, the drive to pursue high returns through risk bearing and the tendency to overrate one's foreknowledge. Also failure to recognize market cycles and manias and move in the opposite direction.

## 2 How The Masters Tell Us To Invest

- Most trends - both bullish and bearish - eventually become overdone, profiting those who recognize them early but penalizing the last to join.
- Most of the time the future is like the past, so extrapolation doesn't do any harm. But at the important turning points, when the future stops being like the past, extrapolation fails and large amounts of money are either lost or not made. Relying to excess on the fact that something "should happen" can kill you when it doesn't. Even if you properly understand the underlying probability distribution, you can't count on things happening as they're supposed to. And the success of your investment actions shouldn't be highly dependent on normal outcomes prevailing; instead, you must allow for outliers.
- Many investors assume the world runs on orderly processes that can be mastered and predicted. They ignore the randomness of things and the probability distribution that underlies future developments. Thus, they opt to base their actions on the one scenario they predict will unfold. This works sometimes, but not consistently enough to produce long-term success. In both economic forecasting and investment management, it's worth noting that there's usually someone who gets it exactly right...but it's rarely the same person twice. The most successful investors get things "about right" most of the time, and that's much better than the rest.

### Risk

- Howard Marks: understand it, recognize it when it's high, and control it.
- Riskier investments involve greater uncertainty regarding the outcome, as well as the increased likelihood of some painful ones. So riskier investments are those for which the outcome is less certain. That is, the probability distribution of returns is wider.
- Risk is the likelihood of losing money. The possibility of permanent capital loss is the only risk to worry about. Risk means uncertainty about which outcome will occur and about the possibility of loss when the unfavorable ones do. Risk exists only in the future, and it's impossible to know for sure what the future holds.
- Return alone - and especially return over short periods of time - says very little about the quality of investment decisions. Return has to be evaluated relative to the amount of risk taken to achieve it. And yet, risk cannot be measured.
- *"The greatest risk doesn't come from low quality or high volatility. It comes from paying prices that are too high. This isn't a theoretical risk; it's very real."* High price both increases risk and lowers returns.
- Given the difficulty of quantifying the probability of loss, investors who want some objective measure of risk-adjusted return - and they are many - can only look to the so-called Sharpe ratio. It's the ratio of a portfolio's excess return (its return



above "risk-less rate" - rate of short-term Treasury bills) to the standard deviation of the return. According to Howard Marks, it's the best we have. While it says nothing explicitly about the likelihood of loss, there may be reason to believe that the prices of fundamentally riskier securities fluctuate more than those of safer ones, and thus the Sharpe ratio has some relevance. However, it doesn't do a good job of measuring risk of future loss.

- Worry and its relatives, distrust, skepticism and risk aversion are essential ingredients in a safe financial system. Worry keeps risky loans from being made, companies from taking on more debt than they can service, portfolios from becoming overly concentrated, and unproven schemes from turning into popular manias. When risk aversion are present as they should be, investors will question, investigate and act prudently. Investment risk comes primarily from too-high prices, and too-high prices often come from excessive optimism and inadequate skepticism and risk aversion.
- Risk arises as investor behavior alters the market. Investors bid up assets, accelerating into the present appreciation that otherwise would have occurred in the future, and thus lowering prospective returns. And as their psychology strengthens and they become bolder and less worried, investors cease to demand adequate risk premiums. The ultimate irony lies in the fact that the reward for taking incremental risk shrinks as more people move to take it. Thus, the market is not a static arena in which investors operate. It is responsive, shaped by investors' own behavior. Their increasing confidence creates more that they should worry about, just as their rising fear and risk aversion combine to widen risk premiums at the same time as they reduce risk. "I wouldn't buy that at any price - everyone knows it's too risky." That's something Howard has heard a lot in his life, and it has given rise to the best investment opportunities he has participated in. The truth is, the herd is wrong about risk at least as often as it is about return.
- Risk may have been present even though loss didn't occur. Therefore, the absence of loss does not necessarily mean the portfolio was safely constructed. The risk control is invisible in good times but still essential, since good times can so easily turn into bad times. Loss is what happens when risk meets adversity. Risk gives rise to loss only when negative events occur in the environment.
- A good builder is able to avoid construction flaws, while a poor builder incorporates construction flaws. When there are no earthquakes, you can't tell the difference. Likewise, an excellent investor may be one who - rather than reporting higher returns than others - achieves the same return but does so with less risk (or even achieves a slightly lower return with far less risk). Controlling the risk in your portfolio is a very important and worth-while pursuit. The fruits, however, come only in the form of losses than don't happen. Such what-if calculations are difficult in placid times. This is the ultimate paradox of risk management.

- Risk control is the best route to loss avoidance. Risk avoidance, on the other hand, is likely to lead to return avoidance as well. The road to long-term investment success runs through risk control more than through aggressiveness. Over a full career, most investors' results will be determined more by how many losers they have, and how bad they are, than by the greatness of their winners. Skillful risk control is the mark of the superior investor.
- Investment risk resides most where it is least perceived, and vice versa:
  - When everyone believes something is risky, their unwillingness to buy usually reduces its price to the point where it's not risky at all. Broadly negative opinion can make if the least risky thing, since all optimism has been driven out of its price.
  - And, of course, as demonstrated by the experience of Nifty Fifty investors, when everyone believes something embodies no risk, they usually bid it up to the point where it's enormously risky. No risk is feared, and thus no reward for risk bearing - no "risk premium" - is demanded or provided. That can make the thing that's most esteemed the riskiest.

### **William O'Neil**

- Founder of Investor's Business Daily, national competitor of The Wall Street Journal.
- He created a system for finding growth stocks called CAN SLIM. O'Neil stresses that every one of the attributes must apply to a company for him to invest in it.
  - C: Current quarterly earnings per share should be accelerating. It should be increased compared to the same quarter from the prior year. "The percentage increase in earnings per share is the single most important element in stock selection today." Bigger increases are better than the little ones, but investors should be careful not to be misled by huge increases over tiny ones from the previous year.
  - A: Annual earnings per share should be accelerating. Similar to the quarterly earnings increases, O'Neil wants to see each year's annual earnings per share for the past 5 years bigger than the prior year's earnings. A company should be growing at least 25% per year, preferably 50% or 100%.
  - N: New something or other should be driving the stock to new highs. Here, O'Neil is flexible but he wants to see something new that is positively affecting the company's future. New product or service, new conditions in the company's industry, or a new management team. O'Neil likes to buy stocks pushing new highs. Cheap stocks are usually cheap for a reason.
  - S: Supply of stock should be small and demand should be high. Supply and demand affect the price of everything, including stocks. If two stocks are

steaming upward at the same pace, the one with fewer shares outstanding will perform better - because there are fewer shares for the people who want to buy it. All factors being equal, the smaller company should be the "rip-roaring performer".

- L: Leaders in an industry should be your target. Stocks with the best relative price strengths.
  - I: Institutional sponsorship should be moderate. Demand needs to be high to drive stock prices higher. Institutional buying is the best source of demand in the stock market. Mutual funds, pension plans, banks, government bodies, and insurance companies are all institutional investors. They buy millions of shares at once. O'Neil likes his stocks to be owned by a few institutions. Too many can mean that the stock is over-owned. In that case, so many institutions own the stock that if they all react the same way to news, the stock might get dumped and its price will drop.
  - M: Market direction should be upward. Keep an eye on daily price and volume charts of several different market averages such as the Dow, S&P 500, NASDAQ composite, etc.
- Ignore valuation, such as P/E ratios completely and focus on earnings acceleration.
  - "Sell your worst-performing stocks first and keep your best-acting investments a little longer." That means you shouldn't average down, a common practice of adding more money to your stocks that have fallen in price to buy additional shares at a discount.
  - Like Graham, O'Neil likes automation. He uses stop losses. O'Neil stops his losses at 8% of new money placed in a stock. He's specific on the new money requirement. If you own a stock that's risen 50% and it slides back 10%, that's not necessarily a time to stop losses because overall you're ahead 40%. It's only with the addition of new money, when a loss means you're actually behind, that O'Neil advocates stopping losses.
  - While he abhors averaging down, O'Neil advocates averaging up, also called pyramiding. The plan is simply to move more money into your stocks that are increasing in value. This is the opposite of stopping losses when you're wrong. Pyramiding magnifies winnings when you're right. "Your objective in the market was not to be right but to make big money when you were right." If the stock rises, pyramid more money into it up to 5% past the buying point.
  - If a stock rises 20% in less than 8 weeks, commit to holding at least 8 weeks. After that time period, analyze the stock to see if you think it will rise even higher.
  - He believes that a focused portfolio is better than a diversified one. He emphasizes that "the winning investor's objective should be to have one of two big winners rather than dozens of very small profits." It's best to make gradual moves into and

## *2 How The Masters Tell Us To Invest*

out of a stock. Too many people are hesitant to move their money. To overcome this hesitation, he recommends buying and selling in parcels. If you own a stock you love and it starts dropping in value, sell part of it as an insurance policy. If it rebounds, fine. You made back part of the loss with the money you kept in the stock. Like all insurance policies, you won't always need to use this one. Ask yourself how much worse it would have been if you hadn't sold part of the position.

- He believes that earnings acceleration is more important than buying stocks cheap. He advocates buying and selling in short time periods, stopping losses while they're small, and adding more money to winning stocks. He is an unmitigated growth investor.
- Buy exactly at the pivot point where a stock is moving to new highs after a flat area in an upward trend. O'Neil calls such flat areas consolidation periods.
- Look for companies with a large percentage of management stock ownership and little debt.
- Focus on a few good stocks. Don't diversify across many mediocre ones.

### **Bill Miller**

- He became famous for beating the S&P 500 15 years in a row from 1990 to 2005. Value Trust (LMVTX) averaged 16.4% a year while just 11.5 % for the S&P500.
- He served as the chairman and chief investment officer of Legg Mason Capital Management as well as the principal portfolio manager of the Legg Mason Capital Management Value Trust.
- He finds bargains by comparing a stock's current price with its future prospects. He does not look only at historical data to see whether it's cheap based on its past. This sets him apart from traditional value investors. He is contrarian, often going against the crowd to buy what is hated because it is misunderstood or because others are unable to see through their fear of loss to a great opportunity.
- Look forward, not back. Don't just compare a stock's current valuation with its past valuation. The past does not determine the future. Look ahead at its future prospects to see if it's cheap compared with those.
- He says, "The question is not growth or value, but where is the best value?" If traditional growth stocks are cheap, buy them. If traditional value stocks are cheap, buy them.
- Cheap doesn't necessarily mean bargain. It could mean worthless - value trap. He tells his analysts: "100 percent of the value depends on the future."
- Use the present value of future free cash flow to determine whether a stock is a bargain. That's the same way Warren Buffet determines a bargain price.

- A lot of short-term information is irrelevant in the long term. If you've bought solid companies, the best advice is often "Don't just do something, sit there."
- If you must do something, buy a good value as it gets even cheaper. Miller hopes that stocks he's started buying drop quickly and dramatically, so he has a chance to buy additional shares at lower prices. "Lowest average cost wins."
- Prospect theory shows that people hate losing more than they love winning. That makes them too risk averse so they "overweight recent trends relative to their long-term significance" and give greater weight to dramatic events "often out of all proportion to the probability of their occurrence." Use these tendencies to find bargains.
- **There are 3 types of competitive advantages:**
  - **Analytical**, when you take the same information that others have, but process it differently and reach different conclusions.
  - **Informational**, when you know something important that others don't.
  - **Behavioral**, when you understand human behavior better than others and can use that understanding to exploit stock price movements.
- In November 1999, there was an article called *"Amazon's Allure: Why a Famed Value Investor Likes-Yipes!-a Stock Without Earnings."* It's true that some of the best technology companies have rarely looked attractive on traditional valuation methods, but that speaks more to the weakness of those methods than to the fundamental risk-reward relationships of those businesses. Had we understood valuation better, we would have owned Microsoft and Cisco Systems.
- Cheap present value of future free cash flow - that factor has it all to him. Net income is the money left after a company pays its bills, taxes, interest expenses, and such. Free cash flow is the money left after a company uses its net income for capital expenditures, known as CAPEX, which is buying new equipment, buildings, or land to improve its business. So, free cash flow is what's left when there are no more expenses. Everything is paid and there's just a pile of cash in a bank account that's free for other uses. The regular stream of such cash into the account is the flow. Free cash flow per share divided by the stock price.
- "Factor diversification." Sometimes growth factors are favored, other times value factors are favored. By owning stocks in each factor group, he smooths his portfolio's fluctuations. He doesn't think there's an inherent advantage in either concentrated or diversified portfolios. It depends on what you are considering.
- Using time stops is better than using price stops. If the investment case has not worked on 2-3 years, sell and move on.

## 2.2 Where The Masters Agree

- Automate your strategy with proven criteria. No matter what investment strategy you create over the years, it should be clearly defined and measurable.
- Look for strong income statements and balance sheets. High profit margins (a company keeps more of what it earns), lots of cash, and little or no debt.
- Look for insider stock ownership and company buybacks.
- Thorough research.
- Know why to buy. It's important to know the reasons that led you to buy a stock so you know the right time to sell.
- Buy at a price below the company's potential. This is not just for value investors - whether you are value or growth investor, you must buy stocks at a price lower than they sell them. Value investors try to buy low, sell high. Growth investors try to buy high, sell higher. Both look at a stock's current price and compare it to what they see as the company's potential to drive that price higher. The difference between the two types of investor lies in the information they use to determine a company's potential.
  - A value investor looks at a company's assets, how much it's sold, its profit margins, and other factors before determining whether the price is more or less than the company is worth.
  - A growth investor looks at earnings per share, the acceleration or deceleration of those earnings, analyst expectations, and positive surprises.
- Keep or buy more of what's working. Put more money into the successful parts and slowly phase out the unsuccessful parts.
- Take advantage of price dips. If all the reasons you bought a stock are still present. Don't buy more shares of a stock that's falling due to company failings.

## 2.3 Investor Quotes

These quotes were said by famous investors as well as by economists, politicians, war generals, philosophers, athletes, and other various groups of people not necessary related to investing or economy.

- (Benjamin Graham)
  - *"A successful listed company is one which earns sufficient to justify an average valuation of its shares in excess of the invested capital behind them. This means that to be really successful (or prosperous) the company must have an earning-power value which exceeds the amount invested by and for the stockholder."*
  - Regarding value investing:
    - \* Benjamin Graham: *"Buy a fair company at a wonderful price."*
    - \* Charlie Munger: *"Buy a wonderful company at a fair price."*
  - *"To achieve satisfactory investment results is easier than most people realize; to achieve superior results is harder than it looks."*
- (John C. Bogle)
  - *"Don't think that you know more than the market; no one does. And don't act on insight that you think are your own but are usually shared by millions of others."*
  - *"Actively managed funds come and go, but the index fund goes on forever."*
  - *"I urge intelligent investors to stay the course with the proven index strategy. While I can't assure you that traditional index investing is the best strategy ever devised, I can assure you that the number of strategies that are worse is infinite."*
- (Warren Buffet)
  - *"If you are smart, you don't need margin, and if you are dumb, you have no place of using it."*
  - Margin of Safety: *"Buy only when you can get a hefty discount to the estimated value of the business, as your estimation could be wrong."*
  - Margin of Safety: *"Difference between stock price today and your opinion about what the stock is actually worth. Or, in percentage form: (stock price you think is worth MINUS its price today) / what you think is worth."*
  - *"Sell when Mr. Market is willing to pay too much for your stocks and buy when he is selling his own stocks too cheap. At all other times - hold tight."*
  - *"Price is what you pay, value is what you get."*
  - *"Beware of past-performance 'proofs' in finance: If history books were the key to riches, the Forbes 400 would consist of librarians."*

## 2 How The Masters Tell Us To Invest

- *"An investor needs do very few things right as long as he avoids big mistakes."*
- *"Managers that always promise to "make the numbers" will at some point be tempted to \*make up\* the numbers."*
- (Philip Fisher)
  - *"The key is to focus on customers, competitors, and suppliers."*
  - *"The successful investor is usually an individual who is inherently interested in business problems."*
  - *"... a good nervous system is even more important than a good head."*
  - *"My philosophy calls for making a relatively small number of investments but only in unusually promising companies. Obviously, I am looking for signs of growth potential in the companies I study. As important, I am trying, through my analysis, to avoid risk."*
- (Peter Lynch)
  - *"The stock price is the least useful information you can track! If you can follow only one bit of data, follow the earnings - assuming that the company in question has earnings. Sooner or later earnings make or break an investment in equities. What the stock price does today, tomorrow, or next week is only a distraction."*
  - *"Everybody's a long-term investor, including day traders in the audience who took a couple of hours off. Long-term investing has gotten so popular, it's easier to admit you're a crack addict than to admit you're a short-term investor."*
  - *"Quantitative analysis taught me that the things I saw happening at Fidelity couldn't really be happening."*
  - *"Buy the right stocks at the wrong price at the wrong time and you'll suffer great losses. Buy the wrong stocks at the right time and you'll suffer more of the same."*
  - *"There is a wonderful correlation between interest rates and stock market."*
  - *"The best place to begin looking for the tenbagger is close to home. The average person comes across a likely prospect 2-3x a year, sometimes more."*
  - *"It's simply impossible to find a generic formula that sensibly applies to all the different kinds of stocks."*
  - *"Market, like individual stocks, can move in the opposite direction of the fundamentals over the short term."*
- (Howard Marks)
  - *"Successful investing requires thoughtful attention to many separate aspects, all at the same time. Omit any one and the result is likely to be less than satisfactory."*



## 2 How The Masters Tell Us To Invest

- *"Experience is what you got when you didn't get what you wanted."*
  - *"Good times teach only bad lessons - that investing is easy, that you know its secrets, and that you needn't worry about risk. The most valuable lessons are learned in tough times."*
  - *"All investors can't beat the market since, collectively, they are the market."*
  - *"An investment philosophy has to be the sum of many ideas accumulated over a long period of time from a variety of sources. No one can develop an effective philosophy without having been exposed to life's lessons."*
  - *"We may never know where we're going, but we'd better have a good idea where we are."* (on Market Cycles)
  - *"The correctness of a decision can't be judged from the outcome. Nevertheless, that's how people assess it. A good decision is one that's optimal at the time it's made, when the future is by definition unknown. Thus, correct decisions are often unsuccessful, and vice versa. A good decision is one that a logical, intelligent and informed person would have made under the circumstances as they appeared at the time, before the outcome was known. In the long run, there's no reasonably alternative to believing that good decisions will lead to investment profits. In the short run, however, we must be stoic when they don't."*
  - *"Investors are right (and wrong) all the time for the "wrong reason". Someone buys a stock because he or she expects a certain development; it doesn't occur; the market takes the stock up anyway; the investor looks good (and invariably accepts credit)."*
  - *"In investing, there is nothing that always works, since the environment is always changing, and investors' efforts to respond to the environment cause it to change further."*
  - *"Everything that was good for the market yesterday is no good for it today."*
  - *"The worst loans are made at the best of times."*
  - *"At Oaktree, we strongly reject the idea of waiting for the bottom to start buying. Waiting for the bottom to start buying is a great example of folly. So if targeting the bottom is wrong, when should you buy? The answer is simple: when price is below intrinsic value. And if the price continues downward, buy more, as now it's probably an even greater bargain. All you need for ultimate success in this regard is a) an estimate of intrinsic value, b) the emotional fortitude to persevere, and c) eventually to have your estimate of value proved correct."*
  - *"The key is to understand that the behavior of investors can alter the market, changing the results that investors can expect the market to deliver."*
- (Joel Greenblatt)

## 2 How The Masters Tell Us To Invest

- *"If you do a good job valuing a stock, I guarantee that the market will agree with you." It could be weeks or years, with U.S. markets two or three years is generally enough time for the market to get it "right".*
- *"Individual investors need to think of the relationship between price and value with every investment decision. No matter how good an investment sounds, if price has not yet been considered, you can't know if it is a good investment."*
- (George Soros)
  - *"It's not whether you're right or wrong that's important ... but how much money you make when you're right and how much money you lose when you're wrong."*
- (Jason Kelly)
  - *Why to invest in stocks: "Because it takes only \$10k and two tenbaggers to become a millionaire."*
  - *"Follow your [own] money to find great companies. Food, clothing, and other necessities are good places to start looking for companies. Once you've exhausted them, think about where you spend your discretionary money, that is, for things you don't absolutely need."*
- (Sven Carlin)
  - *"It doesn't matter if it is bubble or not. You can know if something is in a bubble only after the bubble pops. If it pops, it was a bubble, if not, then it wasn't."*
- (Benjamin Franklin)
  - *"Beware of little expenses; a small leak will sink a great ship."*
  - *"If you would be wealthy, think of saving as well as getting. Remember that the time is money. Lost time is never found again."*
- (Mike Tyson)
  - *"Everyone has a plan until you get hit in the jaw."* (about recessions)
- (Paul Samuelson)
  - *"The creation of the first index fund by John Bogle was the equivalent of the invention of the wheel, the alphabet, and wine and cheese."*
- (Auguste Comte)
  - *"The intellect should be servant of the heart, but not its slave."*
- (Carl von Clausewitz)
  - *"The greatest enemy of good plan is the dream of a perfect plan."*

## 2 How The Masters Tell Us To Invest

- (Herb Stein)
  - *"If something can't go on forever, it will end."*
- (Paulo Coelho)
  - *"A mistake repeated more than once is not a mistake, it's a decision."*
- (Bruce Kovner)
  - *"Don't get caught in a situation where you can lose a great deal of money for reasons that you don't understand."*
- (Robert Kiyosaki)
  - *"There is a difference between being poor and being broke. Broke is temporary. Poor is eternal."*
  - *"The poor and the middle class work for money. The rich have money work for them."*
  - *"You see, true learning takes energy, passion, and a burning desire. Anger is a big part of that formula, for passion is anger and love combined. When it comes to money, most people want to play it safe and feel secure. So passion does not direct them. Fear does."*
  - *"People's lives are forever controlled by two emotions: fear and greed. Offer them more money and they continue the cycle by increasing their spending. This is what I call the Rat Race."*
  - *"Let me explain the other emotion: desire. Some call it greed, but I prefer desire. It's perfectly normal to desire something better, prettier, more fun, or exciting. So people also work for money because of desire. They desire money for the joy they think it can buy. But the joy that money brings is often short-lived, and they soon need more money for more joy, more pleasure, more comfort, and more security. So they keep working, thinking money will soothe their souls that are troubled by fear and desire. But money can't do that."*
  - *"So many people say, 'Oh, I'm not interested in money.' Yet they'll work at a job for eight hours a day."*
  - *"Emotions are what make us human. The word 'emotion' stands for 'energy in motion.' Be truthful about your emotions and use your mind and emotions in your favor, not against yourself."*
  - *"Look, school is very important. You go to school to learn a skill or profession to become a contributing member of society. Every culture needs teachers, doctors, mechanics, artists, cooks, business people, police officers, firefighters, and soldiers. Schools train them so society can thrive and flourish," said rich dad. "Unfortunately, for many people school is the end, not the beginning."*

## 2 How The Masters Tell Us To Invest

- *"A doctor, wanting more money to better provide for his family, raises his fees. By raising his fees, it makes health care more expensive for everyone. It hurts the poor people the most, so they have worse health than those with money. Because the doctors raise their fees, the attorneys raise their fees. Because the attorneys' fees have gone up, schoolteachers want a raise, which raises our taxes, and on and on and on. Soon there will be such a horrifying gap between the rich and the poor that chaos will break out and another great civilization will collapse. History proves that great civilizations collapse when the gap between the haves and have-nots is too great. Sadly, America is on that same course because we haven't learned from history. We only memorize historical dates and names, not the lesson."*
- *"In an educated society with a well-run government, prices should actually come down. Of course, that is often only true in theory. Prices go up because of greed and fear caused by ignorance. If schools taught people about money, there would be more money and lower prices. But schools focus only on teaching people to work for money, not how to harness money's power."*
- *"Learn to use your emotions to think, not think with your emotions."*
- *"It's not how much money you make. It's how much money you keep."*
- *"Rich people acquire assets. The poor and middle class acquire liabilities that they think are assets."*
- *"You must know the difference between an asset and a liability, and buy assets."*
- *"An asset puts money in my pocket. A liability takes money out of my pocket."*
- *"The rich focus on their asset columns while everyone else focuses on their income statements."*
- *"Financial struggle is often the result of people working all their lives for someone else."*
- *"But my rich dad encouraged me to begin acquiring assets that I loved. "If you don't love it, you won't take care of it.""*
- *"I don't encourage anyone to start a company unless they really want to. Knowing what I know about running a company, I wouldn't wish that task on anyone. There are times when people can't find employment and starting a company seems like the best solution. But the odds are against success: Nine out of ten companies fail in five years. Of those that survive the first five years, nine out of every ten of those eventually fail as well. So only if you really have the desire to own your own company do I recommend it. Otherwise, keep your day job and mind your own business. When I say mind your own business, I mean to build and keep your asset column strong."*
- *"As your cash flow grows, you can indulge in some luxuries. An important distinction is that rich people buy luxuries last, while the poor and middle*

## 2 How The Masters Tell Us To Invest

*class tend to buy luxuries first. The poor and the middle class often buy luxury items like big houses, diamonds, furs, jewelry, or boats because they want to look rich. They look rich, but in reality they just get deeper in debt on credit. The old-money people, the long-term rich, build their asset column first. Then the income generated from the asset column buys their luxuries. The poor and middle class buy luxuries with their own sweat, blood, and children's inheritance."*

- *"It is the knowledge of the legal corporate structure that really gives the rich a vast advantage over the poor and the middle class. Having two fathers teaching me, one a socialist and the other a capitalist, I quickly began to realize that the philosophy of the capitalist made more financial sense to me. It seemed to me that the socialists ultimately penalized themselves due to their lack of financial education. No matter what the "take-from-the-rich" crowd came up with, the rich always found a way to outsmart them. That is how taxes were eventually levied on the middle class. The rich outsmarted the intellectuals solely because they understood the power of money, a subject not taught in schools."*
- *"If you work for money, you give the power to you employer. If money works for you, you keep the power and control it."*
- *"I was making a lot of money, but every time I looked at my paycheck, I was disappointed. The deductions were so large and, the more I worked, the greater they became. As I became more successful, my bosses talked about promotions and raises. It was flattering, but I could hear my rich dad asking in my ear: 'Who are you working for? Who are you making rich?'"*
- *"A business consultant who specializes in the medical trade was telling me how many doctors, dentists, and chiropractors struggle financially. All this time, I thought that when they graduated, the dollars would pour in. It was this business consultant who gave me the phrase: "They are one skill away from great wealth."*
- *"Job is an acronym for "Just Over Broke."*
- *"The primary difference between a rich person and a poor person is how they manage fear."*
- *"You become what you study." - be careful what you learn, because your mind is so powerful that you become what you put in your head.*
- *"To develop into a whole human being, we need mental, physical, emotional, and spiritual education."*
- *You may know it is time to change if you are saying things like the following statements:*
  - \* *"I'm working with dead people."*
  - \* *"I love what I do, but I wish I could make more money."*

## 2 How The Masters Tell Us To Invest

- \* *"I can't wait for the weekend."*
- \* *"I want to do my own thing."*
- \* *"Is it quitting time yet?"*
- There are five main reasons why financially literate people may still not develop abundant asset columns that could produce a large cash flow. The five reasons are:
  1. Fear. *"For most people, the reason they don't win financially is because the pain of losing money is far greater than the joy of being rich."*
  2. Cynicism
  3. Laziness
  4. Bad habits
  5. Arrogance
- *"Financial intelligence is simply having more options."*
- *"I remind people that financial IQ is made up of knowledge from four broad areas of expertise:"*
  1. Accounting - It is financial literacy or the ability to read numbers. This is a vital skill if you want to build an empire. The more money you are responsible for, the more accuracy is required, or the house comes tumbling down. This is the left-brain side, or the details. Financial literacy is the ability to read and understand financial statements which allows you to identify the strengths and weaknesses of any business.
  2. Investing - It is the science of "money making money." This involves strategies and formulas which use the creative right-brain side.
  3. Understanding markets - it is the science of supply and demand. You need to know the technical aspects of the market, which are emotion-driven, in addition to the fundamental or economic aspects of an investment. Does an investment make sense or does it not make sense based on current market conditions?
  4. The law - A corporation wrapped around the technical skills of accounting, investing, and markets can contribute to explosive growth. A person who understands the tax advantages and protections provided by a corporation can get rich so much faster than someone who is an employee or a small-business sole proprietor. It's like the difference between someone walking and someone flying. The difference is profound when it comes to long-term wealth.
    - \* Tax advantages - A corporation can do many things that an employee cannot, like pay expenses before paying taxes. That is a whole area of expertise that is very exciting. Employees earn and get taxed, and they try to live on what is left. A corporation earns, spends

everything it can, and is taxed on anything that is left. It's one of the biggest legal tax loopholes that the rich use. They're easy to set up and are not expensive if you own investments that are producing good cashflow. For example, by owning your own corporation, your vacations can be board meetings in Hawaii. Car payments, insurance, repairs, and health-club memberships are company expenses. Most restaurant meals are partial expenses, and on and on. But it's done legally with pre-tax dollars.

- \* Protection from lawsuits - We live in a litigious society. Everybody wants a piece of your action. The rich hide much of their wealth using vehicles such as corporations and trusts to protect their assets from creditors. When someone sues a wealthy individual, they are often met with layers of legal protection and often find that the wealthy person actually owns nothing. They control everything, but own nothing. The poor and middle class try to own everything and lose it to the government or to fellow citizens who like to sue the rich. They learned it from the Robin Hood story: Take from the rich, and give it to the poor.

- (Daniel Gladis) (in CZ/SK, original source [here](#))
  - *"Nevytvaraj si emocionalny vzťah k akciám."*
  - *"Veľkosť pozície muže byť stále dôležitá ako metóda jeho výberu."*
  - *"Investori často dostávajú dobré/zlé výsledky zo zlých dôvodov."*
  - *"Neexistuje dokonalosť - vždy sú tam nejaké kompromisy."*
  - *"Aby si dosiahol mimoriadne výsledky, nemusíš robiť mimoriadne veci."*
  - *"Často sa nedať odlíšiť, či niekto predstihuje svoju dobu alebo sa mylí."*
  - *"Trhy sa menia, čím vyvracejú investičné napady a modely. Trhy sa menia a je treba na to reagovať."*
  - *"Kľúčom k investovaniu nie je odhadnúť, ako určité odvetvie ovplyvní spoločnosť alebo ako porastie, ale určit konkurenčnú výhodu danej konkrétnej spoločnosti a hlavne či je udržateľná. (Aerolinky, Internet stocks, ...)"*
  - *"Ak nájdeš biznis, ktorý vyhovuje tvojim investičným požiadavkám, tak ho kup bez ohľadu na to čo sa deje na trhoch."* (Pricing by mal prevážovať nad timingom.)
  - *"Čas je priateľom skvelého biznisu a nepriateľom toho priemerného."*
  - *"Historia ukazuje, že kľúčom k investovaniu nie je nacasovanie, ale čas. Preto je najlepšie investovať vo chvíľu, keď máš peniaze."*
  - *"Tajomstvom úspešného investovania je vydržať prvých 30 rokov."*
  - *"Hlavným dôvodom denných pohybov sú požiadavky na likviditu."*

## 2 How The Masters Tell Us To Invest

- *"Cim viac pozornosti je venovane krizi, tym viac ju trhy zohladnuju v cenach. (Aj v 2008 bol 'koniec sveta' a ceny klesli tak ako uz davno nie.)"*
- *"Ak som mal povedat nieco, co som si za poslednych 60 rokov na Wall Street vsimol, tak je to to, ze ludia nedokazu predpovedat co sa bude diat na akciovom trhu." (od Bena Grahama)*
- *"Peniaze sa nevydelavaju nakupovanim a predavanim, ale cakanim. Nechas firmam cas a priestor akumulovat sa."*
- *"To co je jasne sirokemu consensu investorov je takmer vzdy mylne."*
- *"Chytry muz zacina tym, cim hlupy uz konci." (od Charlieho Mungera)*
- *"Historie ktora sa odohrala je len jedna verzia toho co sa mohlo stat. Robustne portfolio je take, ktore by ako tak obstalo za akychkolvek okolnosti."*
- *"Vlastnenie nevyuziteho kapitalu je bolestiva situacia, ale nie tak bolestiva ako predaj niecoho hlupeho. Cas od casu je dobre mat cast portfolia v hotovosti. Nie je to o timingu, ale o tom ci clovek nachadza dobre prilezitosti."*
- *"To co urcuje riziko investicie je hlavne(/aj) cena."*
- *"Je dobre si poziciavat v zlych casoch (paka+volatilita=dynamit) a vracat v dobrych casoch. Najlepsie pozicky sa beru v najhorsich casoch."*
- *"Velke obraty trhu prichadzaju v situaciach, kedy vsetci zabudaju na to, ze po odlivu prichadza aj priliv."*
- *"Keby riskantnejsie investicie spolahlivo prinasali vyssie vynosy tak by neboli riskantnejsie."*
- *"Riziko sa objavuje aj v zhlukoch. V narazoch. Nie ze by pomaly rastlo. Sucastou rizika je prekvapivost jeho vyskytu."*
- *"Defenzivne investovanie znamena vycitit vzdy to nebezpecie a pripravit sa na negativny vyvoj ked sa zda ze vsetko ide hladko (a ked investori su naladeni pozitivne). Ochrana kapitalu alebo maximalizacia vynosu - jedno alebo druhe, neda sa 'prepnut' v spravny okamit - treba sa rozhodnut predom."*
- *"Ked pride nejaka kriza a rozhodnes sa panikarit, tak panikar co najskor. Ked panikaris ako posledny zo vsetkych, tak uz je to zbytocne."*
- *"Roky trpezlivosti su casto odmenene v jednom roku. Niekedy moze trvat aj 4 roky kym si trh 'vsimne' ze nejaka firma ma skvele vysledky, a potom sa to moze stat vsetko naraz v priebehu par mesiacov. Ten skok moze byt dramaticky. Cim to bude neskor, tak tym ta reakcia bude vacsia."*
- *"Hodnotove akcie nebezia, ale skacu."*
- *"Existuju spolocnosti, kedy cena ovplyvnuje aj hodnotu (prisun ku kapitalu - vydanie novych akcií za velmi nizku cenu vyrazne ovplyvni/znehodnoti hodnotu vsetkych akcií)."*
- *"Clovek nemoze investovat a mysliet na najhorsie scenare."*



## 2 How The Masters Tell Us To Invest

- *"Tie najlepšie investičné príležitosti sa objavujú v dobe, kedy o sebe najviac pochybujú."*
- *"Najlepší recept je vlastniť skvelé biznisy, ktoré sú riadené skvelými manažermi, a ktoré sa ti podarí kúpiť za prijateľnú cenu. A všetko ostatné je sum."*

### 3 Market Cycles And The Psychology

- Stock Market Crashes (see more detailed list [here](#))
  - 1907: The Panic
  - 1929: The Great Depression
  - 1987: Black Monday
  - 2000: Dot-com Bubble
  - 2008: The Financial Crises
  - 2010: The Flash Crash
  - 2015–16: Chinese stock market turbulence
  - 2020: COVID-19

(Peter Lynch) The earlier depression in 1930s was caused by an economic slowdown in a country in which 66% of the work force was in manufacturing, 22% was in farming, and there was no social security, unemployment compensation, pension plans, welfare and medicare payments, guaranteed student loans, or government-insured bank accounts. Today (as of, early 21st century), manufacturing represents only 27% of the work force, agriculture accounts for a mere 3%, and the service sector, which was 12% in 1930, has grown steadily through recession and boom and now accounts for 70% of the U.S. work force. Unlike the thirties, today a large percentage of people own their own homes; many own them free and clear or have watched their equity grow substantially as property values have soared. Today, the average household has 2 wage earners instead of one, and that provides an economic cushion that didn't exist in 1930s. If we have a depression, it won't be like the last one!

- Financial markets go through 5 stages from boom to bust (laid out by economist Hyman Minsky):
  1. Displacement. Something happens to change investors' perceptions about the markets.
  2. Boom. Investors' hopes about the benefits of this displacement seem to pay off.
  3. Euphoria. Excitement takes hold and banks lend ever more money in a bid to increase profit. Everyone - from the steady investor to the taxi driver - dives into the market.

### 3 Market Cycles And The Psychology

4. Profit-taking. Smart investors suddenly realize the good times cannot go on forever, so start selling off their investments. As they sell, prices start falling for the first time.
  5. Panic. With prices now falling, fear spreads. People rush to sell their investments en masse, and prices plunge sharply. Banks stop lending to any but the most creditworthy.
- *Bear Market*
    - Stocks are going down. It's called:
      - \* *Market correction* if the market goes down by 10%, which is in average once a year.
      - \* *Bear market* if it's down by 20%.
      - \* *Stock market crash* if the market goes down by 25% or more in about 3 months for example.
    - Bearish on a stock - someone believes that a stock is going down.
    - This happens during bear market:
      1. Fear brings more fear.
      2. Everybody focuses on Macro economics. People care less about how individual companies are doing.
      3. If times are bad, people won't cut from some activities, for example cycling, hobbies, and these stocks can be hammered down - it's not probably very worth to investing to them during bear market. Also, companies with lower cash and higher debt can be destroyed.
      4. Selling creates more selling.
      5. Gold increases its value, lot of people will buy it so that their money will be kept save. But many people don't believe in investing in a gold.
      6. P/E ratios means 0 on bear market.
      7. Many retail investors leave the stock market and never ever come back. They are frustrated and scared.
  - *Bull Market*
    - Stocks are going up.
    - Bullish on a stock - someone believe that a stock is going up.
    - This happens during bull market:
      1. Short sighted.
      2. People ignore balance sheets.
      3. Investment community gets lazier.

### 3 Market Cycles And The Psychology

#### 4. Big and small investors begin to Margin out.

- (Warren Buffett) *"Occasional outbreaks of those two super-contagious diseases, fear and greed, will forever occur in the investment community. The timing of these epidemics will be unpredictable. And the market aberrations produced by them will be equally unpredictable, both as to duration and degree. Therefore, we never try to anticipate the arrival or departure of either disease. Our goal is more modest: we simply attempt to be fearful when others are greedy and to be greedy only when others are fearful."*
- Recession is a perfect time for investing! Most fortunes are made during recessions. Avoid before a crash (just some ideas): travel, retail, auto, RV, furniture, construction.
  - Also short term put options can lead to a lot of money. During a recession, buy the companies that continue to raise their dividends. You cannot 100% predict this, but looking at companies that have kept or raised their dividends during past recessions is a good predictor. Look up "Dividend Aristocrats".
  - Buy regularly and systematically! For example each week or month, so that your basis is somewhere "down" in average. When the market backs up again, your basis is much lower than the stock prices.
  - How to be prepared for a recession? No debt, cash savings with emergency fund, hedges! = cash, gold, or put options for example. But then you have opportunity costs.

### 3 Market Cycles And The Psychology

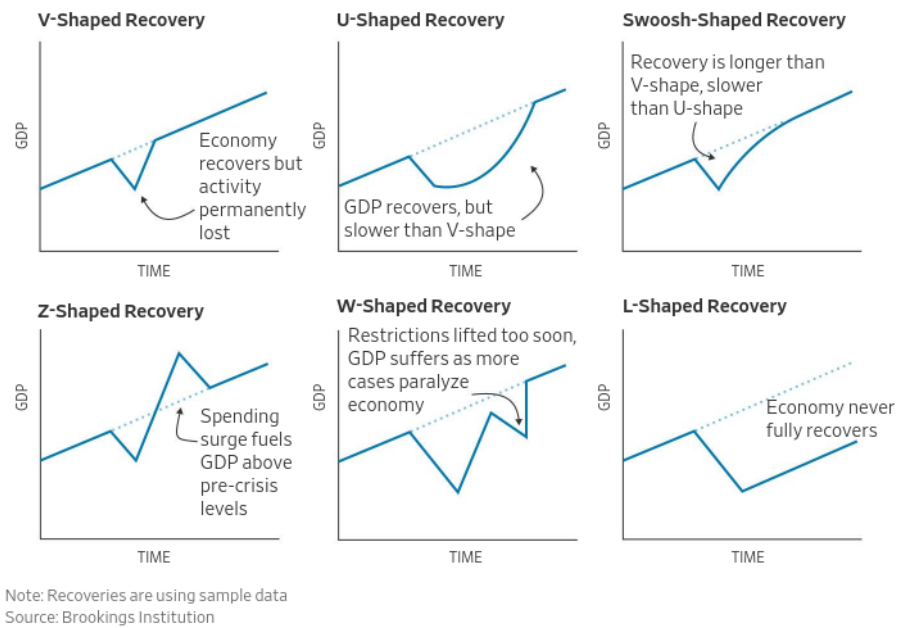


Figure 3.1: Different types of the economic recovery shapes (source [here](#))

### 3.1 Indicators

- Average length of Bull Market
- Inverted yield curve
- Unemployed rate - is an indicator of an economy in the past (not in the present)
- See FRED for indicators: (and this - <https://www.youtube.com/watch?v=e9tbHZnuLIk> - recession indicators)
  1. Modeled recession probability (Smoothed U.S. Recession Probabilities)
  2. Annual heavy weight truck sales (Motor Vehicle Retail Sales)
  3. Civilian Unemployment Rate
  4. US Treasury Yield Curve (10-Year Treasury Constant Maturity Rate) - Yield spread - difference between 10 years and 2 years treasury bond yields
  5. Effective Federal Funds Rate
  6. Buffett Indicator - <https://www.longtermtrends.net/market-cap-to-gdp/>
    - anything below 70/80% is cheap zone, above 100% is expensive zone  
<https://www.gurufocus.com/stock-market-valuations.php>
    - It is kind of price to sales to the whole stock market.

Shiller PE ratio = Cape Ratio (everything above 15 is expensive, below is okay/cheap)  
this earnings measure includes the full market cycle of earnings; the trouble can be that it shows the last 10 years of earnings, but it doesn't include recession any more (in 2020, recession in 2008-9).

- <https://fred.stlouisfed.org/series/DTWEXM> TODO
- <https://fred.stlouisfed.org/series/DEXUSUK> TODO
- <https://sdbullion.com/dow-gold-ratio> - maybe check if prices are high or low not in comparison to dollars, but gold!! TODO
- <https://www.macrotrends.net/1378/dow-to-gold-ratio-100-year-historical-chart> - check hypothetical historical returns - buying stocks based on dollars/gold, or buying solely gold TODO
- Leading economic index - for market predictions - recessions etc TODO

## 3.2 Predictions And Market Timing

- Signal - the truth.
- Noise - distraction from the truth.
- The goal of the prediction model should be to capture as much signal as possible while keeping a noise at minimum. Unfortunately we tend to identify more patterns among the noise.
- Correlation does not equal causation. This is a very common forecasting problem. For example, there are many economic indicators and variables in play. If you try to predict the stock market using these historical data, you're almost guaranteed to find that some of the variables will almost definitely seem to have strong predictive power. Yet, they may not. You may have just been fooled by randomness. Whenever you make a prediction, be sure that there is a logical explanation for the mathematical relationship. Do not trust data unconditionally.
- How can we become better at predicting?
  - Think probabilistically. Reality is not just yes/no situation. It's better to have a spectrum of outcomes with probabilities attached to them.
  - Change the forecast with the new evidence.
  - Look for consensus. Good predictors are good at weighting multiple sources of information.
- Warren Buffett ignores political and economic forecasts, which are an expensive distraction for many investors and businessmen. *"Imagine the cost to us, then, if we had let a fear of unknowns cause us to defer or alter the deployment of capital. Indeed, we have usually made our best purchases when apprehensions about some macro event were at a peak. A different set of major shocks is sure to occur in the next 30 years. We will neither try to predict these nor to profit from them. If we can identify businesses similar to those we have purchased in the past, external surprises will have little effect on our long-term results."*
- Bayes Theorem
  - It's good for predicting something if something else occurred.
- From A. Damodaran:
  - *The January Effect* - stocks on average tend to do much better in January than in any other month of the year.
  - *The Weekend Effect* - stocks on average seem to do much worse on Mondays than on any other day of the week.
  - *The Mid-day Swoon* - stocks on average tend to do much worse in the middle of the trading day than at the beginning and end of the day.

### 3 Market Cycles And The Psychology

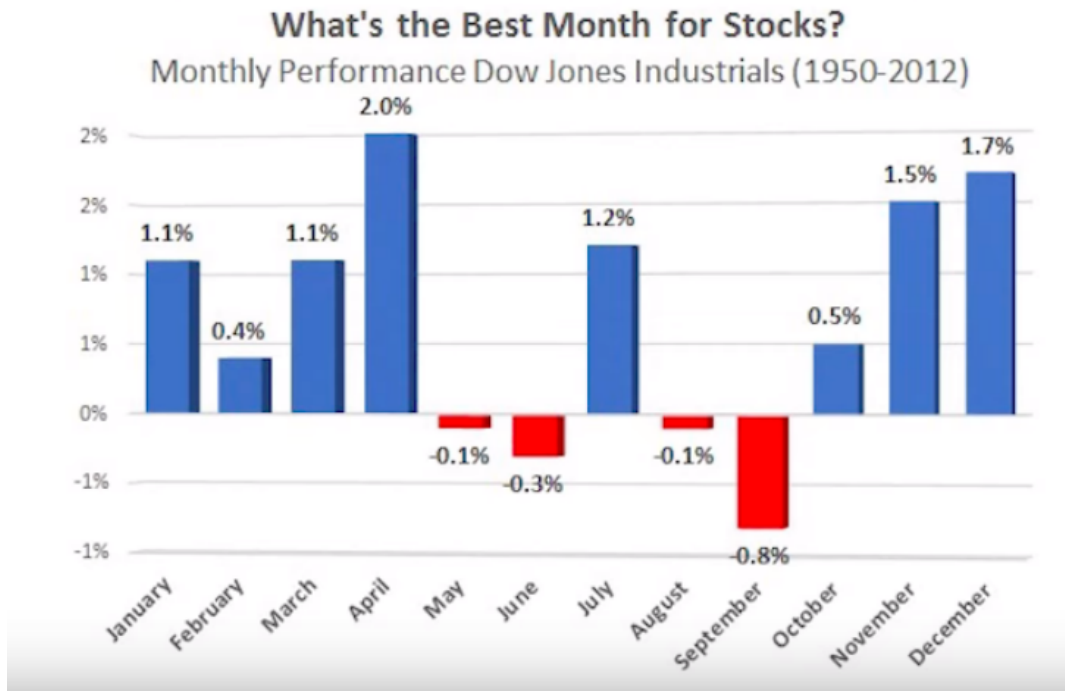


Figure 3.2: Historical monthly performance of Dow Jones from 1950 to 2012



### 3 Market Cycles And The Psychology












	Early	Mid	Late	Recession		Early	Mid	Late	Recession
 Financials	Buy	Buy	Sell	Hold	 Materials	Buy	Buy	Sell	Hold
 Industrials	Buy	Buy	Hold	Sell	 ENERGY	Sell	Buy	Buy	Hold
 Discretionary	Buy	Hold	Sell	Sell	 TELECOMMUNICATIONS	Sell	Hold	Buy	Buy
 AEROSPACE	Buy	Hold	Sell	Sell	 Healthcare	Sell	Hold	Buy	Buy
 Technology	Buy	Buy	Sell	Sell	 Utilities	Sell	Sell	Buy	Buy
 Staples	Sell	Hold	Buy	Buy					

Figure 3.3: Sector strategy ideas for market cycles, by Joseph Hogue (link to the original YouTube video [here](#))

#### Howard Marks on Forecasts

- Predictions are most useful when they correctly anticipate change. If you predict that something won't change and it doesn't change, that prediction is unlikely to earn you much money. But accurately predicting change can be very profitable. Important thing in forecasting isn't getting it right once. The important thing is getting it right consistently.
- Most of the time, people predict the future that is a lot like the recent past.
  - They are not necessarily wrong - most of the time the future largely is a rerun of the recent past.
  - On the basis of the previous 2 points, it's possible to conclude that forecasts will prove accurate much of the time: they'll usually extrapolate recent experience and be right.
  - However, the many forecasts that correctly extrapolate past experience are of little value. Just as forecasters usually assume a future that's a lot like the past, so do markets, which usually price in a continuation of recent history. Thus if the future turns out to be like the past, it's unlikely big money will be made, even by those who foresaw correctly that it would.
  - Once in a while, however, the future turns out to be very different from the past.

### *3 Market Cycles And The Psychology*

- It's at these times that accurate forecasts would be of great value.
  - It's also at these times that forecasts are least likely to be correct.
  - Some forecasters may turn out to be correct at these pivotal moments, suggesting that it's possible to correctly forecast key events, but it's unlikely to be the same people consistently.
  - The sum of this discussion suggests that, on balance, forecasts are of very little value.
- The trouble with inconsistent forecasters - not that they are never right, but that the record isn't positive enough to inspire action on their occasional brainstorm. And also, the problem is that people ignore the possibility of improbable outcomes.
  - Investors who feel they know what the future holds will act assertively - making directional bets, concentrating positions, leveraging holdings and counting on future growth - in other words, doing things that in the absence of foreknowledge would increase risk. On the other hand, those who feel they don't know what the future holds will act quite differently: diversifying, hedging, leveraging less (or not at all), emphasizing value today over growth tomorrow, staying high in the capital structure, and generally girding for a variety of possible outcomes. The first group of investors did much better in the years leading up to the crash. But the second group was better prepared when the crash unfolded, and they had more capital available (and more-intact psyches) with which to profit from purchases made at its nadir.
  - If you know the future, it's silly to play defense. You should behave aggressively and target the greatest winners; there can be no loss to fear. Diversification is unnecessary and maximum leverage can be employed. On the other hand, if you don't know what the future holds, it's foolhardy to act as if you do. Working within the limits of what you know rather than venturing beyond - can give you a great advantage.
  - Howard's opinion on economic forecasts:
    - Most are just extrapolations. Extrapolations are usually correct but not valuable.
    - Unconventional forecasts of significant deviation from trend would be very valuable if they were correct, but usually they aren't. Thus most forecasts of deviation from trend are incorrect and also not valuable.
    - A few forecasts of significant deviation turn out to be correct and valuable - leading their authors to be lionized for their acumen - but it's hard to know in advance which will be the few right ones. Since the overall batting average with regard to them is low, unconventional forecasts can't be valuable on balance. There are forecasters who became famous for a single dramatic correct call, but the majority of their forecasts weren't worth following.

#### Aswath Damodaran on Market Timing

- Market timing is higher level decision about asset allocation. Most investors, especially old time value investors almost religiously will tell you that they are not market timers. True is, that we all are market timers. At least at some point in time in investing, we time markets. We do it implicitly sometimes by holding back cash or explicitly by actually time the markets. But market timing is built into every investor's gene. Here is the reason - if you can time the market, a payoff is immense.
- The problem with market timing, except taxes and transaction costs, is the you can be out at the wrong time - in the process of switching from stocks to cash and back, you may miss the best years of the market. In 1975, Bill Sharpe suggested in his article on market timing, that unless you can tell a good year from a bad year 7 times out of 10, you should not try market timing. So you have to be right at least 70-80% of the time to break even from market timing. This was confirmed by Monte Carlo simulations on the Canadian market.
- There are 5 ways how to time the market:
  - Non-financial indicators, which can range the spectrum from the absurd to the reasonable. stories, news, etc.
  - Technical indicators, such as (past) price charts, the January indicator, market volatility, trading volume (not just on stocks, but also on options), ...
  - Mean reversion indicators (it's usually PE ratios for stocks and interest rates for bonds), where stocks and bonds are viewed as mispriced if they trade outside what is viewed as a normal range.
  - Macro economic variables, such as interest rates, inflation and GNP growth and devise investing rules based upon the levels or changes in the macroeconomic variables. Over time, a number of rules of thumb have been devised that relate stock returns to the level of interest rates or the strength of the economy. For instance, we are often told that it is best to buy stocks when GNP growth is strong, treasury bill rates are low, treasury bond rates have dropped. But according to some studies, it's very difficult to really find a general pattern here. There is some evidence of mean reversion, but not strong enough to actually make a lot of money out of it. It's really difficult and not easily predictable to make money from macroeconomic indicators, because there is small correlation between what the variable did a given year and what the stock prices will do the following year. (Source [here](#).)
  - Fundamentals such as earnings, cash flow or growth.
- According to Aswath Damodaran, you can value entire market with DCF or relative valuation.

### 3.3 Howard Marks on Market Cycles

- *"I think it's essential to remember that just about everything is cyclical. There's little I'm certain of but these things are true: Cycles always prevail eventually. Nothing goes in one direction forever. Trees don't grow to the sky. Few things go to zero. And there's little that's as dangerous for investor health as insistence on extrapolating today's events into the future."*
- In investing, as in life, there are very few sure things. Values can evaporate, estimates can be wrong, circumstances can change, and "sure things" can fail.
- However, there are two concepts we can hold to with confidence:
  1. Rule number one: most things will prove to be cyclical.
  2. Rule number two: some of the greatest opportunities for gain and loss come when other people forget rule number one.
- The main reason for cyclicity in our world is the involvement of humans. And people are emotional and inconsistent, not steady and clinical.
- Cycles will never stop occurring. If there were such a thing as completely efficient market, and if people really made decisions in a calculating and unemotional manner, perhaps cycles (or at least their extremes) would be banished. But that will never be the case.
- Ignoring cycles and extrapolating trends is one of the most dangerous things an investor can do. When things are going well, extrapolation introduces great risk. Whether it's company profitability, capital availability, price gains, or market liquidity, things that inevitably are bound to regress toward the mean are often counted on to improve forever.
- Fear/greed cycle is caused by changing attitudes toward risk. When greed is prevalent, it means investors feel a high level of comfort with risk and the idea of bearing it in the interest of profit. Conversely, widespread fear indicates a high level of aversion to risk. The academics consider investors' attitude toward risk a constant, but certainly it fluctuates greatly.
- Just like the oscillation of cycles, we never know:
  - how far the pendulum will swing in its arc
  - what might cause the swing to stop and turn back
  - when this reversal will occur
  - how far it will then swing in the opposite direction
- The swing back from the extreme is usually more rapid - and thus takes much less time - than the swing to the extreme ("The air goes out of the balloon much faster than it went in.")

### *3 Market Cycles And The Psychology*

- Markets will always create opportunities, whether now or later. In markets with few opportunities, it's important to be patient. Value opportunities will eventually present themselves, usually after no more than a year or two.
- For a bullish phase...to hold sway, the environment has to be characterized by greed, optimism, exuberance, confidence, credulity, daring, risk tolerance and aggressiveness. But these traits will not govern a market forever. Eventually they will give way to fear, pessimism, prudence, uncertainty, skepticism, caution, risk aversion and reticence. Busts are the product of booms, and Marks is convinced it's usually more correct to attribute a bust to the excesses of the preceding boom than to the specific event that sets off the correction.
- Extreme market behavior will reverse. Those who believe that the pendulum will move in one direction forever - or reside at an extreme forever - eventually will lose huge sums. Those who understand the pendulum's behavior can benefit enormously.
- Inefficiencies - mispricings, misperceptions, mistakes that other people make - provide potential opportunities for superior performance. Exploiting them is, in fact, the only road to consistent outperformance. To distinguish yourself from the others, you need to be on the right side of those mistakes.
- The most important and common negative influences: greed, fear, willing suspension of disbelief (tendency to dismiss logic, history and time-honored norms), tendency to conform to the view of the herd rather than resist, envy (tendency of investors to compare themselves to others) and ego.
- There is only one way to describe most investors - trend followers. Superior investors are the exact opposite. Superior investing requires second-level thinking - a way of thinking that's different from that of others, more complex and more insightful. By definition, most of the crowd can't share it.
- On one hand, you never know how far the pendulum will swing, when it will reverse, and how far it will then go in the opposite direction. On the other hand, we can be sure that, once it reaches an extreme position, the market eventually will swing back toward the midpoint (or beyond). Investors who believed that the pendulum would move in one direction forever - or, having reached an extreme, would stay there - are inevitably disappointed. On the third hand, however, because of the variability of the many factors that influence markets, no tool - not even contrarianism - can be relied on completely. Contrarianism isn't an approach that will make you money all of the time. Much of the time there aren't great market excesses to bet against. Even when an excess does develop, it's important to remember that "overpriced" is incredibly different from "going down tomorrow". Markets can be over- or underpriced and stay that way - or become more so - for years. It can be extremely painful when the trend is going against you. Finally, it's not enough to bet against the crowd. You must do things not just because they're

### 3 Market Cycles And The Psychology

the opposite of what the crowd is doing, but because you know why the crowd is wrong. Only then will you be able to hold firmly to your views and perhaps buy more as your positions take on the appearance of mistakes and as losses accrue rather than gains.

- You'll do better if you wait for investment to come to you rather than go chasing after them. You tend to get better buys if you select from the list of things sellers are motivated to sell rather than start with a fixed notion as to what you want to own. An opportunist buys things because they're offered at bargain prices. There's nothing special about buying when prices aren't low.
- At any particular point in time, the investment environment is a given, and we have no alternative other than to accept it and invest within it. There isn't always a pendulum or cycle extreme to bet against. Sometimes greed and fear, optimism and pessimism, and credulousness and skepticism are balanced, and thus clear mistakes aren't being made. Rather than obviously overpriced or underpriced, most things may seem roughly fairly priced. In that case, there may not be great bargains to buy or compelling sales to make.
  - Joel Greenblatt: *"This is one of the hardest things to master for professional investors: coming in each day for work and doing nothing."*
  - It's essential for investment success that we recognize the condition of the market and decide on our actions accordingly. The other possibilities are a) acting without recognizing the market's status, b) acting with indifference to its status and c) believing we can somehow change its status. These are most unwise. It makes perfect sense that we must invest appropriately for the circumstances with which we're presented.
- Further about markets:
  - Their ups and downs are inevitable.
  - They will profoundly influence our performance as investors.
  - They are unpredictable as to extent and, especially, timing.
- Ignoring cycles, not knowing when to be aggressive and when defensive is so called buy-and hold approach. If we can't know in advance how and when the turns will occur, how can we cope? We may never know where we're going, but we'd better have a good idea where we are. That is, even if we can't predict the timing and extent of cyclical fluctuations, it's essential that we strive to ascertain where we stand in cyclical terms and act accordingly. It's reasonable to try to a) stay alert for occasions when a market has reached an extreme, b) adjust our behavior in response, and c) most important, refuse to fall into line with the herd behavior that renders so many investors dead wrong at tops and bottoms.
- One of the scariest things in the world for the thoughtful investor - too much money chasing too few deals.

### *3 Market Cycles And The Psychology*

- We humans use our ability to recognize and understand patterns to make our decision easier, increase benefits and avoid pain. Importantly, we depend on our knowledge of recurring patterns so we won't have to reconsider every decision from scratch. Economies, companies, and markets operate according to patterns or cycles. These cycles arise from naturally occurring phenomena in everyday business, and to a large extent, from the simple ups and downs of human psychology and behavior. Because human psychology and behavior play such a big part in creating them, these cycles aren't as regular as the cycles of clock and calendar, but they still give rise to better and worse times for certain actions. And they can profoundly affect investors. If we pay attention to cycles, we can come out ahead. If we study past cycles, understand their origin and import, and keep alert for the next one, we don't have to reinvent the wheel in order to understand every investment anew. And we have less of a chance of being blindsided by events. We can master these recurring patterns for our betterment.
- We can spend our time in three general areas:
  - trying to know more than others about what Howard Marks calls "the knowable"; the fundamentals of industries, companies and securities,
  - being disciplined as to the appropriate price to pay for a participation in those fundamentals, and
  - understanding the investment environment we're in and deciding how to strategically position our portfolios for it.

The first two topics - these constitute the key ingredients in "security analysis" and "value investing": judging regarding what an asset can produce in the future - usually in terms of earnings or cash flow - and what those prospects make the asset worth today. The value investors strive to take advantage of discrepancies between "price" and "value".

In Howard's view, the greatest way to optimize the positioning of a portfolio at a given point in time is through deciding what balance it should strike between aggressiveness and defensiveness. He believes the aggressiveness/defensiveness balance should be adjusted over time in response to changes in the state of the investment environment and where a number of elements stand in their cycles. When we are getting value cheap, we should be aggressive; when we are getting value expensive, we should pull back.

- The future should be viewed not as a single fixed outcome that's destined to happen and capable of being predicted, but as a range of possibilities and - hopefully on the basis of insight into their respective likelihoods - as a probability distribution. Probability distributions reflect one's view of tendencies. Investors - or anyone hoping to deal successfully with the future - have to form probability distributions, either explicitly or informally. If it's done well, those probabilities will be helpful in determining one's proper course of action. But it's still essential to bear in mind that even if we know the probabilities, that doesn't mean we know what's going

### 3 Market Cycles And The Psychology

to happen. Superior investors - like everyone else - don't know exactly what the future holds, they do have an above-average understanding of future tendencies. Not all predictions should be treated as equally likely to be correct, and thus they shouldn't be relied on equally. Some events can be predicted with substantial confidence, some are uncertain, add some are entirely unpredictable. So people should have a view on the likelihood that their opinion will prove correct as well, so there are these two requirements, not just one.

- Superior investor makes helpful judgments about cycles and where we stand in them. Specifically:
  - Are we close to the beginning of an upswing, or in the late stages?
  - If a particular cycle has been rising for a while, has it gone so far that we're now in dangerous territory?
  - Does investors' behavior suggest they're being driven by greed or by fear?
  - Do they seem appropriately risk-averse or foolishly risk-tolerant?
  - Is the market overheated (and overpriced), or is it frigid (and thus cheap) because of what's been going on cyclically?
  - Taken together, does our current position in the cycle imply that we should emphasize defensiveness or aggressiveness?

Attention to these elements gives the superior investor an edge that allows him to win more often than he loses.

- Most people think of cycles in terms of a series of events. And most people understand that these events regularly follow each other in a usual sequence: upswings are followed by downswings, and then eventually by new upswings. But to have a full understanding of cycles, that's not enough. The events in the life of a cycle shouldn't be viewed merely as each being followed by the next, but - much more importantly - as each **causing** the next. For example:
  - As the phenomenon swings toward an extreme, this movement gives it energy, which it stores. Eventually its increased weight makes it harder for the swing to continue further from the midpoint, and it reaches a maximum beyond which it can no longer proceed.
  - Eventually it stops moving in that direction. And once it does, gravity then pulls it back in the direction of the central tendency or midpoint, with the energy it has amassed powering the swing back.
  - And as the phenomenon in question moves from the extreme back toward the midpoint, the swing imparts momentum to it that causes it to overshoot the midpoint and keep moving toward the opposite extreme.
- In the worlds investors inhabit, cycles rise and fall, and pendulums swing back and forth. Cycles and pendulum swings come in many forms and relate to a wide



### 3 Market Cycles And The Psychology

variety of phenomena, but the underlying reasons for them - and the patterns they produce - have a lot in common, and they tend to be somewhat consistent over time. As Mark Twain said: "History doesn't repeat itself, but it does rhyme." The details vary - the timing, duration, speed and power of the swings and, very importantly, the reasons for them - and that's likely what's behind Twain's remark regarding history not repeating. But the underlying dynamics are usually similar. In particular, that means the swing back from a high or low almost never halts at the midpoint...regardless of how "right" or "appropriate" the midpoint may be. The continuation of the movement past the midpoint and toward the opposite extreme is highly dependable. For example, markets rarely go from "underpriced" to "fairly priced" and stop there. Usually the fundamental improvement and rising optimism that cause markets to recover from depressed levels remain in force, causing them to continue right through "fairly priced" and on to "overpriced". It doesn't have to happen, but usually it does.

- Howard considers the following questions as improper - "what cause for the cycle to begin?" or "are we close to the end of the cycle?", because he thinks cycles neither begin nor end. Better questions might be: "what caused the current up-leg to begin?" or "how far have we gone since the beginning of the up-cycle?" or "are we close to the end of the down-leg?". Cycles do not have a defined beginning, and he believes they will never end. The cycle oscillates around the midpoint. The midpoint of a cycle is generally thought of as the secular trend, norm, mean, average or "happy medium", and generally as being in some sense as "right and proper". The extremes of the cycle, on the other hand, are thought of as aberrations or excesses to be returned from, and generally they are. While the thing that's cycling tends to spend much of the time above or below it, eventual movement back in the direction of the mean is usually the rule. The movement from either a high or a low extreme back toward the midpoint is often described as "regression toward the mean", a powerful and very reasonable tendency in most walks of life.
- If the swing toward one extreme goes further, the swing back is likely to be more violent, and more damage is likely to be done. So the potential for havoc increases as the movement away from the midpoint increases - as economies and companies do "too well" and stock prices go "too high". Advances are followed by mere corrections, and bull markets by bear markets. But booms and bubbles are followed by much more harmful busts, crashes and panics.
- A cycle in the economic or investment world consists of a series of events that give rise to their successors.
- Cycles occur in a variety of areas and cyclical developments in one area also influence cycles in others. Thus the economic cycle influences the profit cycle. Corporate announcements determined by the profit cycle influence investor attitudes. Investor attitudes influence markets. And developments in markets influence the

### *3 Market Cycles And The Psychology*

cycle in the availability of credit...which influences economies, companies and markets. Cycles don't operate in isolation. The various cycles operate on their own, but they also continuously affect each other.

- There is only one form of intelligent investing, and that's figuring out what something's worth and buying it for that price or less. You can't have intelligent investing in the absence of quantification of value and insistence on an attractive purchase price. Any investment movement that's built around a concept other than the relationship between price and value is irrational.
- Not every big rise is a bubble. For Howard, the term "bubble" has special psychological connotations that should be understood and looked out for. "No price too high" is the ultimate ingredient in a bubble, and thus a foolproof sign of a market gone too far. There is no safe way to participate in a bubble, only danger. It should be noted, however, that "overpriced" is far from synonymous with "going down tomorrow".
- The elements that contribute to the market's rise manifest themselves via valuation metrics - P/E ratios on stocks, yields on bonds, capitalization ratios on real estate, and cash flow multiples on buyouts - that are elevated relative to historic norms. All of these things are precursors of low prospective returns. The reverse is true when a market collapse takes asset prices to bargain valuations. These things can be observed and quantified. In addition, our understanding of cycle positioning can be greatly aided by an awareness of how investors are behaving.
- The key to understanding where we stand in the cycle depends on two forms of assessment:
  - The first is totally quantitative: gauging valuations. This is an appropriate starting point, for if valuations aren't out of line with history, the market cycle is unlikely to be highly extended in either direction.
  - And the second is essentially qualitative: awareness of what's going on around us, and in particular of investor behavior. Importantly, it's possible to be disciplined even in observing these largely non-quantitative phenomena.

So how things are priced and how are investors around us behaving - assessing these two elements, consistently and in a disciplined manner, can be very helpful. The answers will give us a sense for where we stand in the cycle. But even the best of temperature-taking can't tell us what will happen next ... just the tendencies. From a given point in the cycle, the market is capable of moving in any direction: up, flat, or down. But that doesn't mean all three are equally likely. Where we stand influences the tendencies or probabilities, even if it does not determine future developments with certainty. All other things being equal, when the market is high in its cycle, a downward correction is more likely than continued gains, and vice versa. It doesn't have work out that way, of course, but that's the safer

### *3 Market Cycles And The Psychology*

bet. Assessing our cycle position doesn't tell us what will happen next, just what's more and less likely. But that's a lot.

- Investors who are capable of both, correctly adjust market exposure at the right time and have the asymmetrical performance that comes from a better-than-average ratio of winners to losers, have a better sense for the market's likely tendency and can put together portfolios that are better suited for the market environment that likely lies ahead in terms of the ratio of winners to losers. That's what makes them great... and rare.
- Sometimes it can take years for the market to prove those investors right, and as one of the most important investment adages says, "Being too far ahead of your time is indistinguishable from being wrong."
- You shouldn't expect to reach profitable conclusions daily, monthly, or even yearly. We can't create great opportunities to time the market through our understanding of cycles. Rather, the market will decide when we'll have them.
- The important lesson is that - especially in an interconnected, informed world - everything that produces unusual profitability will attract incremental capital until it becomes overcrowded and fully institutionalized, at which point its prospective risk-adjusted return will move toward the mean (or worse). And, correspondingly, things that perform poorly for a while eventually will become so cheap - due to their relative depreciation and the lack of investor interest - that they'll be printed to outperform. Cycles like these hold the key to success in investing, not trees that everyone is assuming will grow to the sky.
- Success isn't good for most people. In short, success can change people, and usually not for the better. Success makes people think they're smart. That's fine as far as it goes, but there can also be negative ramifications. Success also tends to make people richer, and that can lead to a reduction in their level of motivation.
- As successes accrue, it's common for people to conclude that they're smart. And after making a lot of money in a strongly rising market, they decide they've got investing mastered. Their faith increases in their own opinions and instinct. Their investing comes to reflect less self-doubt, meaning they think less about the possibility of being wrong and worry less about the risk of loss. This can cause them to no longer insist on the full margin of safety that gave rise to their earlier successes. This is the reason for one of the oldest and most important investing adages: "don't confuse brains with a bull market."
- The plain truth is, there's little of value to be learned from success. People who are successful run the risk of overlooking the fact that they were lucky, or that they had help from others. In investing, success teaches people that making money is easy, and that they don't have to worry about risk - two particularly dangerous lessons.

### *3 Market Cycles And The Psychology*

- One of the principal ways in which success carries the seeds of investment failure is through increased popularity. Investors should be leery of popular assets. Rather, it's unpopularity that is the buyer's friend.
- Not only are good times followed sooner or later by bad times, but - as with so many other examples of cycles - good times often produce bad times. Good times can lead to unwise debt issuance (distressed debt cycle) or to overbuilding (real estate cycle).
- A deep understanding of emotions and the overdoing they lead to is one of key bottom lines of this book. Cyclical deviations from the trend-line are produced largely by overdoing and its eventual correction. This is obviously true in the securities markets, which are nothing but a collection of people making decisions than they hope will prove profitable. But it is no less true of economies and companies; they may seem like independent, well-oiled machines, but they, too, are nothing but groups of people making decisions, with all that implies.
- The tendency of people to go to excess will never end. And thus, since those excesses eventually have to correct, neither will the occurrence of cycles. Economies and markets have never moved in a straight line in the past, and neither will they do so in the future. And that means investors with the ability to understand cycles will find opportunities for profit.
- Investment success is like the choosing of a lottery winner. Both are determined by one ticket (the outcome) being pulled from a bowlful of tickets (the full range of possible outcomes). In each case, one outcome is chosen from among the many possibilities. Superior investors are people who have a better sense for what tickets are in the bowl, and thus for whether it's worth participating in the lottery. In other words, while superior investors - like everyone else - don't know exactly what the future holds, they do have an above-average understanding of future tendencies.
- The greatest way to optimize the positioning of a portfolio at a given point in time is through deciding what balance it should strike between aggressiveness and defensiveness. And Marks believes the aggressiveness/defensiveness balance should be adjusted over time in response to changes in the state of the investment environment and where a number of elements stand in their cycles. The key word is "calibrate". The amount you have invested, your allocation of capital among the various possibilities, and the riskiness of the things you own all should be calibrated along a continuum that runs from aggressive to defensive. When we're getting value cheap, we should be aggressive; when we're getting value expensive, we should pull back. Calibrating one's portfolio position is what this book is mostly about.
- Howard calls attention to the obvious fact that - rather than the everyday's ups and downs of the market - the clear examples provided in this book all concern "once in a lifetime" cyclical extremes (which these days seem to happen about once

### 3 Market Cycles And The Psychology

a decade). You shouldn't expect to reach profitable conclusions daily, monthly or even yearly.

- As Peter Bernstein said, "The future is not ours to know. But it helps to know that being wrong is inevitable and normal, not some terrible tragedy, not some awful failing in reasoning, not even bad luck in most instances. Being wrong comes with the franchise of an activity whose outcome depends on an unknown future ..."
- The tendency of people to go to excess will never end. And thus, since those excesses eventually have to correct, neither will the occurrence of cycles. Economies and markets have never moved in a straight line in the past, and neither will they do so in the future. And that means investors with the ability to understand cycles will find opportunities for profit.
- There are three ingredients for success - aggressiveness, timing, and skill - and if you have enough aggressiveness at the right time, you don't need that much skill. Let's apply a little more thought regarding the formula for investment success. It should be considered in terms of six main components:
  - **Cycle positioning** - the process of deciding on the risk posture of your portfolio in response to your judgments regarding the principal cycles.
  - **Asset allocation** - the process of deciding which markets, market niches and specific securities or assets to overweight and underweight.
  - **Aggressiveness** - the assumption of increased risk: risking more of your capital; holding lower-quality assets; making investments that are more reliant on favorable macro outcomes; and/or employing financial leverage or high-beta (market-sensitive) assets and strategies.
  - **Defensiveness** - the reduction of risk: investing less capital and holding cash instead; emphasizing safer assets; buying things that can do relatively well even in the absence of prosperity; and/or shunning leverage and beta.
  - **Skill** - the ability to make these decisions correctly on balance (although certainly not in every case) through a repeatable intellectual process and on the basis of reasonable assumptions regarding the future. Nowadays this has come to be known by its academic name: "alpha".
  - **Luck** - what happens on the many occasions when skill and reasonable assumptions prove to be of no avail - that is, when randomness has more effect on events than do rational processes, whether resulting in "lucky breaks" or "tough luck". The luck is the wild-card; it can make good decisioning fail and bad ones succeed, but mostly in the short run. In the long run, it's reasonable to expect skill to win out.
- The real estate cycle
  - The cycle in real estate has a lot in common with other cycles, such as the one that controls the provision of capital or credit.

### *3 Market Cycles And The Psychology*

- \* Positive events and increased profitability lead to greater enthusiasm and optimism.
  - \* Improved psychology encourages increased activity. That includes doing more of something; doing it on the basis of rosier assumptions; paying higher prices to do it; and/or lowering the standards that have to be met if one is to do it. All of these things tend to entail the assumption of greater risk.
  - \* The combination of positive psychology and the increase in activity causes asset prices to rise, which encourages still more activity, further price increases, and greater risk-bearing.
  - \* Inevitably this virtuous circle takes on the appearance of being unstoppable, and this appearance causes asset prices and the level of activity to go too far to be sustained.
- When the news eventually turns less positive and the environment becomes less hospitable, the levels of psychology, activity and risk-bearing prove to have been excessive, and the same goes for asset prices. The resulting price correction causes psychology to become less positive, which causes disinvestment, which puts further downward pressure on prices, and so forth. These are all elements that most financial cycles have in common, and that includes the cycle in real estate. But the real estate cycle incorporates another ingredient that the others generally don't share: the long lead times required for real estate development to take place.
  - There can be significant delays. Before a new building can come to market, adding to the supply of space, economic feasibility studies and environmental impact studies have to be performed; a site has to be found and purchased; the building has to be designed; construction must be completed, etc. This process can run for several years, and in the case of a major project it can exceed a decade. But market conditions can change very significantly in the interim.
- There have always been ideas, stocks and IPOs that produced great profits. Yet the pressure to participate wasn't as great as it is today, because in the past the winners made millions, not billions, and it took years, not months.
  - In bubble territory: the fact that investors are willing to swallow a promise of return without risk is an infallible indicator that skepticism is in short supply, psychology is overheated, and the subject asset is overestimated and thus probably overpriced. Watch out for it, and resist if you can.
  - When the market is high in its cycle, they should emphasize limiting the potential for losing money, and when the market is low in its cycle, they should emphasize reducing the risk of missing opportunity.
  - A few more things about the nature of cycles:

### 3 Market Cycles And The Psychology

- Cycles are inevitable.
  - Cycles' clout is heightened by the inability of investors to remember the past.
  - Cycles are self-correcting, and their reversal is not necessarily dependent on exogenous events (events occurring in other areas). Trends create the reasons for their own reversal. Success carries within itself the seeds of failure, and failure the seeds of success.
  - Cycles are often viewed as less symmetrical than they are. Boom/bust is a good illustration of cycle symmetry. Busts follow booms.
- An effort to explain life through the recognition of patterns - and thus to come up with winning formulas - is complicated, in large part, because we live in a world that is beset by randomness and in which people don't behave the same from one instance to the next, even when they intend to.
  - Economic cycle = business cycle (term mostly used in the past though).
  - One of the main determinants of each year's economic output is the number of hours worked. In turn, the most fundamental factor underlying increases in hours worked is population growth. Growth in the population means there are more people working each year to make and sell products (and also more people to buy and consume them, encouraging production). More production equals more GDP. If the population is growing, hours worked tend to grow, and so does GDP. Thus births are one of the main reasons for the usual presumption that economic growth will be positive. On the other hand, if the population is shrinking, positive GDP growth faces a significant headwind. Changes in birth rates generally take place over long periods of time, and when they do, they require years to affect GDP growth. So year-to-year changes in GDP are unlikely to be attributed significantly to changes in the birth rate.
  - GDP, in the long run, influences: demographic movements, determinants of inputs (such as unemployment rate or # of hours worked by each person), aspiration (profit motive and desire to live better for producing more), education, technology, automation, and globalization.
  - Summary of economic cycles:
    - The output of an economy is the product of hours worked and output per hour; thus the long-term growth of an economy is determined primarily by fundamental factors like birth rate and the rate of gain in productivity (but also by other changes in society and environment). These factors usually change relatively little from year to year, and only gradually from decade to decade. Thus the average rate of growth is rather steady over long periods of time. Only in the longest of time frames does the secular growth rate of an economy significantly speed up or slow down. But it does.

### *3 Market Cycles And The Psychology*

- Long-term economic growth is steady for long periods of time but subject to change pursuant to long-term cycles.
- Short-term economic growth follows the long-term trend on average, but it oscillates around that trend line from year to year.
- People try hard to predict annual variation as a source of potential investing profit. And on average they're close to the truth most of the time. But few people do it right consistently; few do it that much better than everyone else; and few correctly predict the major deviations from trend.
- Extreme economic cyclicalities are considered undesirable. Too much strength can kindle inflation and take the economy so high that a recession becomes inevitable. Too much weakness, on the other hand, can cause companies' profits to fall and can cost people their jobs. Thus it is part of the job of central bankers and Treasury officials to manage cycles. Since cycles produce ups and downs that can be excessive, the tools for dealing with them are counter-cyclical and applied with a cycle of their own - ideally inverse to the economic cycle itself. However, like everything else involving cycles, managing them is far from easy. If it weren't, we wouldn't see the extremes we do.
- Early on, many central banks issued currency. Their primary roles may have been to issue currency and exchange it on request for gold or silver. Today, central banks are primarily concerned with managing economic cycles, with inflation - not to eliminate it, but to control it.
- The reasons for inflation are somewhat mysterious and unreliable and sporadic. Sometimes a given set of circumstances will give rise to inflation, and at other times the same circumstances will lead to more or less inflation, or to none at all. But in general, inflation is viewed as a result of a strong upward movement of the economic cycle.
  - When the demand for goods increases relative to the supply, there can be "demand-pull" inflation.
  - When inputs to production such as labor and raw materials increase in price, there can be "cost-push" inflation.
  - Finally, when the value of an importing country's currency declines relative to that of an exporting country, the cost of the exporter's goods can rise in the importing country.

The cost of goods can escalate for any of these reasons. That's inflation. But sometimes these events can occur without an accompanying acceleration of inflation. And sometimes inflation can increase without these things being present. There is a large psychological component that influences all of this.

#### **Central Banks**



### *3 Market Cycles And The Psychology*

- Central banks can try to influence inflation by reducing the money supply, raising interest rates and selling securities. When the private sector purchases securities from the central bank, money is taken out of circulation; this tends to reduce the demand for goods and thus discourages inflation. They can accomplish the goal of keeping inflation under control, but they also restrain the growth of the economy, with effects that can be less than beneficial.
- Most central bankers have two jobs: to limit inflation, which requires restraining the growth of the economy, and to support employment, which calls for stimulating economic growth. In other words, their dual responsibilities are in opposition to each other, and thus their job requires a delicate balancing act.
- An economic upswing tends to encourage employment but can cause inflation to accelerate. Stagflation or contraction, on the other hand, discourages inflation but can cut into employment. So the job of the central banker is to behave appropriately counter-cyclically: that is, to limit the extend of cycles, slowing the economy in times of prosperity in order to keep inflation under control, and stimulating the economy during slowdowns to support employment.

#### **Government**

- Governments have a greater variety of responsibilities than central bankers, only a small portion of which are related to economic matters. They also are charged with stimulating the economy when appropriate, but not directly with controlling inflation.
  - Governments' main tools for managing the economic cycle are fiscal, defined as being concerned primarily with taxing and spending. Cutting taxes, increasing government spending, and even distributing stimulus checks, making more money available for spending and investment.
- The process that determines a company's profits is complex and multivariate. The economic cycle has a profound effect on some companies' sales but less on others. Largely because of differences in operating and financial leverage, a given percentage change in sales has a much greater impact on profits for some companies than for others. Companies' profits are much more volatile than GDP. More GDP means more consumption, and thus stronger demand for goods. That, in turn, means greater volumes sold and higher selling prices, more work and higher wages, and thus still more consumption. All those things together mean increased revenues for businesses.
  - By definition, the collective sales of all businesses are one and the same as GDP, and they reflect the same rate of change. But that doesn't mean all companies follow the same pattern. It depends on a given industry.
    - Sales of industrial raw materials and components are directly responsive to the economic cycle. When business collectively increases its output - that is,

### *3 Market Cycles And The Psychology*

when GDP expands - it takes more chemicals, metals, plastic, energy, wire and semiconductors to do so, and vice versa.

- Everyday necessities like food, beverages and medicine aren't highly responsive to the economic cycle. People generally consume them regardless of what's going on in the economy. But demand isn't absolutely constant: people trade down in recessions - buying cheaper food and eating at home rather than in restaurants - and they trade up in times of prosperity. And, sadly, people who are struggling financially may cut down even on their consumption of "necessities" when forced to choose between food, medications and rent payments.
  - Purchases of big-ticket "durable goods" - things like cars and homes for individuals and trucks and factory equipment for businesses - are highly responsive to the economic cycle. They are durable so they last a long time, so replacement can be deferred in times of economic weakness. Also, because they cost a lot, they are hard to afford in bad times and easier to afford in good times. And businesses generally need more of them when business is good and less when it isn't. These things make the demand for durables highly responsive to the economic cycle.
  - Demand for everyday services generally isn't volatile. If they are necessary and low-priced, demand won't be highly sensitive to changes in the economy.
- The economic cycle has a profound effect on some companies' sales but less on others. Largely because of differences in operating and financial leverage, a given percentage change in sales has a much greater impact on profits for some companies than for others.
  - The pendulum of investor psychology - pendulum swings are seen:
    - between greed and fear,
    - between optimism and pessimism,
    - between risk tolerance and risk aversion,
    - between credence and skepticism,
    - between faith in value in the future and insistence of concrete value in the present, and
    - between urgency to buy and panic to sell.
  - The superior investor is mature, rational, analytical, objective, and unemotional. Thus he performs a thorough analysis of investment fundamentals and the investment environment. He calculates the intrinsic value of each potential investment asset. And he buys when any discount of the price from the current intrinsic value, plus any potential increases in intrinsic value in the future, together suggest that buying at the current price is a good idea. In order to be able to do all the above,

### *3 Market Cycles And The Psychology*

the superior investor strikes an appropriate balance between fear (which is shorthand for risk aversion, dislike for loss, and respect for uncertainty and randomness) and greed (a.k.a. aspiration, aggressiveness and acquisitiveness). All people feel emotions, but superior investor keeps those conflicting elements in balance. The presence of the two offsetting forces leads to responsible, wise, and even-keeled behavior. The superior investor resists psychological excesses and thus refuses to participate in extreme swings in psychological extremes. Emotional investors will need a great deal of self-awareness and self-restraint to become good investors.

- Investor psychology rarely gives equal weight to both favorable and unfavorable developments. Likewise, investors' interpretation of events is usually biased by their emotional reaction to whatever is going on at the moment. Few of the people involved actually are objective. Expecting widespread clinical observation during a market mania makes about as much sense as saying "everyone knows the market has gone too far." If many people recognized that it had gone too far, it wouldn't be there.
- Risk is uncertainty with regard to future developments, and the possibility of bad outcomes. And the current state of the environment is key in determining how we should behave with regard to risk at that point. Risk is high when investors feel risk is low. The greatest source of investment risk is the belief that there is no risk.
- Superior investing doesn't come from buying high-quality assets, but from buying when the deal is good, the price is low, the potential return is substantial, and the risk is limited. These conditions are much more the case when the credit markets are in the less-euphoric, more stringent part of their cycle. The slammed-shut phase of the credit cycle probably does more to make bargains available than any other single factor.

### 3.4 Howard Marks On Credit Cycles

Howard believes that the credit cycle is the most volatile of the cycles and has the greatest impact. Thus it deserves a great deal of attention.

- The ups and downs of economies are usually blamed for fluctuations in corporate profits, and fluctuations in profits for the rise and fall of securities markets. However, in recessions and recoveries, economic growth usually deviates from its trend-line rate by only a few percentage points. Why, then, do corporate profits increase and decrease so much more? The answer lies in things like financial leverage and operating leverage, which magnify the impact on profits of rising and falling revenues. And if profits fluctuate this way - why is it that the securities markets soar and collapse so dramatically? It's because of fluctuations in psychology and, in particular, to the profound influence of psychology on the availability of capital. In short, whereas economies fluctuate a little and profits a fair bit, the credit window opens wide and then slams shut. Howard believes that the credit cycle is the most volatile of the cycles and has the greatest impact.
- Changes in the availability of capital or credit constitute one of the most fundamental influences on economies, companies, and markets.

#### Why is credit so important?

- Capital or credit is an essential ingredient in the productive process. Thus the ability of companies (and economies) to grow usually depends on the availability of incremented capital. If the capital markets are closed, it can be hard to finance growth.
- Capital must be available in order for maturing debt to be refinanced. Companies (also governments and consumers) generally don't pay off their debts. Most of the time they merely roll them over. But if a company is unable to issue new debt at the time that its existing debt comes due, it may default and be forced into bankruptcy. Where we stand in the credit cycle - whether credit is readily available or difficult to obtain - is the greatest determinant of whether debt can be refinanced at a given time.
- Many corporate assets are long-term in nature (like buildings, machinery, vehicles and goodwill). Yet corporations often raise the money with which to buy those things by issuing short-term debt. They do this because the cost of borrowing is generally lowest on short maturities. This arrangement - "borrowing short to invest long" - works out well most of the time, when the credit market is open and fully functioning, meaning debt can be rolled over with ease when it comes due. But the mismatch between long-term assets that can't be easily liquidated and shorter-term liabilities can easily bring on a crisis if the credit cycle turns negative so that maturing debt can't be refinanced. This classic mismatch, when combined

### *3 Market Cycles And The Psychology*

with stringency in the financing markets, is often the cause of the most spectacular financial meltdowns.

- Financial institutions represent a special, exaggerated case of reliance on the credit markets. Financial institutions are in the business of trading in money, and they need access to financing to keep that business going. They also are often the site of the greatest short/long mismatches and potential meltdowns.
- The credit market gives off signals that have great psychological impact. A closed credit market causes fear to spread, even out of proportion to businesses' negative realities. Difficult conditions can cause the capital market to close...and closed capital markets can have a negative impact on business conditions (as well as on market participants' opinions of businesses). This kind of "vicious circle" is part of most financial crises.

#### **Why credit cycles occur?**

1. Expand and contract process
  - a) The economy moves into a period of prosperity.
  - b) Providers of capital thrive, increasing their capital base.
  - c) Because bad news is scarce, the risks entailed in lending and investing seem to have shrunk.
  - d) Risk awareness disappears.
  - e) Financial institutions move to expand their businesses - that is, to provide more capital.
  - f) They compete for market share by lowering demanded returns (e.g. cutting interest rates), lowering credit standards, providing more capital for a given transaction, and easing covenants.
2. When this point is reached, the up-lev is reversed:
  - a) Losses cause lenders to become discouraged and shy away.
  - b) Risk awareness rises, and along with it, interest rates, credit restrictions and covenant requirements.
  - c) Less capital is made available - and at the trough of the cycle, only to the most qualified of borrowers.
  - d) Companies become starved for capital. Borrowers are unable to roll over their debts, leading to defaults and bankruptcies.
  - e) This process contributes to and reinforces the economic contraction.

At the extreme the process is ready to be reversed again. Because the competition to make loans or investments is low, high returns can be demanded along with high creditworthiness. Contrarians who commit capital at this point have a shot

### *3 Market Cycles And The Psychology*

at high returns, and those tempting potential returns begin to draw in capital. In this way, a recovery begins to be fueled.

What is the impact of the credit cycle? The Global Financial Crisis (GFC) can provide the best teaching moments (see the next point).

- Prosperity brings expanded lending, which leads to unwise lending, which produces large losses, which makes lenders stop lending, which ends prosperity, and so on. A market is an auction house where the item being offered goes to the person who'll pay the most for it. The financial markets are no different. The opportunity to make an investment or provide a loan goes to the market participant who'll pay the most for that opportunity. The bidding takes the price to higher dollar levels and higher valuation parameters (such as P/E ratios). In the credit market, a high price or high valuation parameters translates directly into a low yield on the debt instrument in question, and the change to provide capital goes to the lender who'll accept the lowest yield.
- From time to time, providers of capital simply turn spigot on or off - as in so many things, to excess. There are times when anyone can get any amount of capital for any purpose, and times when even the most deserving borrowers can't access reasonable amounts for worth-while projects. The behavior of the capital markets is a great indicator of where we stand in terms of psychology and a great contributor to the supply of investment bargains.
- When the cycle rises to an extreme, it invariably can't stay there forever. Sometimes it corrects under its own weight, and sometimes this happens because of events outside the cycle.
- It's hard to fully understand most phenomena in the investment world unless you've lived through them.

#### **The Global Financial Crisis (GFC)**

- Sub-prime mortgage borrowers began to default in large numbers. Some of the borrowers, who had received loans without providing their ability to make payments, turned out in fact to be unable. Some loans, secured through fraud, went bad when fictitious borrowers disappeared. Other loans, for the full home purchase price - which had allowed home buyers to gamble on continued home appreciation without risking any money of their own - were abandoned when the market stopped rising.
- Regardless of the reason, the historic basic that allowed sub-prime mortgage backed securities to achieve high leverage and high ratings - insistence that there wouldn't be a nationwide wave of mortgage defaults - failed to hold. As it turned out, lending decisions had been made unwisely, with undue reliance on that history. Importantly, lenders and investors had ignored the chance that such reliance would

### *3 Market Cycles And The Psychology*

give rise to lending behavior so careless that it in itself would render the history irrelevant.

- Large numbers of mortgage defaults led to downgradings, covenant breaches and payment defaults on mortgage backed securities.
- The downgradings, breaches, and defaults caused the prices of mortgage backed securities to collapse, and the resultant loss of confidence caused the market liquidity for these instruments to dry up.
- With terrified buyers to the sidelines - and terrified holders increasingly eager to sell (or forced to sell by margin calls) - the result was a dramatic downward spiral in the prices of mortgage backed securities.
- These negative developments collided head-on with new regulations, designed to increase transparency, which required banks' assets to be "marked to market." But with prices in free-fall and liquidity non-existent, it was hard to have faith in any price chosen. When banks marked down their assets to be appropriately conservative, the implied losses shocked investors, contributing to further panic, which caused prices to decline further, and so on.
- In many cases the very viability of banks came into question. Many had to be absorbed by other banks (with support from the government) or bailed out by the government.
- Each bank failure, acquisition or bailout brought losses to investors and further sapped confidence. In addition, the interlocking relationships among banks caused grave concern regarding the remaining ones' ability to rely on amounts due from the others. "Counter party risk" became the newest source of worry.
- Banks reported massive losses. The rising prices quoted for credit default swaps implied increased odds of insolvency. Shareholders dumped bank stocks in response, forcing down their prices. Short sellers sold unremittingly, adding to the downward pressure, rendering their pessimistic predictions self-fulfilling, and further extending the vicious circle.
- Ultimately, Lehman Brothers was denied absorption or bailout, leading to its bankruptcy. That collapse, when added to the many other unsettling events taking place simultaneously, led to nothing short of panic.
- Whereas the markets had reacted adversely to the problems in mortgages in mid-2007 but overlooked the potential for contagion to other areas, in late 2008 everyone threw in the towel on everything. The prices of all assets other than Treasury and gold collapsed.
- Funds that had invested using borrowed capital - "leverage" or "margin" - saw asset values marked down precipitously and received demands from lenders to

### *3 Market Cycles And The Psychology*

post additional capital. When they appealed to the banks for more time, the banks generally couldn't or wouldn't grant it. The result was distressed selling of portfolios en masse, which further increased the downward pressure on prices.

- The capital markets slammed shut in this environment, meaning new financing became virtually impossible in all quarters of the financial markets, even those totally unrelated to homes and mortgages.
- Given the sum of the above, all economic units pulled back, refusing to buy, invest or expand. The result was an economic retrenchment that has been labeled "the Great Recession". Taken to its extreme in the last 15 weeks of 2008, the downswing of the credit cycle seemed universal and unstoppable.

By the end of 2008, ingredients for a solid market recovery were in place:

- The over-levered funds that had received margin calls either raised additional capital, sold assets to de-lever as required, or liquidated. Funds and investment managers that received notices from investors desiring to withdraw at year-end either put up "gates" postponing withdrawals or completed the asset sales needed to meet them.
- The prices of debt securities reached a point where they implied yields so high that selling was unpalatable and buying became attractive.
- And, ultimately, market participants demonstrated that when negative psychology is universal and "things can't get any worse", they won't. When all optimism has been driven out, and panicked risk aversion is everywhere, it becomes possible to reach a point where prices can't go any lower. And when prices eventually stop going down, people tend to feel relief, and so the potential for a price recovery begins to arise.

Summary:

- The sub-prime mortgage bubble arose from broad acceptance that phenomena would work that had never before been seen in action. The analysis of investment vehicles should entail a) the application of skepticism and conservative assumptions and b) examination over a long history that includes some trying times. These things were clearly missing.
- In fact, most bubbles, if not all, are characterized by the unquestioning acceptance of things that have never held true in the past; of valuations that are dramatically out of line with historic norms; and/or of investment techniques and tools that haven't been tested.



#### **A few last thoughts**

- The credit cycle is sometimes referred to as the capital market cycle rather than the credit cycle. Howard doesn't find the distinction important. Strictly speaking, "capital" refers to all the money used to finance a business, while "credit" refers to that portion of a company's capital that's made up of debt rather than equity. Howard sticks to "the credit cycle" when he's only talking about debt markets, and "capital market cycle" when he's talking about the general availability of financing. But most importantly, the considerations that apply to one apply equally to the other.
- Cautious credit market usually stems from, leads to or connotes things like these:
  - fear of losing money
  - heightened risk aversion and skepticism
  - unwillingness to lend and invest regardless of merit
  - shortages of capital everywhere
  - economic contraction and difficulty refinancing debt
  - defaults, bankruptcies and restructurings

Taken together, these things are indicative of a great time to invest.

- On the other hand, a generous capital market is usually associated with the following:
  - fear of missing out on profitable opportunities
  - reduced risk aversion and skepticism (and, accordingly, reduced due diligence)
  - too much money chasing too few deals
  - willingness to buy securities in increased quantity
  - willingness to buy securities of reduced quality
  - high asset prices, low prospective returns, high risk and skimpy risk premiums
- The key to dealing with the credit cycle lies in recognizing that it reaches its apex when things have been going well for a while, news has been good, risk aversion is low, and investors are eager. That makes it easy for borrowers to raise money and causes buyers and investors to compete for the opportunity to provide it. The result is cheap financing, low credit standards, weak deals, and the unwise extension of credit. Borrowers hold the cards when the credit window is wide open - not lenders or investors. The implications of all this should be obvious - proceed with caution.
- The exact opposite becomes true at the other extreme of the credit cycle. Its nadir is reached when developments are unpleasant, risk aversion is heightened, and investors are depressed. Under such circumstances, no one wants to provide

### 3 Market Cycles And The Psychology

capital, the credit market freezes up, and proposed offerings go begging. This puts the cards into the hands of providers of capital rather than the borrowers. Because borrowing is difficult and capital is generally unavailable, those who possess it and are willing to part with it can apply rigorous standards, insist on strong loan structures and protective covenants, and demand high prospective returns. It's things like these that provide the margin of safety required for superior investing. When these boxes can be ticked, investors should swing into an aggressive mode.

- Superior investing doesn't come from buying high-quality assets, but from buying when the deal is good, the price is low, the potential return is substantial, and the risk is limited. These conditions are much more the case when the credit markets are in less-euphoric, more-stringent part of their cycle. The slammed-shut phase of the credit cycle probably does more to make bargains available than any other single factor.
- *"What the wise man does in the beginning, the fool does in the end."* - this tells you 80% of what you have to know about market cycles and their impact. Warren Buffett has said much the same thing: *"First the innovator, then the imitator, then the idiot."*

## 3.5 Psychology And Psychological Biases

Some cognitive biases that cause investment mistakes:

- *Anchoring bias* - tendency to rely too heavily on piece of past information when making decision. Especially when it comes to stock prices. It's hard to avoid, but past prices are irrelevant to future prices.

**How to avoid:** The best is to check a stock independently and objectively.

- *Neglect a probability* - ignoring or underestimating probabilities in decision making. What is the most likely scenario for a company for going forward? In reality, there is the whole spectrum of possible future outcomes that could influence possible returns of a company and your investment returns. Some companies that are stable may have a smaller spectrum of possibilities. For example FANG may have a much wider range of potential outcomes. Sometimes people are underestimating a probability of so called Black swan events.

**How to avoid:** Being ignorant of risks doesn't make them go away.

- *Restraint bias* - it's very tempting to continue investing more in what we believe are our best investment opportunities. It can easily get out of hand if you're not conscious of it. On one hand, if you see an investment that you've made do really well, you might be tempted to put more money there, hoping that those gains will continue to raise further. However, there's also a possibility that one of your investment has fallen and thus provides the temptation to add more money to reduce your cost basis further. But it can lead to having a position too large for one's risk appetite within your portfolio.

**How to avoid:** Before even buying a stock, you have to have an idea of the maximum amount of stock you want of that within your portfolio and be very careful not to exceed that limit. You can have too much of a "good thing".

- *Bandwagon effect / groupthink* - If a large group of people do or think the same way as us. It can give us a false sense of security when we have many people around us on the same boat.

**How to avoid:** Have an independent objective thinking and don't always go with the herd. Group thinking are one of the primary reasons why we see many financial speculative bubbles. Such as The Dot-Com bubble in 2000 or cryptocurrency mania in 2017.

Robert Frost: "Two roads diverged in a wood, and I - I took the one less traveled by and that has made all the difference."

- *Hindsight bias* - Looking at the past events and consider them more predictable than they actually were. Such as "Oh, I should have buy X" or "I should sell Y". You can see a lot of mainstream articles that show these off. Hindsight bias hurts investors because it prevents them from learning from the past investment

### 3 Market Cycles And The Psychology

mistakes. In the worst case, it can lead investors thinking that every successful investment they made was because of their keen judgment even if it wasn't. And it can cause investors to chalk up losses simply because of volatility and unpredictable events.

**How to avoid:** Have a written thesis or investment idea for each investment you consider taking. This would include why you think this investment is of a good value, some risks of the investment, and also expected return. You can have sense of exactly what you were thinking every time you made an investment decision.

- *Oversimplification* - investment is a very complex topic! There are situations that are simply too complex or uncertain to boil down within a few simple arguments.

**How to avoid:** Focus on investing within your circle of competence. These are companies or industries you know the best. Circle of competence - intersection between: What do you like? Where do you earn money? Where do you spend money?

- *Incentive-caused bias* - this covers the rewards investment can have on human behavior and how they can often lead to poor long-term decisions. People say - if you want to find the truth, follow the money.

**How to avoid:** When investing into businesses, see how management is compensated. Look for compensation plans that are not too heavily skewed towards options and incentivize a management for both achieving long-term results, but also avoiding downside risk. Having the right incentives in place ensure that management is working for you as the owner and shareholder.

- *Loss aversion/endowment effect* - this is for people who prefer avoiding losses over achieving the same amount of gain. This is closely related to endowment effect, which is where someone places a higher value on a good that they own, compared to the same good that they don't know. Both combined can lead to a very strong bias and poor investment decisions, when an investor refuses to sell an investment at a loss in hopes of trying to make that money back. You see this in form of rationalized comments like "it's not a loss until you sell". However, you are also paying a significant opportunity cost.

**How to avoid:** Keep a limited number of stocks in your portfolio and not to exceed that limit. This limit will force you to invest only in what you believe at that time because these are your best investment options. This will force you to cut your losses with investments that you no longer think are good investment decisions.

- *Information bias* - tendency to evaluate information even when it's useless when making a decision or understanding an issue. This is particularly prevalent today, when you have access to nearly unlimited amount of information. However, the quality of such information is questionable as well as the relevancy. Much of these came from other people's opinions. This includes also looking at daily stock prices

### 3 Market Cycles And The Psychology

in a sense daily stock price are simply the markets day to day opinion on the stock, and are really not that relevant for making long-term decisions.

**How to avoid:** Majority of investors would be perfectly fine only by looking at their stocks once a week or even just once a month. Rarely there is an opportunity you would miss by not keeping up to day with a market.

- *Confirmation bias* - when an investor seeks out or emphasizes information that confirms an existing conclusion or belief that we have. This is probably the number one cause of investor mistakes, because investors will get overconfident when they keep seeing information that confirms the beliefs that they already have. This is a particularly difficult bias to fight against, because we naturally seek out information that we want to hear and avoid or reject information that goes against our current beliefs. Unfortunately, media and social networks supports cognitive bias. They promote information you want to hear.

**How to avoid:** You have to seek out information how you could potentially be wrong on an investment decision and not the other way around. Often, listening to people of opposing opinions can provide insight into some risks and considerations you would not have.

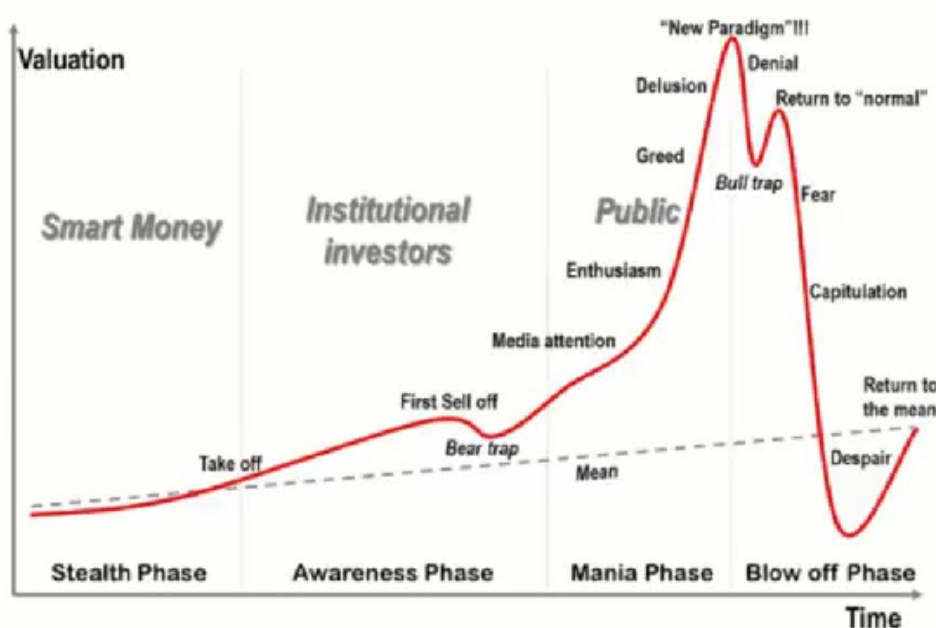


Figure 3.4: A psychological phases of a company's valuation in time

- (Howard Marks) Asking for investment advice without specifying the attitude toward risk and return, is like asking a doctor for a good medicine without telling

### 3 Market Cycles And The Psychology

him what ails you. Howard asks clients or friends: Which do you care about more, making money or avoiding losses? The answer is invariably the same - both. The problem is that you can't simultaneously go all out for both profit making and loss avoidance. Each investor has to take a position regarding these two goals, and usually that requires striking a reasonable balance. The best way to put this decision into perspective is by thinking of it in terms of offense versus defense.

- (Howard Marks) Defensive investing
  - It can be seen as an attempt at higher returns, but more through the avoidance of minuses than through the inclusion of pluses, and more through consistent but perhaps moderate progress than through occasional flashes of brilliance.
  - There are 2 principal elements in investment defense. The first is the exclusion of losers from portfolios. This is best accomplished by conducting extensive due diligence, applying high standards, demanding a low price and generous margin for error and being less willing to bet on continued prosperity, rosy forecasts and developments that may be uncertain. The second element is the avoidance of poor years and especially, exposure to meltdown in crashes. In addition to the ingredients described previously that help keep individual losing investments from the portfolio, this aspect of investment defense requires thoughtful portfolio diversification, limits on the overall riskiness borne, and a general tilt toward safety.
  - Concentration and leverage are two examples of offense. They'll add to returns when they work but prove harmful when they don't - again, the potential for higher highs and lower lows from aggressive tactics. The critical element in defensive investing is what Warren Buffett calls "margin of safety" or "margin for error" (they are the same thing).
  - At Oaktree, they believe that if they avoid the losers, the winners will take care of themselves. In bull markets, they have average or even below-average returns. But in bear market, they don't suffer big losses, so they are overperforming market during its downfall.
- (Graham) There are 2 types of investors - defensive and aggressive role. There is no room in this philosophy for a middle ground, or a series of gradations, between passive and aggressive status. Many, perhaps most, investors seek to place themselves in such an intermediate category. In Graham's opinion that is a compromise that is more likely to produce disappointment than achievement. As an investor you cannot soundly become "half a businessman".
  - Defensive Investor
    - \* Preferred stocks should be bought on a bargain basis (when their price is depressed by temporary adversity) or not at all. And Graham argues that corporate bonds should be also avoided. So US Savings bonds and common stocks should be a way to go for a defensive investor.

### *3 Market Cycles And The Psychology*

- \* Bad things about bonds:
  - Good bonds carry no protection against inflation. The bondholder suffers the full effect of any loss in purchasing power of the dollars that he lent.
  - Good common stocks provide a better degree of protection against inflation than do high-grade bonds. A number of investment authorities have insisted that common stocks are by no means a perfect hedge against inflation, and they are right. Nevertheless, there is a sound theoretical basis for expecting their dividends and their average market value to be pushed upward by the forces of inflation. Past experience shows that this has in fact occurred and that the careful common-stock buyer has gained somewhat in income and principal value to offset the inroads of inflation.
  - A typical bond - when interest rates go down, the call feature forces the investor to lose income, and when the rate goes up, the investor loses principal.
  - Historically, long-term returns from bonds are lower than from common stocks.
- \* The selection of common stocks for the portfolio of the defensive investor is a relatively simple matter:
  1. Adequate, but not excessive diversification - 10-30 stocks.
  2. Each selected company should be large, prominent, conservatively financed.
  3. Each company should have a long record of continuous dividend payments.
  4. The price paid for each should be reasonable in relation to its average earnings for the last 5 years or longer. Graham recommends a price not to exceed 20 times of such earnings. This would protect the investor against the common error of buying good stocks at high levels of the general market. It would also bar the purchase, even in normal markets, of a number of fine issues which sell at unduly high prices in anticipation of greatly increased future earnings.

Common stock investment, however, as a whole presents a psychological hazard, because stock buyers are subject to human weakness and are prone to talk like investors and to act like speculators. But if an intelligent investor will stick to high-grade stocks bought at reasonable prices - then he can do better than the bond investor.
- \* In a period of wide fluctuations in stock prices, dollar averaging will show better results than the method of purchasing a fixed number of shares each year regardless of price. For most investors, Graham thinks, the

### 3 Market Cycles And The Psychology

real meaning of dollar averaging indicates that they should be wary of putting more money in stocks at higher prices than they did at lower prices - which is a common failing - and that they should never let a lower price level scare them away from buying.

– Aggressive investor

(Or as Graham calls him, the enterprising investor) He should start from the same base as the defensive investor, namely, a division of his funds between US Savings Bonds and high-grade common stocks bought at reasonable prices. The activities characteristic of the enterprising investor may be classified under 4 heads:

1. Buying in low markets and selling in high markets (formula timing)

A simple application of this idea would be to sell 10% of your holdings when the market advances 10% above a chosen base or central level; then to sell 20% of the remainder when it advances another 10%, and so on. Repurchases would be made after the market had declined to the central level, and on some similar schedule. Following this plan, you would have sold all your stocks if and when the market level reached double the base figure, and you would then have realized a profit of 37% above the base.

2. Buying carefully chosen "growth stocks"

Thus for good results in the growth stock field there is need not only for skillful analysis but for ample diversification as well. The enterprising investor may properly buy growth stocks. He should beware of paying excessively for them, and he might well limit the price by some practical rule. A growth-stock program will not be automatically successful; its outcome depend on the foresight and judgment of the investor or his advisers rather than on any clear-cut methods of analysis.

3. Buying bargain issues of various types

Graham defines a bargain issue as one which, on the basis of facts established by analysis, appears to be worth considerably more than it is selling for. An issue is not a true "bargain" unless the indicated value is at least 50% more than the price. There are 2 tests by which a bargain common stock is detected:

- \* Method of appraisal - it relies largely on estimating future earnings and then multiplying these by a factor appropriate to the particular issue.
- \* Value of the business to a private owner. This value also is often determined chiefly by expected future earnings - in which case the result may be identical with the first. But in this second test more attention is likely to be paid to the realizable value of the assets, with particular emphasis on the net current assets or working capital.



#### 4. Buying into "special situations"

A particular kind of undervalued security in which the profit is expected to be realized from a definite corporate event rather than from a mere change in the market's attitude is known as a "special situation." Such events include sale of the business, merger, recapitalization, reorganization, and liquidation.

- (Graham) Investor vs Speculator

- The most realistic distinction between the investor and the speculator is found in their attitude toward stock-market movements. The speculator's primary interest lies in anticipating and profiting from market fluctuations. The investor's primary interest lies in acquiring and holding suitable securities at suitable prices. Market movements are important to him in a practical sense, because they alternately create low price levels at which he would be wise to buy and high price levels at which he certainly should refrain from buying and probably would be wise to sell.
- It is far from certain that the typical investor should regularly hold off buying until low market levels appear, because this may involve a long wait, the loss of considerable dividend income, and the possible missing of investment opportunities. On the whole it may be better for the investor to do his stock buying whenever he has money to put in stocks, except when the general market level is higher than can be justified by well-established standards of value. If he wants to be shrews he can look for the ever present bargain opportunities in individual securities.
- Intelligent investor should never buy a stock because it has gone up or sell one because it has gone down. He would not be far wrong if this motto read more simply: *"Never buy a stock immediately after a substantial rise or sell one immediately after a substantial drop."*
- Intelligent investor might take an advantage of the cyclical swings of the general market - buying when a stock is historically low or neutral and beginning to sell as soon as the market passes into historically high levels.
- Price fluctuations have only one significant meaning for the true investor. They provide him with an opportunity to buy wisely when prices fall sharply and sell wisely when they advance a great deal. At other times he will do better if he forgets about the stock market and pays attention to his dividend returns and to the operating results of his companies.

## 4 Investing Strategies

There are many ways how to invest your money. Ideally, we want to maximize return on the money we earned with as small risk as possible. So here, by “investing” we mean not just long-term investing in stocks, but also investing into alternative asset classes or even short-term trading. We tried to provide a list of possible investing strategies and categorize various styles in the following part of this section. Note: investors and traders used to combine different styles as part of their overall strategy, keep that in mind - you don't need to be just long-term investor - important thing is to have long-term strategy and to consistently apply it given your own life situation, goals, and most importantly, your personality.

### **Investing based on the type of gain we are trying to achieve**

- Cash Flow
  - You are hoping to have consistent and predictive income from your asset. The goal here is to build wealth steadily over time, and ideally you would buy more assets by reinvesting the gains.
  - You can buy more houses or buy stocks (reinvest and buy more from their dividends: DRIP - Dividend Reinvestment Program).
  - This is good if you want to be financially independent, or for your retirement.
- Capital Gains
  - Buying for \$1 and selling for \$2 for example. So typical buy low sell high. Or buy high sell higher as some people do. But typically you want to buy things that are undervalued (given the past, or even or distant future) and sell for higher price. The difference is capital gain.
  - One of the cons here is that it can lead to speculations and if you are wrong, you can lose lot of money.
  - Capital gain - difference between the buy price and sold price of a stock.

### **Investing based on the holding period of assets**

- Long-term investor. An investor that buys a stock and holds it for minimum 1 year (but usually at least 3-5 years or more).
- Short-term investor. An investor that buys a stock and holds it for weeks or months. This is very different than day trading, they are not trying to get in and

## 4 Investing Strategies

out as quickly as possible. Those people think about a company - maybe it will go up or down in the next week for example. They are trying to capitalize on various events. But they don't really care about the company in long term, about its long term vision. Just short term. This is also called Short-term Trading or Swing Trading.

- Day trader. Those people might trade with the same stock even multiple times each day or even hour. They look at technical live data and try to judge a stock. Maybe just with a little profit, again and again. Those people don't care about underlying business, who CEO is, long term vision, etc. about the company. They are just trying to get in and out of a stock as quickly as possible.
- Short seller. An investor that believes a stock is going down in relatively near future.

### **Investing based on size of companies**

- Large cap investor. Investor looking and investing into huge corporations over 50 billion market cap.
- Mid cap investor. Investor looking and investing into big companies between 20-50 billion market cap.
- Small cap investor. Investor looking and investing into companies between 500 million and 10 billion market cap.
- Micro cap investor. investor looking and investing into smaller companies under 250 million market cap.

### **Investing based on type of assets (this isn't an exhaustive list by any means)**

- Traditional:
  - stocks
  - bonds
  - cash “equivalents” - done by financial institutions such as savings account, GIC, Money Market Instruments, and others
- Alternative investments:
  - real estate - commercial or residential buildings, or REITs, or Mortgage-backed securities
  - commodities - minerals, metals, agriculture products
  - rum or whiskey
  - old cars
  - crypto
  - private equity or venture capital

## Various Ideas And Helpful Strategies

- It's good to have 3 things in portfolio - insurance, investment, and speculation.
- *Kelly Criterion*
  - It was used by Pabrai, Munger, and Buffett.
  - Probability of winning -  $(1 - \text{probability of winning}) / \text{winnings as a percent}$ .
  - For example, let's imagine that you have 50% of losing and 50% of winning - like flipping a coin. You have totally \$1 and you can win \$1.5 and lost \$1. So the question is how much money you can afford to put?
    - \*  $K = 0.5 - (1 - 0.5) / 1.5 = 0.167$  or 17% of your available balance.
    - \* So in this game, it would be wise for your first bet to wager 17 cents.
  - I think that it only works for certain criteria, such as if you have win bigger than a loss. You should bet approximately what the formula calculates, not more, not less - to have maximum returns.
- An idea how to find potential penny stocks:
  - Market Cap between \$0.2B - \$1B
  - Debt to asset up to 44%
  - ROA - between 1-27%
  - ROE - between 1-34%
  - Consistent sales growth
  - Consistent operating margin trend
  - Lower debt leverage
- The Fearsome Foursome
  - For tracking performance of individual investments. Just write down 4 numbers - price of stock you bought and sold: 3 months before buy, buy price, sell price, and 3 months after sell.
  - With this system, you're looking to improve your buy and sell points. For most growth investors, the price 3 months before the buy should be lower than the buy price. For value investors, the price three months before the buy should be higher than the buy price. Value investors expect to buy when stocks go on sale. With selling, everybody wants the same thing here - to sell at the top just before the stock dives to lower prices. Growth and value investors can agree on this point.
  - Look over several fearsome foursomes for different stocks you've owned. Watch for trends. If you're consistently buying or selling too soon or too late, make note of that tendency. In many cases, your fearsome foursome numbers will tell entirely different stories for different stocks. If so, there is little you can do because all the evidence is contradictory.

- O'Shaughnessy
  - Best value measures
    - \* Look for stocks with low P/S ratios. O'Shaughnessy found P/S more reliable than P/E.
    - \* High EBIDTA/EV. EBIDTA is a number you get when you add money lost to interest, taxes, depreciation, and amortization back to net income. Those four expense categories can be misleading when trying to compare companies, because finance and accounting methods vary widely from place to place. Thus, EBIDTA strips out those vagaries to look at raw profitability. EV is more accurate than market capitalization because somebody buying the whole company would need to pay its enterprise value, not its market cap. They would bank its cash but become responsible for its debt.
  - Best growth measures
    - \* Relative Price Strength. In the short term, Newton's first law of motion seems to apply to large stocks as well as physical objects: prices in motion tend to stay in motion. The winners keep winning and the losers keep losing. O'Shaughnessy concluded that "relative strength is among the only pure growth factors that actually beats the market consistently, and by a wide margin." He believes the reason is that it "conveys different information about the prospects of a stock and is a much better indicator than factors such as earnings growth rates. Many look at the disappointing results of buying stocks with the highest earnings gains and wonder why they differ from the best price performers. First, price momentum is the market putting its money where its mouth is. Second, the common belief that stocks with strong relative strength also have the highest P/E ratios or earnings growth is incorrect. When you look at the top performers over time, you find that they are rarely the highest valued in terms of P/E or P/S." The only time when price momentum did not work were bubble market tops and bear market bottoms.
    - \* So, except for moments of extreme optimism and initial recoveries from extreme pessimism, buy stocks with the best 6-month relative price strength.
  - Combining the measurements
    - \* Value factors - O'Shaughnessy calls Value Factor Two (the first didn't work out)
      - P/B, P/Cash-flow, P/E, P/S, EBITDA/EV, Shareholder yield (dividend yield + share buybacks in %).
      - Put a score on stocks in the following way - if a stock has a P/E that is the lowest 1% of the universe, it receives a rank of 100. If a stock has a P/E ratio in the highest 1% for the universe, it receives a rank

#### 4 Investing Strategies

of 1. For shareholder yield and EBITDA/EV, stocks in the 1% of the universe with the highest values are ranked 100 and ones within the lowest 1% are ranked 1.

- Once all the factors are ranked, we add up all their rankings and assign the stocks to deciles based upon their overall cumulative ranking.
- \* Adding growth component to stocks found in Value Factor Two (O'Shaughnessy called this strategy that combines value and growth as Trending Value, because he tries to find the best value stocks that are also trending up sharply in price):
  - Get only the best stocks and apply 6-month relative price strength. Do not buy relative strength winners in moments of extreme optimism though. Relative strength losers perform well only during initial recoveries from extreme pessimism at bear market bottoms.
  - Stick to this strategy over many years - we are our own worst enemies when it comes to letting a strategy work over the entire market cycle. It's important to stick with the strategy through complete market cycles, even though it'll underperform in some years. Also, they can be a very unfamiliar companies and you can have some doubts.

## 4.1 Long-Term Investing

- (Howard Marks) Investing can't be reduced to an algorithm and turned over to a computer. Even the best investors don't get it right every time. The reasons are simple. No rule always works. The environment isn't controllable, and circumstances rarely repeat exactly. Psychology plays a major role in markets, and because it's highly variable, cause-and-effect relationships aren't reliable. An investment approach may work for a while, but eventually the actions it calls for will change the environment, meaning a new approach is needed. And if others emulate an approach, that will blunt its effectiveness. Investing, like economics, is more art than science. And that means it can get a little messy. Investment approach must be intuitive and adaptive rather than fixed and mechanistic.
- (Philip Fisher) In occasional cases it may take as much as five years for investments to demonstrate their real merit. Usually it does not take that long.
- (Peter Lynch) However a stock come to your attention, the discovery is not a buy signal. What you've got so far is simply a lead to a story that has to be developed. You have to treat the initial information as if it were an anonymous and intriguing tip. This will keep you from buying a stock just because you've seen something you (or someone else) like. Developing the story is really not difficult: at most it will take a couple of hours.
- (Peter Lynch) You don't have to make money on every stock you pick. In Lynch experience, 6/10 winners in a portfolio can produce a satisfying results. All you need is a few big winners and the pluses will overwhelm the minuses from the stocks that don't work out as expected. You only have to find 1 big winner out of 11. The more right you are about any one stock, the more wrong you can be on all the others and still triumph as an investor.
- We wrote quite a lot about strategies of famous long-term investors, see Section 2.1.

#### 4 Investing Strategies

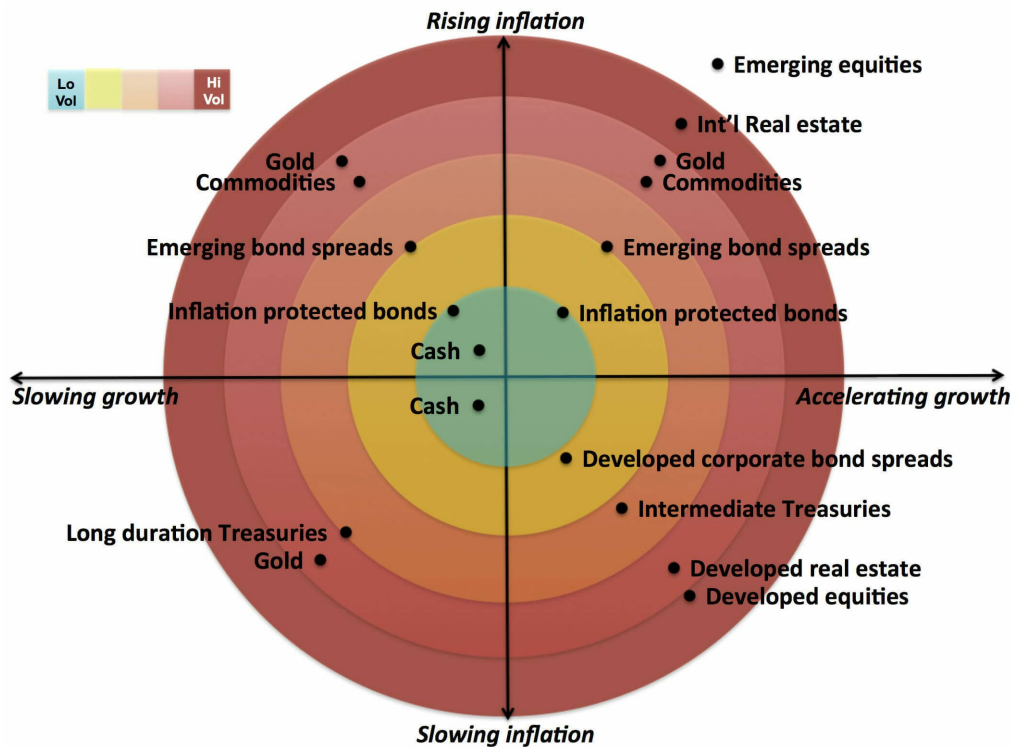


Figure 4.1: Ray Dalio's All Weather Portfolio (link to the original article [here](#))

- A possible “algorithmic” approach to investing (the first 5 steps can take 1-2 hours):
  1. Is company public?
  2. See the business - website, products, news, or even shortly check the annual report - all just briefly. Who is the founder, is it a strong brand?
  3. Strong balance sheet
    - Check cash vs debt.
    - Warren Buffett invest only to the companies with market cap over 1 billion dollars. But a retail investor doesn't have to!
    - So he invest into well-established companies generally speaking. And he also looks for dividends. If a company doesn't pay dividends, he is not very interested in it. Dividends can be a “protection” against stocks that go down.
  4. Income statement
    - Revenues growing 10% or more (or at least expectations are 10% or more). See the last 3 years. Is it upward trajectory?
  5. P/E ratio
  6. Dig deeper - annual reports and beyond, for example:



#### 4 Investing Strategies

- a) Read risk factors in 10k. It's super important. It's like a golden thing for investors. What are, and how real are those risks?
  - b) Read the latest 10q (quarterly report). See if the things are matching up with 10k, if there is no surprise.
  - c) Check Google News about a given company. Good publicity? New product? No losses?
  - d) You must have an investment thesis!
- *S.W.O.T analysis*
    - It stands for: Strengths, Weaknesses, Opportunities, Threats
    - It's good to do SWOT analysis each year - if you are employer or employee, if you have your own business, doesn't matter. Can be beneficial. It is a good way of analyzing a decision.
  - *Core-Satellite Investing*
    - Investing the majority of your money (66-75%) in broad funds that give you exposure to the three asset classes (stocks, bonds, real estate). Then invest the rest of your money in 7-12 individual stocks you really like for the long-term.
    - For example:
      - \* 60-75% in 3-5 funds that cover asset classes - stocks, bonds and real estate: 25% dividend aristocrats ETF (NOBL), 25% vanguard growth ETF (MGK), 10% vanguard bond ETF (BLV), and 15% vanguard real estate ETF (VNQ)
      - \* remaining funds in 8-10 individual stocks for additional returns
  - *Diversification*
    - You can be diversified:
      - \* across asset classes
      - \* within asset classes
      - \* across markets and countries
      - \* across time
    - Disadvantage is that if you have more than 10 companies (for example), then you cannot be properly confident about your investments. But, diversification is a hedge against uncertainty. Confidence doesn't guarantee results.
    - Some people use a certain stock only once. They are not recycling it.
    - If you invest in for example 20-30 or even more stocks, then many companies are probably overvalued. Or companies that you don't believe in so much. It's not easy to find out so many great stocks that are all fairly valued or undervalued.

## 4 Investing Strategies

- If you are new in stocks, then you should invest maybe in 5-10 stocks, if you are older then maybe 15 stocks. But ideally something between 5-15 stocks in any time in your life.
- Some people claim, that if you are young and want to take a risk and know what you are doing, then you can invest only in a few companies and you can properly (=faster) build wealth (instead of preserving it - big diversification, maybe after the age of 40).
- *Dollar Cost Averaging*
  - Good technique also during bear market!
  - Consider the difference between *Lump Sum Investing* vs Dollar Cost Averaging. The first one outperforms Dollar Cost Averaging 2/3 of time.
- *Smart Beta*
  - In recent years, "smart beta" (also known as Strategic Beta, New Beta, Advanced Beta, or Beta plus) ETFs have become a hot product.
  - Smart beta managers create their own indexes - not, in fact, indexes in the traditional sense, but active strategies claiming to be indexes. They focus on weighting portfolios by so-called factors (some criteria) - stocks with similar forces driving their returns. Rather than weighting portfolio holdings by their market capitalization, they may focus on a single factor (value, momentum, size, ...) or may use a combination of factors such as corporate revenues, cash flows, profits, and dividends.
  - As a concept, smart beta is not a terrible idea, nor is it a world-changing one. Smart beta ETF managers rely on computers to parse heavily mined past data on stocks that will enable fund managers to identify factors that can be easily packaged as ETFs. The goal is to create great profits for the manager by gathering the assets of investors seeking a performance edge.
  - William Sharpe, professor of finance at Stanford University and Nobel laureate in economist: *"Smart beta is stupid...It is quite remarkable that people think that somehow a scheme that weights stocks differently than capitalization can dominate a capitalization-weighted index...New paradigms come and go. Betting against the market (and spending a considerable amount of money to do so) is indeed likely to be a hazardous undertaking."*
  - They are funds that looks like they are tracking indexes, but for index "construction" they are choosing less traditional and more sophisticated rules. As a result, companies in the fund can change more often. It is something between index and active investing.
  - The goal is to achieve better returns than traditional indexes that are constructed only by market cap.
- *Factor investing*

## 4 Investing Strategies

- It is a strategy that involves targeting specific drivers of return across asset classes.
  - Investing in factors can help improve portfolio outcomes, reduce volatility and enhance diversification.
  - Factors are quantitative characteristics shared across a set of securities. Those characteristics can be used to structure your investment portfolio to outperform the market without the need to rely on stock picking or market timing.
  - If active fund managers are able to beat the market, which was previously assumed to be due to their skill, can in many cases be explained by factor exposure. So it could be good to have a look on factor index fund (just an idea really) instead of actively managed fund. In research paper by Eugene Fama et al, authors observe that over time, small stock outperformed large stocks, and value stocks outperformed growth stocks. The explanation for the return differences in stocks with these characteristics (factors), small stocks and value stocks, are riskier.
  - You can track a couple of factors in your portfolio, but according to research papers, there are even hundreds of them. But many of these factors turn out to be a re-packaging of the original factors. When you want to know if a given factor is worth to consider, it must be:
    - \* persistent
    - \* pervasive
    - \* robust to alternative specifications
    - \* investable
    - \* sensible
  - But now it looks like for individual DIY investors, that it's better to focus on simplicity rather than pursuing factors.
  - Factors are on the cutting edge of financial market research, but they are also being used to market products that may be detrimental to investors.
  - Ben Felix: *"I am not a fan of factor ETFs. It has become a term that allows an ETF to 10x its fees without adding much value."*
  - The five factor model (TODO) is able to explain over 90% of the difference in returns between any two diversified portfolios.
  - More [here](#), and check Smart Beta above - it should be a similar concept.
- *Moat* (of a company)
    - Very important for long-term investing.
    - A company's competitive advantage.
    - There are many types of moats, for example:

#### 4 Investing Strategies

- \* threat of entry
  - \* threat of substitution - by different product from different industry for example
  - \* intensity of rivalry
  - \* bargaining power of suppliers/consumers
- Would you expect the required rate of return for a U.S. investor in U.S. common stocks to be the same as the required rate of return on Japanese common stocks? What factors would determine the required rate of return for stocks in these countries?
    - The required rate of return on an investment is primarily determined by three major factors:
      1. economy's real risk-free rate
      2. expected rate of inflation
      3. risk premium
    - While this basic framework will apply no matter what country you choose to invest in, there will be significant differences in these factors among different countries over time. Among the specific reasons why an investor may have different required returns for U.S. and Japanese stocks are:
      - \* The real risk-free rate: For all countries, this rate should be an approximation of the economy's real growth rate. However, the real growth rate among countries might be significantly different due to differences in the growth rate of the labor force, growth rate in the average number of hours worked, and differences in the growth rate of labor productivity.
      - \* The expected rate of inflation: Again, there are differences between the U.S. and Japanese inflation rate that are bound to imply a difference between the required return between the two countries.
      - \* The risk premium: The risk premium is derived from business risk, financial risk, liquidity risk, exchange rate risk, and country risk. Each of these components is influenced by differences in general economic variability, political conditions, trade relations, and operating leverage employed within the countries. It is necessary to evaluate these differences in risk factors and assign a unique risk premium for each country.
  - The biggest companies are not the best companies to invest in. It is equally true that small-sized companies are not suited to the needs of the average investor, although there may be remarkable opportunities in individual concerns in this field.
  - (Howard Marks) According to theory, the formula for explaining portfolio performance ( $y$ ) is as follows:  $y = \alpha + \beta * x$ , where  $x$  is return of the market.

## 4 Investing Strategies

The alpha/beta model is an excellent way to assess portfolios, portfolio managers, investment strategies and asset allocation schemes. It's really an organized way to think about how much of the return comes from what the environment provides and how much from the manager's value added. For us to conclude that investors truly add value, we have to see how they perform in environments to which their style isn't particularly well suited. (!) Without this, returns may be the result of little more than market movement and beta.

- (Howard Marks) Buying: There are 3 times to buy an asset that has been declining - on the way down, at the bottom, or on the way up. The best is to buy it on the way down, because we know the exact bottom only in retrospect. And buying on the way up can be too late. At Oaktree, when they think something is cheap, they buy. They are not trying to attain perfection or ascertain when the bottom has been reached. If it gets cheaper, they buy more.
- (Howard Marks) Return expectations must be reasonable. Anything else will get you into trouble, usually through the acceptance of greater risk than is perceived. Every investment effort should begin with a statement of what you're trying to accomplish. According to Howard Marks, most of the time, it's reasonable to aspire to returns in single digits or perhaps low double digits. High teens are something very special, and anything more should be viewed as the province of experienced pros (and only the best of those). The same is true of particularly consistent results. Expecting too much in these regards is likely to lead to disappointment or loss. Higher returns are "unnatural" and their achievement requires some combination of the following:
  - an extremely depressed environment in which to buy (hopefully to be followed by a good environment in which to sell)
  - extraordinary investment skill
  - extensive risk bearing
  - heavy leverage
  - good luck
- A few random reasons why to sell a stock:
  1. Stock becomes overvalued (so it goes up a lot) - so when you buy a stock, you can have a thought in your head "when it goes up by this threshold by certain time, I should probably sell it". Especially if it goes up by short amount of time (couple of months for example). Forward P/E ratio went too high can be one of an indicators.
  2. If fundamentals of the business change in a negative way.
  3. If you have a better stocks to put money in.

	Aggressive investor	Defensive Investor
Without skill	gains a lot when the market goes up, and loses a lot when the market goes down	doesn't lose much when the market goes down but doesn't gain much when the market goes up
With skill	gains a lot when the market goes up, but doesn't lose to the same degree when the market goes down	doesn't lose much when the market goes down, but captures a fair bit of the gain when the market goes up

Table 4.1: On different types of investors, by Howard Marks

4. Major new competitive threat is about to come online (especially in tech sector).
  5. If you feel a recession or stock market crash is close (maybe, you have to be 99% sure).
  6. If management tone changes.
  7. If a lot of executives of a company are selling (also, if executives are buying heavy, maybe that can be a sign that you should buy).
  8. If a company is taking losses and may face bankruptcy.
  9. If the growth of a company slows way down.
  10. If a company is in an industry that is under major political pressure.
  11. Poor relative strength of a stock (in comparison to S&P500 or other index).
  12. Maybe during crazy bull market - change in P/E > 40.
- Signs of doomed stock:
    - negative cash flow
    - debt to equity ratio is too high
    - interest coverage ratio (it reveals if a company has difficulty to pay its debt) is below 1
    - decline in share prices for longer time
    - heavy selling by insiders
    - resignations of key executives
    - SEC investigations

- Watch out for company's red flags:
  - massive debt
  - don't earn profits
  - under investigation
  - dividend cuts/inconsistencies in the past
  - stock price going down

### Value Vs Growth Thoughts

- (Philip Fisher) Fisher on bargain hunting (value investing) vs growth - in the case of even the genuine bargain, the degree by which it is undervalued is usually somewhat limited. The time it takes to get adjusted to its true value is frequently considerable. So far as Fisher has been able to observe, this means that over a time sufficient to give a fair comparison - say 5 years - the most skilled statistical bargain hunter ends up with a profit which is but a small part of the profit attained by those using reasonable intelligence in appraising the business characteristics of superbly managed growth companies. The reason why the growth stocks do so much better is that they seem to show gains in value in the hundreds of % each decade. In contrast, it is an unusual bargain that is as much as 50% undervalued. The cumulative effect of this simple arithmetic should be obvious.
- (Howard Marks) Value vs growth investing
  - To Howard it seems that the choice isn't really between value and growth, but between value today and value tomorrow. Growth investing represents a bet on company performance that may or may not materialize in the future, while value investing is based primarily on analysis of a company's current worth.
  - One of Buffet's major contributions has been to extend the idea of value beyond the simply "cheap". Buffett looks for "good" businesses that are available at an attractive price. The concept of growth is incorporated into the calculation of value.
  - There is no bright line distinction between value and growth. Both require us to deal with the future. But growth investing is about the future, whereas value investing emphasizes current-day considerations but can't escape dealing with the future. In general, the upside for being right about growth is more dramatic, and the upside potential for being right about value is more consistent. Howard's approach is value.
  - It's hard to consistently do the right thing as an investor. But it's impossible to consistently do the right thing at the right time. If you've settled on the value approach to investing and come up with an intrinsic value for a security or asset (take into account margin of safety), the next important thing is to hold it firmly.

#### 4 Investing Strategies

- (Aswath Damodaran) Value vs growth investing from a financial balance sheet perspective
  - In value investing, your focus on finding bargains and misvalued companies is in assets in place (expected value of investment already made), where you believe that you have the data to estimate value more precisely and markets can get the pricing of assets in place wrong.
    - \* Value is a function of cash flows, growth, and risk, and any intrinsic valuation model that does not explicitly forecast cash flows or adjust for risk is lacking core elements.
    - \* It is undeniable that value investing has an accounting focus, with earnings and book value playing a central role in investing strategies. There is good reason to trust those numbers less now than in decade past, for a few reasons:
      - One is that companies have become much more aggressive in playing accounting games, using pro-forma income statements to skew the numbers in their favor.
      - The second is that as the center of gravity in the economy has shifted away from manufacturing companies to technology and service companies, accounting has struggled to keep up. In fact, it is clear that the accounting treatment of R&D has resulted in the understatement of book values of technology and pharmaceutical companies.
  - In growth investing, your focus on finding bargains and misvalued companies is in growth assets (expected value added by future investment), where you believe that while you will face more uncertainty and imprecision in estimating value, that same uncertainty will lead markets to price growth assets wrong.
- (Jason Kelly) Growth and value investing are not mutually exclusive. Many growth investors use some measure of value to time their purchase of growth stocks. Most value investors use some measure of growth potential to evaluate a troubled company's chances of recovery. Growth investors tend to get in when things are heating up and bail out at the first sign of slowing growth. Value investors tend to be very careful about where their money goes and let it ride out fluctuations once they decide where to invest. Most of us end up combining the styles in our personal portfolios, but with a tendency one way or the other.
- Charlie Michaels's investing style is Phil Fisher/Peter Lynch growth stock investor combined with a deep appreciation for buying Warren Buffett quality companies with strong business franchises. He believes the best investments are in quality growth companies that can defend their sales momentum and defend their profitability armed with competitive advantages and strong management.
- See [this memo](#) written by Howard Marks in 2021 on this topic, it is one of the best thoughts I've ever read. Some takeaways:



#### 4 Investing Strategies

- The two approaches – value and growth – have divided the investment world for the last fifty years. They’ve become not only schools of investing thought, but also labels used to differentiate products, managers and organizations. Based on this distinction, a persistent scoreboard is maintained measuring the performance of one camp against the other. Today it shows that the performance of value investing lagged that of growth investing over the past decade-plus (and massively so in 2020), leading some to declare value investing permanently dead while others assert that its great resurgence is just around the corner. My belief, especially after some deep reflection over the past year – is that the two should never have been viewed as mutually exclusive.
- There’s a saying that “to the man with a hammer, everything looks like a nail.” The widely discussed distinction between value and growth made some people believe they only had hammers, when in fact they potentially had access to a whole toolbox. Now we live in a complex world where a range of tools is required for success.
- Businesses are both more vulnerable and more dominant in today’s world, with much greater opportunities for dramatic changes in fortune, both positive and negative. On the positive side, successful businesses have much more potential for long run ways of high growth, superior economics, and significant durability, creating a huge pot of gold at the end of the rainbow and seemingly justifying valuations for the potentially deserving that are off-puttingly high by historical standards. On the negative side, it also creates immense temptation for investors to overvalue undeserving companies. And companies with here-and-now cash flows and seeming stability can see those evaporate as soon as a bunch of Stanford computer science students get funding and traction for their new idea.
- While it’s important not to lose your skepticism, it’s also very important in this new world to be curious, look deeply into things and seek to truly understand them from the bottom up, rather than dismissing them out of hand. I worry that value investing can lead to the rote application of formulas and that, in times of great change, applying formulas that are based on past experience and models of the prior world can lead to massive error. John Templeton warned about the risk that’s created when people say, “it’s different this time,” but he also allowed that 20 percent of the time they’re right. Given the rising impact of technology in the 21st century, I’d bet that percentage is a lot higher today.
- Value investing is thought of as trying to put a precise value on the low-priced securities of possibly mundane companies and buying if their price is lower. And growth investing is thought of as buying on the basis of blue-sky estimates regarding the potential of highly promising companies and paying high valuations as the price of their potential. Rather than being defined as one side of this artificial dichotomy, value investing should instead consist of

## 4 Investing Strategies

- buying whatever represents a better value proposition, taking all factors into account.
- Much of value investing is based on the assumption of “reversion to the mean.” In other words, “what goes up must come down” (and what comes down must go up). Value investors often look for bargains among the things that have come down. Their goal, of course, is to buy underpriced assets and capture the discounts. But then, by definition, their potential gain is largely limited to the amount of the discount. Once they’ve benefited from the closing of the valuation gap, “the juice is out of the orange,” so they should sell and move on to the next situation.
  - I think winners are sold for four primary reasons: (a) the investor concludes that the investment has accomplished everything it’s capable of, (b) she thinks it has appreciated to the point that its prospective return is only modestly attractive, (c) she realizes something in her investment thesis was incorrect or has changed for the worse or (d) she fears that the gains to date might be proved unwarranted and thus evaporate; in particular, she’s afraid she’ll end up kicking herself for not having taken profits while they were there. But fear of making a mistake is a terrible reason to sell something of value. It’s important to understand the paramount importance of compounding, and how rare and special long-term compounders are. This is antithetical to the “it’s up, so sell” mentality but, in my opinion, critical to long-term investment success. As Charlie Munger says, “the first rule of compounding is to never interrupt it unnecessarily.”
  - As I said before, the natural state for the value investor is one of skepticism. Our default reaction is to be deeply dubious when we hear “this time it’s different,” and we point to a history of speculative manias and financial innovations that left behind significant carnage. It’s this skepticism that reduces the value investor’s probability of losing money. However, in a world where so much innovation is happening at such a rapid pace, this mindset should be paired with a deep curiosity, openness to new ideas, and willingness to learn before forming a view. The nature of innovation generally is such that, in the beginning, only a few believe in something that seems absurd when compared to the deeply entrenched status quo. When innovations work, it’s only later that what first seemed crazy becomes consensus. Without attaining real knowledge of what’s going on and attempting to fully understand the positive case, it’s impossible to have a sufficiently informed view to warrant the dismissiveness that many of us exhibit in the face of innovation.
  - The search for value in low-priced securities that are worth much more should be just one of many important tools in a toolbox, not a hammer constantly in search of a nail. It doesn’t make sense for value investors to bar investments simply because (a) they involve high-tech companies that are widely considered to have unusually bright futures, (b) their futures are distant and

hard to quantify, and (c) their potential causes their securities to be assigned valuations that are high relative to the historic averages. The goal at the end of the day should be to figure out what all kinds of things are worth and buy them when they're available for a lot less.

- I once asked a well-known value investor how he could hold the stocks of fast-growing companies like Amazon – not today, when they're acknowledged winners, but rather two decades ago. His answer was simple: "They looked like value to me." I guess the answer is **"value is where you find it."**
- Value investing doesn't have to be about low valuation metrics. Value can be found in many forms. The fact that a company grows rapidly, relies on intangibles such as technology for its success and/or has a high p/e ratio shouldn't mean it can't be invested in on the basis of intrinsic value.
- Many sources of potential value can't be reduced to a number. As Albert Einstein purportedly said, "Not everything that counts can be counted, and not everything that can be counted counts." The fact that something can't be predicted with precision doesn't mean it isn't real.
- Since quantitative information regarding the present is so readily available, success in the highly competitive field of investing is more likely to be the result of superior judgments about qualitative factors and future events.
- The fact that a company is expected to grow rapidly doesn't mean it's unpredictable, and the fact that another has a history of steady growth doesn't mean it can't run into trouble.
- The fact that a security carries high valuation metrics doesn't mean it's overpriced, and the fact that another has low valuation metrics doesn't mean it's a bargain.
- Not all companies that are expected to grow rapidly will do so. But it's very hard to fully appreciate and fully value the ones that will.
- If you find a company with the proverbial license to print money, don't start selling its shares simply because they've shown some appreciation. You won't find many such winners in your lifetime, and you should get the most out of those you do find.

### Income Investing

- See [this portal](#), it's mostly for dividend investing.
- *10-11-12 System*
  - These are dividend stocks, that in 10 years, will gain 11 % annual yield from there on, and 12% annualized gain.
  - You can find them by:
    - \* dividend yield - current situation, you should target stocks 4.7% or higher,

## 4 Investing Strategies

- \* dividend growth rate - at least 10%,
- \* payout ratio - under 75%.

- *Chowder rule*

- It is meant to be used as a tool to help investors target dividend stocks with good potential for future growth.
- It is based on the dividend growth rate and the safety margin.
- TODO

- Important things when looking for a stock for its dividends:

1. Net income trend. Company got more money, it will pay more and more dividends. You want consistency to pay more and more over time.
2. Payout ratio. How much of that net income is a company actually paying in the form of dividends. Ideally under 50% payout ratio (Jeremy from Financial Education from YT). If this number is too high, a company can cut down dividends in the future. Or it probably won't raise them in the future so much. Why? Lower payout ratio means that a company is saving a lot more money, or use that money for share buybacks, buying other companies, or just store that money "on the balance sheet" for rainy days.

Calculation:  $\text{DPS} / \text{EPS} = \text{payout\_ratio}$

DPS (dividend per share, like OUT from company) and EPS (earnings per share, like IN to company)

$\text{EPS} = \text{Net income} / \text{number\_of\_shares}$

Example: One share costs \$10, dividend is annually \$0.5 per share (DPS), outstanding common shares for a company: 10M, and net income is also \$10M. This means that  $\text{EPS} = \$1$  and Payout ratio is 50%.

Rapid increase in a payout ratio can mean that the company earnings probably went down (probably fast and significantly) and they may cut dividends.

3. Debt. If a company has a lot of debt, how they are gonna pay dividends? Debt first. If a company is going to have a bad times, it can even completely cut off their dividends. Or they will lower it down.
- When a stock goes up a lot, dividend yield goes down a lot. Companies use to increase their dividends, but sometimes they are not able to "catch-up" with their stock growth. So sometimes it's not good time to buy a stock because of this. Because that might signify, that a given company might not be at great value at that moment. If a dividend yield is unusually low, that might mean that a company is over-purchased. Also, if a dividend yield is unusually high, that might mean that a company went through some struggle, a lot of people decided to sell its shares, and a yield went up. Maybe there is something systematically wrong with the company. Or is undervalued.

## 4 Investing Strategies

- It's good if a dividend yield is above its 5-10 years average! Also, see dividend history of a given stock, and payout ratio.
- *5/10 ratio*
  - Important metric, if your companies are raising dividends, and you want to measure their performance over time in the past. You can calculate it as follows:  
5 year dividend growth rate (average) divided by 10 year dividend growth rate (average)
  - You are looking at least for bigger number than 1.

### Value Investing

- (Howard Marks) *“Value investing is one of key disciplines in the world of investing. It consists of quantifying what something is worth intrinsically, based primarily on its fundamental, cash flow-generating capabilities, and buying it if its price represents a meaningful discount from that value. Cash flows are estimated as far into the future as possible and discounted back to their present value using a discount rate made up of the prevailing risk-free rate (usually the yield on U.S. Treasuries) plus a premium to compensate for their uncertain nature. There are a lot of common valuation metrics, like the ratio of price to sales, or to earnings, but they are largely subsumed by the discounted cash flow, or DCF, method.”* ([ref](#))
- (Howard Marks) Essential underlying principles of value investing are these:
  - the understanding of securities as stakes in actual businesses,
  - the focus on true worth as opposed to price,
  - the use of fundamentals to calculate intrinsic value,
  - the recognition that attractive investments come when there is a wide divergence between the price at which something is offered in the market and the actual fundamental worth you've determined, and
  - the emotional discipline to act when such an opportunity is present and not otherwise.
- Buying undervalued companies.
- Many value investors care about dividends. Actually, many of them won't even invest into a stock unless it's paying dividends.
- Value investors are usually older and "more safer" investors - they want to preserve wealth.
- (Jason Kelly) Value investors look for stocks on the cheap. They compare stock prices with different measures of a company's business, such as its earnings, assets,

#### 4 Investing Strategies

cash flow, and sales volume. The idea is that if you don't pay too much what you get, there's less chance of losing money. Value stocks have low P/E ratios and low price-to-book ratios. They are companies that have been overlooked on their journey to success, have fallen on hard times after more successful years, or are in a slump for any number of reasons. Hopefully they're on a comeback and the value investor purchases shares at the bottom of an uphill climb. Here's where value and growth are tied together. In both cases, investors want to buy companies with a bright future. The difference is that growth investors usually buy those companies when they're already steamrolling ahead to that bright future, while value investors usually buy those companies when they're still getting ready to start or are recovering from a tumble. Value investors pay particular attention to dividends. A company that pays dividends contributes to an investor's profit even if the stock price does not rise. That's comforting.

- (Howard Marks) In a nutshell, value investors aim to come up with a security's current intrinsic value and buy when the price is lower.
  - The emphasis in value investing is on tangible factors like hard assets and cash flows. Intangibles like talent, popular fashions and long-term growth potential are given less weight.
  - The quest in value investing is for cheapness.
  - Value investors typically look at financial metrics such as earnings, dividends, cash flow, hard assets, enterprise value and emphasize buying cheap on these bases. The primary goal of value investors, then, is to quantify the company's current value and buy its securities when they can do so cheaply.
  - So value investors buy stocks (even those whose intrinsic value may show little growth in the future) out of conviction that the current value is high relative to the current price.
- (Howard Marks) A good place to start to find under-priced assets is:
  - little known and not fully understood
  - fundamentally questionable on the surface
  - controversial, unseemly or scary
  - deemed inappropriate for "respectable" portfolios
  - unappreciated, unpopular and unloved
  - trailing a record of poor returns
  - recently the subject of disinvestment, not accumulation
- Aswath Damodaran's view on value investing
  - A very simplistic definition (used by services to classify investors into growth and value investors): anyone who invest in low PE ratios is a value investor.

#### 4 Investing Strategies

- Too broad definition: value investors are ones who are interested in buying stocks for less than what they are worth. But you could potentially classify all active investors as value investors on this basis. This definition is not very clever - Peter Lynch also cared about the value, but also about the growth. It's not that only value investors care about the value and others don't.
- Damodaran's definition: Value investors want to buy companies that trade at less than the value of assets in place (existing investments, generate cashflows today, includes long lived [fixed], and short-lived [working capital] assets). So they don't want to gamble with investing in growth assets. It's not because they don't believe that growth exists, but they believe that if there is growth, it should be an icing on the cake.
- Furthermore, he classifies value investors into 3 groups (which aren't mutually exclusive):
  - \* Passive Screeners - following Ben Graham tradition, you screen for stocks that have characteristics that you believe identify undervalued stocks. You are hoping to find market mistakes through the screens. It can be based on PE ratios, PB ratios, accounting numbers, trading volume, etc. The idea is to find mispriced stocks that trade well below what the value of assets in place is. Once you buy a stock, you can stick with those shares until the price adjust back to its value. Ben Graham's screens:
    - PE has to be less than the inverse of the yield on AAA corporate bonds
    - PE has to be less than 40% of the average PE over the last 5 years
    - Dividend yield  $> 2/3$  of the AAA corporate bond yield
    - Price  $< 2/3$  of Book value
    - Price  $< 2/3$  of Net current assets
    - Debt-equity ratio (book value) has to be less than 1
    - Current assets  $>$  Twice current liabilities
    - Debt  $<$  Twice Net current assets
    - Historical Growth in EPS (over the last 10 years)  $> 7\%$
    - No more than 2 years of negative earnings of the previous 10 years
  - \* Contrarian Investors - those investors are investing in companies that others given up on - either because they have done badly in the past or because their future prospects look bleak. You are implicitly assuming that markets overreact.
  - \* Activist Value Investors - they invest in poorly managed and poorly run firms, and they are trying to change the way these companies run.

## Growth Investing

- Buying companies with higher than average growth.
- Growth investors are looking for companies with revenue of 15% or more. These are fast growing companies.
- Gross margin is also a very important attribute here.
- They don't care about dividends and share buybacks. They want their money invested back into the company to grow the company more organically.
- Usually younger and "more aggressive" investors (20s or 30s) - they want to build wealth and scale their portfolios.
- (Jason Kelly) You won't find many bargains among growth stocks. But if they keep growing it's worth it. Growth investors are searching for hot hands, not great bargains. They'll pay more for good companies. As a result, many growth investors don't even look at a stock's price in relation to its earnings or its book value because they know a lot of growth stocks are expensive and they don't care. They just look at a stock's potential and go for it, hoping that current successes continue and get even better. Most growth investors set minimum criteria for investing in a company, perhaps it should be growing at least 20% a year and pushing new highs in stock price. Because a growth stock depends on its earnings and the acceleration of those earnings, the expectations of analysts and investors are high. That creates a risky situation. If a growth company fails to deliver the earnings that everybody expects, all hell breaks loose.
- (Peter Lynch) The growth of a company is measured against the growth of the economy at large. Slow-growing companies grow very slowly - more or less in line with the nation's GNP, which lately (1990s) has averaged about 3% per year. Fast-growing companies grow very fast, sometimes as much as 20-30% per year or more. That's where you find the most explosive stocks.
- (Peter Lynch) To Lynch, what makes a company valuable and why it will be more valuable tomorrow than it is today - to him, it's earnings and assets. Sometimes it takes years for the stock price to catch up to a company's value, and the down periods last so long that investors begin to doubt that will ever happen. But value always wins out - or at least in enough cases that it's worthwhile to believe it.
- (Peter Lynch) There are three phases to a growth company's life:
  1. Start-up phase, during which it moves into new markets.
  2. Rapid expansion phase, during which it moves into new markets.
  3. Mature phase, also known as the saturation phase, when it begins to prepare for the fact that there's no easy way to continue to expand.



Each of these phases may last several years. The first one is the riskiest for the investor, because the success of the enterprise isn't yet established. The second phase is the safest, and also where the most money is made, because the company is growing simply by duplicating its successful formula. The third phase is the most problematic, because the company runs into its limitations. Other ways must be found to increase earnings. And you should periodically recheck the company, to find out whether the company seems to be moving from one phase into another.

- (Howard Marks) These investors try to find securities whose value will increase rapidly in the future.
  - This type of investing lies somewhere between the dull plodding of value investing and the adrenaline charge of momentum investing. Its goal is to identify companies with bright futures.
  - That means by definition that there's less emphasis on the company's current attributes and more on its potential.
  - So growth investors buy stocks (even those whose current value is low relative to their current price) because they believe the value will grow fast enough in the future to produce substantial appreciation.
- (Philip Fisher) The growth stocks, over a five- or ten-year span, have proven spectacularly better than high dividend yielding stocks so far as their increase in capital value is concerned. The growth stocks had not only shown (in some research papers) a marked superiority in the field of capital appreciation, but given a reasonable time, they had grown to a point where they showed superiority in the matter of dividend return as well.
- Aswath Damodaran's view on growth investing
  - The conventional definition: an investor who buys high price earnings ratio stocks or high price to book ratio stocks.
  - The generic definition: An investor who buys growth companies where the value of growth potential is being underestimated. In other words, both value and growth investors want to buy undervalued stocks. The difference is mostly in where they think they can find bargains - value investor in existing assets, and growth investor - expected value will be created by future investments. So you are looking for companies in which market cannot see their true potential just yet.
  - You can use PEG ratio for screening, or earnings growth over time. But low PEG stocks tend to be risky.
  - Or PE ratios that are less than their expected growth rates. It's intuitive and simple, but not necessarily a good strategy - just a potential idea. Maybe even a dangerous one. You are likely to find a lot of undervalued stocks when interest rates are high. Even when they are low, you are likely to find very risky stocks coming through this screens as undervalued.

#### 4 Investing Strategies

- The value of growth
  - \* To generate growth, firms have to reinvest money (in capital expenditures, R&D, acquisitions and working capital). That reinvestment reduces cash flows.
  - \* The effect of growth then becomes a net effect, which weights off the benefits of having higher earnings in the future (from the growth) against lower cash flows today.
  - \* The value of growth can be written as a function of "excess returns" the firm earns on its new investments, with excess returns being the difference between the return on the investment (ROE/ROIC) and the cost of the financing (cost of equity). For some balance sheets, accountants don't capture what companies invest very well. For example in some technology companies, where capital expenditures often don't show up as capital expenditures. They show up in income statement (R&D expenses is a classic example).

## 4.2 Trading And Short-Term Investing

- *Moving Averages*
  - Moving averages are a technical indicators that tell us the average price of a stock over a period of time.
  - They can be either Simple Moving Averages or Exponential Moving Averages.
  - An Exponential Moving Average weighs recent price action heavier than older price action. This means the moving average will move faster in response to recent moves.
- *Relative Strength Index (RSI)* - a momentum indicator, it goes from 0-100. It's not relative strength. TODO
- *Supports and resistance* TODO
- *Price action* TODO
- *MACD* TODO
- *Oscillators* TODO
- *Divergences* TODO
- *Volume Weighted Average Price (VWAP)*
  - It is a trading benchmark used by traders that gives the average price a security has traded at throughout the day, base on both volume and price. It is important because it provides traders with insight into both the trend and value of a security.
  - One of the best indicator for trading! According to the book *How to Day Trade For a Living* (By Andrew Aziz) alternatively, you can use support/resistance strategies, but don't over-complicate it.
- *Short seller*
  - Someone in stock market who believe that stock prices are going down (some-time).
  - So it is an opposite of a traditional investor that wants that prices to go up.
  - Jeremy from Financial Education (YT) claims that short selling is dumb. Instead, if you think that a stock is going down, you can buy put options: less capital needed, limited downside, and unlimited upside. Short selling can be good in trading, but not in investing.
  - Imagine that you want 100 shares at a company that you believe its stocks are going down in near future. Each share costs \$100, which is \$10k. You will borrow these shares with a margin account. So you are going to short 100

## 4 Investing Strategies

shares of that company. Now, in the future, if the share price of this company will drop to \$50, you already own these 100 shares. So your profit is \$5k, because you borrowed these shares for \$10k, and you fulfill your obligation of paying back the money to broker, but since you own it now at \$50 per share. So, you're getting the 100 shares from the broker. Then you sell them at market value (10k). You wait a little. The stock moves. Then you buy the 100 shares to fulfill your promise to the broker of 100 shares. And you keep/lose the difference. (source [here](#))

- It's dangerous because you can lose much more than 100% of your money. You can lose basically unlimited amount of money.
- The consistently winning trader (source [here](#))
  - In trading, the number of times that you are right is known as the hit rate.
  - In trading, the payoff is known as the risk to reward ratio.
  - The money that you make is a function of both hit rate and risk to reward ratio. (and don't forget also about commissions and spreads)
  - Most traders only think about hit rate. The Internet is full of high rate systems because most traders will only purchase such a method. Most of these systems in fact lost more when they are wrong than they make when they are right.
  - Every trade has 2 decisions associated with it:
    - \* Long or short.
    - \* How much do I bet - what percentage of my money do I risk on any one trade?

### Option trading strategies

Interesting strategies worth mentioning - covered calls, collars, or protective short puts - these complement long-term stock investment.

- *Naked call*
  - Unlimited downside and limited upside.
- *Covered call writing*
  - You physically own shares and you sell call options against them to enhance their income. There are even ETFs that inherently do that.
- *Protective put options*
  - TODO
- *Collar*

#### 4 Investing Strategies

- When you wish to protect gains in long stock position. Willing to sell your stock higher.
- You have to own 100 shares with a gain, sell 1 OTM call and simultaneously buy 1 OTM put, same expiry. Limited upside, limited downside.
- *Straddles, strangles, strips, and straps*
  - *Straddles* and *strangles* are both options strategies that allow an investor to benefit from significant moves in a stock's price, whether the stock moves up or down. Both approaches consist of buying an equal number of call and put options with the same expiration date. The difference is that the strangle has two different strike prices, while the straddle has a common strike price.
  - *Buy straddle* - buy ATM call, buy ATM put - bet on volatility.
  - *Sell straddle* - sell ATM call, sell ATM put - bet that stock won't be volatile.
  - *Long Straddle* - bet on a volatility - when you think the stock will move outside of a trading range in either direction. Buy 1 ATM Call and 1 ATM Put, same strikes and expiration. Limited risk, unlimited upside.
- *Chooser options*
  - TODO
- *Spreads*
  - *Bull Call Spread Hypothesis*
    - \* You think that your stock will outperform the market in the future.
    - \* So you use these when you see a positive upside catalyst for a company.
    - \* Buy 1 call and sell 1 call of the same expiry and higher strike.
  - *Butterfly Spread*
    - \* A neutral options strategy with both limited risk and limited profit potential.
    - \* It involves 4 options with the same expiration date, but with the 3 different strike prices. All are either puts or all are calls. For example, you will buy one call option at lower strike price, sell 2 call options at higher strike price, and buy one call option at even higher strike price.
    - \* It can be used if an investor thinks that a stock price won't raise or fall significantly before the expiration date.

## 4.3 Stocks To Watch Worksheet

### Company basics

- Company name and symbol.
- Current stock price and 52-week high/low.
- Market Cap.
- Daily Dollar Volume. How much money trades in the stock on a given day; this determines liquidity. This measure is of most interest to small cap investors. They look for low daily volume, because that means that mutual funds will stay away until the volume starts increasing. When it does, funds might buy in and drive the volume and price even higher. Large cap investors don't pay much attention to daily volume because it is always big.
- Sales. When sales and earnings grow quickly, share price tends to follow.

### Company health

- New Profit Margin. High net profit margin is one of Warren Buffet's requirements for investing in a company. Effectiveness of its operation. How much of its earnings does a company keep? Follow the trend from 5 years ago and projected figures for current year and the next one. Any company in your sheet should have a net profit margin in the top 20% of its industry. These are leaders. But typical profit margin can change from industry to industry. Airlines generally have negative profit margins. Most commodity retailers such as supermarkets, auto parts stores, cheap clothing stores, and consumer electronics stores have net profit margins below 5%. Bigger is always better. Especially if it grows each year.
- Cash and Total Debt. Ideally lots of cash and little or no debt. Later we'll use ratios to make sure the levels of cash and debt are acceptable.

### Stock health

- Sales per Share. Try to capture the trend over the past 5 years. For growth companies, list only those that have increased sales per share in each of the past 5 years and are projected to increase them again current year and next. And ideally, it is very good also for value companies.
- Cash Flow per Share. You want this positive and big. Capture the trend over the past 5 years. And projections for the next year. Especially for growth companies, this number must be increasing over the past 5 years - in each year. And its projections too. For value companies, it is optional but ideal.

#### 4 Investing Strategies

- **Earnings per Share.** Growth investors insist on an increasing EPS. Check the trend over the past 5 years and 1 year predictions. With growth companies, it is required to be increasing, and with value stocks, a super discount is often accompanied by a dip in earnings. Occasionally, however, something else hammers a stock's price and earnings remain constant or increase. In that case, you're really getting a bargain. With value stocks, use your own judgment to decide on an up or down arrow based on whether the current number is an overall increase from 5 years ago, whether the increase is large or small, and by the projected earnings per share for this year and next.
- **Dividend Yield.** A high number is the deciding factor used in the Dow dividend strategies and was proven to work among large companies in James O'Shaughnessy's study of stock market history. It's very important figure to large-company investors. You can track the 5 year trend. Small-company investors ignore dividend yield because small companies don't usually declare dividends and therefore have yields of zero.
- **Return on Equity.** It shows what a company has earned with the money people have invested in it. Net income divided by total shareholders' equity and you come up with a percentage. Warren Buffett likes this measurement because it gives a clear picture of what a company does with its profits. If a company gets bigger every year, it will probably earn more money. But investors should ask, does it earn enough additional money to support its larger size? Return on equity answers that. If a company can maintain a high return on equity as it grows, you know that management is directing profits wisely. Some people like to see ROE at least 20% maintained or improved over the years. Occasionally, value investors will accept low or negative ROEs in companies they think are about to make a change for the better. Steady ROE - company continues returning substantial profits to investors.
- **Insider Buys/Ownership.** You want to own companies that are owned by insiders, because if people who run the place have a material interest in its success, they're more likely to do a better job. You shouldn't pay attention to insider sells. For small cap investors, insider ownership is of particular importance because a lot of small companies are just starting out and management is a crucial factor in their success. Some people like small companies to have at least 20% insider ownership.
- **Stock Buyback.** It's great to see a company buying its stock back. There will be fewer shares outstanding, which improves supply-demand ratio and should increase the share price eventually.

#### **Past performance**

- **EPS rank.** Take EPS for the two most recent quarters and compute their percentage change from the same 2 quarters a year ago. That result is combined and averaged with each company's five-year earnings growth record. The final figures

for each company are compared with each other. Investor's Business Daily computes this metric. This measure is most important to growth investors because they look for consistently strong earnings and for the company to exceed expectations. Value investors like earnings, too, but they'll often buy a company with struggling earnings if it means the stock is enough of a bargain. Growth investors should insist on EPS rank of 85 or better.

- **Relative Price Strength Rank.** This measure looks at the stock's price performance in the latest 12 months. It simply reports the hard numbers and answers the question, how did this stock perform compared with all others? Investor's Business Daily updates the numbers daily. This metric is the most interested to growth investors. Value investors have no requirement for relative price strength because it would preclude bargain companies.
- **Five-Year Sales and Earnings Gain.** With small companies, strong sales and earnings are essential. The typical requirement is for them to have grown at least 25% over the past year. And we are looking at 5-year history here. For larger companies, it's good to see at least 10% increase, but for smaller, it can be at least 15% - annual sales and earnings increases. Try to stick with strong sales and earnings even if you're a value investor.
- **Five-Year Price Appreciation.** Take the high price from five years ago and compare it with the current price. Regardless to your preference on value or growth investing, it's good to know what happened to a stock in the past 5 years.

### **Projected performance**

- **Sales and Earnings.** Try to look for companies that are expected to grow by double digits. Be stricter as company size gets smaller because smaller companies should be growing faster than large ones. Large - at least 10% a year, medium at least 15% and small companies at least 20%. Value Line has this number for example.
- **Projected Stock High/Low.** Analysts spend their lives trying to be accurate and it never hurts to see what they expect to happen. Both the high and low price projections must be bigger than the current price. Never invest in a stock that's expected to fall in price. Also, make sure the low projection represents a worthwhile gain. Value Line prints this price.

### **Rankings**

- Value Line (Timeliness & Safety)
- S&P STARS (Fair value)



### Stock ratios

- Current P/E. Value investors want to pay as little as they can for each dollar of earnings; growth investors don't care that much. But P/E ratio that's fairly priced will equal its growth rate. Growth rate of earnings. The current P/E should be at or below the five/year average P/E. That keeps you from buying in just after the company has broken into higher trading territory.
- Average P/E. Relevant for comparing with current P/E.
- P/S. Investors recognize its superiority over P/E for valuing stocks. P/S is often a more accurate measure of a company's value because sales can't be manipulated as easily as earnings. Also, the measure helps even growth investors identify companies that are selling below their potential. Even growth companies are best purchased cheap. It's fine to stay with a ratio below 2 but this is an ideal, not a requirement. Sometimes companies that are growing quickly show high P/S ratios but their share prices keep rising. History suggests, however, that a low P/S is a good sign.
- P/B. This is the second most common valuation measure following P/E. It tells how much you're paying for the actual assets of the company. But it isn't worth much to some people. They care a lot more about a company's use of its equipment to earn money than about the auction value of that equipment. They want the skill of human beings to turn the output of equipment into profit. That's the point of investing. Growth investors don't care at all about P/B, but value investors like to see it less than 1. Benjamin Graham recommended investing in companies with a P/B less than 0.66.
- Current Ratio. Just divide the current assets by current liabilities. The more assets a company has in relation to its liabilities, the better it's able to handle ugly surprises. Simply because it owns more than it owes - a situation everybody prefers. Try to invest in companies of at least current ratio of 2.
- Price-to-Cash-Flow. Bill Miller called this "the single best predictor of excess return". Healthy businesses generate cash. Low number means high cash flow yield. Some people like to see P/CF of less than 5, but that's just a rough guideline. You can also compare it with 3/5-year average.
- SMA, MACD, and RSI. For checking a potential downside or upside of a stock.

### Company's challenges

- Write down those only to company you really like. Not weaknesses. Hopefully, you won't be investing in companies that have excessive internal weaknesses. Your list is supposed to contain the industry-leading, best-of-breed profit machines, and companies with strength enough to recover from temporary setbacks.

**Investment thesis**

- Write down reasons to:
  - **buy**, for example industry leader, growing industry, strong sales growth, decreasing debt, increasing margins, superior technology, new management
  - **sell**, for example reached price target, increased competition, declining industry, weakening sales, increasing debt, decreasing margins, legal trouble

## 5 Valuation

**Refresh a company's financials and details quarterly.** Peter Lynch - every few months it's worthwhile to recheck the company story. This may involve reading latest analysis or quarterly reports, and inquiring about the earnings and whether the earnings are holding up as expected. With fast growers, especially, you have to ask yourself what will keep them growing.

Let's start with Aswath Damodaran, a Professor of Finance at New York University, where he teaches corporate finance and equity valuation.

- Value rests on standard ingredients: cash flows, growth and risk, though the effects of each vary across companies and across time.
- No matter what type of company you are valuing, you have to decide whether you are valuing just equity or the entire business, the approach you will use to estimate value (intrinsic versus relative valuation), and the key components of value. If you value the business, you can get to the value of equity by adding back assets that you have not valued yet (cash and cross holdings) and subtracting out what you owe (debt). The choice matters because all of your inputs - cash flows, growth, and risk - have to be defined consistently. Aswath Damodaran valued the businesses and backed into the value of equity. With financial service firms, our inability to define debt and estimate cash flows push us into using equity valuation models.
- Well done valuations based upon better information should generate better returns than shoddy valuations based upon rumor or worse. The second is market feedback. To make money on even the best-done valuation, the market has to correct its mistakes. In more selfish terms, you want the market to be efficient for the most part, with pockets of inefficiency that you can exploit. There is also a factor of luck. While this will violate your sense of fairness, luck can overwhelm good valuation skills. While you cannot depend on good luck, you can reduce the impact of luck on your returns by spreading your bets across many companies that you have found to be undervalued. Diversification still pays.
- Growth is not free and is not always good for value.
- All good things, including growth, come to an end. Nothing is forever.
- Look at the past but think about the future.
- Remember the law of large numbers. An average is better than a single number.
- Accept uncertainty, face up to it and deal with it.

## 5 Valuation

- If you cannot analyze/valuate a company and/or cannot predict what will happen with its business in the future, skip the given business and find one you can figure out. Because otherwise you are just guessing - there is nothing wrong with some guessing, but make conservative guesses.
- Convert stories to numbers.
- Valuation gives you a lifevest, that's all what it is. It gives you something to hold on to when everybody else changes their mind and go another direction. It's not gonna stop you from doing really stupid things - if you really want to buy something, you'll find a way to buy it. The same for selling. Valuation slows the process down. It gives you rationale side of the argument.
- Most people don't believe in valuation (even ones whose use valuation for living).
- Three rules of valuation:
  1. Valuation is simple.
  2. Every valuation has a story, a narrative behind it; a good valuation is more about the story that it is about the numbers.
  3. When valuations go bad it's not because of the numbers, it's because of 3 problems: bias (wrong assumptions we made), uncertainty, and complexity (of the world and models).
- If you see someone else's valuation, you have to check who did it and who paid for it. Another thing is that when you do a valuation, you are using numbers. But they are estimates. There is a great deal of uncertainty. They are always gonna be wrong.
- All valuations are biased. You almost never start valuing a company or stock with a blank slate. All too often, your views on a company or stock are formed before you start inputting the numbers into the models and metrics that you use and, not surprisingly, your conclusions tend to reflect your biases. Confine your background research on the company to information sources rather than opinion sources; in other words, spend more time looking at a company's financial statements than reading equity research reports about the company. If you are looking at someone else's valuation of a company, always consider the reasons for the valuation and the potential biases that may affect the analyst's judgments. As a general rule, the more bias there is in the process, the less weight you should attach to the valuation judgment.
- Most valuations (even good ones) are wrong. One thing is estimation error, about the future of a business, which is firm-specific uncertainty, resulting in earnings and cash flows will be different from your estimates. Finally, even if a firm evolves exactly the way you expected it to, the macroeconomic environment can change in unpredictable ways. Also, collecting more information and doing more analysis

## 5 Valuation

will not necessarily translate into less uncertainty. In some cases, ironically, it can generate more uncertainty.

- Smaller models are better. Complex models are black boxes - are you running a model or a model is running you? Complex models got lots of numbers - garbage in, garbage out. If you can value company with 3 numbers, don't use fourth. Less is more. Simpler can be better. Valuations have become more and more complex over the last two decades, as a consequence of two developments. Computers and calculators are more powerful and accessible than they used to be, making it easier to analyze data. On the other side, information is both plentiful and easier to access and use. More detail gives you a chance to use specific information to make better forecasts, but it also creates the need for more inputs, with the potential for error on each one, and it generates more complicated and opaque models. When valuing an asset, use the simplest model that you can. If you can value an asset with 3 inputs, don't use 5. If you can value a company with three years of forecasts, forecasting 10 years of cash flows is asking for trouble. Less is more.
- Don't stop trying. Most investors choose not to value companies and offer a variety of excuses: valuation models are too complex, there is insufficient information, or there is too much uncertainty. While all of these reasons have a kernel of truth to them, there is no reason why they should stop you from trying. Valuation models can be simplified and - yes - the future will always be uncertain. Will you be wrong sometimes? Of course, but so will everyone else. Success in investing comes not from being right but from being wrong less often than everyone else.
- (Howard Marks) *"There is no such thing as investing without valuation."*
- (Graham) There is no truth more fundamental in investment than the simple statement that dividends and market value are the only concrete returns which a public stockholder ever gets for the money he puts into a company. Earnings, financial strength, increased asset values - all these may be of vital importance to him, but only because they will immediately or ultimately affect his dividend and his market price.
- Major reasons why stocks go up huge:
  1. One or more mutual/hedge funds start adding shares in major way.
  2. A short squeeze.
  3. Insiders are adding mass amount of shares (millions for example). It means that a managers (CEO, ...) of a company believes in them a lot.
  4. Buyout reasons.
  5. Great earnings.
- Sharpe Ratio TODO, link [here](#)

## 5.1 Financial Statements (GAAP)

Read more [here](#) to know more about GAAP.

### Income Statement

- How do analysts use the Income Statement?
  - Adjust reporting for “reality” - removing accounting tricks that distort earnings.
  - Prepare a common-size statement for spotting trends and comparing with other companies.
  - Calculating financial ratios for comparison.
- Brief description of items:
  1. *Revenues*: gross revenues from sale of products or services
  2. – *Operating expenses*: expenses associated with generating revenues
  3. = *Operating income*: operating income for the period
  4. – *Financial expenses*: expenses associated with borrowing and other financing
  5. – *Taxes*: taxes due on taxable income
  6. = *Net income before extraordinary items*: earnings to common & preferred equity for current period
  7. – (+) *Extraordinary Losses (Profits)*: profits and losses not associated with operations
  8. – *Income changes associated with accounting*: profits or losses associated with changes in accounting rules
  9. – *Preferred Dividends*: dividends paid to preferred stockholders
  10. = *Net income to Common Stockholders*
- *EBITDA*: Earnings before interests, taxes, depreciation, and amortization. It’s used as a measure which company generates more income.
- *Revenues* (also known as *Turnover* or *Sales*)
  - It’s the income a company receives for selling goods or services.
  - It is on top of income statement. The next item is usually called *Direct Operating Expenses* (e.g. purchasing inventory, it is cost of goods sold or cost to sales).
  - The next item on the income statement is *Indirect Operating Costs* (R&D, administration, selling, distribution).

## 5 Valuation

- Operating Income
  - Also known as Operating Earnings or EBIT (earnings before interest and taxes)
  - Calculated as Revenue - Direct Operating Costs - Indirect Operating Costs
- Expense categorization
  - *Operating expenses*: these, at least in theory, provide benefits only for the current period; the cost of labor and materials expended to create products that are sold in the current period is a good example.
  - *Financing expenses*: these are arising from the non-equity financing used to raise capital for the business; the most common example is interest expenses.
  - *Capital expenses*: these are expected to generate benefits over multiple periods; for instance, the cost of buying machinery and buildings is treated as a capital expense, and is spread over time as depreciation or amortization. Netting operating expenses and depreciation from revenues yields operating income, whereas the income after interest and taxes is termed net income.
- Accrual accounting
  - Accrual accounting is an accounting method where revenue or expenses are recorded when a transaction occurs rather than when payment is received or made.
  - The method follows the matching principle, which says that revenues and expenses should be recognized in the same period.
  - Accrual accounting is the opposite of cash accounting, which recognizes transactions only when there is an exchange of cash. Accrual accounting is almost always required for companies that carry inventory or make sales on credit.
  - For example:
    - \* Consider a consulting company that provides a \$5,000 service to a client on Oct. 30. The client receives the bill for services rendered and makes a cash payment on Nov. 25. The entry of this transaction will be recorded differently under the cash and accrual methods.
    - \* The revenue generated by the consulting services will only be recognized under the cash method when the company receives payment. A company that uses the cash accounting method will record \$5,000 revenue on Nov. 25.
    - \* Accrual accounting, however, says that the cash method is not accurate because it is likely, if not certain, that the company will receive the cash at some point in the future because the services have been provided.
    - \* The accrual method recognizes the revenue when the clients' services are concluded even though the cash payment is not yet in the bank. Revenue

## 5 Valuation

will be recognized as earned on Oct. 30. The sale is booked to an account known as accounts receivable, found in the current assets section of the balance sheet.

- *Accounts receivable* - amounts owed by customers to the company. It's all the sales the company booked on credit. This change in AR shows how well the company is doing collecting cash on those sales or selling more.
- *Accounts payable* - amounts owed by the company to suppliers.
- *Depreciation*
  - It is an annual expense a company takes to account for using up its long-term assets.
  - Example, a factory may cost millions to build but can only produce for 20 years. To match the expense of building with the product sales produced, the company takes 1/20th of the building cost off as an expense each year.
  - So depreciation is used for physical assets. Amortization is the same concept but used for intangible assets like patents and goodwill.
- Aswath Damodaran use to recalculate a few expenses that are according to him consistently miscategorized in financial statements:
  - Operating leases are considered as operating expenses by accountants but they are really financial expenses.  
$$\text{adjusted operating earnings} = \text{operating earnings} + \text{operating lease expense} - \text{depreciation on the leased asset}$$

the effects of capitalizing operating leases - debt will increase leading to an increase in debt ratios used in the cost of capital and levered beta, operating income will also increase since operating leases will now be before the imputed interest on the operating lease expense, net income will be unaffected since it is both after operating and financial expenses anyway, and return on capital will generally decrease
  - R&D expenses are considered as operating expenses by accountants but they are really capital expenses.
    1. specify the period in which you are gonna capitalize the R&D (from R&D to commercial project, 2-10 years for example)
    2. collect past R&D expenses for as long as the amortizable life from step 1)
    3. sum up the unamortized R&D expenses from step 2)

The effects of capitalizing R&D expenses - operating income will generally increase, though it depends upon whether R&D is growing or not. if it is flat, there will be no effect since the amortization will offset R&D added back.



## 5 Valuation

The faster R&D is growing the more operating income will be affected. Net income will increase proportionately, depending again upon how fast R&D is growing. Book value of equity (and capital) will increase by the capitalized research asset. The return on capital & equity will generally go down.

- Most common Income Statement adjustments:
  - Adjust revenues for incomplete contracts, rebates and returns.
  - Adjust depreciation for comparison with other companies.
  - Adjust expenses to reflect true operating costs.
  - Adjust reported one-time and infrequent items.
- **Good to check:** Revenue, Gross Profit, Gross Margin, Net margin, Net income (loss), and Retained earnings - must grow, if a company is reinvesting its net income.

### Balance Sheet

- There are assets, liabilities and stockholder's equity.
- It can be worth to look at (in assets): cash and cash equivalents, short and long term investments = add those 3 together, and subtract short and long term debt and if a company is worth investing, we can see if it's more in debt or in profit (there is at least 3-4 times more profit than debt). So we are looking for a company that is a cash-rich, has a long term investments, and doesn't have too much debt.
- If a company has weak balance sheet, it can run out of business in case that something bad happens in the future. This is bankruptcy, and you can potentially lose all your money.
- (Aswath Damodaran) A note on a goodwill:
  - You can usually find it in accounting balance sheet → intangible assets → goodwill.
  - According to Damodaran, goodwill is the most useless asset known. If you are the greatest company in the world and you've grown entirely with internal investments, there will be no goodwill on your balance sheet. The minute you do an acquisition, goodwill pops up - because balance sheet has to be balanced. Goodwill is a plug variable.
- Difference between basic and diluted shares is that diluted shares number is slightly higher, because those shares don't yet exist - they will be created as a compensation to directors of a company.
- If a company invests in the securities or assets of another company, the investment is valued at an updated market value if the investment is held for trading and

historical cost when it is not. In the special case where the holding comprises more than 50% of the value of another company (subsidiary), the firm has to record all of the subsidiary's assets and liabilities on its balance sheet (this is called consolidation) with a minority interest item capturing the percentage of the subsidiary that does not belong to it.

- **Good to check:** Long term debt, Total equity.

### Cash Flow Statement

- *Cash flows* are organized based on:
  - Cash flows from operating activities (revenues, operating expenses) - it only includes them if actual cash movement occurred during the period
  - Cash flows from investment activities (sales/purchase of assets)
  - Cash flows relating to financing activities (issuing or repurchasing shares, raising debt, paying dividends)
- *Gross Profit*
  - Calculated as total revenue - costs.
- *Gross Margin*
  - Calculated as (total revenue - costs) / total revenue. For example, when I buy iPod for 250 dollars, and I will sell it for 500, my gross margin is 50%.
  - It shows how profitable a company's operations are. The greater the gross margin is, the more money a company will have for investing in important areas such as marketing or R&D.
- Operating Cash Flow, be aware:
  - Cash Flow from Operations (CFO) is higher than net income.
  - CFO consistently trends higher over time.
  - CFO is positive and higher than totals from other two cash flow sections.
  - Growth Rate of EBITDA and cash flows from operations must be in line with one another, with is a good accounting check to check if accountants are expensing costs properly.
- **Good to check:** Capital expenditures (money spent on properties, equipment, etc) - and calculate Capital exp./net income - lowest possible.

## 5.2 Accounting And Accounting Shenanigans

- Finance vs Accounting: **accounting is backward-looking**, it's recording what's happened.

### Warren Buffett On Accounting

- Devotees of integrity in financial reporting sometimes must take matters into their own hands. Buffett does so regularly by furnishing Berkshire shareholders with information, such as segment data, that GAAP does not require but which Buffett would want to see if their positions were reversed.
- One clear lesson from Buffett's discussions of financial information is that accounting has inherent limits, even though it is absolutely essential. Despite enormous managerial leeway in reporting earnings and potential abuse, financial information can be of great use to investors. Buffett uses it every day, and has allocated billions of dollars doing it. So it is possible to make important investment decisions on the basis of available financial information if one exercises knowledgeable judgment. That judgment may include making adjustments to determine look-through earnings, owner earnings and intrinsic value.
- Mergers: when a company is acquired, GAAP currently condone two very different ways of recording the transaction: "purchase" and "pooling". In pooling, stock must be the currency; in a purchase, payment can be made in either cash or stock. Whatever the currency, managements usually detest purchase accounting because it almost always requires that a "goodwill" account be established and subsequently written off - a process that saddles earnings with a large annual charge that normally persists for decades. In contrast, pooling avoids a goodwill account, which is why managements love it. Pooling is grounded in the poetic notion that when two rivers merge their streams become indistinguishable. Under this concept, a company that has been merged into a larger enterprise has not been "purchased" (even though it will often have received a large "sell-out" premium). Consequently, no goodwill is created, and those pesky subsequent charges to earnings are eliminated. Instead, the accounting for the ongoing entity is handled as if the businesses had forever been one unit. But the reality is far different: there is indisputably an acquirer and an acquiree, and the latter has been "purchased", no matter how the deal has been structured. Just ask employees severed from their jobs which company was the conqueror and which was the conquered. You will find no confusion. Yes, there are some true "mergers of equals", but they are few and far between.
- Buffett emphasizes that useful financial statements must enable a user to answer 3 basic questions about a business:
  - approximately how much a company is worth
  - its likely ability to meet its future obligations

## 5 Valuation

- how good a job its managers are doing in operating the business
- Buffett laments that GAAP (generally accepted accounting principles) conventions make these determinations difficult, and indeed almost any accounting system will be hard pressed to furnish completely accurate answers given the complexities of business. Acknowledging the monumental difficulty of investing an accounting system superior to GAAP, Buffett articulates a range of concept that go a longer way toward making financial information useful to investors and managers.
- *"GAAP accounting lets us reflect in our net worth the up-to-date underlying values of the businesses we partially own, but does not let us reflect their underlying earnings in our income account. In the case of our controlled companies, just the opposite is true. Here, we show full earnings in our income account but never change asset values on our balance sheet, no matter how much the value of a business might have increased since we purchased it. Our mental approach to this accounting schizophrenia is to ignore GAAP figures and to focus solely on the future earning power of both our controlled and non-controlled businesses. Using this approach, we establish our own ideas of business value, keeping these independent from both the accounting values shown on our books for controlled companies and the values placed by a sometimes foolish market on or partially owned companies. It is this business value that we hope to increase at a reasonable (or, preferably, unreasonable) rate in the years ahead."*
- It is common on Wall Street to value businesses using a calculation of cash flows equal to a) operating earnings plus b) depreciation expense and other non-cash charges. Buffett regards that calculation is incomplete. After taking a) operating earnings and adding back b) non-cash charges, Buffett argues that you must then subtract something else: c) required reinvestment in the business. Buffett defines c) as "the average amount of capitalized expenditures for plant and equipment, etc. that the business requires to fully maintain its long-term competitive position and its unit volume." Buffett calls the result of a)+b)-c) "owner earnings."

When b) and c) differ, cash flow analysis and owner earnings analysis differ too. For most businesses, c) usually exceeds b), so cash flow analysis usually overstates economic reality. In all cases where c) differs from b), calculation of owner earnings enables one to appraise performance more accurately than would analysis of GAAP earnings, or cash flows affected by purchase price accounting adjustments. That is why Berkshire supplementally reports owner earnings for its acquired businesses, rather than rely solely on GAAP earnings figures, or cash flow figures.

- Common yardsticks such as dividend yield, the ratio of price to earnings or to book value, and even growth rates have nothing to do with valuation except to the extent they provide clues to the amount and timing of cash flows into and from the business. Indeed, the growth can destroy value if it requires cash inputs in the early years of a project or enterprise that exceed the discounted value of the cash that those assets will generate in later years. Market commentators and

investment managers who glibly refer to "growth" and "value" styles as contrasting approaches to investment are displaying their ignorance, not their sophistication. Growth is simply a component - usually a plus, sometimes a minus - in the value equation.

### Accounting Shenanigans

- Why the companies are doing it?
  - To inflate current earnings.
    - \* For example, soon going public, positions threatened, needs a loan, and so on.
  - To deflate current earnings (showing worse performance).
    - \* Save revenue for a rainy day (and company can show up even the next year).
    - \* Merger appearing "fruitful", clean up balance sheet (so it can look more easily profitable again in the future).
- What companies can be suspicious?
  - Lots of acquisitions
  - Dumb incentives
  - Private companies
  - Recently went public
  - Changed business model
  - Operational problems. For example, when growth of sales and profits are declining, or when operating cashflow is slowing down in relation to earnings.
- The most often occurring shenanigans:
  - Recording revenues too soon, or questionable quality
  - Recording bogus revenue
  - Boosting income with one-time gains
  - Shifting current expenses to a later or earlier period
  - Failing to record or improperly reducing liabilities
  - Shifting current revenues to a later period
  - Shifting future expenses to the current period as a special charge
- You can have a look very very deeply on financial statements, and/or auditor's report. Look for an absence of opinion, quality of report, and for reputation of the auditor. Also look for proxy statement, footnotes in some documents. Also MD&A in 10K and 10Q. Form 8K.

### Warren Buffett On Accounting Shenanigans

- What needs to be reported is data - whether GAAP, non-GAAP, or extra-GAAP - that helps financially literate readers answer three key questions:
  1. Approximately how much is this company worth?
  2. What is the likelihood that it can meet its future obligations?
  3. How good a job are its managers doing, given the hand they have been dealt?

In most cases, answers to one or more of these questions are somewhere between difficult and impossible to glean from the minimum GAAP presentation. The business world is simply too complex for a single set of rules to effectively describe economic reality for all enterprises, particularly those operating in a wide variety of businesses, such as Berkshire.

Further complicating the problem is the fact that many managements view GAAP not as a standard to be met, but as an obstacle to overcome. Even honest and well-intentioned managements sometimes stretch GAAP a bit in order to present figures they think will more appropriately describe their performance. Both the smoothing of earnings and the "big bath" quarter are "white lie" techniques employed by otherwise upright managements. And then there are managers who actively use GAAP to deceive and defraud. *"It has been far safer to steal large sums with a pen than small sums with a gun."*

- The ultimate point to understand about accounting is that it is a form. As a form, it can be manipulated. GAAP has enough trouble. Yet two groups of people make it worse: those who try to overcome GAAP requirements by stretching their accounting imagination, and those who deliberately employ GAAP to facilitate financial fraud. The former is especially hard to deal with, as Buffett suggests in illustrating how debate on accounting for stock options reveals the parochialism of many executives and accountants.
- For example, criticizing the view against treating stock options as expenses when granted, Buffett delivers this laconic argument: "If options aren't a form of compensation, what are they? If compensation isn't an expense, what is? And, if expenses shouldn't go into the calculation of earnings, where in the world should they go?" So far, he has gotten no answers.
- The quest for integrity in financial reporting is endless. The latest product to catch on is accounting for "restructurings", a label given to a whole range of maneuvers that enable managers to engage in age-old earnings management and smoothing techniques with greater felicity and deftness than ever before. Other examples concern estimates required when calculating pension liabilities and the timing of sales of assets that generate gains or losses to influence reported earnings. Investors beware.
- TODO Professional Standards Group (PSG) vs Senate, SEC, and FASB.

## 5 Valuation

- Net Income: it may be an important number at most companies, but it's almost always meaningless at Berkshire. Regardless of how Berkshire's businesses might be doing, Buffett could - quite legally - cause net income in any given period to be almost any number they would like.
  - They have that flexibility because *realized gains* or losses on investments go into the net income figure, whereas *\*unrealized gains\** (and, in most cases, losses) are excluded. For example, imagine that Berkshire had a \$10 billion increase in unrealized gains in a given year and concurrently had \$1 billion of realized losses. The net income - which would count only the loss - would be reported as less than the operating income. If they had meanwhile realized gains in the previous year, headlines might proclaim that the earnings were down X% when in reality the business might be much improved.
  - Operating earnings, despite having some shortcomings, are in general a reasonable guide as to how Berkshire's businesses are doing. Both realized and unrealized gains and losses are fully reflected in the calculation of Berkshire's book value. *"Pay attention to the changes in that metric and to the course of our operating earnings, and you will be on the right track."*

### 5.3 Risk Models

- Harry Markowitz - he noted that the risk of a portfolio could be written as a function not only of how much was invested in each security and the risk of the individual securities, but also of how these securities moved together. If securities that move in different directions are in the same portfolio, he noted that the risk of the portfolio could be lower than the risk of individual securities, and that investors should get a much better trade-off from taking risk by holding diversified portfolios than by holding individual stocks. Let's say that the only risk you care about is the risk that you cannot diversify away. Macroeconomic risk that affects many or most firms cannot be diversified away. CAPM measures the exposure of a company to market-wide risk.
- All these models are flawed, either because they make unrealistic assumptions or because the parameters cannot be estimated precisely. However:
  - Risk matters.
  - Some investments are riskier than others. If you don't use beta as a measure of relative risk, you have to come up with an alternative measure of relative risk.
  - The price of risk affects value, and markets set this price.

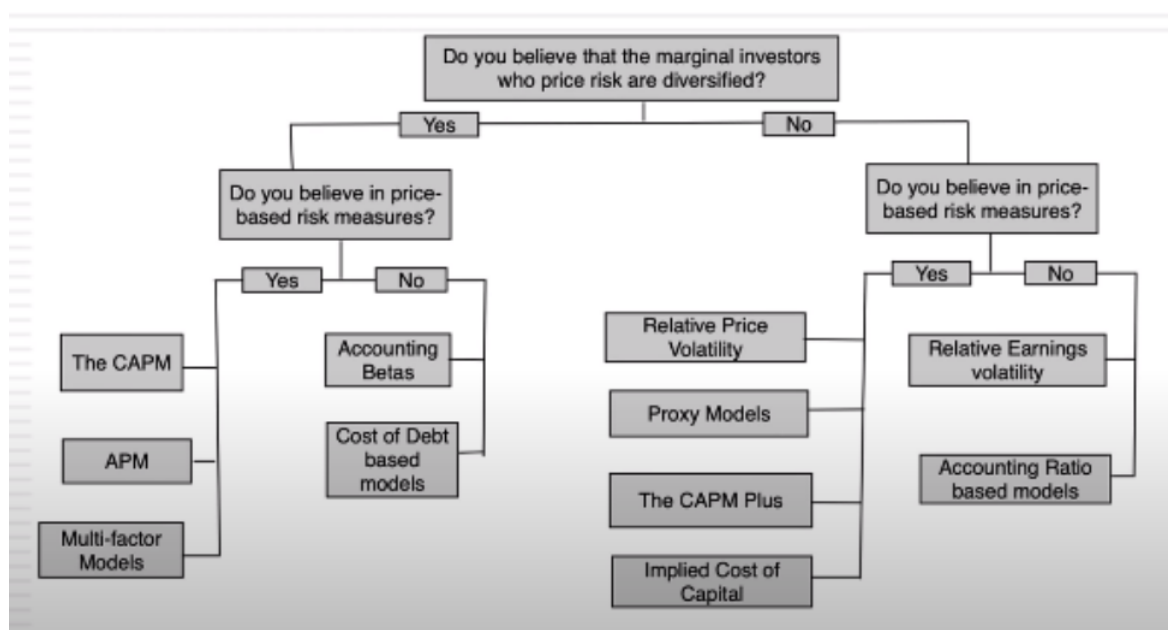


Figure 5.1: Aswath Damodaran: The Margin of Safety is not a substitute for risk assessment (from [this](#) YouTube video).



### **Capital Asset Pricing Model (CAPM)**

- Developed in early 1960s.
- In this model, you assume that investors face no transaction costs and share the same information.
- Since there is no cost to diversifying and no gain from not doing so, each investor holds a supremely diversified portfolio composed of all traded assets (called the market portfolio). The risk of any asset then becomes the risk added to this "market portfolio", which is measured with a beta.
- The beta is a relative risk measure and it is standardized around 1; a stock with a beta above 1 is more exposed to market risk than the average stock, and below 1 is less exposed. The expected return on the investment can then be written as:  
$$\text{risk\_free\_rate} + \text{beta} * (\text{risk\_premium\_for\_average\_risk\_investment})$$
- The CAPM is intuitive and simple to use, but it is based on unrealistic assumptions. Studies over the last few decades suggest that CAPM betas do not do a very good job in explaining differences in returns across stocks. Consequently, two classes of models have developed as alternatives to the CAPM.

### **Multi-Beta Models**

- These measure the risk added by an investment to a diversified portfolio, with many betas and with each beta measuring exposure to a different type of market risk (with its own risk premium).

### **Proxy Models**

- These look at the characteristics (such as small capitalization and price-to-book ratio) of companies that have earned high returns in the past and use those as measures of risk.

## 5.4 Valuation Taxonomy

There are many ways how to do valuation, but in general, there is no reason to choose one over the other, since nothing stops you from using both approaches on the same investment. In truth, you can improve your odds by investing in stocks that are undervalued not only on an intrinsic basis but also on a relative one. **To simplify, all approaches to investing in company securities can be divided into 2 basic types - fundamental analysis (company's attributes), and technical analysis (study of the price behavior of the securities themselves).**

### Fundamental Analysis

- Fundamental analysis (FA) is a method of measuring a security's intrinsic value by examining related economic and financial factors.
- Fundamental analysts study anything that can affect the security's value, from macroeconomic factors such as the state of the economy and industry conditions to microeconomic factors like the effectiveness of the company's management.
- The problem with defining the word fundamentals is that it can cover anything related to the economic well-being of a company. They obviously include numbers like revenue and profit, but they can also include anything from a company's market share to the quality of its management.
- The various fundamental factors can be grouped into two categories: quantitative and qualitative.

**Quantitative analysis** This is related to information that can be shown in numbers and amounts. The quantitative fundamentals are hard numbers. They are the measurable characteristics of a business. That's why the biggest source of quantitative data is financial statements. Revenue, profit, assets, and more can be measured with great precision.

- *Asset-based Valuation*
  - Liquidation value
  - Replacement cost
- *Intrinsic Valuation (Discounted Cash flow models)*
  - Equity valuation models - Dividends, Free Cashflow to Equity
  - Firm valuation models - Cost of Capital approach, Adjusted Present Value (APV) approach, Excess Return models
  - Stable, Two-stage, Three-stage or N-stage
  - Current or Normalized

## 5 Valuation

- *Relative Valuation*
  - Equity, Firm
  - Sector, Market
  - Earnings, Book value, Revenues
- *Option Pricing Models (Contingent Claim Models)* ([ref](#))
  - Option to delay - patent, undeveloped reserves
  - Option to expand - young firms, undeveloped land
  - Option to liquidate - equity in troubled firm

**Qualitative analysis** This is related to the nature or standard of something, rather than to its quantity. The qualitative fundamentals are less tangible. They might include the quality of a company's key executives, its brand-name recognition, patents, and proprietary technology.

### Technical Analysis

- Technical analysts believe past trading activity and price changes of a security can be valuable indicators of the security's future price movements.
- Technical analysis may be contrasted with fundamental analysis, which focuses on a company's financials rather than historical price patterns or stock trends.
- Technical analysis as we know it today was first introduced by Charles Dow and the Dow Theory in the late 1800s. Charles Dow released a series of editorials discussing technical analysis theory. His writings included two basic assumptions that have continued to form the framework for technical analysis trading.
  1. Markets are efficient with values representing factors that influence a security's price, but
  2. Even random market price movements appear to move in identifiable patterns and trends that tend to repeat over time.
- Today the field of technical analysis builds on Dow's work. Professional analysts typically accept three general assumptions for the discipline:
  1. The market discounts everything. Technical analysts believe that everything from a company's fundamentals to broad market factors to market psychology are already priced into the stock. This point of view is congruent with the *Efficient Markets Hypothesis* (more in Section 1.6) which assumes a similar conclusion about prices. The only thing remaining is the analysis of price movements, which technical analysts view as the product of supply and demand for a particular stock in the market.

## 5 *Valuation*

2. Price moves in trends. Technical analysts expect that prices, even in random market movements, will exhibit trends regardless of the time frame being observed.
3. History tends to repeat itself. The repetitive nature of price movements is often attributed to market psychology, which tends to be very predictable based on emotions like fear or excitement.

## 5.5 Fundamental Analysis

Fundamental Analysis was briefly introduced in Section 5.4.

- You can decide to value the entire business (firm or enterprise valuation) or just the equity in the business. You can value a business and subtract out the debt the company owes to get to the value of its shares. Or you can value the equity in the company directly, by focusing on the cash flows a company has left over after debt payments and adjusting for the risk in the stock.
- A company uses three sources of funding - Credit/Debt, Cash, and Equity. There should be a right mix of three.
- $\text{Time to repay debt} = (\text{liabilities} - \text{reserves}) / \text{operating cash flow}$
- Note: be aware that there is a shift from tangible to intangible assets.

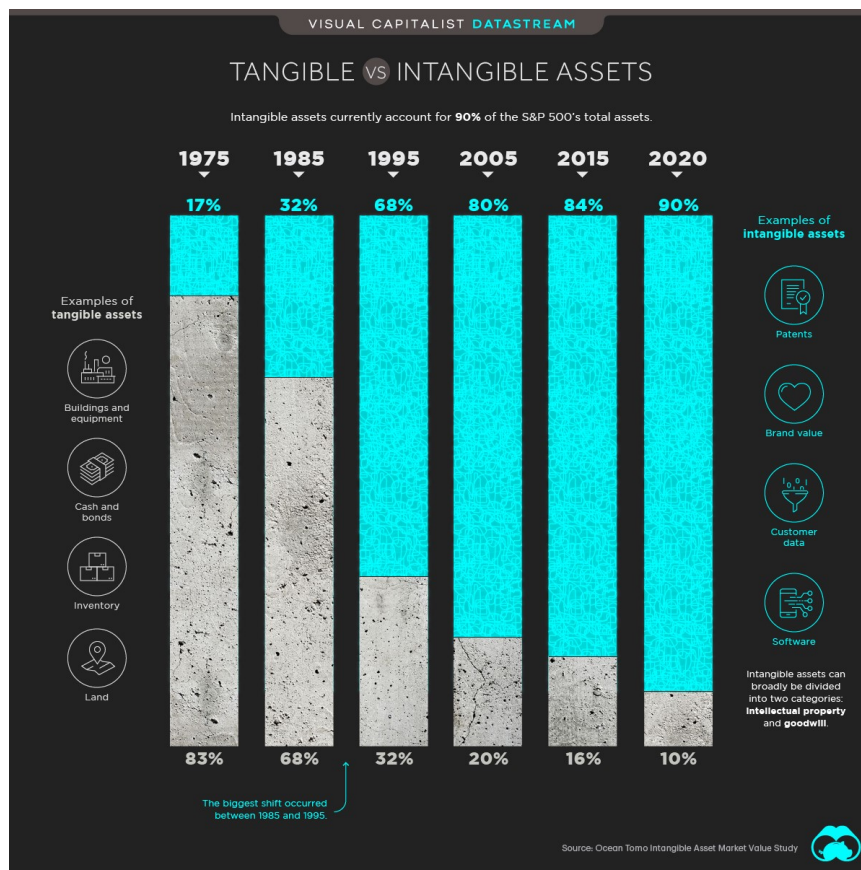


Figure 5.2: Tangible vs intangible assets over the years.

## Quantitative Analysis

Cheat sheet of what measurements you should pay particular attention to for the different types of stocks:

- Value stocks - P/E, Dividend Yield, Price-to-Book, Price-to-Cash-Flow
- Growth stocks - Earnings, Relative Strength, Sales
- All stocks - Net Profit Margin, Debt, Cash Flow, Price-to-Sales

## (Warren Buffett) Essential tools for any investor's or manager's valuation toolbox

- **Accounting earnings vs Economic earnings**

Buffett invented so called Look-Through Earnings

- This is an alternative to GAAP rules governing investments in marketable securities of the investee less than 20%, this measures the investor's economic performance based on its percentage interest of the investee's undistributed earnings (after an incremental reduction for income taxes).
- Generally accepted accounting principles require (but there are exceptions) full consolidation of sales, expenses, taxes, and earnings of business holdings more than 50% owned.
- Full inclusion of underlying earnings from another class of holdings, companies owned 20% to 50% (usually called "invest-tees"), also normally occurs. Earnings from such companies are included via a one-line entry in the owner's Statement of Earnings. Unlike the over-50% category, all items of revenue and expense are omitted; just the proportional share of net income is included. Thus, if Corporation A owns 1/3 of Corporation B, 1/3 of B's earnings, whether or not distributed by B, will end up in A's earnings. JFYI, there are also some modifications, both in this and the over-50% category, for intercorporate taxes and purchase price adjustments.
- Holdings representing less than 20% ownership of another corporation's voting securities - here, accounting rules dictate that the owning companies include in their earnings only dividends received from such holdings. Undistributed earnings are ignored. So, if you own 10% of Corporation X with earnings of \$10 million in some year, you should report in your earnings (ignoring relatively minor taxes on intercorporate dividends) either:
  1. \$1 million if X declared the full \$10 million in dividends;
  2. \$500k if X paid out 50%, or \$5 million, in dividends, or
  3. \$0 if X reinvested all earnings.
- *"I believe the best way to think about our earnings is in terms of 'look-through' results, calculated as follows: Take \$250 million, which is roughly our share*

*of the 1990 operating earnings retained by our investees; subtract \$30 million, for the incremental taxes we would have owed had that \$250 million been paid to us in dividends; and add the remainder, \$220 million, to our reported operating earnings of \$371 million. Thus our 1990 'look-through earnings' were about \$590 million."*

- Accounting numbers are the beginning, not the end, of business valuation.
- *"We also believe that investors can benefit by focusing on their own look-through earnings. To calculate these, they should determine the underlying earnings attributable to the shares they hold in their portfolio and total these. The goal of each investor should be to create a portfolio (in effect, a 'company') that will deliver him or her the highest possible look-through earnings a decade or so from now."*
- An approach of this kind will force the investor to think about long-term business prospects rather than short-term stock market prospects, a perspective likely to improve results. It's true, of course, that, in the long run, the scoreboard for investment decisions is market price. But prices will be determined by future earnings. In investing, just as in baseball, to put on the scoreboard one must watch the playing field, not the scoreboard.

### • Accounting goodwill vs Economic goodwill

- Accounting goodwill: the amount by which the purchase price of a business exceeds the fair value of the assets acquired (after deducting liabilities). It is recorded as an asset on the balance sheet and then amortized as an annual expense, usually over 40 years. So accounting goodwill assigned to that business decreases over time by the aggregate amount of that expense.
- Economic goodwill: this is something else. It is the combination of intangible assets, like brand name recognition, that enable a business to produce earnings on tangible assets, like plant and equipment, in excess of average rates. The amount of economic goodwill is the capitalized value of that excess. Economic goodwill tends to increase over time, at least nominally in proportion to inflation for mediocre businesses, and more than that for businesses with solid economic or franchise characteristics. Indeed, businesses with more economic goodwill relative to tangible assets are hurt far less by inflation than businesses with less of that.
- These differences between accounting goodwill and economic goodwill entail the following insights. First, the best guide to the value of a business's economic goodwill is what it can earn on unleveraged net tangible assets, excluding charges for amortization of goodwill. Therefore when a business acquires other businesses, and the acquisitions are reflected in an asset account called goodwill, analysis of that business should ignore the amortization charges. Second, since economic goodwill should be measured at its full economic cost,

## 5 Valuation

i.e., before amortization, evaluation of a possible business acquisition should be conducted without regard to those amortization charges as well.

- Buffett emphasizes, however, that the same does not hold for depreciation charges - these should not be ignored because they are real economic costs. He makes this point in explaining why Berkshire always shows its shareholders the results of operations with respect to acquired businesses net of any purchase price adjustments GAAP requires.
- Berkshire's intrinsic business value considerably exceeds book value. There are two major reasons:
  1. Standard accounting principles require that common stocks held by our insurance subsidiaries be stated on our books at market value, but that other stocks we own be carried at the lower of aggregate cost or market.
  2. More important, Berkshire owns several businesses that possess economic goodwill (which is properly includable in intrinsic business value) far larger than the accounting goodwill that is carried on our balance sheet and reflected in book value.
- Businesses logically are worth far more than net tangible assets when they can be expected to produce earnings on such assets considerably in excess of market rates of return. The capitalized value of this excess return is economic goodwill.
- For years the traditional wisdom held that inflation protection was best provided by businesses with natural resources, plants and machinery, or other tangible assets ("In Goods We Trust"). It doesn't work that way. Asset-heavy businesses generally earn low rates of return - rates that often barely provide enough capital to fund the inflationary needs of the existing business, with nothing left over for real growth, for distribution to owners, or for acquisition of new businesses. In contrast, a disproportionate number of the great business fortunes built up during the inflationary years arose from ownership of operations that combined intangibles of lasting value with relatively minor requirements for tangible assets. In such cases earnings have bounded upward in nominal dollars, and these dollars have been largely available for the acquisition of additional businesses. This phenomenon has been particularly evident in the communications business. That business has required little in the way of tangible investment - yet its franchises have endured. During inflation, goodwill is the gift that keeps giving.
- GAAP requires goodwill to be amortized - that is, written off - over a period no longer than 40 years. Therefore, when Berkshire acquired the half of GEICO for \$1.6 billion, to extinguish this GEICO goodwill, they annually take charges of about \$40 million against their earnings. In accounting sense, consequently their GEICO goodwill will disappear gradually in even-sized bites. But the economic goodwill they have purchased at GEICO will not



## 5 Valuation

decline in the same measured way. In fact, Buffett's best guess is that the economic goodwill assignable to GEICO will not decline at all, but rather will increase - and probably in a very substantial way.

- Investors are often led astray by CEOs and Wall Street analysts who equate depreciation charges with the amortization charges. In no way are the two the same: With rare exceptions, depreciation is an economic cost every bit as real as wages, materials, or taxes. Buffett doesn't think that so-called EBITDA is a meaningful measure of performance. Managements that dismiss the importance of depreciation - and emphasize "cash flow" or EBITDA - are apt to make faulty decisions, and you should keep that in mind as you make your own investment decisions.
- When Company A acquires Company B, then Company B has higher balance sheet figures, which produces the lower income figures in the earnings statement. This is the result of the asset write-ups and of the fact that some of the written-up assets must be depreciated or amortized. The higher the asset figure, the higher the annual depreciation or amortization charge to earnings must be. There can be:
  1. non-cash inventory costs resulting, primarily, from reductions that Company B made in its inventories during a given year
  2. extra depreciation attributable to the write-up of fixed assets
  3. amortization of goodwill
  4. deferred-tax acrobatics
- What does all this mean for owners? Did the shareholders of Company A buy a business that earned X million of dollars before the acquisition, or Y million of dollars ( $X > Y$ ) a day after the acquisition? Was the difference  $X - Y$  a real economic cost to Company A? Should investors pay more for the stock of Company B before of after the acquisition? And, if business is worth some given multiple of earnings, was Company B worth considerably more the day before the acquisition than it was worth the following day?
- Buffett has an answer for these questions - "owner's earnings". It represent:
  - a) reported earnings **PLUS** b) depreciation, depletion, amortization, and certain other non-cash charges such as 4 items in the list above **MINUS** c) the average annual amount of capitalized expenditures for plant and equipment, etc that the business requires to fully maintain its long-term competitive position and its unit volume

The owner-earnings equation does not yield the deceptively precise figures provided by GAAP since c) must be a guess - and one sometimes very difficult to make. Despite this problem, Buffett considers the owner earnings figure, not the GAAP figure, to be the relevant item for valuation purposes - both for investors in buying stocks and for managers in buying entire businesses.

## 5 Valuation

So the owner earnings is a better measure of economic performance than cash flow or GAAP earnings, equal to a) operating earnings plus b) depreciation and other non-cash charges minus c) required reinvestment in a business to maintain present competitive position and unit volume.

This approach produces owner-earnings for Company B before and after the acquisition that are identical, which means valuations are also identical, just as common sense would tell you should be the case. This result is reached because the sum of a) and b) is the same in both columns before and after the acquisition, and because c) is necessarily the same in both cases.

When c) exceeds b) - GAAP earnings overstate owner earnings. Frequently this overstatement is substantial.

All this points up the absurdity of the "cash flow" numbers that are often set forth in Wall Street reports. These numbers routinely include a) plus b) - but do not subtract c).

"Cash Flow", true, may serve as a shorthand of some utility in descriptions of certain real estate businesses or other enterprises that make huge initial outlays and only tiny outlays thereafter. A company whose only holding is a bridge or an extremely long-lived gas field would be an example. But "cash flow" is meaningless in such businesses as manufacturing, retailing, extractive companies, and utilities because for them, c) is always significant. To be sure, businesses of this kind may in a given year be able to defer capital spending. But over a 5- or 10-year period, they must make the investment - or the business decays.

Why, then, are "cash flow" numbers so popular today? Buffett believes these numbers are frequently used by marketers of businesses and securities in attempts to justify the unjustifiable (and therefore to sell what should be unsaleable). When a) - that is, GAAP earnings - looks by itself inadequate to service debt of a junk bond or justify a foolish stock price, how convenient it becomes for salesmen to focus on a) + b). But you shouldn't add b) without subtracting c): though dentists correctly claim that if you ignore your teeth they'll go away, the same is not true for c). The company or investor believing that the debt-servicing ability or the equity valuation of an enterprise can be measured by totaling a) and b) while ignoring c) is headed for certain trouble.

- Questioning GAAP figures may seem impious to some. After all, what are we paying the accountants for if it is not to deliver us the "truth" about the businesses. But the accountants' job is to record, not to evaluate. The evaluation job falls to investors and managers.
- Accounting numbers are of enormous help to anyone evaluating the worth of a business and tracking its progress. It's a good starting point for evaluating the businesses, but managers and owners need to remember that accounting is but an aid to business thinking, never a substitute for it.

- **Accounting book value vs Intrinsic value**

- Book value: it is, in comparison to intrinsic value, easy to calculate, but of limited use. So too with market price, at least for most companies.
- Intrinsic value: *"the discounted value of the cash that can be taken out of a business during its remaining life"* - it depends on future cash flows and interest rate movements. It is what ultimately matters about a business.

### **Altman Z-score**

- Is the output of a credit-strength test that gauges a publicly-traded manufacturing company's likelihood of bankruptcy.
- It is based on 5 financial ratios that can calculate from data found on a company's 10-K report.
- Above 3 is safe, below 1.81 is distress. Bigger better.

### **Piotroski Score**

- TODO

### **Some important numbers worth to have a look on**

- (Peter Lynch) Lynch uses profit before taxes, also known as the pretax profit margin, as a tool for analyzing companies. That's what's left of a company's annual sales dollar after all the costs, including depreciation and interest expenses, have been deducted. For example, Fort Motor in 1987 had sales of \$71.6 billion and earned \$7.38 billion pretax, for a pretax profit margin of 10.3%. Retailers have lower profit margins than manufacturers, an outstanding supermarket can have only 3-4% pretax. You have to compare it within the same industries. The company with the highest profit margin is by definition the lowest-cost operator, and low-cost operator has a better chance of surviving if business conditions deteriorate. What you want is a relatively high profit-margin in a long-term stock that you plan to hold through good times and bad, and a relatively low profit-margin in a successful turnaround.
  - Percent of Sales. If you are interested in a company because of a particular product, you have to find out what that product means to the company in question. What % of sales does it represent?
  - Strong balance sheet (debt-to-equity ratio).
  - P/E Ratio - as detailed above. So, it's fairly priced if its equal its growth rate of earnings. If a company's P/E is less than the growth rate, it may be a bargain. On the other hand, if P/E is higher than the growth rate, it is an unattractive prospect and it's headed for a comedown. In general, P/E that's

## 5 Valuation

half the growth rate is very positive, and one that's twice the growth rate is very negative.

Another formula enables us to compare growth rates to earnings, while also taking the dividends into account. Find the long-term growth rate and dividend yield. Sum them up and divide by the P/E ratio. If the result is less than 1, it's poor, 1.5 is all right and 2 or more is what you're really looking for.

- The cash position. Calculate cash net of long-term debt. When a company is sitting on billions in cash, it's definitely something you want to know about. It's good to try to find out what a company will do with excessive cash, if it has lots of it.
- The debt factor. How much does the company owe, and how much does it own? Debt versus (stockholder's) equity. A normal corporate balance sheet has 75% equity and 25% debt. Weak balance sheet might have 80% debt and 20% equity. Especially among turnarounds and troubled companies, Lynch pays special attention to the debt factor. It's debt that determines which companies will survive and which will go bankrupt in a crisis. Young companies with heavy debts are always at risk. Also, it's the kind of debt as much as the actual amount, that separates the winners from the losers in a crisis. There's bank debt and there's funded debt. Bank debt is the worst kind, and is due on demand. It doesn't have to come from a bank. It can also take the form of commercial paper, which is loaned from one company to another for short periods of time. The important thing is that it's due very soon, and sometimes even "due on call". That means that the lender can ask for his money back at the first sign of trouble. If the borrower can't pay back the money, it can be very dangerous to shareholders. Funded debt is the best kind, from shareholder's point of view, and it can never be called in no matter how bleak the situation, as long as the borrower continues to pay the interest. The principal may not be due for 15, 20, or 30 years. It usually takes the form of regular corporate bonds with long maturities. Corporate bonds may be upgraded or downgraded by the rating agencies depending on the financial health of the company, but whatever happens, the bondholders cannot demand immediate repayment of principal the way a bank can. Sometimes even interest payments can be deferred. Funded debt gives companies time to wiggle out of trouble.
- Dividends. The real issue can be, how the dividend or the lack of a dividend affects the value of a company and the price of its stock over time. One strong argument in favor of companies that pay dividends is that companies that don't pay dividends have a sorry history of blowing the money on a string of stupid diworsifications. Another argument in favor of dividend-paying stocks is that the presence of the dividend can keep the stock price from falling as far as it would if there were no dividend. That can be a reason why to keep

## 5 Valuation

some starwarts and even slow growers in the portfolio. If you plan to buy a stock for its dividend, find out if the company is going to be able to pay it during recessions and bad times. A company with 20 or 30-year record of regularly raising the dividend is your best bet. Cyclical are not always reliable dividend-payers.

- Book Value. It often bears little relationship to the actual worth of the company. You have to be detailed here for understanding of what those values really are.
  - Hidden Assets. These can be gold, silver, oil, patented drugs, real estate, etc. Also in subsidiary businesses owned wholly or in part by a large parent company. Or even when one company owns shares of a separate company.
  - The percentage of institutional ownership. The lower the better.
  - Whether insiders are buying and whether the company itself is buying back its own shares. Both are positive signs.
  - Cash Flow. It is the amount of money a company takes in as a result of doing business. All companies take in cash, but some have to spend more than others to get it.
  - [stocks in general, or maybe except an asset play] Growth Rate. If you find a business that can get away with raising prices year after year without losing customers, you've got a terrific investment. Such as Philip Morris.
- (Jason Kelly) Some fundamental stock measures
    - Cash Flow per Share
    - Current Ratio - dividing current assets (things that are used up and replenished frequently, such as cash, inventory and accounts receivable) by current liabilities (things a company owes usually due within one year). It reveals how easily company can deal with unexpected expenses or opportunities. Ideally look for companies with a current ratio of at least 2-to-1.
    - Earnings per Share - The problem with EPS is that it's subject to manipulation and market pressure. Every company knows that investors examine earnings. Every company wants to report the biggest number possible. Some companies use different accounting methods. But it still remains a useful measurement. If the company's earnings per share increases quarter after quarter at a faster rate, that's called earnings momentum or earnings acceleration and is a popular way of identifying solid growth companies. Some of the best performing mutual fund managers use momentum investing to choose their stocks.
    - Net Profit Margin - high net profit margins are the hallmarks of companies that dominate their industries.

## 5 Valuation

- Price/Book Ratio - it compares a stock's price with how much the stock is worth right now if somebody liquidated the company. If the ratio is  $<1$ , that means you're paying more than the stock's liquidation value.
- P/E Ratio - use a stock's P/E to determine how much you're paying for a company's earnings power. If the P/E is high, you should expect to get high earnings growth for the extra money you paid for the stock. It's riskier to invest in a high P/E stock than a low P/E because it's more difficult for the high P/E to meet the high earnings expectations of its shareholders and analysts. Companies with low P/E ratios usually operate in slow-growth industries. Also, mature companies with low P/E ratios often pay dividends while new companies with high P/E ratios usually do not.
- P/S Ratio - simply take the company's total market value and divide it by the most recent four quarters of sales revenue. Common objection of using PSR is "it's profits I care about, not sales", but remember that companies manipulate earnings all sorts of ways. They use accounting rules that are flexible to interpret how much it costs them to do business and then subtract that number from revenue to get earnings.
- P/CF Ratio
  - \* This is a very effective measurement of a company's valuation. The steady stream of cash that's left over from profits after paying expenses is the heart of business success. Like sales, cash flow avoids accounting tricks that can be used to boost earnings, and many investors find it even more illuminating than sales because it reveals what's left of sales after they've run through a company's expense structure.
  - \* Projecting a company's ability to generate cash in the future, then looking at how much you're paying now for a share of that future cash flow with the price/cash-flow ratio is a good way to know whether you're getting a bargain or not.
  - \* The difference between cash flow and free cash flow is that the latter one is the cash left after operating cash flow pays for capital assets, which are things such as land, buildings, machines, equipment, and so on.
- Return on Equity (ROE) - Some people consider this the ultimate measure of a stock's success. It shows you the rate of return to shareholders by dividing net income by total shareholders' equity. Bigger is always better, because it means the company is making a lot of money off the investment that shareholders have made. A good one is anything above 20%.
- How to find value stocks that are undervalued:
  - P/E ratio
    - \* Current price of a stock divided by annual earnings per share (EPS) (which is total earnings divided by number of outstanding shares).

## 5 Valuation

- \* You cannot compare P/E ratios of stocks in different sectors! Every industry is different. You can have a industry average and compare based on that.
- \* Example: Apple: Annual EPS (last 4 quarters were \$1.69, \$3.36, \$2.10, and \$1.67) was \$8.82. Current price per share was \$150.05. Now,  $\$150.05/\$8.82=\$17.01$ . This means, that you would need to invest 17.01 dollars for 1 dollar in order to yield 1 dollar of company earnings. By doing this, you can determine whether or not shares of a given company are more expensive or less in comparison to other companies within that sector.
- P/B ratio
  - \* Calculated similarly as P/E ratio, but instead of annual earnings, we use equity per share.
  - \* Example: Monster Beverage: Total equity: \$3.53B, shares outstanding: \$567.81M, and share price: \$53.12.  $\$3530/\$567.81=\$6.22$  (Equity Per Share, also known as Book Value).  $PB = \$53.12/\$6.22=\$8.54$  and you can use this value to compare assets between companies in the same sector.
  - \* Some people say that book value and changes in book value is one of the most important thing (compare it with % annual change of share value and SAP500 - and from all 3 calculate compounding annual gain) ([source](#)). Svan Carlin's advice - when the stock price is significantly higher than the book value, then sell. When the stock price is extremely low than book value, then buy.
- PEG ratio
  - \* P/E ratio divided by projected 5 years Earnings Growth Rate.
  - \* It's good to determine if a company's P/E ratio is well justified or overvalued. If it's below 1, it's undervalued. In bull market, it's harder to find a company that is undervalued.
- Return on Equity (ROE)
  - \* Annualized net income to shareholder equity - how well a company uses investments to generate growth in earnings.
  - \* 17-20% is considered very good, 20-25% is excellent, 25+% superior.
- Debt to Equity Ratio
  - \* Total debt divided by shareholder equity. The lower, the better, avoid above 2.
- Current ratio (or "liquidity ratio")
  - \* A measurement of the ability to pay short term and long term obligations.
  - \* Assets / liabilities. It's an interesting metric, you don't want to be too low, nor too high (like above 3 or so). Ideally between 1 and 2.

## 5 Valuation

- Sven Carlin tips:
  - Strong finances - assets at least twice current liabilities. Long term debt should not exceed net current assets (working capital). For public utilities, the debt should not exceed twice the stock equity (at book value).
  - Dividend record - uninterrupted payments for at least the past 20 years. Why? Your return depend on the available cash and stability - 20 years show that.
  - Earnings stability - 10 years of positive earnings. Why? Because it shows that the company is stable no matter what.
  - Earnings growth - at least one-third increase in earnings over the past 10 years using three year averages. Why? Earnings growth shows that the business is healthy.
  - Moderate ratio of price to assets - current price should be more than 1.5 times the book value. Why? The lower the price to book, the less risk as there are assets backing the value.
  - Some numbers to check: book value per share, dividend growth, Altman Z-Score, profit margins, return on capital employed, and owner's earnings.

### **Benjamin Graham On Valuation**

- Rules for the Appraisal of Common Stocks
  1. The appraised value is determined by
    - a) estimating the earning power
    - b) applying thereto a suitable multiplier
    - c) adjusting, if necessary, for asset value
  2. The earning power should ordinarily represent an estimate of average earnings for the next 5 years.
  3. The above estimate should be developed preferably from a projection of the dollar volume and the profit margin. The starting point is the actual exhibit over some period in the past. Under conditions existing in early 1949 there is no "normal period" of past years which can be accepted as a direct measure of future earning power. However, an averaging of the results of an unusually good period and a subnormal period might be acceptable - for example, giving 50% weight to the 1936-40 average after taxes and 50% weight to 1947-48 or 1946-48.
  4. When figures of earlier years enter into the calculation, proper adjustment should be made for subsequent changes in capitalization.
  5. The multiplier should reflect prospective longer-term changes in earnings. A multiplier of 12 is suitable for stocks with neutral prospects. Increases or decreases from this figure must depend on the judgment and preferences of



## 5 Valuation

the appraiser. In all but the most exceptional cases, however, the maximum multiplier should be 20 and the minimum should be 8.

6. If the tangible-asset value is less than the earning-power value (earning power \* multiplier), the latter may be reduced by some arbitrary factor to reflect this deficiency. Graham's suggested factor is as follows: deduct 1/4 of the amount by which the earning-power value exceeds twice the asset value.
  7. If the net-current-asset value exceeds the earning-power value, the latter may be increased by 50% of the excess raised value.
  8. Where extraordinary conditions prevail - such as war profits or war restrictions, or a temporary royalty or rental situation - the amount of the total probable gain or loss per share due to such conditions should be estimated and added to, or subtracted from, the appraised value as determined without considering the abnormal conditions.
  9. Where the capitalization structure is highly speculative - that is, where the total of senior securities is disproportionately large - then the value of the entire enterprise should first be determined as if it had common stock only. This value should be apportioned between the senior securities and the common stock on a basis which recognizes the going-concern value of the senior claims.
  10. The more speculative the position of the common stock - for whatever reason - the less practical dependence can be accorded to the appraised value found.
  11. Appraised values should be taken as a definite guide to current purchase or sale only if they exceed or fall below price by at least a 1/3. In other cases they may be useful as a supplemental fact in analysis and investment decisions.
- Common-Stock Analysis
    - The ideal form of common-stock analysis leads to a valuation of the issue which can be compared with the current price to determine whether or not the security is an attractive purchase. This valuation would ordinarily be found by estimating the average earnings over a period of years in the future and then multiplying that estimate by an appropriate "capitalization factor". But what are the processes by which the security analyst determines both the average future earnings and the suitable capitalization rate? In both cases he is turning himself into a prophet, without the benefit of divine inspiration.
    - Earning-Power estimates. The standard procedure is to start with average past data for physical volume, prices received, and operating margin.
    - Factors affecting the capitalization rate
      - \* General long-term prospects
      - \* Management
      - \* Financial strength and capital structure

## 5 Valuation

- \* Dividend record
  - \* Current dividend rate
  - \* Should the analyst's valuation be influenced by the low dividend? The answer is "yes and no". He should establish his value based on earnings and other non-dividend considerations; but then he should look to the low dividend for an opportunity to purchase the shares at considerably below is indicated appraisal. In other words, a low dividend rate creates a bargain issue. In the majority of cases the dividend policy is corrected with the passage of time, and the investor gains substantially both in income return and market appreciation.
- Industry Analysis
- Bond and Preferred stocks Analysis
    - Size of enterprise. There is a minimum standard in terms of volume of business for a corporation - varying as between industrials, utilities, and railroads - and of population for a municipality.
    - Stock-equity ratio - market price of the junior stock issues to the total face amount of the debt, or the debt plus preferred stock. It is a rough measure of the protection afforded by the presence of a junior investment which must first bear the brunt of unfavorable developments.
    - Property value - experience has shown that in most cases safety resides in the earning power, and if this is deficient the assets lose most of their reputed value.

### Asset Based Valuation

Rather than value a business based on its cash flows (intrinsic valuation) or based on what other companies are traded at (relative valuation), you value it based on assets on its balance sheet. This can be useful if you are doing liquidation valuation or so called "sum of the parts valuation". These assets can be tangible or intangible. You are valuing each asset and then you are summing up the values of those assets.

- Sum of the parts - useful if a business is made up of individual divisions or assets, you may want to value these parts individually for one of two groups.
  - Potential acquirers may want to do this, as a precursor to restructuring the business.
  - Investors may be interested because a business that is selling for less than the sum of its parts may be "cheap".
- How to accomplish this? You are still relying on intrinsic or relative valuation. Intrinsic value - estimate the expected cash flows on each asset or asset class, discount back at risk adjusted discount rate and arrive at an intrinsic value for

## 5 Valuation

each asset. Or relative valuation - look for similar assets that have sold in the recent past and estimate a value for each asset in the business. Or accounting value - use the book value of the asset as a proxy for the estimated value of the asset.

- It is easier for companies with separable assets (a set of real estate holdings).

### Intrinsic Valuation

- The most common way to compute the intrinsic value of a stock is by estimating the future earnings of a company. You need to be able to analyze the quarterly and annual reports of a company and derive its projected free cash flow into the future. This cash flow needs to be discounted by the so-called weighted average cost of capital (WACC). The resulting Discounted Cash Flow (DCF) is the most commonly used valuation method for the intrinsic value of a companies stock. **The discounted cash flow** techniques reflect how we describe value, that is, the present value of expected cash flows. However, these techniques could generate values that are substantially different from the prevailing prices in the marketplace. You can calculate:
  - Present Value of Dividends (Dividend discount model - DDM)
  - Present Value of Operating Cash Flow
  - Present Value of Free Cash Flow
- There are 4 ingredients that drive the value of a business:
  1. cash flows from existing assets,
  2. the expected growth in these cash flows,
  3. the risks in those cash flows, and
  4. point in time in the future we put a closure on those cash flows.

### Warren Buffett On Intrinsic Valuation

- How he determines the intrinsic value of companies?
  1. First he thinks about the business and decides whether he can roughly estimate its key economic characteristics 5–10 years out. If he can't then he eliminates it from consideration right there.
  2. Reduce the universe of companies to those whose economics are predictable enough for him to roughly estimate 10+ years out.
  3. Eliminate those not run by competent and aligned managers.
  4. For the remaining (small) group of companies, estimate a conservative intrinsic value.

## 5 Valuation

5. Buy them when he can do so with a big margin of safety between the price and their estimate of value. The difference between the intrinsic value and market value is the so-called margin of safety.
- His thoughts on Intrinsic Value
    - *"It is discounted value of the cash that can be taken out of a business during its remaining life."*
    - **If the book value exceeds the intrinsic value, capital was not wisely deployed. If the intrinsic value far exceeds the book value, it proves that capital was wisely deployed. In all cases, what is clear is that book value is meaningless as an indicator of intrinsic value.**
    - When a stock temporarily overperforms or underperforms the business, a limited number of shareholders - either sellers or buyers - receive outsized benefits at the expense of those they trade with. Generally, the sophisticated have an edge over the innocents in this game.
    - Calculations of intrinsic value, though all-important, are necessarily imprecise and often seriously wrong. The more uncertain the future of a business, the more possibility there is that the calculation will be wildly off-base. Here Berkshire has some advantages: a wide variety of relatively stable earnings streams, combined with great liquidity and minimum debt. These factors mean that Berkshire's intrinsic value can be more precisely calculated than can the intrinsic value of most companies.

### Discounted Cash Flow (DCF)

(This section was heavily influenced by Aswath Damodaran.)

- The intrinsic value of an asset is determined by the cash flows you expect that asset to generate over its life and how uncertain you feel about these cash flows.
- Assets with high and stable cash flows should be worth more than assets with low and volatile cash flows. You should pay more for a property that has long-term renters paying a high rent than for a more speculative property with not only lower rental income, but more variable vacancy rates from period to period. You're estimating cash flows and adjusting for risk.
- When you use DCF, you are assuming that the markets make mistakes and valuing individual companies and that it corrects these mistakes over time.
- You need a long time horizon - markets make mistakes, you can find those mistakes, but there is no guarantee that those mistakes get corrected in the next 3 months or even a year. The longer time horizon, the better off you are using DCF.
- There are 4 basic inputs that we need:

## 5 Valuation

- cash flows from existing assets (net of reinvestment needs and taxes)
  - expected growth in these cash flows for a forecast period
  - the cost of financing the assets
  - the estimate of what the firm will be worth at the end of the forecast period
- Each of these inputs can be defined either from the perspective of the firm or just from the perspective of the equity investors.
  - Actually, one of the first decisions you have to make is whether to value just the equity of the business, or the whole business. You can have a valuable business where equity is worth nothing. When you borrow money, you can have the most valuable business and little or no equity. You can also have a valuable business where the equity is a great deal. Making this judgment is a critical one. Everything you do in the valuation is driven by this decision.
    - *Equity valuation:* Cash flows (Net income - capital expenditures + depreciation - change in non-cash working capital - principal repaid + new debt issues - preferred dividend ..... and also dividends + share buybacks) considered are cash flows from assets, after debt payment and after making reinvestments needed for future growth. And discount rate reflects only the cost of raising equity financing. So discount rate is cost of equity. Expected growth - growth in net income / EPS.
      - \* Present value is value of just the equity claims on the firm.
      - \* Dividend discount model is a special case of equity valuation model. If you are equity investor of a publicly traded company, technically speaking the only cash flow you actually get from a company is dividends. You are trying to value an equity based on cash flows an investor actually receives from a company.
    - *Firm valuation:* Cash flows (FCFF = free cash flows to firm = EBIT (1-tax rate) - capital expenditures + depreciation - change in non-cash working capital) considered are cash flows from assets, prior to any debt payments but after firm has reinvested to create growth assets. Discount rate reflects the cost of raising both debt and equity financing, in proportion to their use. So discount rate is cost of capital. Expected growth - growth in operating earnings.
      - \* Present value is value of the entire firm, and reflects the value of all claims on the firm.
      - \* Firm value: Cash & other non-operating assets + Operating assets (fixed assets + intangible assets + working capital) = debt + equity
        - From this equation, Market value of Equity = Cash & other non-operating assets + Operating assets (fixed assets + intangible assets + working capital) - Debt

## 5 Valuation

- Also from the equation, Enterprise value: Operating assets (fixed assets + intangible assets + working capital) = Debt + Equity - Cash & other non-operating assets
- Enterprise value is like the price of your house. Equity value (what is worth only for shareholders) would be its price minus your mortgage (debt). So, the funding mix for the house is independent of the value of the house - this is what enterprise value reflects for companies.

Which one to use - equity or firm valuation? If you do this right, you should actually get the same value for an equity using both approaches.

### Time is Money

- The simplest tools in finance are often the most powerful. The notion that a dollar today is preferable to a dollar in the future is intuitive enough for the most people to grasp without the use of models and mathematics. The principles of present value enable us to calculate exactly how much a dollar sometime in the future is worth in today's terms, and to compare cash flows across time.
- There are 3 reasons why a cash flow in the future is worth less than a similar cash flow today:
  1. People prefer consuming today to consuming in the future.
  2. Inflation decreases the purchasing power of cash over time. A dollar in the future will buy less than a dollar would buy today.
  3. A promised cash flow in the future may not be delivered. There is risk in waiting.
- The process by which future cash flows are adjusted to reflect these factors is called discounting, and the magnitude of these factors is reflected in the discount rate.
- The discount rate can be viewed as a composite of the expected real return (reflecting consumption preferences), expected inflation (to capture the purchasing power of the cash flow), and a premium for uncertainty associated with the cash flow.
- The process of discounting converts future cash flows into cash flows in today's terms. There are 5 types of cash flows - simple cash flows, annuities, growing annuities, perpetuities, and growing perpetuities.
- A simple cash flow is a single cash flow in a specified future time period. Discounting a cash flow converts it into today's dollars (or present value) and enables the user to compare cash flows at different points in time. The present value of a cash flow is calculated as:

$$\text{cash\_flow\_in\_future\_period} / (1 + \text{discount\_rate})^{\text{time\_period}}$$

## 5 Valuation

- An annuity is a constant cash flow that occurs at regular intervals for a fixed period of time. While you can compute the present value by discounting each cash flow and adding up the numbers, you can also use this equation:

$$\text{annual\_cash\_flow} * ((1 - 1/(1+\text{discount\_rate})^{\text{number\_of\_periods}}) / \text{discount\_rate})$$

- A growing annuity is a cash flow that grows at a constant rate for a specified period of time. The formula is similar to the one above:

$$\text{cash\_flow}(1+g) * ((1 - ((1+g)^n / (1+r)^n)) / (r-g))$$

you can also arrive at the same number by computing the present value of each cash flow and adding up the numbers.

- A perpetuity is a constant cash flow at regular intervals forever and the present value is obtained by dividing the cash flow by the discount rate. The most common example offered for a perpetuity is a console bond, a bond that pays a fixed interest payment (or coupon) forever.

the value of a console bond that pays \$60 coupon each year, if the interest rate is 9% is as follows:  $\$60/0.09=\$667$

- A growing perpetuity is a cash flow that is expected to grow at a constant rate forever. The present value of a growing perpetuity can be written as:

$$\text{expected\_cash\_flow\_next\_year} / (\text{discount\_rate} - \text{expected\_growth\_rate})$$

- Although a growing perpetuity and a growing annuity share several features, the fact that a growing perpetuity lasts forever puts constraints on the growth rate. The growth rate has to be less than the discount rate for the equation to work, but an even tighter constraint is that the growth rate used has to be lower than the nominal growth rate of the economy, since no asset can have cash flows growing faster than that rate forever.
- For example, assume that you are assessing a stock that paid \$2 as dividends last year. Assume that you expect these dividends to grow 2% a year in perpetuity, and that your required rate of return for investing in this stock, given its risk, is 8%.

$$\$2 * 1.02 / (0.08 - 0.02) = \$34$$

- These cash flows are the essential building blocks for virtually every financial asset. Bonds, stocks, or real estate properties can ultimately be broken down into sets of cash flows. If you can discount these cash flows, you can value all of these assets.

### Cash Flows

- The simplest and most direct measure of the cash flow you get from the company for buying its shares is dividends paid. One limitation of focusing on dividends is that many companies have shifted from dividends to stock buybacks as their mechanism for returning cash to stockholders. One simple way of adjusting for

## 5 Valuation

this is to augment the dividend with stock buybacks and look at the cumulative cash returned to stockholders.

- Augmented dividends = dividends + stock buybacks
- Unlike dividends, stock buybacks can spike in some years and may need to be averaged across a few years to arrive at more reasonable annualized numbers. With both dividends and augmented dividends, we are trusting managers at publicly traded firms to pay out to stockholders any excess cash left over after meeting operating and reinvestment needs. However, we do know that managers do not always follow this practice, as evidenced by the large cash balances that you see at most publicly traded firms. To estimate what managers could have returned to equity investors, we develop a measure of potential dividends that we term the free cash flow to equity. Intuitively, it measures the cash left over after taxes, reinvestment needs, and debt cash flows have been met.
- From net income to potential dividend (or free cash flow to equity): net income (earnings to equity investors, after taxes and interest expenses) + depreciation (accounting expense - reduced earnings - but not a cash expense) - capital expenditures (not an accounting expense, but still a cash outflow) - change in non-cash working capital (increases in inventory and accounts receivable reduce cash flows, and increases in accounts payable increase cash flows. If working capital increases, cash flow decreases) - (principal repaid - new debt issues) (principal repayments are cash outflows but new debt generates cash inflows. The net change affects cash flows to equity.) = potential dividend, or FCFE (this is the cash left over after all needs are met. If it is positive, it represents a potential dividend. If it is negative, it is a cash shortfall that has to be covered with new equity infusions.)
- A more conservative version of cash flows to equity, which Warren Buffett calls "owners' earnings", ignores the net cash flow from debt. Owners' Earnings is a better measure of economic performance than cash flow or GAAP earnings, equal to a) operating earnings plus b) depreciation and other non-cash charges minus c) required reinvestment in a business to maintain present competitive position and unit volume.
- The cash flow to the firm is the cash left over after taxes and after all reinvestment needs have been met, but before interest and principal payments on debt. To get to cash flow to the firm, you start with operating earnings, instead of net income, and subtract out taxes paid and reinvestment, defined exactly the same way it was to get to free cash flow to equity:

*Free cash flow to firm (FCFF)* = after-tax operating income - (net capital expenditures + change in non-cash working capital)

or, using our earlier definition of reinvestment, we can also write the FCFF as follows:



## 5 Valuation

reinvestment rate = (net capital expenditure + change in non-cash working capital)  
/ after-tax operating income

so FCFF = after-tax operating income \* (1 - reinvestment rate)

- The reinvestment rate can exceed 100% if the firm is reinvesting more than it is earning, or it can be less than 0, for firms that are divesting assets and shrinking capital. Above 100% - in practical terms, this firm will have to raise either new debt or new equity to cover the excess reinvestment. Both FCFE and FCFF are after taxes and reinvestment and both can be negative, either because a firm has negative earnings or because it has reinvestment needs that exceed income. The key difference is that the FCFE is after debt cash flows and the FCFF is before.
- Estimating cash flows
  1. Estimate the current earnings of the firm
    - a) cash flows to equity investors - cash flows left over debt payments
      - the simplest and oldest way is looking at the dividends - dividend discount model. Slightly more advanced version is to include stock buybacks
      - another way is to estimate potential dividends - how much cash is left over after every conceivable needs has been met. So it is cash flows left over after the firm has made any "investments" it needs to make to create future growth and net debt repayments. (debt repayments - new debt issues). This free cash flow to equity is: net income minus (capital expenditures - depreciation) - changes in non-cash working capital - (principal payments - new debt issues)
    - b) cash flow to the entire business
      - we are looking at pre-debt cash flows. You'll start with operating income, not net income
  2. Consider how much of those earnings the firm invested to create future growth. Some companies choose not to reinvest, so it's needed to see what the company used to choosing to do.
  3. If looking at cash flows to equity, consider the cash flows from net debt issues (debt issued minus debt repaid).

### Risk

- Cash flows that are riskier should be assessed a lower value than more stable cash flows. In conventional discounted cash flow valuation models, we use higher discount rates on riskier cash flows and lower discount rates on safer cash flows. The definition of risk will depend upon whether you are valuing the business or just the equity. When valuing the business, you look at the risk in a firm's operations.

## 5 Valuation

When valuing equity, you look at the risk in the equity investment in this business, which is partly determined by the risk of the business the firm is in and partly by its choice on how much debt to use to fund that business. The equity in a safe business can become risky, if the firm uses enough debt to fund that business. In discount rate terms, the risk in the equity in a business is measured with the cost of equity, whereas the risk in the business is captured in the cost of capital. The latter will be weighted average of the cost of equity and the cost of debt, with the weights reflecting the proportional use of each source of funding.

- There are 3 inputs needed to estimate a cost of equity:
  - Risk-free rate - described below.
  - Equity risk premium (ERP) - described below.
  - Relative risk or beta - we generally look at how much a stock has moved in the past, relative to the market. So beta is always backward looking and noisy. One solution is to replace the regression beta with a sector-average beta, if the firm operates in only one business or a weighted average of many sector betas if the firm operates in many businesses. The sector beta is more precise than an individual regression beta because averaging across many betas results in averaging out your mistakes.
- *The risk free rate*
  - Some people use government bond rate - US Treasury Bond rate for instance. It's not that simple though. To really get something that's risk-free, you first have to make sure that the entity issuing the security has no default risk. It is not easy to do in some parts of the world. It can be different in different currencies. But for USD, you can use 10- or 30-year government bonds rates as risk-free rate, implicitly assuming that governments don't default.
  - For an investment to be risk-free, it has to have no default risk and no reinvestment risk. Also, time horizon matters - if your cash flows stretch out over the long term, your risk free rate has to be a long term risk free rate.
  - When you do valuation, it can be in nominal terms (reflect expected inflation), or real terms (ignoring inflation) - nominal/real cash flows. If your cash flows are nominal cash flows, what currency you're going to do the cash flows - the currency becomes an issue only with nominal cash flows. You can value any company in any currency. Once you pick the currency in which you're going to estimate the cash flows, your discount rate has to be exactly in that currency.
  - The cost of equity - should be higher for riskier investments and lower for safer investments. There are many models to calculate this: CAPM (you need risk free rate, beta relative to market portfolio, and market risk premium), APM (as CAPM, but it's a little more creative in measuring market risk - rather than capture all with 1 beta, this allows to input multiple sources of

## 5 Valuation

market risk and allow for beta for each one), Multifactor (this includes also macro factors - interest rates, inflation, etc), Proxy (it takes the last 20 years, especially if we have access to more data; you don't measure risk in traditional way; instead, it's measured for example - smaller companies are riskier than large cap companies, or we can use also other proxies; the proxy models can be an add on to traditional models. You often see composite models - where you measure beta as a risk and a proxy thrown to the model). For all of those models, you need a risk-free rate.

- \* But remember, equity is only one way how to raise capital to fund the business. The other way is debt.
- \* CAPM - the model makes unrealistic assumptions, the parameters of the model cannot be estimated precisely, and unfortunately it doesn't work very well.

- *Equity risk premium*

- This is the premium investors demand on an annual basis for investing in stocks instead of a risk-free investment, and it should be a function of how much risk they perceive in stocks and how concerned they are about that risk. To estimate this number, analysts often look at the past; between 1928 and 2010, for instance, stocks generated 4.31 % more, on an annual basis, than treasury bonds. An alternative is to back out a forward-looking premium (called an implied equity risk premium) from current stock price levels and expected future cash flows. In January 2011, the implied equity risk premium in the US was approximately 5%.
- It is a number that can and should change over time. Important questions - how far you go in history? Geometric or arithmetic average? It used to be between ~2-8%, depending on how and when you calculate it. But even with long time periods of history, the risk premium that you derive will have substantial standard error.
- This is used almost in every valuation. Put simply, if you want a higher risk premium from a risky asset (or class), you will pay a lower price today. If you want a lower risk premium, you will pay a higher price.

- *Cost of Equity*

- Can be calculated using CAPM (or alternative) model.
- Or with Dividend Capitalization model ([ref](#)).

- *Cost of Debt (after tax)*

- Calculated as  $(\text{risk-free rate} + \text{default spread}) * (1 - \text{marginal tax rate})$
- Where the tax rate is specific to a given country, for example in the US, where the federal corporate tax is 35% and state and local taxes add to this, the marginal tax rate for corporations in 2008 was close to 40% for example.

## 5 Valuation

- Default spread - to estimate this, you can use a bond rating for a company, if one exists, from a rating agency such as S&P or Moody's. If there is no published bond rating, you can estimate a "synthetic" rating for the firm, based on the ratio of operating income to interest expenses (interest coverage ratio); higher interest coverage ratios will yield higher ratings. Once you have a bond rating, you can estimate a default spread by looking at publicly traded bonds with that rating.

Interest coverage ratio = operating income / interest expenses

- It's the rate at which you can borrow long term today - it will reflect not only your default risk but also the level of interest rates in the market. Here is what should go there - risk-free rate plus a default spread (that's how much a bank or a bond holder will charge you over and above the risk-free rate because they're worried they will not get paid because of credit risk). Estimating cost of debt, 2 used methods:
  1. looking at the yield of maturity on a straight bond outstanding from the firm, (but that gives me an interest rates on a specific bond, not the interest rates for all of the debt of the company)
  2. looking at the rating for the firm and estimating a default spread based upon a rating (S&P or Moody)

If a company doesn't have rating, which are 90-95% of all publicly traded companies, you can estimate rating (synthetic rating). It can be done by looking at financial ratios - that's what financial agencies are using anyway to come up with the rating. In the simplest form, the rating can be estimated from the interest coverage ratio (which is EBIT / Interest Expenses). Then this interest coverage ratio has to be converted into a rating. You can lookup at rated companies and their interest coverage ratios and then you can try to do some reverse engineering - so you will estimate what the rating would be given the interest coverage ratio. You can have 2 sets of tables - one for large (above \$5 billion market cap) and the other one for small cap companies.

Then, once you have the risk free rate and default spread, you can just sum up these 2 numbers and you have pre-tax cost of debt. BTW, the default spread can be estimated from the rating, or a traded bond issued by the company, or even a company CDS.

But you have to think of 2 types of default risks - one is a default risk of a company and the other is of a country. If a company is in Brazil for example, and Brazil country default spread is 6%, then the formula can be: risk-free rate + 2/3(Brazil country default spread) + company default spread.

- *Cost of Capital* (Weighted Average Cost of Capital, or WACC)
  - Weighted average of what it costs you to raise equity and what cost you to borrow money.

## 5 Valuation

- Now when you have cost of equity and cost of debt, you need to estimate the weights for each, based on market values (rather than book value). For publicly traded firms, multiplying the share price by the number of shares outstanding will yield market value of equity. Estimating the market value of debt is usually a more difficult exercise, since most firms have some debt that is not traded and many practitioners fall back on using book value of debt.
- We'll bring them together to get cost of capital. For that, we have to have weights of equity and weights of debt. You can use market value weights. That is not because the market is right, but because that is what it would cost you to buy the company in the market today, even if you think that the price is wrong.
- And now you can use the cost of capital as your discount rate if you discounting cash flows for entire business. If you would choose to use cash flows to equity, you can stick to the cost of equity.
- Calculated as:  $\text{cost of equity} * (\text{market value of equity} / (\text{market value of equity} + \text{market value of debt})) + \text{after-tax cost of debt} * (\text{market value of debt} / (\text{market value of equity} + \text{market value of debt}))$
- or, basically the same formula:  $\text{cost of equity} * (\text{equity}/(\text{debt}+\text{equity})) + \text{cost of borrowing} * (1-t)(\text{debt}/(\text{debt}+\text{equity}))$   
where cost of equity is based upon bottom-up beta weights should be market value weights  $t$  is marginal tax rate, reflecting tax benefits of debt and cost of borrowing should be based on a) synthetic or actual bond rating and b) default spread

### Growth Rates

- When confronted with the task of estimating growth, it is not surprising that analysts turn to the past, using growth in revenues or earnings in the recent past as a predictor of growth in the future. However, the historical growth rates for the same company can vary, depending upon computational choices: how far back to go, which measure of earnings (net income, earnings per share, operating income) to use, and how to compute the average (arithmetic or geometric). Studies indicate that the relationship between past and future growth for most companies is a very weak one, with growth dropping off significantly as companies grow and revealing significant volatility from period to period.
- For a firm to grow, it has to either manage its existing investments better (efficiency growth) or make new investments (new investment growth). To capture efficiency growth, you want to measure the potential for cost cutting and improved profitability. It can generate substantial growth in the near term, especially for poorly run mature firms, but not forever. To measure the growth rate from new investments, you should look at how much of its earnings a firm is reinvesting back

## 5 Valuation

in the business and the return on these investments. The way we'll look at these two terms will depend upon whether we are looking at equity earnings or operating income.

- With equity earnings, we measure reinvestment as the portion of net income not paid out as dividends (retention ratio) and use the return on equity to measure the quality of investment.
- With operating income, we measure reinvestment as the reinvestment rate and use the return on capital to measure investment quality.
- For estimating growth, you can:
  - Look at the past at the historical growth at EPS is a good starting point check how it is calculated - arithmetic (tend to be higher) vs geometric average, operating income, revenues, ... etc check estimation period - starting point for the computation can make a big difference recognize that growth rates become meaningless when earnings go from negative to positive values recognize that growth rates will go down as companies get larger. Worst of all, there is an evidence that historical growth rates in earnings are not very good predictors of future earnings.
  - See what analysts are estimating - they estimate growth in EPS and it is useful to know what their estimates are; management forecasts can be biased, because they cannot be objective. Analysts forecasts are mostly focused on short term.
  - Estimate it by yourself - look at fundamentals - how much the firm is investing in new projects and what returns these projects are making for the firm. Growth has to be earned by a company.
    - \* Effectively, fundamental/intrinsic growth, it can come from one of two places:
      1. It can come from adding to its asset base, making a new investments and earning a return on those new investments. The growth in earnings for a firm from new investments is a function of two decisions:
        - a) how much to reinvest back into business for long term growth:
          - equity earnings (portion of net income put back into the business, retention ratio =  $1 - \text{dividends} / \text{net income}$ )
          - operating earnings (portion of after-tax operating income invested in the business, reinvestment rate =  $\text{net cap ex} + \text{change in WC} / \text{EBIT}(1 - \text{tax rate})$ )
        - b) how well does it reinvests its money:
          - with equity earnings, return on equity (= net income / book value of equity = net profit margin [net income / sales] \* total asset

## 5 Valuation

turnover [sales / total assets] \* financial leverage [total assets / equity])

with operating earnings, return on invested capital (=EBIT(1-tax rate)/book value of capital)

or (=EBIT(1-tax rate)/(book value of equity+book value of debt-cash)), where

- i. tax rate - use marginal tax rate to be safe; a high ROC created by paying low effective taxes is not sustainable
- ii. adjust book equity for capitalized R&D and acquisition debris (goodwill)
- iii. adjust EBIT for extraordinary or one-time expenses or income, operating leases and R&D, cyclicalities in earnings (normalize), and acquisitions debris (goodwill, amortization, etc)
- iv. adjust book value of debt for capitalized operating leases

**The final calculation:** a) (net income): equity earnings \* return on equity, or b) (operating income): reinvestment rate \* return on capital

2. Or, it can come from efficiency in managing existing assets, generating higher margins and higher returns on existing assets:

- when the return on equity or capital is changing, there will be a second component to growth, positive if the return is increasing and negative if the return is decreasing. The expected growth rate in operating income will be:  $ROC_{t+1} * reinvestment\ rate + (ROC_{t+1} - ROC_t) / ROC_t$
- for example, assume that a firm is generating ROC 8% on its existing assets and expects to increase this return to 10% next year. And the firm has reinvestment rate 50% and makes 20% return on its new investments, total growth rate will be:  $0.5 * 20$
- efficiency growth is more likely at companies with really low ROC - there is more room to improve, and that improvement is going to create much higher growth rate

The key difference is that growth from new investments is sustainable whereas returns from efficiency are short term.

\* Revenue growth and operating margins

- All of the fundamental growth equations assume that the firm has a return on equity or return on capital it can sustain in the long term.
- If operating income is negative or margins are expected to change over time:

## 5 Valuation

1. Estimate growth rates in revenues over time. Use historical revenue growth to get estimates of revenue growth in the near future; decrease the growth rate as the firm becomes larger; keep track of absolute revenues to make sure that the growth is feasible.
2. Estimate expected operating margins each year. Set a target margin that the firm will move towards (you can have a look at industry average or company history); adjust the current margin towards the target margin.
3. Estimate the capital that needs to be invested to generate revenue growth and expected margins; estimate sales to capital ratio that you'll use to generate reinvestment needs each year.

### Terminal Value

- Publicly traded firms can, at least in theory, last forever. Since we cannot estimate cash flows forever, we generally impose closure in valuation models by stopping our estimation of cash flows sometime in the future and then computing a terminal value that reflects estimated value at that point.
- Firm is in a stable growth at the terminal value - growth at constant rate forever. Since we cannot estimate cash flows forever, we estimate cash flows for a "growth period" and then estimate a terminal value, to capture the value at the end period. There are 3 ways of calculating it:
  - Liquidation value - most useful when assets are separable and marketable. This is mostly for private businesses.
  - Multiple approach - easiest approach but makes the valuation a relative valuation, not intrinsic valuation!
  - Stable growth model - technically the soundest, but requires that you make judgments about when the firm will grow at a stable rate which it can sustain forever, and the excess returns (if any) that it will earn during the period.
- What gets usually a valuation into a trouble is terminal value. Check:
  - the stable growth rate cannot exceed the growth rate of the economy. One simple proxy for the nominal growth rate of the economy is the risk free rate = expected inflation + expected real interest rate
  - nominal growth rate in economy = expected inflation + expected real growth
  - when will the firm reach stable growth? About 99% of growth companies have growth periods less than 10 years. Medium growth period for high growth company is 3-5 years. The stronger and more sustainable the competitive advantage a company has, the longer its growth period can be. So do some strategic analysis of a company. With return of capital and stable growth, set it to cost of capital. If you think that your company really has a powerful



## 5 Valuation

comparative advantage, you can set return of capital higher than cost of capital, by 2-3%.

- The two legitimate ways of estimating terminal value are to:
  1. estimate a liquidation value for the assets of the firm, assuming that the assets are sold in the terminal year, or
  2. estimate a going concern value, assuming that the firm's operations continue.
- If we assume that the business will be ended in the terminal year and that its assets will be liquidated at that time, we can estimate the proceeds from the liquidation, using a combination of market-based numbers (for assets such as real estate that have ready markets) and estimates. For firms that have finite lives and marketable assets, this represents a fairly conservative way of estimating terminal value.
- If we treat the firm as a going concern at the end of the estimation period, we can estimate the value of that concern by assuming that cash flows will grow at a constant rate forever afterwards. This perpetual growth model draws in a simple present value equation to arrive at terminal value:  
terminal value in year  $n = \text{cash flow in year } (n+1) / (\text{discount rate} - \text{perpetual growth rate})$
- The definitions of cash flow and growth rate have to be consistent with whether we are valuing dividends, cash flows to equity, or cash flows to the firm; the discount rate will be the cost of equity for the first 2 and the cost of capital for the last.
- Since the terminal value equation is sensitive to small changes and thus ripe for abuse, there are three key constraints that should be imposed on its estimation:
  1. No firm can grow forever at a rate higher than the growth rate of the economy in which it operates. In fact, a simple rule of thumb on the stable growth rate is that it should not exceed the risk-free rate used in the valuation; the risk-free rate is composed of expected inflation and a real interest rate, which should equate to the nominal growth rate of the economy in the long term.
  2. As firms move from high growth to stable growth, we need to give them the characteristics of stable growth firms; as a general rule, their risk levels should move towards the market (beta of one) and debt ratios should increase to industry norms.
  3. A stable growth firm should reinvest enough to sustain the assumed growth rate. Given the relationship between growth, reinvestment rate, and returns that we established in the section on expected growth rates, we can estimate this reinvestment rate:  
reinvestment rate = expected growth rate in operating (net income) / return on capital (equity)

## 5 Valuation

- Thus, the effect on the terminal value of increasing the growth rate will be partially or completely offset by the loss in cash flows because of the higher reinvestment rate. Whether value increases or decreases as the stable growth rate increases will entirely depend upon what you assume about the return on investment. If the return on capital (equity) is higher than the cost of capital (equity) in the stable growth period, increasing the stable growth rate will increase value. If the return on capital is equal to the stable period cost of capital, increasing the stable growth rate will have no effect on value. The key assumption in the terminal value computation is not what growth rate you use in the valuation, but what excess returns a company that growth rate. There are some analysts who believe that zero excess return is the only sustainable assumption for stable growth, since no firm can maintain competitive advantages forever. In practice, though, firms with strong and sustainable competitive advantages can maintain excess returns, though at fairly modest levels, for very long time periods.
- If you discounted dividends or free cash flows to equity on a per-share basis at the cost of equity, you have your estimate of value per share. If you discounted cash flows to the firm, you have 4 adjustments to make to get to value per share:
  1. Add back the cash balance of the firm. Since free cash flow to the firm is based upon operating income, you have not considered the income from cash or incorporated it into value.
  2. Adjust for cross holdings. Add back the values of small (minority) holdings that you have in other companies; the income from these holdings was not included in your cash flow. If you have a majority stake in another company, the requirement that you consolidate and report 100% of the subsidiary's operating income as your own will create minority interests, the accounting estimate of the portion of the subsidiary that does not belong to you. You have to subtract out the estimated market value of the minority interest from your consolidated firm value.
  3. Subtract other potential liabilities. If you have underfunded pension or health care obligations or ongoing lawsuits that may generate large liabilities, you have to estimate a value and subtract it out.
  4. Subtract the value of management options. When companies give options to employees, analysts often use short cuts (such as adjusting the number of shares for dilution) to deal with these options. The right approach is to value the options (using option pricing models), reduce the value of equity by the option value, and then divide by the actual number of shares outstanding.
- What do these models tell us? What if the intrinsic value that you derive, from your estimates of cash flows and risk, is very different from the market price? There are 3 possible explanations:
  1. You have made erroneous or unrealistic assumptions about a company's future growth potential or riskiness.

## 5 Valuation

2. You have made incorrect assessments of risk premiums for the entire market.
3. Market price is wrong and you are right in your value assessment.

Even in the last scenario, there is no guarantee that you can make money from your valuations. For that to occur, markets have to correct their mistakes and that may not happen in the near future. In fact, you can buy stocks that you believe are undervalued and find them become more undervalued over time. That is why a long time horizon is almost a prerequisite for using intrinsic valuation models. Giving the market more time (say 3-5 years) to fix its mistakes provides better odds than hoping that it will happen in the next quarter or the next 6 months.

### Residual Income Model

- TODO

### Relative Valuation

Here you're looking at other similar companies in the market. You're comparing their prices.

- Some companies are not very comparable. You need to control for differences across these investments - growth, risk, and cash flows. So find a multiple scaled version of a value, look for comparables, and control for differences. You are assuming that the markets are right on average, but wrong at individual companies. And that those mistakes on individual companies will get corrected sooner or later.
- You are not trying to value an asset, but you're looking to see what other people are paying for something to decide for what it's worth. There are 3 fundamental things:
  - Standardized price. Usually of a form of a multiple.
  - Set of comparable assets.
  - How careful you control for the differences. Usually a storytelling.
- Most valuations on Wall Street are relative valuations. Almost 85% of equity research reports are based upon a multiple and comparables. Relative valuation outnumbers DCF valuation (even when someone is doing DCF and using multiples for calculating terminal value, even that can be considered as a relative valuation).
- Relative valuations are far easier to sell than intrinsic valuations, because as long as you let me pick the multiple and comparables, I can tell you whatever story I want to tell you. And also it's far easy to defend a relative valuation than an intrinsic valuation - in intrinsic valuation your assumptions are all explicit - everybody can see what you're assuming about cash flows, growth, and risk, and that's dangerous because they can pick it apart. In relative valuation, all your assumptions are implicit - when you are using 12 times EBITDA, you are making assumptions, but

nobody can see what those assumptions are. If they cannot see them, they cannot pick them apart. Aswath Damodaran thinks that in the long term you are far more likely to be right with intrinsic valuation than relative valuation, but here's the catch - when you're wrong with intrinsic valuation, you are also far more likely to be wrong alone = fired. Survival instinct. That's why more people are using relative valuation.

- It doesn't have to be either intrinsic or relative valuation - keep both in your arsenal. In some cases, relative valuation can help find weak spots in DCF valuations and fix them.
- To make comparisons across companies you got to use a multiple, and every multiple is a numerator and denominator. In your numerator you almost always need to measure of market value - what you are paying for an asset, and denominator - what you are getting in return.
  - Usually in nominator:  $\text{market value of equity} / \text{market value of equity} + \text{market value of debt}$
  - Usually in denominator:  $\text{revenues} / \text{earnings} / \text{cash flows} / \text{book value}$
  - Equity multiples: PE, PEG, PBV, PS
  - Firm multiples:  $\text{Value/FCFF}$ ,  $\text{Value/EBIT}$

### Some Multiples

- *Profit margins*
  - For example *gross*, *operating* and *net profit margin*.
  - They show you profitability and how well the company turns sales into income for shareholders.
- *Earnings per share*
  - Net income divided by number of shares outstanding.
- *Price/Earnings Ratio (PE)*
  - Very important, ideally under 17; anything above 50 P/E, even if that's fast growing company can lead to a great risk.
  - It can be:
    - \* Trailing P/E: You divide PPS by the sum of last 4 EPSs for example.
    - \* Forward P/E: This one is used as an estimation of upcoming quarters earnings. Since it's based on estimates instead of actual earnings, so there's an extra level of uncertainty. Alternatives: P/S ratio is slightly more "clean", or even Price-to-book ratio or Price-to-cashflow, which is probably the cleanest from those 3.

## 5 Valuation

- There are even sector P/E ratios, or P/E ratios of the whole markets. One example [here](#).
- Peter Lynch on P/E Ratio
  - \* It can be thought of as the number of years it will take the company to earn back the amount of your initial investment - assuming, of course, that the company's earnings stay constant. Why would anyone would want to buy a stock with higher P/E? Corporate earnings do not stay constant any more than human earnings do. In some stocks, investors are just willing to take substantial gambles on the improved future earnings of some companies (with higher P/E), while they're quite skeptical about the future of others (with lower P/E). It can be seen also that P/E levels tend to be lowest for the slow growers and highest for the fast growers, with the cyclical in between. That's as it should be. Some people believe in buying any and all stocks with low P/E, but according to Lynch, that doesn't make any sense. We shouldn't compare apples to oranges. But you don't want to ignore P/E altogether. You might begin by asking whether the P/E ratios of various stocks are low, high, or average, relative to the industry norms. Before you buy a stock, you might want to track its P/E ratio back through several years to get a sense of its normal levels. It's good to avoid stocks with excessively high P/E ratios. You'll save a lot of grief and lot of money if you do. With few exceptions, an extremely high P/E ratio is a handicap to a stock. A company with a high P/E must have incredible earnings growth to justify the high price that's been put on the stock.
  - \* Company P/E ratios do not exist in a vacuum. The stock market as a whole has its own collective P/E ratio, which is a good indicator of whether the market at large is overvalued or undervalued. It can be good to see whether the whole market is inflated, and if so, it's likely that most stocks are selling at inflated prices relative to earnings.
  - \* There are five basic ways a company can increase earnings: reduce costs, raise prices, expand into new markets, sell more of its product in the old markets, revitalize close or otherwise dispose of a losing operation. These are the factors to investigate during developing the story.
- *Price/Cash Flow Ratio (P/CF)*
- *Price/Book Value Ratio (P/BV)*
  - Book value of equity is the measure of shareholders' equity in the balance sheet.
  - You can extend this value to add debt in both nominator and denominator. Or even add debt and subtract cash.

## 5 Valuation

- Basically, price to book ratio of a stable growth company is a function of 4 variables: cost of equity (measuring the risk of a company), expected growth rate in earnings, the return of equity for the company, and the payout ratio. This can be simplified to the difference between the return on equity and the required rate of return on its projects.
- *Price/Sales Ratio (P/S)*
  - This one violates a consistency principle, because nominator belongs to an equity, but denominator belongs to the entire firm, not just to equity investors.
  - More consistent is to replace nominator with enterprise value.
  - Analysts have historically been able to get away with original Price-to-Sales inconsistency because they have used it in sectors with no debt or sectors where financial leverage is similar.
- *EBIT / Interest Expense*
- *EV/EBITDA*
  - Jesse Felder - one of his favorite measure on individual stocks is EV to EBIT.
  - This is a very popular multiple. Here, be aware of taxes, since company in UK and in Germany can have different EV/EBITDA just because of taxes!
- *Enterprise value (EV)*
  - Calculated as: Market Cap. + Total Debt - Cash & Cash Equiv.
  - It's simply the total value of the company you are evaluating.
- *Current Ratio*
  - Calculated as current assets / current liabilities.
  - This metric can be misleading:
    - \* Assets can often discount for things other than cash, and liabilities can often account for things that's not really a liability, so it can include a lot of noise.
    - \* For example, deferred revenues are counted as liabilities, but it's actually revenue that can't be realized yet. On the flip side, assets will often include goodwill and inventory, but you can't pay bills with that.
  - The “quick ratio” is probably the most accurate, but the liabilities still count for more than real “debt”. Just looking at total cash / short term investments is what counts because a company can pay bills with that.
  - And then just look at things like real “debt” / “revolving credit”, because that's what really needs to get paid off.
- *Acid test*

- TODO
- *Quick test*
  - *TODO*
- *Debt to Equity*
  - TODO
- *EBITDAR*
  - It is the abbreviation of “earnings before interest, taxes, depreciation, amortization and restructuring or rent costs”.
  - It is used to analyze a company’s financial performance and profit potential where the company is undergoing a restructure or if its rent expenses are higher than average.
- *ROA*
  - It is one of the basic metrics used to evaluate a company’s stock.
  - It’s calculated as net income / total assets
- *ROIC*
  - It is used to measure how well a company is investing its capital. An advantage of viewing a company’s ROIC is that it provides investors an overview of a company’s management performance.
  - When a company consistently shows a high ROIC, it is considered a good investment and its shares tend to trade at a higher market price.
  - It’s calculated as (net income - dividends) / invested capital  
where invested capital can be total shareholder equity and total debt
  - However, ROIC is an accounting measurement, and those numbers can be skewed by company’s management, different accounting practices, and global currency fluctuations. Also, inflation rates can impact the number shown as ROIC.
- *ROC*
  - Calculated as ( operating income \* (1- tax rate) ) / (Book value of debt + book value of equity - cash)
- *ROE*
  - Calculated as net income / book value of common equity
  - This examines profitability from the perspective of the equity investors.
- *EVA / MVA*

- *TODO*
- *Acquirer's Multiple*
  - enterprise value / operating earnings (explanation [here](#))
  - The idea is focused on the mean reversion - both overvalued and undervalued companies will move eventually to their fair value. Fair companies at wonderful prices. It's looking for seriously undervalued companies, regardless of quality.
  - There is also some thing called *Magic Formula*, invented by Joel Greenblatt. This one, on the other hand, is looking for both undervalued and good quality companies. Wonderful companies at fair prices.
  - Check the screener, it could be a good predicate.

### Aswath Damodaran on Relative Valuation

- Assets are valued by looking at how the market prices similar assets. Thus, when determining what to pay for a house, you would look at what similar houses in the neighborhood sold for. With a stock, that means comparing its pricing to similar stocks, usually in its "peer group".
- It's all about comparing how the market prices different companies, with the intent of finding bargains. In relative valuation, you value an asset based on how similar assets are priced in the market. There are 3 essential steps:
  1. Find comparable assets that are priced by the market.
  2. Scale the market prices to a common variable to generate standardized prices that are comparable across assets.
  3. Adjust for differences across assets when comparing their standardized values.
- Relative valuation can be done with less information and more quickly than intrinsic valuation and is more likely to reflect the market mood of the moment. Not surprisingly, most valuations that you see are relative.
- His view on perfectly undervalued company:
  1. Low PE ratio
  2. High expected growth in earnings
  3. Low risk (and cost of equity)
  4. High ROE

In other words, it is cheap with no good reason for being cheap. In the real world, most assets that look cheap on a multiple of earnings basis deserve to be cheap. In other words, one or more of these variables works against the company (it has low growth, high risk, or low ROE).



- There are 4 steps to understanding multiple:
  1. Define the multiple. The same multiple can be defined in different ways by different users. When comparing and using multiples estimated by someone else, it is critical that we understand how the multiples have been estimated. Multiple must be consistent - nominator and denominator must use the same principles.
  2. Describe the multiple. Too many people who use a multiple have no idea what its cross sectional distribution is. If you do not know what the cross sectional distribution of a multiple is, it is difficult to look at number and pass judgment on whether it is too high or low. How has this multiple changed over time? What is the average and std deviation of this multiple across the universe? How large are outliers, how to deal with them? When a distribution is full of outliers, it's better to trust the medium, not the average.
  3. Analyze the multiple. It is critical to understand the fundamentals that drive each multiple, and the nature of the relationship between the multiple and each variable. Analyze the distribution. How do changes in the fundamentals change the multiple? The relationship between a fundamental (e.g. growth) and a multiple (e.g. PE) is almost never linear.
  4. Apply the multiple. Defining the comparable universe and controlling for differences is far more difficult in practice than it is in theory. It is impossible to find an exactly identical firm to the one you are valuing. There is no reason why a firm cannot be compared with another firm in a very different business, if the two firms have the same risk, growth, and cash flow characteristics. While traditional analysis is built on the premise that firms in the same sector are comparable firms, valuation theory would suggest that a comparable firm is one which is similar to the one being analyzed in terms of fundamentals.
- When estimating market value, you have 3 choices:
  1. Market value of equity. The price per share or market capitalization.
  2. Market value of firm. The sum of the market values of both debt and equity.
  3. Market value of operating assets or enterprise value. The sums of the market values of debt and equity, but with cash netted out of the value.
- When measuring earnings and book value, you can again measure them from the perspective only of equity investors or of both debt and equity (firm). Thus, earnings per share and net income are earnings to equity, whereas operating income measures earnings to the firm. The shareholders' equity on a balance sheet is book value of equity; the book value of the entire business includes debt; and the book value of invested capital is that book value, net of cash.
- Multiples are easy to use and easy to misuse. There are 4 basic steps to using multiples wisely and detecting misuse in the hands of others, starting with making

## 5 Valuation

sure that they are defined consistently, and then moving on to looking at their distributional characteristics and the variables that determine their values, and concluding with using them in comparisons across firms.

- PE - it can be computed using earnings from the last fiscal year (current PE), last four quarters (trailing PE), or the next four quarters (forward PE), yielding very different estimates. It can also vary depending upon whether you use diluted or primary earnings. The first test to run on a multiple is to examine whether the numerator and denominator are defined consistently. If the numerator is an equity value, then the denominator should be an equity value as well. If the numerator is a firm value, then the denominator should be a firm value as well. Price per share (which is an equity value) in the nominator and earnings per share (also an equity value) in denominator is consistent. So is the enterprise value to EBITDA multiple, since the numerator and denominator are both measures of operating assets; the EV measures the market value of the operating assets of a company and the EBITDA is the cash flow generated by the operating assets. In contrast, the price to sales ratio and price to EBITDA are not consistently defined, since they divide the market value of equity by an operating measure.
- For comparisons across companies, the multiple has to be defined uniformly across all of the firms in the group. Thus, if the trailing PE is used for one firm, it has to be used for all of the others as well, and the trailing earnings per share has to be computed the same way for all firms in the sample. Note that even with the same accounting standards governing companies, there can be differences across firms that arise because of discretionary accounting choices.
- If your sample/distribution is skewed towards one extreme, the average as a comparison measure can be dangerous. It makes far more sense to focus on the median. To prevent outliers from skewing numbers, data reporting services that compute and report average values for multiples either throw out outliers when computing the averages or constrain the multiples to be less than or equal to a fixed number. The consequence is that averages reported by two services for the same sector or the market will almost never match up because they deal with outliers differently.
- With every multiple, there are firms for which the multiple cannot be computed. For example PE ratio - when the earnings per share are negative, the P/E for a firm is not meaningful and is usually not reported. These are firms that are losing money. If you are doing a sector analysis, and you drop a lot of companies because they have negative PE ratios, then the average PE ratio for the group will be biased because of the elimination of these firms. As a general rule, you should be skeptical about any multiple that results in a significant reduction in the number of firms being analyzed.
- PE ratios across time - comparisons of multiples across time are fraught with

danger. For instance, the common practice of branding a market to be under or overvalued based upon comparing the PE ratio today to past PE ratios will lead to misleading judgments when interest rates are higher or lower than historical norms. Also, relative valuations have short shelf lives. A stock may look cheap relative to comparable companies today, but that assessment can shift dramatically over the next few months.

- You make just as many assumptions when you do a relative valuation as you do in a discounted cash flow valuation. The difference is that the assumptions in a relative valuation are implicit and unstated, whereas those in discounted cash flow valuation are explicit and stated. In the intrinsic valuation, we observed that the value of a firm is a function of 3 variables - its capacity to generate cash flows, its expected growth in these cash flows, and the uncertainty associated with these cash flows. Every multiple, whether it is of earnings, revenues, or book value, is a function of the same 3 variables - risk, growth, and cash flow generating potential. Intuitively, firms with higher growth rates, less risk, and greater cash flow generating potential should trade at higher multiples than firms with lower growth, higher risk, and less cash flow potential.
- If there are enough firms in the industry to allow for it, this list can be pruned further using other criteria; for instance, only firms of similar size may be considered. No matter how carefully we construct our list of comparable firms, we will end up with firms that are different from the firm we are valuing. There are three ways of controlling for these differences:
  1. Comparison of the multiple a firm trades at to the average computed for the sector; if it is significantly different, the analyst can make a judgment about whether the firm's individual characteristics (growth, risk or cash flows) may explain the difference. If, in the judgment of the analyst, the difference in a multiple cannot be explained by fundamentals (growth / risk), the firm will be viewed as under/over valued. The weakness in this approach is not that analysts are called upon to make subjective judgments, but that the judgments are often based upon little more than guesswork.
  2. We modify the multiple to take into account the most important variable determining it - the companion variable. For example, analysts who compare PE ratios across companies with very different growth rates often divide the PE ratio by the expected growth rate in EPS to determine a growth-adjusted PE ratio, or the PEG ratio. There are 2 implicit assumptions that we make when using these modified multiples. The first is that these firms are all of equivalent risk. The second is that growth and PE move proportionately; when growth doubles, PE ratios double as well. If this assumption does not hold up and PE ratio do not increase proportionally to growth, companies with high growth rates will look cheap on a PEG ratio basis.
  3. When there is more than 1 variable to adjust for, when comparing across

## 5 Valuation

companies, there are statistical techniques that offer promise. In a multiple regression, for instance, we attempt to explain a dependent variable (such as PE or EV/EBITDA) by using independent variables (such as growth and risk) that we believe influence the dependent variable. Regression offers two advantages over the subjective approach. First, the output from the regression gives us a measure of how strong the relationship is between the multiple and the variable(s) being used. Second, unlike the modified multiple approach, where we were able to control for differences on only one variable, a regression can be extended to allow for more than 1 variable and even for cross effects across these variables.

- The two approaches to valuation - intrinsic and relative valuation - will generally yield different estimates of value for the same firm at the same point in time. It is even possible for one approach to generate the results that the stock is undervalued while the other concludes that it is overvalued. The differences in value between discounted cash flow valuation and relative valuation come from different views of market efficiency or inefficiency. In discounted cash flow valuation, we assume that markets make mistakes, that they correct these mistakes over time, and that these mistakes can often occur across entire sectors or even the entire market. In relative valuation, we assume that while markets make mistakes on individual stocks, they are correct on average. In other words, when we value a new software company relative to other small software companies, we are assuming that the market has priced these companies correctly on average, even though it might have made mistakes in the pricing of each of them individually. Thus, a stock may be overvalued on a discounted cash flow basis but undervalued on a relative basis, if the firms used for comparison in the relative valuation are all overpriced by the market. The reverse would occur if an entire sector or market were underpriced.

Multiple	Fundamental Determinants
P/E	expected growth ↑, payout ↑, risk ↓
P/BV	expected growth ↑, payout ↑, risk ↓, ROE ↑
P/S	expected growth ↑, payout ↑, risk ↓, net margin ↑
EV/FCFF	cost of capital, growth rate ↑
EV/EBITDA	expected growth ↑, reinvestment rate ↓, risk ↓, ROIC ↑, tax rate ↓
EV/Capital	expected growth ↑, reinvestment rate ↓, risk ↓, ROIC ↑
EV/Sales	expected growth ↑, reinvestment rate ↓, risk ↓, operating margin ↑

Table 5.1: Fundamentals determining multiples

### Option Pricing Models

Not for valuing options, but businesses. Real option advocates a belief that you should be paying a premium on DCF value estimates. This is not an alternative to DCF, it is

Multiple	Companion variable	Mismatch indicator for undervalued company
P/E	Expected growth	Low PE with high expected growth rate in EPS
P/BV	ROE	Low P/BV with high ROE
P/S	Net margin	Low P/S with high net profit margin
EV/EBITDA	Reinvestment rate	Low EV/EBITDA with low reinvestment needs
EV/Capital	Return on capital	Low EV/Capital with high return on capital
EV/Sales	After-tax operating margin	Low EV/Sales with high after-tax operating margin

Table 5.2: Valuation mismatches

its augmentation. For every hundred options, maybe two or three will pass the following tests you gotta meet to applying these models to valuing an asset:

- You gotta make sure that there is an option embedded in an action. Can you identify the underlying asset? Can you specify the contingency under which you will get payoff?
- Is there exclusivity? If yes, there is option value. If no, there is none. If in between, you have to scale value.
- Can you use an option pricing model to value the real option? Can you trade the underlying asset and option?
- Applying option pricing models in the context of valuation - this is being used only if something happens. For example, there is an undeveloped oil reserve company, and those oil reserves will have value only if oil prices go up beyond a certain level. Or a gold mining company with gold reserves. Or a biotechnological company with the patent that's not viable right now but potentially viable in the future. Or a stock of a deeply troubled company - a money-losing company with a lot of debt - you are effectively buying an option. These are examples of where you can apply this model.
- You are using those option pricing models to value businesses or assets that have option like characteristics. Options derive the value from an underlying asset. They have contingent payoff and limited life.

### Black-Scholes Model

- It makes restrictive assumptions about volatility (fixed over option life) and early exercise (none) and price process for underlying asset.
- The model is a function of 6 parameters:
  - current price of the underlying asset

## 5 Valuation

- strike price of the option
  - life of the option
  - variance in the price of underlying assets
  - risk-less rate for the option life
  - dividends over the life of the option (not in original model)
- Warren Buffett uses the Black-Scholes formula when valuing his equity put options for financial statement purposes. Key inputs to the calculation include a contract's maturity and strike price, as well as the analyst's expectations for volatility, interest rates and dividends. However, if the formula is applied to extended time periods (for long-dated options), it can produce absurd results.

### ***The Binomial Option Pricing Model***

- More general and less restrictive model, but it requires more data on how the price of the underlying asset will evolve over time.
- Most practitioners use Binomial Model and they argue that early exercise is the rule rather than the exception with real options, and that underlying asset values are generally discontinuous. But Binomial model is not an easy choice. All of the information needed for this model will often lead you to a dead end. There might be an easier way using a decision trees and basic statistics that you can value any asset.

## **Qualitative Analysis**

### **Management**

- CEO is hired by shareholders to benefit the shareholders. But lot of CEOs realize this. CEO has to:
  1. Run business efficiently
  2. Deploy business capital
- CEO has 5 choices:
  1. Invest in existing operations
  2. Acquiring other businesses
  3. Issuing dividends
  4. Paying down debt
  5. Repurchasing stock

The most successful CEOs focus on 1), 2), and 5) (from the book "The Outsiders: Traits of The Greatest CEOs in History", by William Thorndike).

- (Graham) There are 3 clear-cut signs that a management has been unsuccessful and is presumably inefficient unless it can convince the proprietors otherwise:
  - Its failure to earn a satisfactory return on the stockholders' investment during a period of several years in which the industry as a whole is prosperous.
  - Its failure to maintain its approximate share of the total sales volume of the industry.
  - Its failure to show a profit margin on sales reasonably close to that of the industry as a whole.
- (Graham) The management may be efficient but still fail to act in the best interests of the outside stockholders. There are a number of ways in which this may occur. The most important of these are:
  - Failure to pay dividends commensurate both with earnings and with the value of the stockholders' equity.
  - Use of stockholders' money in a relatively unprofitable manner.
  - Use of stockholders' money to buy back their stock at an inadequate price.
  - Maintenance of a holding-company set-up, in face of the fact that outside stockholders (those with not direct participation in control of corporate policies, which are obviously 99% of stockholders of every large publicly held enterprise) would be much better off if they owned the underlying assets directly.
- (Warren Buffett on intrinsic value) Unlike many CEOs, who desire their company's stock to trade at the highest possible prices in the market, Buffett prefer Berkshire stock to trade at or around its intrinsic value - neither materially higher nor lower. Such linkage means that business results during one period will benefit the people who owned the company during that period. Maintaining the linkage requires a shareholder group with a collective long-term, business-oriented investment philosophy, rather than a short-term, market-oriented strategy.
- (Warren Buffett on dividends) Managers and owners should think hard about the circumstances under which earnings should be retained and under which they should be distributed. Allocation of capital is crucial to business and investment management.
  - In judging whether managers should retain earnings, shareholders should not simply compare total incremental earnings in recent years to total incremental capital because that relationship may be distorted by what is going on in a core business. During an inflationary period, companies with a core business characterized by extraordinary economics can use small amounts of incremental capital in that business at very high rates of return. But, unless they are experiencing tremendous unit growth, outstanding businesses by definition generate large amounts of excess cash. If a company sinks most of

## 5 Valuation

this money in other businesses that earn low returns, the company's overall return on retained capital may nevertheless appear excellent because of the extraordinary returns being earned by the portion of earnings incrementally invested in the core business.

- Many corporations that consistently show good returns both on equity and on overall incremental capital have, indeed, employed a large portion of their retained earnings on an economically unattractive, even disastrous basis. Their marvelous core businesses, however, whose earnings grow year after year, camouflage repeated failures in capital allocation elsewhere (usually involving high-priced acquisition of businesses that have inherently mediocre economics). The managers at fault periodically report on the lesson they have learned from the latest disappointment. They then usually seek out future lessons. (Failure seems to go to their heads.)
- In such cases, shareholders would be far better off if earnings were retained only to expand the high-return business, with the balance paid in dividends or used to repurchase stock (an action that increases the owners' interest in the exceptional business while sparing them participation in subpar businesses). Managers of high-return businesses who consistently employ much of the cash thrown off by those businesses in other ventures with low returns should be held to account for those allocation decisions, regardless of how profitable the overall enterprise is.
- Payments should reflect long-term expectations for both earnings and returns on incremental capital. Since the long-term corporate outlook changes only infrequently, dividend patterns should change no more often. But over time distributable earnings that have been withheld by managers should earn their keep. If earnings have been unwisely retained, it is likely that managers, too, have been unwisely retained.
- Corporate dividend policy is a major capital allocation issue, always of interest to investors but infrequently explained to them. Buffett's essays clarify this subject, emphasizing that "capital allocation is crucial to business and investment management." Since 1988, Berkshire's common stock has been priced in the market at above \$50k per share and the company's book value, earnings, and intrinsic value have steadily increased well in excess of average annual rates. Yet the company has never effected a stock split, and has not paid a cash dividend in over three decades. Berkshire's dividend policy also reflects Buffett's conviction that a company's earnings payout versus retention decision should be based on a single test: each dollar of earnings should be retained if retention will increase market value by at least a like amount; otherwise it should be paid out. Earnings retention is justified only when "capital retained produces incremental earnings equal to, or above, those generally available to investors." Like many of Buffett's simple rules, this one is often ignored by corporate managers, except of course when they make dividend



decisions for their subsidiaries. Earnings are often retained for non-owner reasons, such as expanding the corporate empire or furnishing operational comfort for management.

- Directors are rarely independent of management. They should be, of course, but it does not work out that way. Officers choose the directors more often than the directors choose the officers. In many cases the executives actually constitute a majority of the board. Where this occurs the notion of that the directors serve as a check on the management is patently incorrect.
- Warren Buffett on Corporate Governance
  - Many annual meetings are a waste of time, both for shareholders and for management. Sometimes that is true because management is reluctant to open up on matters of business substance. More often a non-productive session is the fault of shareholder participants who are more concerned about their own moment on stage than they are about the affairs of the corporation. What should be a forum for business discussion becomes a forum for theatrics and advocacy of issues (the deal is irresistible: for the price of one share you get to tell a captive audience your ideas as to how the world should be run.) Under such circumstances, the quality of the meeting often deteriorates from year to year as the antics of those interested in themselves discourage attendance by those interested in the business.
  - What counts - all the important facts about current operations, CEO's frank view of the long-term economic characteristics of the business, lot of financial details, and a discussion of any significant data that needs to be interpreted.
  - When Charlie and Buffett read reports, they have no interest in pictures of personnel, plants or products. References to EBITDA make them shudder. They are very suspicious of accounting methodology that is vague or unclear, since too often that means management wishes to hide something. Berkshire puts its annual and quarterly financials on the Internet between the close of the market on Friday and the following morning. By doing so, shareholders and other interested investors have timely access to these important releases and also have a reasonable amount of time to digest the information they include before the markets open on Monday.
  - Buffett and Munger tend to be leery of companies run by CEOs who woo investors with fancy predictions. A few of those managers will prove prophetic-but others will turn out to be congenital optimists, or even charlatans. Unfortunately, it's not easy for investors to know in advance which species they are dealing with. It's both deceptive and dangerous for CEOs to predict growth rates for their companies. Too often these predictions lead to trouble. It's fine for a CEO to have his own internal goals and in our view, it's even appropriate for the CEO to publicly express some hopes about the future, if these expectations are accompanied by sensible caveats. But for a major

corporations to predict that its per-share earnings will grow over the long term at, say 15% annually is to court trouble. That's because a growth rate of that magnitude can only be maintained by a very small percentage of large businesses. The problem isn't just lofty unwarranted optimism. They corrode CEO behavior. They can engage uneconomic operating maneuvers so that they could meet earnings targets they had announced. Worse still, after exhausting all that operating acrobatics would do, they sometimes played a wide variety of accounting games to "make the numbers." These accounting shenanigans have a way of snowballing: once a company moves earnings from one period to another, operating shortfalls that occur thereafter require it to engage in further accounting maneuvers that must be even more "heroic." These can turn fudging into fraud.

— Three suggestions for investors:

- \* Beware of companies displaying weak accounting. If a company still does not expense options, or if its pension assumptions are fanciful, watch out. When management take the low road in aspects that are visible, it is likely they are following a similar path behind the scenes. There is seldom just one cockroach in the kitchen.

Trumpeting EBITDA is a particularly pernicious practice. Doing so implies that depreciation is not truly an expense, given that it is a "non-cash" charge. That's nonsense. In truth, depreciation is a particularly unattractive expense because the cash outlay it represents is paid up front, before the asset acquired has delivered any benefits to the business. Imagine, if you will, that at the beginning of this year a company paid all of its employees for the next ten years of their service (in the way they would lay out cash for a fixed asset to be useful for ten years). In the following 9 years, compensation would be a "non-cash" expense - a reduction of a prepaid compensation asset established this year. Would anyone care to argue that the recording of the expense in years two through ten would be simply a bookkeeping formality?

- \* Unintelligible footnotes usually indicate untrustworthy management. If you can't understand a footnote or other managerial explanation, it's usually because the CEO doesn't want you to.
- \* Be suspicious of companies that trumpet earnings projections and growth expectations. Business seldom operate in a tranquil, no-surprise environment, and earnings simply don't advance smoothly (except, of course, in the offering books of investment bankers).

Buffett and Munger don't know today what Berkshire will earn next year - not even what they will earn next quarter. They are suspicious of those CEOs who regularly claim they do know the future.

- \* Managers that always promise to "make the numbers" will at some point

be tempted to \*make up\* the numbers.

- The supreme irony of business management is that it is far easier for an inadequate CEO to keep his job than it is for an inadequate subordinate. However, a CEO who doesn't perform is frequently carried in definitely. One reason is that performance standards for his job seldom exist. When they do, they are often fuzzy or they may be waived or explained away, even when the performance shortfalls are major and repeated. At too many companies, the boss shoots the arrow of managerial performance and then hastily paints the bulls-eye around the spot where it lands. Also, CEO has no immediate superior whose performance is itself getting measured. CEO's boss is a board of directors that seldom measures itself and is infrequently held to account for substandard corporate performance. If the board makes a mistake in hiring, and perpetuates that mistake, so what? Even if the company is taken over because of the mistake, the deal will probably bestow substantial benefits on the outgoing board members.
- Finally, relations between the board and the CEO are expected to be congenial. At board meetings, criticism of the CEO's performance is often viewed as the social equivalent of belching. No such inhibitions restrain the office manager from critically evaluating the substandard typist.
- There are three fundamentally different manager/owner situation that exist in publicly held companies:
  1. No controlling shareholder (this is the most common). In this case, Buffett believes directors should behave as if there is a single absentee owner, whose long-term interest they should try to further in all proper ways. Unfortunately, "long-term" gives directors a lot of wiggle room. If they lack either integrity or the ability to think independently, directors can do great violence to shareholders while still claiming to be acting in their long-term interest. But assume the board is functioning well and must deal with a management that is mediocre or worse. Directors then have the responsibility for changing that management, just as an intelligent owner would do if he were present. And if able but greedy managers overreach and try to dip too deeply into shareholders' pockets, directors must slap their hands. The (ideally, mostly outside) board members should establish standards for the CEO's performance and should also periodically meet without his being present, to evaluate his performance against those standards. This requires for board membership should be business savvy, interest in the job and owner-orientation. Too often, directors are selected simply because they are prominent or add diversity to the board. This practice is a mistake. Mistakes in selecting directors are particularly serious because appointments are so hard to undo.
  2. Controlling owner is also the manager (as is Berkshire). At some companies, this arrangement is facilitated by the existence of two classes of

stock endowed with disproportionate voting power. In these situations, it's obvious that the board does not act as an agent between owners and management and that the directors cannot effect change except through persuasion. Therefore, if the owner/manager is mediocre or worse-or is ever-reaching-there is little a director can do about it except object. If change does not come and the matter is sufficiently serious, the outside directors should resign. Their resignation will signal their doubts about management, and it will emphasize that no outsider is in a position to correct the owner/manager's shortcomings.

3. No controlling owner who is not involved in management. This case puts the outside directors in a potentially useful position. If they become unhappy with either the competence or integrity of the manager, they can go directly to the owner (who may also be on the board) and report their dissatisfaction. This situation is ideal for an outside director, since he needs to make his case only to a single, presumably interested owner, who can forthwith effect change if the argument is persuasive. Even so, the dissatisfied director has only that single course of action. If he remains unsatisfied about a critical matter, he has no choice but to resign.
  - \* Logically, this case should be the most effective in insuring first-class management. In the second case the owner is not going to fire himself, and in the first case, directors often find it very difficult to deal with mediocrity or mild over-reaching. Unless the unhappy directors can win over a majority of the board - an awkward social and logistical task, particularly if management's behavior is merely odious, not egregious-their hands are effectively tied. In practice, directors trapped in situations of this kind usually convince themselves that by staying around they can do at least some good. Meanwhile, management proceeds unfettered.
  - \* In the third case, the owner is neither judging himself nor burdened with the problem or garnering a majority. He can also insure that outside directors are selected who will bring useful qualities to the board. These directors, in turn, will know that the good advice they give will reach the right ears, rather than being stifled by a recalcitrant management. If the controlling owner is intelligent and self-confident, he will make decisions in respect to management that are meritocratic and pro-shareholder. Moreover-and this is critically important-he can readily correct any mistake he makes.
- A textile company that allocates capital brilliantly within its industry is a remarkable textile company - but not a remarkable business. Buffett's conclusion from his own experiences and from much observation of other businesses is that a good managerial record (measured by economic returns) is far more a function of what business boat you get into than it is of how ef-

fectively you row (though intelligence and effort help considerably, of course, in any business, good or bad). Should you find yourself in a chronically leaking boat, energy devoted to changing vessels is likely to be more productive than energy devoted to patching leaks. Not all of Berkshire's businesses are destined to increase profits. When an industry's underlying economics are crumbling, talented management may slow the rate of decline. Eventually, though, eroding fundamentals will overwhelm managerial brilliance. "If you want to get a reputation as a good businessman, be sure to get into a good business."

- It's almost impossible, for example, in a boardroom populated by well-mannered people to raise the question of whether the CEO should be replaced. It's equally awkward to question a proposed acquisition that has been endorsed by the CEO, particularly when his inside staff and outside advisers are present and unanimously support his decision. (They wouldn't be in the room if they didn't.) Finally, when the compensation committee-armed, as always, with support from a high-paid consultant-reports on a mega-grant of options to the CEO, it would be like belching at the dinner table for a director to suggest that the committee reconsider. Buffett was, over a span of 40 years, on 19 public-company boards (excluding Berkshire's) and have interacted with perhaps 25 directors. The great majority of these directors lacked at least one of the 3 qualities he values (business-savvy, interested and shareholder-oriented). As a result, their contribution to shareholder well-being was minimal at best and, too often, negative. These people, decent and intelligent though they were, simply did not know enough about business and/or care enough about shareholders to question foolish acquisitions or egregious compensation. He was too often silent when management made proposals that he judged to be counter to the interests of shareholders. In those cases, collegiality trumped independence.
- Directors and the entire board have many perfunctory duties, but in actuality have only 2 important responsibilities: obtaining the best possible investment manager and negotiating with that manager for the lowest possible fee. Directors acting for other investors should have exactly the same priorities.
- Directors should own some portion of the stock. After all, who ever washes a rental car? Many people who are smart, articulate and admired have no real understanding of business. That's no sin; they may shine elsewhere. But they don't belong on corporate boards.
- About Berkshire and its acquired businesses - they feel that telling outstanding CEOs how to run their companies would be the height of foolishness. Most of their managers wouldn't work for them if they got a lot of backseat driving. Nevertheless, Berkshire's ownership may make even the best of managers more effective. They eliminate all of the ritualistic and nonproductive activities that normally go with the job of CEO. These managers are totally

## 5 Valuation

in charge of their personal schedules. Also, they give each a simple mission: just run your business as if:

1. you own 100% of it
2. it is the only asset in the world that you and your family have or will ever have
3. you can't sell or merge it for at least a century

Buffett and Munger want their managers to think about what counts, not how it will be counted.

- Very few CEOs of public companies operate under a similar mandate, mainly because they have owners who focus on short-term prospects and reported earnings. They don't ignore the current results of their businesses - in most cases, they are of great importance - but they never want them to be achieved at the expense of their building ever-greater competitive strengths.
- For example CEO of GEICO - Buffett and Munger haven't taught him a thing - and never will - but they have created an environment that allows him to apply all of his talents to what's important. He does not have to devote his time or energy to board meetings, press interviews, presentations by investment bankers or talks with financial analysts. He need never spend a moment thinking about financing, credit ratings, or "Street" expectations for earnings per share.
- If a management makes bad decisions in order to hit short-term earnings targets, and consequently gets behind the eight-ball in terms of costs, customer satisfaction or brand strength, no amount of subsequent brilliance will overcome the damage that has been inflicted. Take a look at the dilemmas of managers in the auto and airline industries today as they struggle with the huge problems handed the by their predecessors. "An ounce of prevention is worth a pound of cure". (Ben Franklin). But sometimes no amount of cure will overcome the mistakes of the past.
- The best managers think like owners in making business decisions. They have shareholder interests at heart. But even first-rate managers will sometimes have interests that conflict with those of shareholders. The essays address some of the most important governance problems.
  - \* The first is the importance of forthrightness and candor in communications by managers to shareholders. Buffett prepares the content of the Berkshire's annual report using words and numbers people of average intelligence can understand; and all investors get the same information at the same time. Buffett and Berkshire avoid making predictions, a bad managerial habit that too often leads other managers to make up their financial reports.
  - \* What matters is selecting people who are able, honest, and hard-working. Having first-rate people on the team is more important than designing

hierarchies and clarifying who reports to whom about what and at what times. Special attention must be paid to selecting a CEO because of 3 major differences Buffett identifies between CEOs and other employees. First, standards for measuring a CEO's performance are inadequate or easy to manipulate, so a CEO's performance is harder to measure than that of most workers. Second, no one is senior to the CEO, so no senior person's performance can be measured either. Third, a board of directors cannot serve that senior role since relations between CEOs and boards are conventionally congenial.

- \* The best solution, Buffett instructs, is to take great care in identifying CEOs who will perform capably regardless of weak structural restraints. Large institutional shareholders must exercise their power to oust CEOs that do not measure up to the demands of corporate stewardship. Outstanding CEOs do not need a lot of coaching from owners, although they can benefit from having a similarly outstanding board. Directors therefore must be chosen for their business savvy, their interest, and their owner-orientation. According to Buffet, one of the greatest problems among boards in corporate America is that members are selected for other reasons, such as adding diversity or prominence to a board - or, famously, independence.
- Director power is weakest in the case where there is a controlling shareholder who is also the manager. When disagreements arise between the directors and management, there is little a director can do other than to object and, in serious circumstances, resign. Director power is strongest at the other extreme, where there is a controlling shareholder who does not participate in management. The directors can take matters directly to the controlling shareholder when disagreement arises.
- The most common situation, however, is a corporation without a controlling shareholder. This is where management problems are most acute, Buffett says. It would be helpful if directors could supply necessary discipline, but board congeniality usually prevents that. To maximize board effectiveness in this situation, Buffett believes the board should be small in size and composed mostly of outside directors. The strongest weapon a director can wield in these situations remains his or her threat to resign.
- All these situations do share a common characteristic: the terrible manager is a lot easier to confront or remove than the mediocre manager. A chief problem in all governance structures, Buffett emphasizes, is that in corporate America evaluation of chief executive officers is never conducted in regular meetings in the absence of that chief executive. Holding regular meetings without the chief executive to review his or her performance would be a marked improvement in corporate governance.
- The CEOs at Berkshire's various operating companies enjoy a unique position

## 5 Valuation

in corporate America. They are given a simple set of commands, to run their business as if:

- \* they are its sole owner
  - \* it is the only asset they hold
  - \* they can never sell or merge it for a hundred years
- This enables Berkshire CEOs to manage with a long-term horizon ahead of them, something alien to the CEOs of public companies whose short-term oriented shareholders obsess with meeting the latest quarterly earnings estimate. Short-term results matter, of course, but the Berkshire approach avoids any pressure to achieve them at the expense of strengthening long-term competitive advantages.
  - Buffett emphasizes that performance should be the basis for executive pay decisions. Executive performance should be measured by profitability, after profits are reduced by a charge for the capital employed in the relevant business or earnings retained by it. If stock options are used, they should be related to individual performance, rather than corporate performance, and priced based on business value. Better yet, as at Berkshire, stock options should simply not be part of an executive's compensation. After all, exceptional managers who earn cash bonuses based on the performance of their own business can simply buy stock if they want to; if they do, they "truly walk in the shoes of owners," Buffett says.



## 5.6 Technical Analysis

Technical Analysis, in contrast to fundamental analysis, does not focus on the fundamental metrics of a company, but instead, focuses solely on the price of the stock. Technical analysis requires a complex understanding of chart patterns and technical indicators. This is the type of trading most day traders will practice. See *Random Walk Hypothesis and Momentum Investing* in Section 1.6.

### Some Technical Stock Measurements

This is mostly from the book written by Jason Kelly. The idea is that we want to buy companies with solid fundamentals per the previous section, just as their stock prices show confirming signals per the tools in this section. It can be a good strategy to combine SMA, MACD, and RSI. Timing is, if not impossible, very difficult. However, anything offering a chance to avoid years like 2008 is worth exploring. Stay put most of the time to compound strong performance, but keep an eye on the chart to see if SMA, MACD, and RSI warn of big trouble ahead! When they do, you'll get out and wait for buy signals to take advantage of recovery on sale.

- *Simple Moving Average (SMA)*
  - Moving average of the stock's price and smooths out the bounciness of the raw price so you can better detect its trend.
  - The position of the current price in relation to the SMA provides hints on where the price is heading next.
  - A price line's relationship to its SMA shows you its trend. If the price is staying above the SMA at a rising angle, that's rising trend, or uptrend. If the price is staying below the SMA at a falling angle, that's a falling trend, or downtrend.
  - The easiest way to get buy and sell hints from this measure is to watch for when the investment's price line crosses above or below its SMA.
  - When the investment is moving up, the SMA acts as a support line, and the price dipping below the line and moving back up signals a buy. When the investment is moving down, the SMA acts as a resistance line, and the price popping above the line and moving back down signals a sell.
  - Many traders use several moving averages together, such as a 20-day, 50-day, and a 200-day and watch for them to cross over each other for hints on future price direction.
- *Moving Average Convergence Divergence (MACD)*
  - It compares the exponential moving average of a stock's price from two time periods, usually 12 and 26 days or weeks or months, and then plots that difference to show a trend. MACD is similar to SMA, but it places more

weight on recent prices than on past ones, making it react more quickly to trend changes.

- The MACD message is comprised of three parts:
  - \* MACD - the 12-period exponential moving average minus the 26-period. This is the difference between “fast” and “slow” time periods. The period can refer to hours, days weeks, or months. Default is days.
  - \* MACD Signal Line - The 9-period exponential moving average of the MACD. This is the trend of the difference between the 12-period and the 26-period trend.
  - \* MACD Histogram - The MACD minus the MACD Signal Line.
- The main way to use MACD is by watching for the moving averages to cross over each other. A buy signal happens when the fast 12-period EMA crosses over the slow 26-period EMA, which causes MACD to cross over the zero line. A sell signal happens when the fast 12-period EMA crosses below the slow 26-period EMA, which causes MACD to cross below the zero line. Another way to use this curious collection of lines is to watch for the MACD to cross the MACD signal line, which flips the histogram to the opposite side of the zero line. Flipping above it is a buy signal; flipping below it is a sell signal. Histogram bars are the friendliest way to follow MACD.
- *Relative Strength Index (RSI)*
  - Alerts you to when a stock’s price has stretched too far in one direction or the other and is due for a snap back toward the middle. When it stretches too far up, it’s called overbought. When it stretches too far down, it’s called oversold.
  - It fluctuates between 0 and 100. Most commonly, anything higher than 70 is considered overbought and due for a pullback, and anything lower than 30 oversold and due for a bounce.
  - Like SMA and MACD, RSI needs a time frame. The default is a 14-period time frame, and the periods can be again hours, days, weeks, or anything else, but usually days.
- *Relative Price Strength (RPS)*
  - This shows you how a stock’s price has performed compared with the prices of all other stocks. Stocks that are ranked 90 have outperformed 90% of all other stocks. Stocks that rank 20 have underperformed 80% of all other stocks.
- *Volume*
  - The amount of a stock that’s traded on any given day, week, or any other time period. It’s a good indicator of how much interest people have in the stock. That’s important to know because the stock market is greatly affected

## 5 Valuation

by supply and demand. If everybody wants to buy a certain stock, its price will rise. If nobody wants it, the price will fall. Some investors like to buy stocks with low volume, hoping that major institutions will discover them and begin trading heavily. Lots of investors watch stock volume in an attempt to catch trends early.

- Volume is measured in either the number of shares traded or the dollar amount that is moved as a result of that trading.
- The strongest signal from volume occurs when it surges higher as the stock price moves. Rising volume on a rising stock price shows something good going on at the company. Rising volume on a falling stock price shows something bad. The stronger the volume, the more persistent the stock's price trend.

## 5.7 Bonus: Damodaran's Valuation Tips (By Company Types)

This was taken from Aswath Damodaran's book and YouTube video lectures mostly.

### Valuing Private Companies

- There is no market cap. In DCF we are often dependent upon market value for inputs (weights in the cost of capital), for risk measures (beta) and for outputs (to compare estimated value at the end).
- Also, accounting statements can be much more different, even much more difficult.
- In summary, with valuing a private company you're following the same rule book as you do for public companies. You estimate cash flows, correcting for accounting irregularities, you estimate discount rate, and you value a company.

### Valuing Young Growth Companies

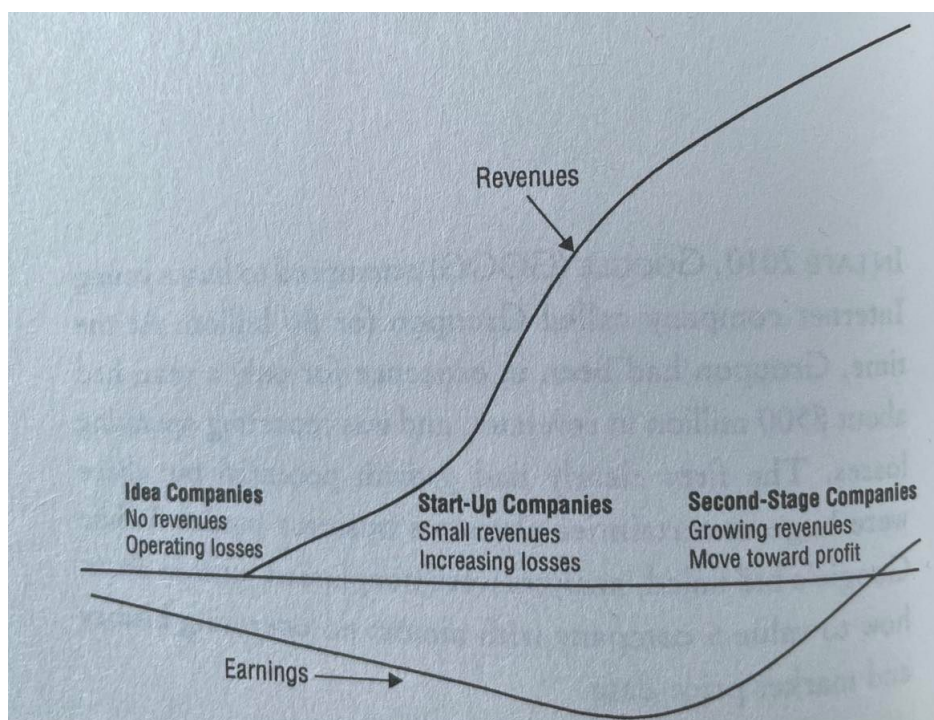


Figure 5.3: Aswath Damodaran on the early phase of a business lifecycle

Most young growth companies tend to be privately owned and funded by their founder/owner or by venture capitalists. In the last two decades, though, companies in some sectors such as technology and biotechnology have been able to leapfrog the process and to

public. When they do go public, they offer a blend of promise and peril to investors who are willing to grapple with the uncertainties that come with growth potential.

- **Key drivers:**

- **Value driver #1** - revenue growth - small revenues have to become big revenues. How much growth potential does your firm have?
- **Value driver #2** - target margins - you can lose money today but, to have value, you have to make money in the future. How profitable will your company be, when it matures?
- **Value driver #3** - survival at risk - for young firms to become valuable, they have to survive. What is the likelihood that your firm will not make it?

- Young companies share some common attributes:

- No historical performance data. Most have maybe 1-2 years of data available on operations and financing and some have financials for only a portion of a year.
  - Small or no revenues, operating losses. Many young companies have small or nonexistent revenues. Expenses often are associated with getting the business established, rather than generating revenues. In combination, the result is significant operating losses.
  - Many don't survive. One study concluded that only 44% of all businesses that were founded in 1998 survived at least 4 years and only 31% made it through 7 years.
  - Investments are illiquid. Even those publicly traded have small market capitalization and relatively few shares traded (low float). A significant portion of the equity is usually held by the founders, venture capitalists, and other private equity investors.
  - Multiple claims on equity. It is not uncommon for some equity investors to have first claims on cash flows (dividends) and others to have additional voting right shares.
- Success with an existing product can sometimes provide an opening for a firm to introduce a new product. The success of the iPod laid the foundations for the introduction of the iPhone and the iPad for Apple.
  - Companies that succeed with a product in one market may be able to expand into other markets with similar success. The most obvious example of this is expanding into foreign markets to build on domestic market success, a pathway adopted by companies like Coca Cola, McDonald's, and many retail companies.
  - Most investors and analysts give up, it's very difficult to value them, especially if those characteristics come together in the same firm. Existing assets often generate little or negative cash flows, and estimating future revenues and discount rates

becomes more difficult because of limited or nonexistent historical data. And a firm may not survive to become a stable firm and there may be multiple claims on equity. As a consequence, most investors don't even try to value young growth companies on an intrinsic basis and rely instead on compelling stories to justify investment decisions.

- Some analysts try to value young companies using multiples and comparables. However, this task is also made more difficult by the following factors:
  - What do you scale value to? If a firm is losing money, there is little to show in terms of book value and have minuscule revenues. Scaling market value to any of these variables is going to be difficult.
  - What are your comparable companies? Even if a young company operates in a sector where there are many other young companies, there can be significant variations across companies. For young companies in mature sectors, the task will be even more challenging.
  - How do you control for survival? Intuitively, we would expect the relative value of a young company (the multiple of revenues or earnings that we assign it) to increase with its likelihood of survival. However, putting this intuitive principle into practice is not easy to do.

### **Intrinsic valuation**

- Estimating future cash flows - there are 3 key numbers in forecasting future cash flows. The first is revenue growth, which can be obtained by either extrapolating from the recent past or by estimating the total market for a product or service and an expected market share. The potential market for a company will be smaller, if the product or service offered by the firm is defined narrowly, and will expand if we use a broader definition. The next step is to estimate the share of that market that will be captured by the firm being analyzed, both in the long term and in the time periods leading up to it. It is at this stage that you will consider both the quality of the products and management of the young company and the resources that the company can draw on to accomplish its objectives. A firm can have value only if it ultimately delivers earnings. Consequently, the next step is estimating the operating expenses associated with delivering the projected revenues, and we would separate the estimation process into 2 parts. In the first part, we'd focus on estimating the target operating margin when the firm becomes mature, primarily by looking at more established companies in the business. In the second part, we can then look at how the margin will evolve over time; this "pathway to profitability" can be rockier for some firms than others, with fixed costs and competition playing significant roles in the estimation. The product of the forecasted revenues and expected operating margins yields the expected operating income. To estimate taxes used on this income, consider the possibility of carrying forward operating losses from earlier years to offset income in later years.

## 5 Valuation

- Estimating discount rates - there are two problems that we face in estimating discount rates for young companies. The first is that the market history available is too short and volatile to yield reliable estimates of beta or cost of debt. The second is that the cost of capital can be expected to change over time as the young company matures. To overcome the lack of history, we would suggest an approach that looks past the company and focuses instead at the business the company operates in, and adjusting for key differences. In effect, we use sector averages for discount rates, adjusted for the higher risk of younger companies. Thus, in the early years, costs of equity and capital will be much higher for young companies than for more mature counterparts in the same business. To incorporate the changes over time, move the cost of capital toward sector averages, as the young company grows and matures.
- Estimating value today and adjusting for survival - once cash flows for the forecast period have been estimated and discounted, you still have to determine what will happen at the end of the forecast period, adjust the value for the possibility of failure, and examine the impact of losing key people in the company.
- Terminal value - it can be 80, 90, or even more than 100% of value for a young firm; the more than 100% will occur when cash flows are very negative in the near years, requiring fresh capital infusions. The basic principles that govern terminal value remain unchanged: the growth rate used has to be less than the growth rate of the economy, the cost of capital has to converge on that of a mature firm, and there has to be enough reinvestment to sustain the stable growth.
- Adjust for survival - to deal with the risk of failure in a young firm, try a two-step approach. In the first step, value the firm on the assumption that it survives and makes it to financial health. This, in effect, is what we are assuming when we use a terminal value and discount cash flows back to today at a risk-adjusted discount rate. In the second step, bring in the likelihood that the firm will not survive. The probability of failure can be assessed most simply, by using sector averages. These sector averages can then be adjusted for specifics about the firm being valued: the quality of its management, its access to capital, and its cash balances. The value of the firm can be written as an expected value of the two scenarios - the intrinsic value (from the discounted cash flows) under the going concern scenario and the distress value under the failure scenario.
- Key person discounts - young companies, especially in service business, are often dependent upon the owner or a few key people for their success. Consequently, the value we estimate for these businesses can change significantly if one or more of these key people will no longer be associated with the firm. To assess a key person discount in valuations, first value the firm with the status quo (with key people involved in the business), and then value it again with the loss of these individuals built into revenues, earnings, and expected cash flows. To the extent that earnings and cash flows suffer when key people leave, the value of the business will be lower

with the loss of these individuals, thus leading to a "key person discount". But sometimes it's a key technology, not key people that matters more in terms of the value.

### Relative valuation

- It's more challenging with young firms that have little to show in terms of operations and face substantial risks in operations and threats to their existence for the following reasons:
  - Life cycle affects fundamentals: to the extent that we are comparing a young firm to more mature firms in the business, there are likely to be significant differences in risk, cash flows, and growth across the firms.
  - Survival: a related point is that there is a high probability of failure in young firms. Firms that are mature and have a lower probability of failure should therefore trade at higher market values, for any given variable such as revenues, earnings, or book value, holding all else (growth and risk) constant.
  - Scaling variable: young firms often have very little revenues to show in the current year and many will be losing money; the book value is usually meaningless. Applying a multiple to any one of these measures will result in outlandish numbers.
  - Liquidity: since equity in publicly traded companies is often more liquid than equity in young growth companies, the value obtained by using these multiples may be too high if applied to a young company.
- There are simple practices that can not only prevent egregious valuation errors but also lead to better valuations:
  - Use forward revenues/earnings: since young firms often have small revenues and negative earnings, one solution is to forecast the operating results of the firm further down the life cycle and use these forward revenues and earnings as the basis for valuation. In effect, we will estimate the value of the business in 5 years, using revenues or earnings from that point in time.
  - Adjust the multiple for the firm's characteristics at the forward period: check expectations in revenue growth for example and see the larger, mature firms in the sector.
  - Adjust for time value and survival risk: when forward multiples are used to derive value, we need to adjust for the time value of money and the likelihood that the firm will not survive to get to the forward value. You need to incorporate the expected revenues for a firm, applying the sector average multiple, and adjust for the likelihood of failure.

### Summary



- There are many reasons why young growth companies fail: revenue growth may lag, target margins may be lower than expected, capital markets may shut down, or key people may leave. Investors can improve their odds of success by focusing on the following
  - Big potential markets: it has to be large enough to absorb high revenue growth for an extended period, without being overwhelmed.
  - Expense tracking and controls: young companies can become undisciplined in tracking and controlling expenses, while chasing growth. Set targets for margin improvement and view failure to meet these targets as reasons to sell.
  - Access to capital: this is critical to both growth and success. Look for firms with larger cash balances and institutional investor bases because they are better positioned.
  - Dependence on key individuals: young firms are often dependent upon key individuals or founders. Focus on firms that have built up a solid bench to back up key personnel.
  - Exclusivity: success will attract competition, often from larger companies with deep pockets. You want young firms that have products that are difficult for others to imitate, whether this exclusivity comes from patents, technology, or brand name.
- In summary, you want to invest in young companies with tough-to-imitate products that have huge potential markets, are working at keeping expenses under control, and have access to capital. Not easy to do, but done right, it is a high risk, high return proposition.

### Valuing Growth Companies

Growth firms get more of their value from investments that they expect to make in the future and less from investments already made. The value of growth assets is a function of not only how much growth is anticipated but also the quality of that growth, measured in terms of excess returns: returns on the invested capital in these assets, relative to the cost of capital. They diverse in size and growth prospects, but they share some common characteristics:

- **Key drivers:**
  - **Value driver #1:** Scalable growth: the faster you grow, the larger you get. The larger you get, the more difficult it is to keep growing. How good is your firm at scaling up growth?
  - **Value driver #2:** Sustainable margins: success attracts competition and competition can hurt margins. How strong is your company's competitive edge?

- **Value driver #3:** Quality growth: growth has value, only if accompanied by excess returns. Do you see your firm generating returns significantly higher than its cost of funding?
- Dynamic financials: not only can the earnings and book value numbers for the latest year be very different from numbers in the prior year, but they can change dramatically even over shorter time periods.
- Size disconnect: the market values of growth companies, if they are publicly traded, are often much higher than the book values, since markets incorporate the value of growth assets and accountants do not. In addition, the market values can seem discordant with the operating numbers for the firm - revenues and earnings. Many growth firms have market values in the billions, while reporting small revenues and negative earnings.
- Use of debt: growth firms in any business will tend to carry less debt, relative to their value (intrinsic or market), than more stable firms in the same business, simply because they do not have the cash flows from existing assets to support more debt.
- Market history is short and unstable: even if growth companies are publicly traded, they generally have stock price data going back for only short periods, and even that data is unstable.
- If the intrinsic value of a company comes from its cash flows and risk characteristics, there are problems that can be traced back to where growth firms are in the life cycle. The biggest challenge that we face in valuing growth companies stems from changing scale. Even in the most successful growth company, we can expect future growth to be lower than past growth for two reasons. One is that a company that has posted a growth rate of 80% over the last 5 years is larger (by a factor of 18) than it was five years ago, and it is unlikely to maintain that growth rate. The other is that growth attracts competition which, in turn, crimps growth. Questions about how quickly growth rates will scale down going forward, and how the risk and other characteristics of the firm will change as growth changes, are at the center of growth company valuation.
- Issues and problems:
  - Comparable firms: even if all of the companies in a sector are growth firms, they can vary widely in terms of risk and growth characteristics, thus making it difficult to generalize from industry averages.
  - Base year values and choice of multiples: if a firm is a growth firm, the current values for scaling variables such as earnings, book value, or revenues may provide limited or unreliable clues to the future potential for the firm.
  - Controlling for growth differences: not only does the level of growth make a difference to value, but so does the length of the growth period and the excess

## 5 Valuation

returns that accompany that growth rate. Put another way, two companies with the same expected growth rate in earnings can trade at very different multiples of these earnings.

- Controlling for risk differences: determining how the trade-off between growth and risk will affect value is difficult to do in any valuation but becomes doubly so in relative valuation, where many companies have both high growth and high risk.

### **Intrinsic valuation**

- The DCF models used to value growth companies need to allow for changing growth and margins over time. Consequently, models that lock in the current characteristics of the company do not perform as well as more flexible models, where analysts can change the inputs.
- Valuing the operating assets: The valuation process starts with estimating future revenues. The biggest issue is the scaling factor. The question of how quickly revenue growth rates will decline at a given company, as it gets bigger, can generally be addressed by looking at the company's specifics - the size of the overall market for its products and services, the strength of the competition, and the quality of both its products and management. Companies with larger potential markets with less aggressive competition and better management can maintain high revenue growth rates for longer periods. To get from revenues to operating income, we need operating margins over time. In many growth firms, the current operating margin will be either negative or very low, largely because up-front fixed costs associated with infrastructure investments as well as selling expenses directed towards getting new clients (and future growth) are counted in the current year's expenses. As the company grows, margins should improve. Conversely, some growth companies enjoy super-high margins because they have niche products in markets too small to attract the attention of larger, better-capitalized competitors. As the firm grows, this will change and margins will decrease, as competitors emerge. Under Armour's success with microfiber apparel is a good example; in the initial years, larger players like Nike ignored it but are now introducing their own competing products.
  - In both scenarios - low margins converging to a higher value, or high margins dropping back to more sustainable levels - we have to make judgment calls on what the target margin should be and how the current margin will change over time towards this target. The answer to the first question can usually be found by looking at both the average operating margins commanded by larger more stable firms in that industry. The answer to the second will depend upon the reason for the divergence between the current margin and the target margin. With infrastructure companies, for instance, it will reflect how long it will take for the investment to be operational and capacity to be fully utilized.

## 5 Valuation

- In keeping with the theme that firms have to reinvest in order to grow, we will follow one of three paths to estimate reinvestment. The first and most general approach is to estimate the reinvestment using the change in revenue and a sales-to-capital ratio, estimated using either historical data for the firm or industry averages. For growth firms that have a more established record of earnings and reinvestment, we can estimate the growth rate as a product of the reinvestment rate and the return on capital on these investments. Finally, growth firms that have already invested in capacity for future years are in the unusual position of being able to grow with little or no reinvestment for the near term. For these firms, we can forecast capacity usage to determine how long the investment holiday will last and when the firm will have to reinvest again.
- Risk profile consistent with growth and operating numbers - while the components of the cost of capital are the same for a growth company as they are for a mature company, what sets growth companies apart is that their risk profiles will shift over time. As general rules:
  - Growth firms should have high costs for equity and debt when revenue growth is highest, but the costs of debt and equity should decline as revenue growth moderates and margins improve.
  - As earnings increase and growth drops, the firm will generate more cash flows than it needs, which it can use to not only pay dividends but also to service debt. While firms are not required to use this debt capacity, the tax advantages of debt will lead some firms to borrow, causing debt ratios to increase over time.
- Steady state: when and what? The assumption about terminal value loom large with a growth company, since it will comprise a much larger portion of the firm's current value than is the case with a mature firm. Assessing when a growth firm will become a stable company is difficult to do, but keep in mind the following general propositions:
  - Do not wait too long to put a firm into stable growth. Both scale and competition conspire to lower growth rates quickly at even the most promising growth companies.
  - When you put firm into stable growth, give it the characteristics of a stable growth firm: with discount rates, as we noted in the last section, this will take the form of using lower costs of debt and equity and a higher debt ratio. With reinvestment, the key assumption will be the return on capital that we assume for the stable growth phase.

Stable reinvestment rate = stable growth rate / stable period return on capital

While some analysts believe that the return on capital should be set equal to the cost of capital in stable growth, we would preserve some company-specific

## 5 Valuation

flexibility and suggest that the difference between return on capital and cost of capital should narrow during stable growth to a sustainable level.

- From operating asset value to equity value per share: to get from operating asset value to equity value per share add back the cash balance at the company, subtract out debt outstanding, and subtract out management options, before dividing by the number of shares outstanding. This estimate is based on the assumption that the shares are all equivalent on dividend and voting rights. Some growth firms continue to be controlled by their founder, who maintains control by holding on to shares with disproportionate voting rights. If that is the case, you have to adjust for the fact that voting shares trade at a premium over nonvoting shares; studies indicate that the premium is about 5-10% at U.S. companies.

### Relative valuation

- Analysts valuing growth companies tend to use either revenue multiples or forward earnings multiples. Each carries some danger. Revenue multiples are troubling simply because they gloss over the fact that the company being valued could be losing significant amounts of money. Consequently, we would suggest bringing the expected future profit margins into the discussion of what comprises a reasonable multiple of revenues. Forward earnings multiples implicitly assume that the firm being valued will survive to the forward year and that the estimates of earnings for that year are reasonable.
- With growth firms, no matter how careful you are about constructing a set of comparable firms and picking the right multiple, there will be significant differences across the firms on both the level and the quality of expected growth.
  - The growth story: when comparing the pricing of growth firms, analysts often try to explain why a company trades at a higher multiple than comparable firms pointing to its higher growth potential.
  - Adjusted multiples: such as PEG ratio.
  - Statistical approaches: when firms vary not only on expected growth, but also on the quality of that growth and risk, the first two approaches become difficult to apply. A multiple regression, with the multiple as the dependent variable and risk and growth as independent variables, allows us to control for differences across firms on these dimensions.
- For a growth company to succeed, it has to scale up growth while preserving profit margins. Expected revenue growth rates will tend to drop over time for all growth companies, but the pace of the drop will vary across companies. For investing in growth companies to pay off, here are a few things to look for:
  - Scalable growth: as a firm becomes larger, growth rates will decline. Focus on firms that are able to diversify their product offerings and cater to a wider

customer base as they grow. They will see more growth as they scale up than firms that do not have this capability.

- Sustainable margins: as firms become successful, there will be increased competition. Look for firms that are able to preserve profit margins and returns as they grow. Steer away from firms that have to trade off lower margins and returns for higher growth.
- The right price: great growth companies can be bad investments at the wrong price. While multiples as PEG ratios have their limitations, use them to screen for companies that are cheap.
- Time is your ally. Even the most worthy growth company will disappoint investors at some point, delivering earnings that do not match up to lofty expectations. When that happens, there will be investors who overreact, dumping their shares, and embarking on their search for the next great growth story. The drop in price will offer you an opportunity to pick up the company at the right price.

### Valuing Mature Companies

- **Key drivers:**
  - **Value driver #1:** Operating slack. Improving your stewardship of assets can generate large payoffs. What is the scope for improvements in your firm's operations?
  - **Value driver #2:** Financial slack. Changing the mix of debt and equity and the type of debt can change value. Does your firm have the right mix of debt and equity and the right type of debt?
  - **Value driver #3:** Probability of management change. For value to change, management has to change. How entrenched is management at your firm?
- Some companies such as Coca Cola have been around for generations. They should be easy to value, since they have long periods of operating and market history, with established patterns of investment and financing. But not all long standing practice is good and it is possible that changing the way these companies are run can make a difference in creating higher stock values.
- If growth companies get the bulk of their value from growth assets, mature companies must get the bulk of their value from existing investments. If we define mature companies thus, the threshold for being a mature company will vary across markets and across time (the threshold will be higher, when economies slow down as they did in 2008 and 2009, and lower when economies are booming).
- The common characteristics of mature companies are:
  - Revenue growth is approaching growth rate in the economy. While the growth rate for earnings for mature firms can be high, at least in some years, mature

## 5 Valuation

firms will register growth rates in revenues that, if not equal to, will converge on the nominal growth rate for the economy.

- Margins are established. Mature companies tend to have stable margins, with the exceptions being commodity and cyclical firms, where margins will vary as a function of macroeconomic variables.
  - Diverse competitive advantages. While some mature firms see excess returns go to zero or become negative, other mature firms retain significant competitive advantages (and excess returns). For instance, Coca Cola uses its brand name to continue to deliver high returns.
  - Debt capacity. With more cash available for servicing debt, debt capacity should increase for mature firms, though there can be big differences in how firms react to this surge in debt capacity. Some will choose not to exploit any or most of the debt capacity and stick with financing policies that they established as growth companies.
  - Cash build-up and return. As earnings improve and reinvestment needs drop off, mature companies will be generating more cash from their operations than they need. If these companies do not pay more dividends, cash balances will start accumulating in these firms.
  - Acquisition-driven growth. As companies get larger and internal investment opportunities do not provide the growth boost that they are used to, one quick fix used by these firms is to buy growth: acquisitions of other companies can provide boosts to revenues and earnings, though not always to value.
  - Not all mature companies are large companies. Many small companies reach their growth ceiling quickly and essentially stay on as small mature firms.
- Valuation issues
    - When valuing these companies, investors are often lulled into believing that the numbers from the past (operating margins, returns on capital) are reasonable estimates of what existing assets will continue to generate in the future. However, past earnings reflect how the firm was managed over the period. To the extent that managers may not have made the right investment or financing choices, the reported earnings may be lower than what would be generated under better management. If such a management change is on the horizon, investors will undervalue existing assets using reported numbers. A secondary challenge is that mature companies are more likely to turn to acquisitions for growth. As a general rule, the value of acquisition-driven growth is much more difficult to assess than the value of internal or organic growth. With mature companies, you have a luxury of riches with it comes to relative valuation. You can estimate revenues, earnings, and book value multiples and compare how company is priced relative to other companies like it, but challenges remain.

## 5 Valuation

- \* Too many choices. The same company can be assigned very different values, depending upon whether we are using a firm or equity multiple, whether that multiple is stated as a function of revenues, earnings, and book value, and the companies we pick to be its comparables. With mature firms, the problem we face is not that we cannot estimate a relative value but that there are too many values to pick from.
  - \* Management change. The multiples that we compute of revenues, earnings, and book value reflect the firm as it is managed today. To the extent that changing the management of the firm could change these numbers, we will undervalue badly managed firms with current numbers.
  - \* Acquisition noise. The accounting aftermath of acquisitions - the creation of goodwill as an asset and its subsequent treatment - can affect both earnings and book value, making multiples based on either number dicey.
  - \* Changing financial leverage. Mature companies are capable of making large changes to their debt ratios overnight - debt for equity swaps, recapitalizations - and equity multiples, such as PE and price-to-book ratios, will change more than enterprise value or firm multiples as financial leverage changes. A stock buyback, funded with debt, can reduce equity dramatically (by reducing the shares outstanding), but will have a much smaller impact on enterprise value (since we are replacing equity with debt). For the same reason, equity earnings (earnings per share, net income) will change when firms alter debt ratios.
- Valuation solutions
    - If the key to valuing mature companies is assessing the potential increase in value from changing the way they are run, these changes can be categorized broadly into 3 groups: changes in operations, changes in financial structure, and changes in non-operating assets.
    - Operating restructuring. When valuing a company, our forecasts of earnings and cash flows are built on assumptions about how the company will be run. The value of the operating assets of the firm is a function of three variables: cash flows from assets in place, expected growth, and the length of the growth period - and each can be altered by management policies.
      - \* Cash flow from existing assets. If existing investments are being operated inefficiently, cutting costs and improving employee productivity or redeploying assets to new uses can increase cash flows.
      - \* Expected growth rate. Firms can increase their long-term growth by either reinvesting more (higher reinvestment rate) or reinvesting better (higher return on capital). They can also improve returns on existing assets to generate short term growth. For mature firms with low return on capital (especially when returns are less than the cost of capital), extracting more growth from existing assets is likely to yield results, at



## 5 Valuation

least in the short term. For smaller firms with relatively few assets in place that are generating reasonable returns, growth has to come from new investments that generate healthy returns.

- \* Length of the high growth period. The longer a firm can maintain high growth and excess returns, the higher will be its value. One way firms can increase value is by augmenting existing barriers to entry and coming up with new competitive advantages.
- Value plays - there are two value plays with mature companies. The first is the classic "passive value" strategy that traces its roots to Ben Graham and Warren Buffet, where you invest in "well managed" companies that deliver solid earnings and reasonable growth, but which investors have turned sour on, either in reaction to a recent news event (earnings report) or because these firms are not the flavor of the moment or are boring. Another way to profit from these companies - and this is a more perverse strategy - is to look for those firms that are poorly managed but could be worth more under better management. To find these companies, consider the following:
  - \* Performance indicators: the worse managed a firm is, the greater the potential for increasing value. Look for firms with low operating margins relative to the sector, low returns on capital relative to cost of capital, and very low debt ratios.
  - \* Potential for management change: you have to change management for value to increase. Search for companies where the field is not tilted in management's favor (with voting right differences or anti-takeover amendments) and where management change, if not imminent, is at least possible.
  - \* Early warning system. If everyone else in the market sees what you do (potential for value and management change), you will not gain much. Focus on firms where there is a catalyst for management change - an aging CEO, a new investor on the board of directors, or a change in the corporate charter.
- If you are right in your assessment, you don't have to wait for the management change to happen. The payoff on your investment will occur when the rest of the market recognizes that change is likely and pushes up the stock price to reflect that change.

### Valuing Declining Companies

- **Key drivers:**

- **Value driver #1:** Going concern value - some declining and distressed firms make it back to health. Assuming that your firm is one of them, what will it be worth as a going concern?

- **Value driver #2:** Likelihood of distress - most declining and distressed firms don't make it back to health. What is the likelihood that your firm will fail?
- **Value driver #3:** Consequences of distress - in the event of failure, the assets of the firm will be sold and the distress proceeds used to pay down debt. Assuming failure at your firm, what are the consequences?
- As companies age and see their markets shrink and investment opportunities dissipate, they enter the final phase of the life cycle, which is decline. While investors and analysts often avoid these firms, they may offer lucrative investment opportunities for long-term investors with strong stomachs.
- Growth companies do not want to become mature companies and mature companies constantly try to rediscover their growth roots. By the same token, no mature company wants to go into decline, with the accompanying loss of earnings and value. So, how would we differentiate between mature firms and firms in decline? Firms in decline generally have little in terms of growth potential and even their existing assets often deliver returns lower than their cost of capital; they are value destroying. The best case scenario is for orderly decline and liquidation and the worst case is that they go bankrupt, unable to cover debt obligations.
- Decline companies tend to share common characteristics, and these shared features create problems for analysts trying to value these firms.
  - Stagnant or declining revenues. Flat revenues or revenues that grow at less than the inflation rate are an indicator of operating weakness. It is even more telling if these patterns in revenues apply not only to the company being analyzed but to the overall sector, thus eliminating the explanation that the weakness is due to poor management.
  - Shrinking or negative margins. Declining firms often lose pricing power and see their margins shrink, as they lose market share to more aggressive competitors.
  - Asset divestitures. Since existing assets are sometimes worth more to other investors, who intent to put them to different and better uses, asset divestitures will be more frequent at declining firms, and especially so if these firms owe money.
  - Big payouts - dividends and stock buybacks. Declining firms have little need for reinvestment and are thus often able to pay out large dividends, sometimes exceeding their earnings, and also buy back stock.
  - Financial leverage - the downside. If debt is a double-edged sword, declining firms often are exposed to the wrong edge. With stagnant and declining earnings from existing assets and little potential for earnings growth, debt burdens can become overwhelming.

- Valuation Issues

- The historical data is depressing, with existing investments generating flat or even declining revenues accompanied by falling margins. In the aggregate, the company may be generating returns on capital that are less than its cost of capital. Rather than investing in new assets, the firm may be shedding assets and shrinking, altering both its asset mix and often its financing mix. As the business and financing mix of the firm changes, its risk characteristics will also change, altering its costs of equity and capital. Even if you overcome these challenges and estimate expected cash flow for a declining firm, you have to consider the possibility that the firm being valued will not make it to stable growth; many distressed firms will default and go out of business or be liquidated. Even if a firm is expected to survive, the expected growth rate in perpetuity may not only be well below the growth rate of the economy and inflation, but also in some cases it can even be negative. Essentially, the firm will continue to exist but get progressively smaller over time as its market shrinks.
- Issues when using multiples and comparable firms:
  - \* Scaling variable: earnings and book values can become inoperative very quickly, with both numbers becoming negative; repeated losses can drive the book value of equity down and into negative territory.
  - \* Comparable firms: when the other firms in the business are healthy and growing, the challenge is working out a discount for the declining firm relative to the values being attached to healthy firms. In a sector where many or even all of the firms are in decline, not only do your choices of what multiple to use become more limited, but you have to consider how best to adjust for the degree of decline in a firm.
  - \* Incorporating distress: firms that have a higher likelihood of distress will trade at lower values (and hence at lower multiples) than firms that are more likely to make it. That does not make them cheap.
- The symptoms of decline caused by too much debt and declining earnings will not disappear just because we base our value on a revenue multiple.

- Intrinsic Valuation

- Is the decline in firm's operations reversible or permanent? If reversible, you estimate revenues, operating margins, and taxes for the firm, on the assumption that the firm will recover to health, operating under the constraint that it will be limited in its capacity to reinvest. In making these estimates, you have to be realistic in considering what health will look like for the declining firm - it may very well require firm to shrink and settle for little or no growth in the long term. When estimating discount rates, you have to assume that debt ratios will, in fact, decrease over time if the firm is over levered, and that the firm will derive tax benefits from debt as it turns the corner toward

## 5 Valuation

profitability. This is consistent with the assumption that the firm will remain a going concern.

- Does the firm faces a significant possibility of distress? Check bond rating for a firm and the history of default rates of firms in that rating class, to estimate the probability of distress.

- \* Distress adjusted value per share = value per share as a going concern (from a DCF valuation) \* (1-likelihood of default) + distressed sale \* likelihood of default

- \* distressed sale: book value of fixed assets of a firm reduced by certain percentage based on the drop in sales in other distressed firms, PLUS current cash balance = certain face value (if it is for debt, then distressed sale used in the formula above is \$0)

- Relative Valuation

- There are two ways in which relative valuation can be adapted to distressed or declining companies. In the first, you compare a distressed company's valuation to the valuations of other distressed companies (be careful, you can lump together firms that are distressed to different degrees). In the second, you use healthy companies as comparable companies, but find a way to adjust for the distress that the firm you are valuing is facing.

- Investors with long time horizons and strong stomachs can use two strategies with declining companies. The first is to invest in declining companies, where the decline is inevitable and management recognizes that fact. While there will be little price appreciation from our equity investments, you will get large cash flows, as assets are divested and the cash used for dividends and stock buybacks. In effect, your stock will behave like a high-yield bond. The second is to make a turnaround play, where you invest in declining or distressed companies with the hope that they revert back to health and, in the process, deliver substantial upside. To pull off this strategy, you should consider the following:

- Operating potential: a firm with solid operating assets can become distressed because of its overuse of debt. Search for over-levered firms with valuable assets, in otherwise healthy business.
  - Debt restructuring: for over-levered firms to recover, there has to be a reduction in the debt burden, coming either from improving operating performance or renegotiation of the debt terms. Look for firms where debt restructuring is being actively pursued and where the likelihood of success is high.
  - Access to new capital: survival becomes much easier if a distressed firm can raise new capital. Focus on firms that have more access to equity or bank financing to improve your odds of success.

- If you do invest in distressed companies, your hope is that those companies that manage to turn themselves around will offer high enough returns to cover your losses on the many companies that will fail. Put simply, spread your bets.

## Valuing Finance Service Companies

- **Key drivers:**
  - **Value driver #1:** Equity risk - while financial service firms may all be regulated, they are not equally risky. How does your firm's risk profile compare to that of the average firm in the sector?
  - **Value driver #2:** Quality of growth - growth can add, destroy or do nothing for value. What return on equity do you see your firm generating, as it pursues growth?
  - **Value driver #3:** Regulatory buffers - shortfalls (safety buffers) in regulatory capital can affect future dividends. How does your firm's capital ratio measure up against regulatory (and it's own) requirements?
- Banks and insurance companies have been touted as good investments for risk averse investors who value dividends. Not only some firms pay large and stable dividends, but they are regulated. The banking crisis of 2008 revealed that even regulated firms can be guilty of reckless risk taking. While some of these firms may be good investments, buyers have to do their homework, assessing the sustainability of dividends and the underlying risk.
- Financial service businesses fall into 4 groups depending on how they make their money. With the consolidation in the financial services sector, an increasing number of firms operate in more than 1 of these businesses.
  - A bank makes money on the spread between the interest it pays to those from whom it raises funds and the interest it charges those who borrow from it, and from other services it offers to depositors and its lenders.
  - An investment bank provides advice and supporting products for other firms to raise capital from financial markets or to consummate transactions (acquisitions, divestitures).
  - Investment firms provide investment advice or manage portfolios for clients. Their income comes from fees for investment advice and sales fees for investment portfolios.
- Financial service firms are regulated all over the world, and these regulations take three forms.
  - Banks and insurance companies are required to meet regulatory capital ratios, computed based upon the book value of equity, to ensure that they do not expand beyond their means and put their claim-holders or depositors at risk.

## 5 Valuation

- Insurance companies make their income in two ways. One is through the premiums they receive from those who buy insurance protection from them and the other is income from the investment portfolios that they maintain to service the claims.
- Financial service firms are often constrained in terms of where they can invest their funds.
- The entry of new firms into the business is often controlled by the regulatory authorities, as are mergers between existing firms.
- For valuing bank stocks - FCF to equity or Dividend discount model. Some people just compare P/BV or P/TBV and see if it's under 1.0.
- The accounting rules used to measure earnings and record book value are also different for financial service firms than those for the rest of the market. The assets of financial service firms tend to be financial instruments such as bonds and securitized obligations. Since the market price is observable for many of these investments, accounting rules have tilted towards using market value for these assets - marked to market, so to speak.
- Valuation Issues
  - There are two primary challenges in valuing banks, investment banks, or insurance companies.
    - \* Drawing a distinction between debt and equity is difficult for financial service firms. When measuring capital for non-financial service firms, we tend to include both debt and equity. With a financial service firm, debt has a different connotation. Debt to a bank is raw material, something to be molded into other products that can then be sold at a higher price and yield a profit. In fact, the definition of what comprises debt also is murkier with a financial service firm than it is with a non-financial service firm, since deposits made by customers into their checking accounts at a bank technically meet the criteria for debt. Consequently, capital at financial service firms has to be narrowly defined as including only equity capital, a definition reinforced by the regulatory authorities, who evaluate the equity capital ratios of banks and insurance firms.
    - \* Defining cash flow for a bank is also difficult, even if it is defined as cash flows to equity. Measuring net capital expenditures and working capital can be problematic. Unlike manufacturing firms that invest in plant, equipment, and other fixed assets, financial service firms invest primarily in intangible assets such as brand name and human capital. Consequently, their investments for future growth often are treated as operating expenses in accounting statements. If we define working capital as the difference between current assets and current liabilities, a large proportion of a bank's balance sheet would fall into one or the other of

these categories. Changes in this number can be both large and volatile and may have no relationship to reinvestment for future growth.

- There are also problems with relative valuation - multiples based upon enterprise value are very difficult, if not impossible, to compute for financial service firms. Controlling for differences in growth and risk is also more difficult, largely because accounting statements are opaque.
- If you cannot clearly delineate how much a financial service firm owes and what its cash flows are, how can you ever get an estimate of value? We deploy the same techniques in both intrinsic and relative valuation to overcome these problems - we value equity (rather than the firm) and use dividends, the only observable cash flow.

### **Intrinsic Valuation**

- If you accept the propositions that capital at a bank should be narrowly defined to include only equity, and that cash flows to equity are difficult (if not impossible) to compute because net capital expenditures and working capital cannot be defined, you are left with only one option - the dividend discount model. For a stable growth dividend-paying firm, the value of a stock can be written as follows: value of equity = expected dividends next year / (cost of equity - expected growth rate)
  - cost of equity - for discounting cash flows, with the possibility that the cost may vary across time
  - the proportion of earnings that we assume will be paid out in dividends - this is the dividend payout ratio, and higher payout ratios will translate into more dividends for any given level of earnings
  - expected growth rate in dividends over time, which will be a function of the earnings growth rate and the accompanying payout ratio.
  - we also have to make sure that the inputs are consistent with each other
- There is an inherent trade-off between dividends and growth. When a company pays a larger segment of its earnings as dividends, it is reinvesting less and should thus grow more slowly. With financial service firms, this link is reinforced by the fact that the activities of these firms are subject to regulatory capital constraints; banks and insurance companies have to maintain equity (in book value terms) at specified percentages of their activities. When a company is paying out more in dividends, it is retaining less in earnings; the book value of equity increases by the retained earnings. In recent years, in keeping with a trend that is visible in other sectors as well, financial service firms have increased stock buybacks as a way of returning cash to stockholders. In this context, focusing purely on dividends paid can provide a misleading picture of the cash returned to stockholders. An obvious solution is to add the stock buybacks each year to the dividends paid and to compute the composite payout ratio. If we do so, however, we should look at

the number over several years, since stock buybacks vary widely across time - a buyback of billions in one year may be followed by three years of relatively meager buybacks for instance.

- To ensure that assumptions about dividends, earnings and growth are internally consistent, we have to bring in a measure of how well the retained equity is reinvested; the return on equity is the variable that ties together payout ratios and expected growth:

expected growth in earnings = return on equity \* (1-dividend payout ratio)

- The linkage between return on equity, growth, and dividends is therefore critical in determining value in a financial service firm. At the risk of hyperbole, the key number in valuing a bank is not dividends, earnings, or expected growth, but what we believe it will earn as return on equity in the long term. That number, in conjunction with payout ratios, will help in determining growth.

- expected ROE = current ROE / (1 + % increase in capital which is our assumption)

- expected growth rate = expected ROE / 1 - payout ratio

- The linkage between growth, payout, and ROE is also useful when we get to stable growth, since the payout ratio that we use in stable growth, to estimate the terminal value, should be:

- payout ratio in stable growth = 1 - (expected growth rate / stable period ROE)

- terminal price = (EPS in year X \* stable payout ratio) / (cost of equity - expected growth rate)

- where year X is the last year of our forecast

- Cash flow to equity models:

- It is possible to estimate cash flows to equity for financial service firms, if you define reinvestment differently. With financial service firms, the reinvestment generally is in regulatory capital; this is the capital as defined by the regulatory authorities, which in turn, determines the limits on future growth. cash flow to equity = (expected next year) net income - reinvestment

- Where reinvestment = loans outstanding \* (1 + loan growth over the year) \* % increase/decrease in regulatory capital ratio MINUS book value of equity

- This cash flow to equity can be considered a potential dividend and replace dividends in the DDM. Generalizing from this example banks that have regulatory capital shortfalls should be worth less than banks that have built up safety buffers, since the former will need to reinvest more to get capital ratios back to target levels. Conservative banks may choose to maintain higher capital ratios than required by regulatory authorities, whereas aggressive banks may push towards the regulatory constraints.



## 5 Valuation

- Excess return models
  - The third approach to valuing financial service firms is to use an excess return model, where excess returns are defined as the difference between ROE and the cost of equity. In such a model, the value of equity in a firm can be written as the sum of the book value of equity the value added by expected excess returns to equity investors from these and future investments.  
$$\text{value of equity} = \text{equity capital invested currently} + \text{present value of expected excess returns to equity investors}$$
  - The most interesting aspect of this model is its focus on excess returns. A firm that invests its equity and earns just the fair-market rate of return on these investments should see the market value of its equity converge on the equity capital currently invested in it. A firm that earns a below-market return on its equity investments will see its equity market value dip below the equity capital currently invested. The two key inputs into the excess return model are the return on equity and the cost of equity.
    - \*  $\text{Excess equity return} = (\text{return on equity} - \text{cost of equity}) * \text{equity capital invested}$
    - \*  $\text{present value of excess returns} = \text{book value of equity} * (1 + \text{return on equity} - \text{cost of equity})$
    - \*  $\text{value for equity} = \text{present value of excess returns} + \text{book value of equity}$
    - \* now you can divide it by # of shares and you can compare it with DDM

### Relative Valuation

- PE - as with other firms, it should be higher for financial service firms with higher expected growth rates in earnings, higher payout ratios, and lower costs of equity. An issue that is specific to financial service firms is the use of provisions for expected expenses. For instance, banks routinely set aside provisions for bad loans. These provisions reduce the reported income and affect the reported P/E ratio. Consequently, banks that are more conservative about categorizing bad loans will report lower earnings, whereas banks that are less conservative will report higher earnings. Another consideration in the use of earnings multiples is the diversification of financial service firms into multiple businesses. The multiple that an investor is willing to pay for a dollar in earnings from commercial lending should be very different from the multiple that the same investor is willing to pay for a dollar in earnings from trading. When a firm is in many businesses with different risk, growth, and return characteristics, it is very difficult to find truly comparable firms and to compare the multiples of earnings paid across firms.
- PB - other things remaining equal, higher growth rates in earnings, higher payout ratios, lower costs of equity, and higher returns on equity should all result in higher P/B ratio, with return on equity being the dominant variable. If anything, the

strength of the relationship between P/B and returns on equity should be stronger for financial service firms than for other firms, because the book value of equity is much more likely to track the market value of existing assets. While emphasizing the relationship between P/B ratios and returns on equity, don't ignore the other fundamentals. For instance, banks vary in terms of risk, and we would expect for any given return on equity that riskier banks should have lower P/B ratios. Similarly, banks with much greater potential for growth should have much higher P/B ratios, for any given level of other fundamentals.

### Summary

- Investing in financial service companies has historically been viewed as a conservative strategy for investors who wanted high dividends and preferred price stability. Investing in these firms today requires a more nuanced strategy that goes beyond looking at the dividend yield and current earnings, and looks at potential risk in these firms by examining the following:
  - Capitalization buffer: most financial service firms are governed by regulatory requirements on capital. Look for firms that not only met but also beat regulatory capital requirements.
  - Operating risk: risk can vary widely across financial service firms within a sector (banks, insurance companies). Seek out firms that are operating in average risk or below average risk businesses, while generating healthy earnings.
  - Transparency: transparency in reporting allows investors to make better assessments of value, and the failure to be transparent may be a deliberate attempt to hide risk. Search for firms that provide details about their operations and the risks that they may be exposed to.
  - Significant restrictions on new entrants into the business: high returns on equity are a key factor determining value. Look for firms that operate in profitable businesses with significant barriers to new entrants.
- In summary, invest in financial service firms that not only deliver high dividends, but also generate high returns on equity from relatively safe investments. Avoid financial service firms that overreach - investing in riskier, higher growth businesses - without setting aside sufficient regulatory capital buffers.

### Valuing Cyclical And Commodity Companies

- **Key drivers:**
  - **Value driver #1:** Normalized earnings. A cyclical firm should be valued based upon earnings in a normal economic year, not earnings at the peak or through of a cycle. Looking past the ups and downs of economic cycles, what are the normalized earnings for your company?

- **Value driver #2:** Commodity prices. As commodity prices swing, so will the earnings of commodity company. For your commodity company, what is a normalized price for the commodity in question, and what is the firm's value at that price?
- If oil prices are expected to surge, how much will Exxon Mobil's stock price go up? Uncertainty and volatility are endemic to valuation, but cyclical and commodity companies have volatility thrust upon them by external factors - ups and downs of the economy and movements in commodity prices. Even mature cyclical and commodity companies have volatile earnings and cash flows, making investing in them akin to riding a roller coaster.
- Cyclical commodities are drawn from sectors such as housing and automobiles. They include cyclical companies with earnings that track overall economic growth.
- Commodity companies derive their earnings from producing commodities that may become inputs to other companies in the economy (oil, iron ore) or be desired as investments in their own right (gold, platinum, diamonds).
- Both types of companies share some common characteristics that can affect how they are valued:
  - The economic/commodity price cycle: cyclical companies are at the mercy of the economic cycle. The odds are high that most cyclical companies will see revenues decrease in the face of a significant economic downturn and rise when the economy recovers. Commodity companies are, for the most part, price takers. When commodity prices are on an upswing, all companies that produce that commodity benefit, whereas during a downturn, even the best companies in the business will see earnings decline.
  - Finite resources: with commodity companies, there is another shared characteristic. There is a finite quantity of natural resources on the planet. When valuing commodity companies, this will not only play a role in what our forecasts of future commodity prices will be but may also operate as a constraint on our normal practice of assuming perpetual growth (in our terminal value computations).
- When valuing commodity and cyclical companies, we have to grapple with the consequences of economic and commodity price cycles and how shifts in these cycles will affect revenues and earnings. We also have to come up with ways of dealing with the possibility of distress, induced not by bad management decisions or firm specific choices, but by macroeconomic forces.
- Valuation Issues
  - The inputs for these companies are heavily affected by macro economic variables - the price of the commodity in the case of commodity companies and the state of the economy for cyclical firms. As commodity prices and economic

growth rates change, operating income will change by more, because of the high fixed costs at these firms. Thus, commodity companies may have to keep mines (mining), reserves (oil), and fields (agricultural) operating even during low points in price cycles, because the costs of shutting down and reopening operations can be prohibitive. This volatility in earnings will feed into both equity and debt values (thus affecting cost of capital) and potentially put even the healthiest firms at risk of distress and default, if the macro economic move is very negative.

- The same factors will also play out in relative valuations. Multiples of earnings will swing widely for cyclical and commodity companies. While growth potential can vary across companies, growth rates can also change dramatically across the cycle.
- Valuation solutions
  - The easiest way to value these is to look past the year-to-year swings in earnings and cash flows and to look for smoothed out number underneath. There are usually 3 standard techniques that are employed for normalizing earnings and cash flows of cyclical companies:
    1. Absolute average over time: average earnings over time. The average should occur over a period long enough to cover an entire cycle; the typical economic cycle in the US lasts 5-10 years. This is a simple approach, but using an absolute value will yield too low a number for a growing company.
    2. Relative average over time: a simple solution to the scaling problem is to compute averages for a scaled version of the variable over time. You can average profit margins over time, instead of actual profits, and apply the average profit margin to revenues in the most recent period to estimate normalized earnings.
    3. Sector averages: for firms with limited or unreliable history, it may make more sense to look at sector averages in order to normalize. Thus, you can compute operating margins for all steel companies across the cycle and use the average margin to estimate operating income for an individual steel company. Sector margins tend to be less volatile than individual company margins, but this approach will also fail to incorporate the characteristics that may lead a firm to be different from the rest of the sector.
  - With commodity companies, the variable that causes the volatility is the price of the commodity. Consequently, normalization with commodity companies has to be built around a normalized commodity price.
- What is a normalized price for oil or gold? There are two ways of answering this question. One is to look at the average price of the commodity over time, adjusted for inflation. The other is to determine a fair price for the commodity, given the

demand and supply for that commodity. Once you have normalized the price of the commodity, you can assess what the revenues, earnings, and cash flows would have been for the company being valued at that normalized price. With revenues and earnings, this may just require multiplying the number of units sold at the normalized price and making reasonable assumptions about costs. With reinvestment and cost of financing, it will require some subjective judgments on how much (if any) the reinvestment and cost of funding numbers would have changed at the normalized price.

- Note: since most commodities have forward and futures markets, you can use the prices for these markets to estimate cash flows in the next few years. The advantage of this approach is that it comes with a built-in mechanism for hedging against commodity price risk. An investor who believes that a company is undervalued but is shaky on what will happen to commodity prices in the future can buy stock in the company and sell oil price futures to protect against adverse price movements.
- One critique of conventional valuation approaches is that they fail to consider adequately the interrelationship between the commodity price and the investment and financing actions of commodity companies. In other words, oil companies produce more oil and have more cash to return to stockholders when oil prices are high than they do when oil prices are low. Thus, these firms have options to develop their oil reserves, which they can exercise after observing the oil price, and these options can add to value. Even if you never explicitly use option-pricing models to value natural resource reserves or firms, there are implications for value.
  - Price volatility affects value: the value of a commodity company is a function of not only the price of the commodity but also the expected volatility in that price. The price matters for obvious reasons - higher commodity prices translate into higher revenues, earnings, and cash flows. More volatile commodity prices can make undeveloped reserves more valuable.
  - Mature versus growth commodity companies: as commodity prices become more volatile, commodity companies that derive more of their value from undeveloped reserves will gain in value, relative to more mature companies that generate cash flows from developed reserves. If the oil price volatility is perceived to have increased even though the price itself has not changed, you would expect one oil company to gain in value relative to another oil company.
  - Development of reserves: as commodity price volatility increases, commodity companies will become more reluctant to develop their reserves, holding out for even higher prices.
  - Optionality increases as commodity price decreases: the option value of reserves is greatest when commodity prices are low (and the reserves are either marginally viable or not viable) and should decrease as commodity prices

increase.

- If you regard undeveloped reserves as options, discounted cash flow valuation will generally underestimate the value of natural resource companies, because the expected price of the commodity is used to estimate revenues and operating profits. Again, the difference will be greatest for firms with significant undeveloped reserves and with commodities where price volatility is highest.
- When investing in a commodity company, you are also investing in the underlying commodity. There are two ways you can incorporate this reality into your investing strategy. In the first, you take a stand on commodity prices and invest in companies that will benefit the most from your forecasted price move. Thus, if commodity prices are low, and you believe that they will increase significantly in the future, the value payoff will be highest in companies with significant undeveloped reserves of the commodity and the funding to survive near-term adverse price movements. In the second, you can accept that you are not a good prognosticator of commodity prices, and focus on picking the best companies in the sector. Look for companies that have significant low-cost reserves and are efficient in finding and exploiting new reserves. To protect yourself against commodity futures and options to at least partially hedge your investment in the company.
- There are also two analogous investment strategies you can adopt with cyclical companies. The first is to put your faith in your forecasts of overall economic growth. If you believe that overall economic growth will be stronger than the rest of the market thinks it will be, you should buy strong cyclical companies that will benefit from the economic upswing. This strategy is most likely to work in periods of economic malaise, where investors are overreacting to current economic indicators and selling cyclical stocks. The second is a more standard valuation strategy, where you own up to your inability to forecast economic cycles and focus on buying the best bargains in each cyclical sector. In particular, you want to find companies that trade at the same multiple of normalized earnings as the rest of the companies in the sector, while generating higher profit margins and returns on capital on a normalized basis.

### Summary

- No matter how carefully you do your homework, commodity and cyclical companies will see ups and downs in both earnings and prices, as a function of economic and commodity cycles. Ironically, your biggest money-making opportunities come from these cyclical movements.

### Valuing Companies With Intangible Assets

- **Key drivers:**

- **Value driver #1:** Intangible assets. They can be human capital, technological prowess, brand name, or a loyal workforce. What are your firm's intangible assets and how did it acquire them?
- **Value driver #2:** Efficiency of intangible investments. Not all investments in intangible assets create value. In your firm, how quickly do investments in intangible assets pay off as profits? How much does the firm earn from these investments and for how long?
- In the early part of the last century, it was the railroads and manufacturing companies that were the vanguards of the stock market, deriving their power from physical assets - land, factories, and equipment. The most successful companies of our generation have been technology and service companies, with much of their value coming from assets that have no physical presence such as brand name, technological skills, and human capital.
- When valuing firms with these intangible assets, investors have to navigate their way through accounting conventions that have not always been consistent with those used for manufacturing firms.
- The simplest measure of how much of the economy is represented by intangible assets comes from the market values of firms that derive the bulk of their value from these assets as a proportion of the overall market.
- While firms with intangible assets are diverse, there are two characteristics that they do have in common.
  - The accounting for intangible assets is not consistent with its treatment of physical assets. Accounting first principles suggest a simple rule to separate capital expenses from operating expenses. Any expense that creates benefits over many years is a capital expense, whereas expenses that generate benefits only in the current year are operating expenses. Accountants stay true to this distinction with manufacturing firms, putting investments in plant, equipment, and building in the capital expense column, and labor and raw material expenses in the operating expense column. However, they seem to ignore these first principles when it comes to firms with intangible assets. The most significant capital expenditures made by technology and pharmaceutical firms is in R&D, by consumer product companies in brand name advertising, and by consulting firms in training and recruiting personnel. Using the argument that the benefits are too uncertain, accountants have treated these expenses as operating expenses. As a consequence, earnings and capital expenditures tend to be understated at these firms.
  - These firms are much more using options to compensate management than firms in other businesses. Some of this behavior can be attributed to where these firms are in the life cycle (closer to growth than mature), but some of

it has to be related to how dependent these firms are on retaining human capital.

- Valuation Issues

- The miscategorization of capital expenses, the sparing use of debt and the dependence on equity-based compensation (options and restricted stock), can create problems when we value these firms. Put more bluntly, the accounting measures of book value, earnings, and capital expenditures for firms with intangible assets are all misleading, insofar as they do not measure what they claim to measure and because they are not directly comparable to the same items at a manufacturing firm. To value companies with intangible assets, we have to begin by correcting the erroneous accounting classification of capital expenses, and restate the fundamental inputs into value - operating income, capital expenditure, and return on capital. Once we make those corrections, these companies look very much like the companies in other sectors and can be valued using the same metrics.
- The same problems play out in relative valuation. The PE ratio for a technology company is not directly comparable to the PE ratio for a manufacturing firm, since earnings are not measured consistently across firms. Even within technology firms, it is not clear that a company that trades at a lower multiple of earnings or book value is cheaper than one that trades at a higher multiples. The accounting inconsistencies that skew earnings and book value measures in intrinsic valuation models also make it difficult to make comparisons of multiples based upon these values.

- Valuation Solutions

- Clean up the income statement and balance sheet, and re-categorize operating and capital expenses. The intent is not just to get a better measure of earnings, though that is a side benefit, but also to get a clearer sense of what the firm is investing to generate future growth. Second, we also have to deal more effectively with management options - the ones that have been granted in the past as well the ones that we expect to be granted in the future.
- Regaining Accounting Consistency
  - \* Using the rationale that the products of research are too uncertain and difficult to quantify, accounting standards have generally required that all R&D expenditure be shown as an operating expense in the period in which it occurs. This has several consequences, but one of the most profound is that the value of the assets created by research does not show up on the balance sheet as part of the total assets of the firm. This, in turn, creates ripple effects for the measurement of capital and profitability ratios for the firm.
  - \* Research expenses, notwithstanding the uncertainty about future benefits, should be capitalized. To capitalize and value research assets, we



## 5 Valuation

have to make an assumption about how long it takes for research and development to be converted, on average, into commercial products. This is called the amortizable life of these assets. This life will vary across firms and reflect the commercial life of the products that emerge from the research. It can be, for example for biotechnology company, 10 years, as it is the approval process for new drugs. For simplicity, it can be assumed that the amortization is uniform over time, and in the case of the research asset with a 10-year life, you assume that one-tenth of the expense is written off each year to get the cumulated amortization expense for the current year (sum of all cumulations).

- \* Once the amortizable life of R&D expenses has been estimated, the next step is to collect data on R&D expenses over past years ranging back to the amortizable life of the research asset. You have to add up the unamortized portion of the expenses from prior years, yielding the capital invested in the research assets. This augments the value of the assets of the firm, and by extension, the book value of equity (and capital):

adjusted book value of equity = stated book value of equity + capital invested in R&D

- \* The reported accounting income is adjusted to reflect the capitalization of R&D expenses. First, the R&D expenses that were subtracted out to arrive at the operating income are added back to the operating income, reflecting their re-categorization as capital expenses. Next, the amortization of the research asset is treated like depreciation and netted out to arrive at the adjusted operating income and adjusted net income:

- adjusted operating income = stated operating income + R&D expenses - R&D amortization

- adjusted net income = net income + R&D expenses - R&D amortization

- \* The adjusted operating income will generally increase for firms that have R&D expenses that are growing over time.
- \* While R&D expenses are the most prominent example of capital expenses being treated as operating expenses, there are other operating expenses that arguably should be treated as capital expenses. Consumer product companies such as KO could make a case that a portion of advertising expenses should be treated as capital expenses, since they are designed to augment brand name value. For a consulting firm like KPMG, the cost of recruiting and training its employees could be considered a capital expense, since the consultants who emerge are likely to be the heart of the firm's value and provide benefits over many years. For many new technology firms, including online retailers such as Amazon, the biggest operating expense item is selling, general and administrative expenses

## 5 Valuation

(SG&A). These firms could argue that a portion of these expenses should be treated as capital expenses since they are designed to increase brand name awareness and bring in new, presumably long term, customers.

- \* While these arguments have some merit, we remain wary about using them to justify capitalizing these expenses. For an operating expense to be capitalized there should be substantial evidence that the benefits from the expense accrue over multiple periods. Does a customer who is enticed to buy from Amazon, based upon an advertisement or promotion, continue as a customer for the long term? There are some analysts who claim that this is indeed the case and attribute significant value added to each new customer. It would be logical, under those circumstances, to capitalize these expenses using a procedure similar to that used to capitalize R&D expenses:
  - Determine the period over which the benefits from the operating expense (such as SG&A) will flow.
  - Estimate the value of the asset (similar to the research asset) created by these expenses. This amount will be added to the book value of equity/capital and used to estimate the returns on equity and capital.
  - Adjust the operating income for the expense and the amortization of the created asset.
  - The net effects of the capitalization will be seen most visibly in the reinvestment rates and returns on capital you estimate for these firms.

### Intrinsic Valuation

- When you capitalize the expenses associated with creating intangible assets, you are in effect redoing the financial statements of the firm and restating numbers that are fundamental inputs into valuation - earnings, reinvestment, and measures of returns.
  - Earnings: adding back the current year's expense and subtracting out the amortization of past expenses, the effect on earnings will generally be positive if expenses have risen over time.
  - Reinvestment: the effect on reinvestment is identical to the effect on earnings, with reinvestment increasing or decreasing by exactly the same amount as earnings. That will generally increase the reinvestment rate.
  - Capital invested: since the unamortized portion of the prior year's expenses is treated as an asset, it adds to the estimated equity or capital invested in the firm. The effect will increase with the amortizable life and should therefore be higher for pharmaceutical firms (where amortizable lives tend to be longer) than for software firms (where research pays off far more quickly as commercial products).

- Return on equity (capital): since both earnings and capital invested are affected by capitalization, the net effects on return on equity and capital are unpredictable. If the return on equity (capital) increases after the recapitalization, it can be considered a rough indicator that the returns earned by the firm on its R&D is greater than its returns on traditional investments.
- In addition to providing us with more realistic estimates of what these firms are investing in their growth and the quality of their investments, the capitalization process also restores consistency to valuations by ensuring that growth rates are in line with reinvestment and return on capital assumptions. Thus, technology or pharmaceutical firms that want to continue to grow have to keep investing in R&D, while ensuring that these investments, at least collectively, generate high returns for the firm.

### Relative Valuation

- It is true that all technology and pharmaceutical companies operate under the same flawed accounting rules, expensing R&D rather than capitalizing it. That does not mean, though, that there are no consequences for relative valuation. The effect of capitalizing R&D on earnings and book value can vary widely across firms and will depend upon the following:
  - Age of the firm and stage in life cycle: generally speaking, the proportional effects of capitalization on earnings and book value will be much greater at young growth firms than at more mature firms.
  - Amortizable life: the effect of capitalizing expenses will be much greater as we extend the amortizable life of R&D, especially on capital invested. If different firms within the same business convert research into commercial products at different speeds, the effect on earnings of capitalizing R&D can vary across firms.
- If you ignore accounting inconsistencies and use the reported earnings and book values of firms in the computation of multiples, younger firms or firms that have R&D with longer gestation periods will look overvalued (even if they are fairly priced or bargains). Their earnings and book value will be understated, leading to much higher PE, EV/EBITDA, and book value multiples for these firms.
- There are two ways to incorporate these factors into relative valuation. The first is to capitalize the expenses associated with investing in intangible assets for each firm and to compute consistent measures of earnings and book value to use in multiples. This approach, while yielding the most precision, is also the most time and data intensive. The second is to stick with the reported accounting values for earnings and book value, while controlling for the factors listed above.
- You can compute PE ratio in conventional way - dividing the market capitalization by the net income; or using the sum of net income and R&D; or by netting out

amortization of R&D: net income + R&D expense - amortization of R&D. This last measure, with both R&D and its amortization incorporated yields the fairest comparison.

### Dealing with Equity options

- Firms that pay managers and others with equity options are giving away some of the stockholders' equity to these people. To deal with the resulting loss in value to common stockholders, there are three approaches that are employed in intrinsic valuation:
  1. Assume that all or some of the options will be exercised in the future, adjust the number of shares outstanding and divide the value of equity by this number to arrive at value per share; this is the diluted shares approach. To estimate the value of equity per share, divide the aggregate value of equity estimated by the total number of shares outstanding, including options:  

$$\text{aggregate value of equity} / (\# \text{ of shares outstanding} + \# \text{ of options})$$
  2. Incorporate the exercise proceeds from the options in the numerator and then divide by the number of shares that would be outstanding after exercise; this is the treasury stock approach:  

$$(\text{value of equity} + \text{options outstanding} * \text{average exercise price}) / (\# \text{ of shares outstanding} + \# \text{ of options})$$
  3. Estimate the value of the options today, given today's value per share and the time premium on the option. Once this value has been estimated, it is subtracted from the estimated equity value, and the remaining amount is divided by the number of shares outstanding to arrive at value per share.  

$$(\text{value of equity} - \text{value of options}) / \text{primary shares outstanding}$$

value of options - you have to find out the average maturity (in years) and exercise price
- When choosing which approach to take, consider that the first is the crudest, the second is slightly more tempered, and the third is the most work, but it is the right way to deal with options.
- Comparing multiples across companies is complicated by the fact that firms often have varying numbers of employee options outstanding and these options can have very different values. A failure to explicitly factor these options into analysis will result in companies with unusually large or small (relative to the peer group) numbers of options outstanding looking misvalued on a relative basis. With PE ratios, for instance, using primary earnings per share will make companies with more options outstanding look cheap. Using fully diluted earnings per share will make firms that have long-term, deep in-the-money options outstanding look cheap. The only way to incorporate the effect of options into earnings multiples is to value

the options at fair value, using the current stock price as the basis, and add this value on to the market capitalization to arrive at the total market value of equity.

### Summary

- The biggest hurdle when investing in firms with intangible assets is that the accounting numbers, at least as stated, are deceptive. As an investor, you have to correct for those accounting problems and focus on companies that have the following characteristics:
  - Intangible assets that generate high returns: for intangible assets to generate value, they have to earn high returns. Look for a firm with intangible assets that are unique and difficult to replicate.
  - Reasonable prices for "true" earnings: many firms with intangible assets have high growth potential and are priced to reflect that growth. Using the mismatch test, invest in companies that have high growth in earnings, corrected for accounting miscategorization, and that trade at low multiples of these corrected earnings.
  - Spending to preserve and augment these intangible assets: intangible assets do not always stay valuable, especially if they are ignored. Focus on firms that invest in these assets (by spending on R&D, recruiting, or advertising) to preserve and grow value.
  - Spending is efficient: not all expenditures on intangible assets generate value. Keep tabs on investments in intangible assets to see how quickly and how well they pay off and steer your money towards firms that rank highly on both dimensions.
  - Equity claims drain per share value: firms with intangible assets tend to be big users of equity options as compensation, which can affect equity value per share. Incorporate the effects of outstanding options into your estimates of value per share and avoid companies that are cavalier about issuing new options to managers.
- In effect, you want to invest in companies that make investments in intangible assets and are able to leverage these assets to generate high returns, while protecting your share of equity ownership.

## 6 Funds

- Blackrock and Vanguard have one of the most respected index and mutual funds.
- *Real Estate Investment Trusts (REITs)*
  - They allow you to own a property without physically own it And you collect a schedule income in a form of dividends.
  - They are like mutual funds. A few criteria so that a fund is considered to be REIT:
    - \* at least 75% asset value from real estate
    - \* at least 75% gross income coming from real estate
    - \* at least 90% dividend payout ratio - it's quite interesting it does necessarily mean that it is sustainable, it is a different kind of investment, it is an exclusion to a rule that you should target much lower payout ratios
  - They usually distribute money to shareholders each month; 90% because they must redistribute money to shareholders.
  - Check dividends, buybacks, capital appreciation, debt, and growth.
  - Also, interest rates can influence REITs stock prices.
  - Examples: O, STOR, NRZ, WELL, LTC, SPG

### 6.1 Index Funds

(John C. Bogle) *"Actively managed funds come and go, but the index fund goes on forever."*

- An index fund is an investment fund within the mutual fund family designed to track and mirror key benchmark indexes like the S&P 500 or the Russell 2000. Comprised of stocks, bonds and other investments, index funds are designed as passive funds that automatically track an underlying index.
- *Exchange Traded Fund (ETF)*
  - ETF is an index fund designed to facilitate trading in its shares, dressed in the guise of the traditional index fund. TIFs vs ETFs can be the same, but the difference can be that lot of ETFs can be specialized, and offer trading. So TIFs and broad ETFs with long-term investing focus are practically the same.

## 6 Funds

- A security that simply tracks an index of commodity bonds or a basket of funds or assets. Kind of like an index funds.
- The first U.S. ETF, created in 1993, by Nathan Most, was named "Standard & Poor's Depositary Receipts" (SPDRs). It is one of the largest ETFs.
- But unlike mutual funds, an ETF is traded like a common stock, so it's very liquid, and also lot less expensive, there are less fees involved because it's passively managed.
- Types of ETFs:
  - \* Index - designed to track particular index, such has S&P500.
  - \* Commodity - designed to track the price of a commodity, such as gold, oil, or corn.
  - \* Inverse - designed to profit from a decline in the underlying market or index.
  - \* Industry - designed to provide exposure to a particular industry, such as oil, pharmaceuticals, or high tech.
  - \* Actively Managed - designed to outperform an index, unlike most ETFs, which are designed to track an index.
  - \* Foreign Market - designed to track a non-US markets, such as Japan's Nikkel Index.
- Examples: Vanguard Growth Fund (VUG), Vanguard High Dividend Yield (VYM), SPDR S&P 500 ETF Trust (SPY), ARK ETF Trust.
- ETF and Mutual Funds ideas: See Fidelity Magellan a Fidelity Contrafund. Also check SPHD - fantastic dividend ETF (about 4% yield) S&P500, they take 75 highest paid dividend stocks, and they 20 most volatile and remove them (so it's about 50 least volatile highest dividend yielding companies in S&P500), and they pay monthly!
- List of interesting ETFs by sectors or market capitalization:
  - US Large companies: *DDM, DIA, DOG, DXD, SSO, SPY, SH, SDS, BGU, IWB, BGZ*
  - US Medium companies: *MVV, MDY, MYY, MZZ*
  - US Small companies: *TNA, UWM, IWM, RWM, TWM, TZA, SAA, IJR, SBB, SDD*
  - US Nasdaq: *QLD, QQQQ, PSQ, QID*
  - US Sectors:
    - \* Consumer goods: *UGE, UCC*
    - \* Financial Services: *FAS, IYF, SEF*
    - \* Health Care: *RXL, IYH*

## 6 Funds

- \* Materials: *UYM, XLB*
  - \* Energy: *ERX, DIG, IEO*
  - \* Real Estate: *URE, IYR*
  - \* Technology: *ROM, IYW*
  - International: *FXI, EFA, EEM, EUM, EEV, EWJ, EWV*
- In short, Michael Burry believes that we are now (2020s) in a period of time where index funds and other passive investments are becoming a ‘bubble’. He holds these beliefs for three main reasons:
    1. Passive investing has removed price discovery from the equity markets. Index funds continue to invest (in potentially overvalued stocks) regardless of business fundamentals.
    2. The rise of passive indexing has created hidden liquidity risk, especially for small cap stocks. The theater keeps getting more crowded, but the exit door is the same as it always was. If there is a market sell-off and large redemptions (sales) of index funds, there will not be enough buyers for the thinly-traded small cap stocks in the index. This can cause very dramatic price swings.
    3. Potentially making it worse will be the impossibility of unwinding the derivatives strategies used to help some of these funds pseudo-match flows and prices each and every day. This is a more nuanced argument that applies to leveraged and inverse ETFs and not as much to standard index funds like SPY, VTI, QQQ, etc.

*Here are some of my abbreviated thoughts on each:*

1. *It is true, passive investing doesn't require fundamental analysis and can lead investors to buy stocks when they are expensive (overvalued to fundamentals). However, there is not strong evidence alone that index funds are causing the overvaluation. It appears to be a combination of factors which likely also include historically low interest rates.*
2. *Liquidity risk appears a valid concern especially for some small cap funds. This doesn't mean that investors should avoid them, but understand that we are likely to see greater volatility during market crashes/panics than we have seen in the past. Index funds are part of this, but momentum-based algorithmic trading (not directly discussed by Burry) also helps exacerbate short term market volatility.*
3. *The derivative strategies used in leveraged and inverse ETFs are complex and can be susceptible to tail-end risk events like what we saw in February 2018. Most investors would be better served avoiding these products. Regular index funds do not share these risks to the same extent as leveraged and inverse products.*



## 6.2 Hedge Funds

- Money that is pulled together by a group of credit investors. That money is managed by general partner (or hedge fund manager - and net worth of these guys is like billions of dollars) whose profit is about 2% no matter what, or even 20% if they hedge fund is doing great.
- How to become a credit investor? Solid financial knowledge and experiences, at least 1M in net worth, or 200k income per year.
- They are more risky than mutual funds (mutual funds try to diversify and split the money across the market), because they go “heavy” on something particular.
- They are probably very expensive and cannot even sometimes beat S&P500. Maybe index funds are better.

## 6.3 Mutual Funds

- Money that is pulled together by a group of investors (that can be anybody). That money is managed professionally by a few managers and researchers whose goal is to get you a good return of your investment.
- They are basically trying to reflect what S&P 500 or Russel 2000 (for example) are doing. So if S&P is going up by 8%, then the mutual fund is trying to also get 8% return. So they are not necessarily trying to beat it. They are trying to go as good as market is doing.
- When judging a mutual fund try to judge on 5 years period and not just what they did the previous year.
- Mutual funds are good if you don't have time or passion to research and invest in individual companies. Other people will “do” this for “you” - mutual funds are just a bunch of individual stocks put together.
- Unlike an index fund, a mutual fund is generally actively managed, with fund managers picking investments and profiting off of shareholder fees.

### John Bogle on Mutual funds

- Before you rush out to invest in Magellan or Contrafund because of their truly remarkable long-term records - outpacing the returns of the S&P500 by two and a half to three times despite their faltering in later years - think about the next 10 years, or more. Think about the odds that a winning fund will continue to outperform. Think about the fund's present size. Think about the reality that over 25 years the typical fund will replace its management three times. Portfolio managers, on average, are likely to last only about 9 years, and that the funds

themselves are apt to have a life expectancy of little longer than a decade. Result - you'll own maybe 30 or 40 funds over your lifetime, each carrying that burden of fees and turnover costs.

- Or, you can invest in a low-fee, minimal-transaction-cost, broad-market index fund, with the certainty that the same non-manager will still closely track its index for the rest of your life. There is really no practicable way that a portfolio of actively managed funds will serve you more effectively and consistently than the index fund. Simplicity, cost efficiency, and staying the course should win the race.
- Reversion to the mean - in selecting mutual funds - let's have a look at Morningstar, the statistical service most broadly used by investors in evaluating fund returns. They are based on a composite of a fund's record over the previous 3, 5, and 10-periods. According to a 2014 study by the Wall Street Journal, only 14% of five-star funds in 2004 still held that rating a decade later. Approximately 36% of those original five-star funds dropped one star, and the remaining 50% dropped to 3 or fewer stars. Yes, fund performance reverts toward the mean, or below.
- If you disagree and decide to invest in a fund with superior recent performance, you might ask yourself questions like these:
  - How long will the fund manager, with the same staff and with the same strategy, remain on the job?
  - If the fund's assets grow many times larger, will the same results that were achieved when the fund was small be sustained when it is large?
  - To what extent did high expense ratios and/or high portfolio turnover detract from the fund's performance, or did low expenses and low turnover enhance performance?
  - Will the stock market continue to favor the same kinds of stocks that have been at the heart of the manager's style?

## 6.4 Tactical Allocation Funds

- Actively managed funds that change their allocation to different asset classes over time based on what they think is going to do well.
- So in other words, these are funds that specialize in market timing.
- They typically under-perform index funds.

## 7 Alternative Investments

We briefly mentioned alternative investments in Chapter 4.

### Buffett On Investment Alternatives

Wall Street tends to embrace ideas based on revenue-generating power, rather than on financial sense, a tendency that often perverts good ideas to bad ones.

About financial crisis of 2008 - contemporary financial engineering has produced an explosion of complex instruments known as derivatives, because their fluctuating value is derived from movements in a contractually designated benchmark. Proponents believe that these devices are useful to manage risk - and Berkshire from time to time takes modest positions in derivatives contracts that Buffett judges as mispriced. But while proponents also believe that derivatives tend to reduce the overall systemic risk, Buffett presciently observed that they may have the opposite effect. They are hard to value, valuations can change rapidly and they create linkages and inter-dependencies among financial institutions. Buffett cautioned that the combination of these factors could mean that, should a single event cause challenges in one sector, that could spread rapidly to others with a domino effect bringing devastating systemic consequences. Such was the case with the crisis of 2008.

- Junk Bonds
  - Investing in junk bonds and investing in stocks are alike in certain ways - both activities require us to make a price-value calculation and also to scan hundreds of securities to find the very few that have attractive reward/risk ratios. But there are important differences between the two disciplines as well.
  - In stocks, we expect every commitment to work out well because we concentrate on conservatively financed businesses with strong competitive strengths, run by able and honest people. If we buy into these companies at sensible prices, losses should be rare.
  - Purchasing junk bonds, we are dealing with enterprises that are far more marginal. These businesses are usually overloaded with debt and often operate in industries characterized by low returns on capital. Additionally, the quality of management is sometimes questionable. Management may even have interests that are directly counter to those of debt-holders. Therefore, Buffett expects that they will have occasional large losses in junk issues.

## 7 *Alternative Investments*

- Berkshire has bought, in the past, a few below-investment-grade bonds with success, though these were all old-fashioned "fallen angels" - bonds that were initially of investment grade but that were downgraded when the issuers fell on bad times.
- Zero-Coupon Bonds
  - Most bonds, of course, require regular payments of interest, usually semi-annually. A zero-coupon bond, conversely, requires no current interest payments; instead, the investor receives his yield by purchasing the security at a significant discount from maturity value.
  - The effective interest rate is determined by the original issue price, the maturity value, and the amount of time between issuance and maturity.
- Preferred Stock
  - Preference shares, more commonly referred to as preferred stock, are shares of a company's stock with dividends that are paid out to shareholders before common stock dividends are issued.
  - If the company enters bankruptcy, preferred stockholders are entitled to be paid from company assets before common stockholders.
- Derivatives
  - Munger and Buffett view derivatives as time bombs, both for the parties that deal in them and the economic system. Essentially, these instruments call for money to change hands at some future date, with the amount to be determined by one or more reference items, such as interest rates, stock prices or currency values. Derivatives contracts are of varying duration (running sometimes to 20 or more years) and their value is often tied to several variables.
  - The range of derivatives contracts is limited only by the imagination of man (or sometimes, so it seems, madmen).
  - But closing down a derivatives business is easier said than done. In fact, the reinsurance and derivatives business are similar: like hell, both are easy to enter and almost impossible to exit. In either industry, once you write a contract - which may require a large payment decades later - you are usually stuck with it. True, there are methods by which the risk can be laid off with others. But most strategies of that kind leave you with residual liability.
  - Another commonality of reinsurance and derivatives is that both generate reported earnings that are often wildly overstated. That's true because today's earnings are in a significant way based on estimates whose inaccuracy may not be exposed for many years.
  - As a general rule, contracts involving multiple reference items and distant settlement dates increase the opportunities for counter-parties to use fanciful

## 7 *Alternative Investments*

assumptions. Of course, both internal and outside auditors review the numbers, but that's no easy job. Earnings can be manipulated so that they are in favor of either the trader who was eyeing a multi-million dollar bonus or the CEO who wanted to report impressive "earnings" (or both). The bonuses were paid, and the CEO profited from his options. Only much later did shareholders learn that the reported earnings were a sham.

- Another problem about derivatives is that they can exacerbate trouble that a corporation has run into for completely unrelated reasons. This pile-on effect occurs because many derivatives contracts require that a company suffering a credit downgrade immediately supply collateral to counter-parties. Imagine, then, that a company is downgraded because of general adversity and that its derivatives instantly kick in with their requirement, imposing an unexpected and enormous demand for cash collateral on the company. The need to meet this demand can then throw the company into a liquidity crisis that may, in some cases, trigger still more downgrades. It all becomes a spiral that can lead to a corporate meltdown.
- Derivatives also create a daisy-chain risk that is akin to the risk run by insurers or reinsurers that lay off much of their business with others. In both cases, huge receivables from many counter-parties tend to build up over time. A participant may see himself as prudent, believing his large credit exposures to be diversified and therefore not dangerous. Under certain circumstances, though, an exogenous event that causes the receivable from Company A to go bad will also affect those from Companies B through Z. History teaches us that a crisis often causes problems to correlate in a manner undreamed of in more tranquil times.
- In banking, the recognition of a "linkage" problem was one of the reasons for the formation of the Federal Reserve System. Before the Fed was established, the failure of weak banks would sometimes put sudden and unanticipated liquidity demands on previously strong banks, causing them to fail in turn. The Fed now insulates the strong from the troubles of the weak. But there is no central bank assigned to the job of preventing the dominoes toppling in insurance or derivatives. In these industries, firms that are fundamentally solid can become troubled simply because of the travails of other firms further down the chain.
- Many people argue that derivatives reduce systemic problems, in that participants who can't bear certain risk are able to transfer them to stronger hands. These people believe that derivatives act to stabilize the economy, facilitate trade, and eliminate bumps for individual participants. And, on a micro level, what they say is often true. Indeed, at Berkshire, Buffett sometimes engages in large-scale derivatives transaction in order to facilitate certain investment strategies.
- However, Munger and Buffett believe that the macro picture is dangerous

## 7 *Alternative Investments*

and getting more so. Large amounts of risk, particularly credit risk, have become concentrated in the hands of relatively few derivatives dealers, who in addition trade extensively with one other. The troubles of one could quickly infect the others. On top of that, these dealers are owed huge amounts by non-dealer counter-parties. Some of these counter-parties are linked in ways that could cause them to contemporaneously run into a problem because of a single event. Linkage, when it suddenly surfaces, can trigger serious systemic problems.

- Even experienced investors and analysts encounter major problems in analyzing the financial condition of firms that are heavily involved with derivative contracts. When Munger and Buffett finish reading the long footnotes detailing the derivatives activities of major banks, the only thing they understand is that they don't understand how much risk the institution is running. Central banks and governments have so far found no effective way to control, or even monitor, the risks posed by these contracts. In Buffett and Munger's view, derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal.
  - Long contracts, or alternatively those with multiple variables, are the most difficult to mark to market (the standard procedure used in accounting for derivatives) and provide the most opportunity for "imagination" when traders are estimating their value.
  - Berkshire occasionally enters into various types of derivatives contracts. That may seem odd given the systemic problems that could result from the enormous growth in the use of derivatives. However, derivatives, just like stocks and bonds, are sometimes wildly mispriced. For many years, accordingly, Berkshire has selectively written derivative contracts - few in number but sometimes for large dollar amounts. Buffett personally manages them.
  - Buffett: "I know of no reporting mechanism that would come close to describing and measuring the risks in a huge and complex portfolio of derivatives. Auditors can't audit these contracts, and regulators can't regulate them. When I read the pages of disclosure in 10-Ks of companies that are entangled with these instruments, all I end up knowing is that I don't know what is going on in their portfolios (and then I reach for some aspirin)."
- Foreign Currencies and Equities
    - Berkshire holds many billions of cash-equivalents (2003) denominated in dollars. Buffett feels more comfortable owning foreign-exchange contracts that are at least a partial offset to that position. He is a bit worried about USA's trade deficit, but he'll continue to be flooded with dollars.
    - "Large and persisting current account deficits produce an entirely different result. As time passes, and as claims against us grow, we own less and less of what we produce. In effect, the rest of the world enjoys an ever-growing

royalty on American output. Here, we are like a family that consistently overspends its income. As time passes, the family finds that it is working more and more for the “finance company” and less for itself. In 2004, other countries and their citizens now own a net of about \$3 trillion of the U.S. A decade ago their net ownership was negligible."

- Buffett is very concerned about the US trade problems. He thinks that the probability that the dollar will weaken over time continues to be high. The U.S. is transferring ownership of its sales or IOUs to the rest of the world. Like a very wealthy but self-indulgent family, we peeled off a bit of what we owned in order to consume more than we produced. Buffett thinks that Americans will live better 10 or 20 years from now than they do today (2006). Per-capital wealth will increase. But US citizens will also be forced every year to ship a significant portion of their current production abroad merely to service the cost of US huge debtor position. It won't be pleasant to work part of each day to pay for the over-consumption of US ancestors. Buffett believes that at some point in the future U.S. workers and voters will find this annual “tribute” so onerous that there will be a severe political backlash. How that will play out in markets is impossible to predict - but to expect a “soft landing” seems like a wishful thinking.

## 7.1 Private Equity

### Venture Capital

### Growth Capital

### Buyouts / LBO

## 7.2 Crypto

### Cryptocurrency Stable Coins

- Fiat-Collateralized (secure to crashes, not decentralized)
  - Tether (USDT) - 1:1 backed by USD. backed by Bitfinex, centrally controlled, most major exchanges
  - TrueUSD - 1:1 backed by USD. backed by Bitfinex, not decentralized, most major exchanges
- Crypto-Collateralized based (not secure to crashes - it's super volatile, decentralized)
  - MakerDao (MKR) - uses ETH to stabilize prices, 1:1.5 collateralized USD value, decentralized, most smaller exchanges
- Non-Collateralized (not secure to crashes, decentralized)

- Basis (formerly BaseCoin) - Pegged to USD +2 other tokens, works like fed reserve, only theoretical so far, not decentralized, no exchanges yet

### 7.3 Gold

There are many options on how to invest in gold:

- Physical gold
- Physical gold ETFs
  - Physical gold ETFs can be a bad idea...it depends if you are focused on price (ETF) vs value (gold).
  - Gold ETFs can be backed by banks, you can never see "your" physical gold, price can be reflected in ETF popularity, ... they store gold in vaults and charge you a expense rate about 0.4% usually.
  - Examples: GLD, IAU, SGOL
- Gold miners
  - Gold miners can be a tenbagger! or hundredbagger! very volatile, silver miners are much much bigger speculation, but it can be worth to have a look on them as well.
  - Gold stock analysis example [here](#) and analysis tips [here](#).
  - Every gold miner is different; you are looking for low risk and high potential reward, especially if gold prices change as a hedge against new monetary policies. You can get more value (risk+reward) than a gold ETF offers. And miners actually produce something, plus they can be much more leveraged. In the gold mining industry, the management is the biggest risk.
  - Examples: Barrick, Franco Nevada, Novagold Goldcorp (GG), Newcrest Mining, Kirkland Lake Gold (KL), WA Gold Royalty, AngloGold Ashanti, Newmont, EGO, Gold Fields, NYSE: SBGL
  - An example, cost to mine - \$1200, gold price \$1250, profit = \$50.  
If the gold price goes to \$2500, profit (before taxes and royalties etc) = \$1300, which is profit up 26x! Stock up 10-20x!
  - Check cash flows, reserves and potential production, leverage/costs, and react to special situations.
  - Gold miners have a big margin expansion and thus also volatility. Because if the mining costs would remain the same, and the price of gold is 1000 USD/ounce vs 2000 USD/ounce, then the margin would explode. The same is true in the opposite direction, when gold is cheaper. For example, mining costs = \$1000 and the gold price is \$1200, then the margin is \$200. If the price of gold is \$2000, then with the same mining costs, the margin would be



## 7 *Alternative Investments*

\$600, which is a three times more than it was previously - and the price of gold haven't even doubled.

- Key factors:
  - \* Life of mine - for how long can keep up the current production?
  - \* Mining costs and margin - the higher the mining costs the higher will be the stock volatility.
  - \* Jurisdiction - mining is a global business and every country has its own rules where rules often change.
  - \* Growth perspectives - with higher gold prices, many projects suddenly become valuable.
  - \* Cash flows - operating cash flows, capex and free cash flows - what can it deliver to shareholders?
- Before investing in gold or a gold mining stock, it is important to check where the gold price is from a risk and reward perspective, where are the miner's margins in relation to gold and how could changes in the market affect gold prices and gold stock prices. This approach gives you the answer when considering how can gold and gold stocks fit your portfolio.
- Gold miners ETFs
  - Examples: VANECK

### 7.4 Collectibles

- Examples: rare cars, rare wines, whiskey, rum, trading cards, watches. (sparsity of resources and supply & demand)

### 7.5 Commodities

- Real assets, gas, oil, etc - it can be an inflation hedge.

### 7.6 Real Estate

I have an entire book on real estate investing in this notes collection check my [GitHub here](#).

## 8 Taxes [SK/EN]

A few parts of this chapter will be in Slovak language, because I need to consider Slovak norms, portals and tools; besides, it wouldn't make sense to translate translating it to English since this is mostly for myself anyway.

- You need to pay taxes on:
  - Capital gains (including profits from derivatives and crypto)
  - Dividends
- Tax residency vs domicile
  - You always have to pay taxes to the country where you are a tax resident of, regardless of what broker you use and where it's domiciled.
  - See further explanation [here](#).
- Contract with broker: *W8BEN*
  - Consult your tax adviser or the information at the OECD automatic exchange of information portal for more information on tax residence or the IRS instructions to Form W8-BEN found at [irs.gov](#).
- *Tax liens* TODO
- *Tax-harvesting* TODO
- *Wash Sale Rule* TODO
  - Selling and buying within 30 day period?
  - (in US, you have to wait 30 days and then you can buy a particular stock again)

### 8.1 UK

- Important forms (see also <https://www.gov.uk/log-in-register-hmrc-online-services?>):
  - P91
  - P45
  - P60
- UK tax on crypto

- <https://www.gov.uk/government/publications/tax-on-cryptoassets/cryptoassets-for-individuals>
- <https://koinly.io/guides/hmrc-cryptocurrency-tax-guide/>

## 8.2 SK

Pretty good summary in [this](#) video.

For 2018, SK, the same for individual physical person as well as S.R.O.

- Zisk je realizovaný vždy pri konkrétnej transakcii (predaji), nie pri „vyberaní“. Ak si však nakúpil za 100, stále držíš a cena je 200, nedošlo k realizácii zisku. Roznako k realizácii zisku dôjde v prípade vyplatenia dividend, rovnako bez ohľadu na to, či ich z účtu vyberieš alebo nie. Zdaňovanie zrealizovaného zisku je potom závislé od Tvojho daňového domicilu. Ak platíš dane na Slovensku, potom zisk z predaja cenných papierov obchodovaných na regulovaných trhoch (napr. burze) je oslobodený od dane, ak medzi nákupom a predajom ubehol viac ako rok. Inak zaplatíš 19% daň a 14% zdravotné poistenie. Pri dividendách je daň 7%, prípadne pri dividendách zo zahraničia je to zrážková daň pri zdroji, minimálne 7%. Zároveň, ak si zrealizoval zisk, ktorý by bol zdaniteľný, môžeš si od neho odpočítať prípadnú stratu z predaje rovnakého typu investícií (napr. akcií).
- Pre získanie čo najvyššej daňovej refundácie je najlepšie ukončiť pracovný pomer vo Veľkej Británii v mesiacoch júl až október. Najnižšia daňová refundácia vám naopak vznikne práve vtedy, ak Veľkú Britániu opustíte v marci alebo apríli.
- Najprv treba všetkých zamestnávateľov, u ktorých ste pracovali, vyžiadať potvrdenia o zdaniteľných príjmoch za celý predchádzajúci kalendárny rok.
- Od 01.01.2017 by malo platiť, že zdravotné odvody sa neplatia, iba daň 7%. Ak je daň zrazená zrážkou v inom štáte vo výške väčšej ako 7% je v daňovom priznaní B uviesť hrubé dividendy a výšku zrazenej dane podľa výpisu od brokera. Týka sa to najmä akcií a ETF na svetových burzách. Čo sa týka slovenských spoločností, z ktorých by ste mohli poberať dividendy, tu sa rozlišuje aj obdobie, kedy bol vytvorený zisk, z ktorého sú uvedené dividendy vyplácané (podľa daňového poradcu môjho zamestnávateľa).
- Z pohľadu daní je najideálnejšie nakupovať bonds prostredníctvom indexových fondov ETF, ako to robí Finax. V takom prípade po roku máte príjmy oslobodené od dane. <https://www.finax.eu/sk/blog/kompletny-prehľad-zdanovania-prijmov-z-investicii>.
- Platenie daní u živnostníka na SK v [tomto](#) videu.
- Zákon o dani z príjmov v § 2 písm. d) označuje fyzickú osobu za rezidenta Slovenskej republiky, ak má trvalý pobyt na Slovensku, alebo sa na Slovensku zdrži-

ava aspoň 183 dní v príslušnom kalendárnom roku, a to súvisle alebo v niekoľkých obdobiach.

- Prijmy ktore su oslobodene od dane (v 2020 to bolo 500 eur max) nepodliehaju ani zdravotnym odvodom a nie je nutne ich uvadzatz do danoveho priznania (video [tu](#)).
  - Danove priznanie je nutne podavat aj z primov za predane akcie drzane viac ako 1 rok, aj ked uz z nich dan neplatime.
  - Automaticky zdanovane dividendy - nie je potrebne podat danove priznanie.
- Najviac zmlúv o zamedzení dvojitého zdanenia, ktoré má Slovenská republika uzatvorené, vychádza z modelovej zmluvy OECD. Jednotlivé uzatvorené zmluvy sa však v detailoch môžu navzájom líšiť.
- Shares, funds, bonds, ETF - if it's traded on regulated market (stock exchange/-market) and you'll keep them 1 year or more, then you are paying no taxes and no health insurance (/zdravotne odvody).
- If they are not traded on regulated market or you have them for less than 1 year, then you're paying taxes 19% or 25% (depending on how much money it is ... it if is less than 176.8x of life minimum, then 19%, of it's higher, then 25%) and also health insurance (/zdravotne odvody).
- BTW it's FIFO - if you sell a share, and you have 2 shares of the same stock (one bought more than 1 year ago and one bought recently), then you are not paying taxes on that share, because it's like the oldest one was sold - always from oldest (that's why FIFO).
- Mutual funds
  - domestic (tuzemske) - 19% zrazkova dan (so it already should be after tax, you don't have to pay taxes), and no health insurance (/zdravotne odvody).
  - foreign - 19% taxes and no health insurance (/zdravotne odvody).
- Coupons from bonds
  - domestic - 19% zrazkova dan (so it already should be after tax, you don't have to pay taxes), and no health insurance (/zdravotne odvody).
  - foreign - 19% taxes and no health insurance (/zdravotne odvody).
- Dividends
  - domestic - 7% and no health insurance.
  - foreign - W8BEN - you need to sign it with broker! For avoiding taxes on dividends.

V zahraničí sa dani a aby sme nedanili 7% na dividendy - zabranenie dvojitému zdaneniu. But we have to write it down into tax declaration (danové priznanie).

V prípade, že máš u svojho brokera vyplnený americký formulár W-8BEN, bude Ti z dividend z US akcií strhávaných 15% ako daň (bez W-8BEN je to 30%). You have to always mention dividends in your tax document...? Even if you don't have to pay taxes on that?

- Crypto - probably as "other income" - 19%.
- Even if you have to pay taxes on financial instruments (shares, dividends, bonds, etc), you have "discount" 500 EUR. So if you have to pay less/equal than 500 EUR, you are not paying anything (TODO - is it mandatory to mention that in tax document?).

### 8.3 SK ↔ UK

- Dobry prehľad: <https://www.investujeme.sk/clanky/kde-a-ako-zdanit-zarobok-zo-zahranicia-a-kde-zaplatit-odvody/>
- Dohoda o ochrana investicii: <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/1992/646/>
- Zmluva o zamedzeni dvojakeho zdanenia v odbore dani z prijmu a ziskov z majetku: <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/1992/89/> a <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2018/412/20181229>
  - Danovy domicil - mam asi rezidenciu aj v UK aj na SK, lebo v UK mam miesto vedenia/aktualne byvanie (bydlisko-obvykly pobyt - <https://ec.europa.eu/social/main.jsp?catId=1127&langId=sk&intPageId=4772>) (nie kvoli prijmov), a na SK lebo tam mam trvaly pobyt.
  - Ak som v oboch, tak mam rezidenciu na SK, lebo vyhrava prioritne trvaly pobyt na SK (staly byt a aj uzsie osobne vzťahy - stredisko zivotnych zaujmov - takže je jedno kde sa zdržiavam lebo to je az v prioritach neskor),

### 8.4 Interactive Brokers

- 1st attempt was wrong: Residential Country: UK and Country of Legal Residence: SK
  - Residential Country is Permanent Address, so it's SK for me.
  - <https://ibkr.info/glossary/1182>
  - [https://ndcdyn.interactivebrokers.com/Universal/servlet/Registration\\_v3.formHelp?s=p0](https://ndcdyn.interactivebrokers.com/Universal/servlet/Registration_v3.formHelp?s=p0)
- 2nd attempt was correct: Residential Country: SK, not UK

## 8 Taxes [SK/EN]

- *"I am not a tax resident of United Kingdom because I am an income tax resident in a country that has a tax treaty with United Kingdom and qualify under the "tie-breaker" rules of that treaty as a non-resident of United Kingdom."*
- So my domicile is in SK, but my residency is in UK.

## 9 Pension

- *The 4% Rule for Retirement (FIRE)*
  - This rule suggests that if you spend 4% of your assets in your initial year of retirement and then adjust for inflation each year going forward, you will be unlikely run out of your money. If you want to spend 40k per year, you would need 1M to adhere this 4% rule.
  - This rule is alternatively described as the requirement to have 25 years worth of spending in your portfolio to afford retirement.
  - However, if you're planning to retire early, it may not be the best rule to follow. Especially if your retirement period is longer than 30 years.

### 9.1 US

This is JFY(M)I, I'm not a US citizen, but it's good to know about these.

- CD account
  - A certificate of deposit in US, but otherwise known as Time deposit.
  - This is basically a locked-in account. It means that you have some money in it, but if you pull it out, you will lose all interest you have been making on that.
  - It is a type of savings account and it is an interest-bearing bank deposit with a specified period of maturity. But here, however, unlike a classic savings account, the client arranges it for a predetermined period of time and interest. A client must not withdraw or deposit money for the agreed period.
- 401k
  - Retirement plan, paid by your employer and also employee (50:50). For example, when I put \$20 into retirement plan (before taxes!) from my salary, my employer will match that and will put also \$20 (or maybe even more).
  - A 401(k) is an employer sponsored retirement plan that is eligible to employees where they can make salary reduction contributions on a pre/post-tax basis.
- *Individual Retirement Account (IRA)*
  - Account you can set up via a broker such as Fidelity or Charles Schwab.
  - You will put your money to such account and you can invest it into for example bonds or stocks.

- There are 3 types of IRA:
  - \* *Traditional IRA* - money has not been taxed, but it will be taxed when you will put it out for your retirement time.
  - \* *Roth IRA* - in this IRA, the money has been already taxed when you put them into that account, and when you want to pull them, you don't have to tax it any more. And you are never forced to take your money out. In comparison to traditional IRA, in Roth IRA, there are some limits in how much money you can put there. To Traditional IRA, you can contribute whatever much you like. Maybe Roth IRA is better, you never know if taxes won't be higher in the future.
  - \* *Rollover IRA* - you have for example 401k with an employer, you will leave that employer, and if you will keep your money there you won't pay any taxes.

## 9.2 UK

See <https://www.moneysavingexpert.com/savings/discount-pensions/> and for advisers: [unbiased.co.uk](http://unbiased.co.uk).

- Workplace pension
  - This one is set up by your employer. You typically pay certain percentage of your salary, and your employer will contribute to it. Some part of your wage (top line, gross number) goes into pension every month (pre-tax money), plus a lot of employers can make a contributions to it.
  - There are two types of workplace pensions: trust-based and contract-based pensions.
  - Portals examples: Aviva
- State pension
  - You can get access to it at the age of 66. Everybody gets this as long as you make enough qualified national insurance payments. You are qualified after 10-35 years of contributions. What you get is based on your national insurance record. Qualified year - earn over £183 a week, which means you'll pay national insurance. Or you are self-employed and choose to make a national insurance contribution.
  - You can usually top up the past 6 years.
  - Example (2020):
    - \*  $£175.20 \times 35$  (both of these are constants) \* number\_of\_qualifying\_years
    - \* 10 qualified years:  $£175.2 \times 35 \times 20 = \sim £122,520$  (this is your state pension per week)



## 9 Pension

- <https://www.gov.uk/check-state-pension>
- <https://www.yourpension.gov.uk/pension-calculator/>
- <https://www.2020financial.co.uk/state-pension-calculator/>
- Personal/Private pension
  - You can get access to it at the age of 55. SIPP. You have to set it up. This is especially good if you are self-employed. £40k is a limit per year (you can put in more, but you will be taxed on what you put in on top of that). You can get great tax benefits here. And government can pay 25% or more of your contributions, depending on your tax status.
  - Then, from the age of 57 (from 2028), you'll be able to take out typically 25% of your pension pot, tax free, with the rest - a subject to normal income tax.
  - You may also decide to buy an annuity. Annuity - financial product that you exchange your pot to which you saved over your lifetime, that thing guarantees you an income for the rest of your life. PensionBee, Moneyfarm, Nutmeg
- *Individual Special Account (ISA)*
  - *Cash ISA*
  - *Investment ISA*
    - \* Great thing of Investment ISA is they aren't taxed when you withdraw money - unlike your pension. You are allowed 20k deposited over however many ISAs you like.
  - *Lifetime ISA*
    - \* You can only put 4k a year in there, but the government will top up 25% on top. You can apply only if you are in the age of 18-39. And you must be an UK resident.
    - \* It's for your first (UK?) home (must be under 450k), or your retirement in the age of 60.
    - \* If your goal is retirement, and you are in high-tax brackets, then private pension is a better choice. Some Lisa will get you also interest of 1-2% annually, on top of the government bonus.

### My Aviva

- Buying, selling or switching the funds: [aviva.co.uk/ppfm](https://aviva.co.uk/ppfm)
- Investment options: [aviva.co.uk/investment-options](https://aviva.co.uk/investment-options)
- Max amount of money currently (by law, 2020) what I can send into this plan each year is £3,600.

## 9 Pension

- Let's say my salary is £50k yearly.
  - My payments are based in 2% of my current pensionable earnings (50k) and my employer's payments are based on 6% of my current pensionable earnings.
  - So it's my payment £83.33 (£66.66 +basic rate income tax relief at 20%, which is £16.67), plus employer's payment £250, which is £333.33 in total each month.
- If I leave the UK, I have to inform the authorities within 30 days or the end of a current tax year - whichever is later.
  - Charges - around 0.5% pa (Annual Fund Charge, Additional Yearly Charge, and Fund Manager Expense Charge).

# 10 Brokers

Good links:

- (Worldwide/USA) <https://brokerchooser.com/best-brokers/best-online-brokers>
- (SK) <https://www.papucovyinvestor.sk/cez-koho-investovat-vyber-brokera/>

Protection

- USA. Even if a US brokerage goes out of business, your cash and stocks will be protected up to \$500,000, cash is protected up to \$250,000 of that half a million. That's called SIPC insurance, and you don't ever want to use a brokerage that isn't SIPC insured, nor use banks that are NOT FDIC insured.

At the risk of oversimplification, **the introducing broker** provides front-end services, such as opening the account and taking your orders. **The clearing broker** provides back-end services, such as executing your orders and actually holding on to your investment. In other words, the clearing broker has custody of your investment, not the introducing broker. Because SIPC protects the custody of your investment, this clearing arrangement is important. If the introducing broker fails (in this case, IB UK), then SIPC cannot intervene, but your investment should still be in safe custody with the clearing broker (IB LLC). If the SIPC-member clearing broker failed, then SIPC would protect your account.

## 10.1 Brokerage Requirements

- Low transaction fees
- Fractional shares
- Maybe even automatic buying
- Lot of companies, ETFs, many sectors, bonds, exchanges, markets
- Ideally long history, support, blogs, training, community
- Some tax summary
- Reputation and protection/security
- Solid customer support
- Research platform and lot of features

## 10.2 SK/CZ

- Interactive Brokers (written in 2020)
  - <https://www.investopedia.com/interactive-brokers-review-4587904>
  - From 1977, they got departments in USA, Canada, Australia, UK, Japan, India, and Hong Kong.
  - They offer access to 125 markets in 31 countries, in 22 different currencies.
  - You can have Cash or Margin account (you have to deposit \$2k or more).
  - Account protection - SIPC (Securities Investor Protection Corporation) - couple of millions of USD per account.
  - Fees:
    - \* US market: shares/ETFs - 0.005 USD / unit (min 1 USD and max 1% from the trade) + transaction and FINRA fees (0.000132 USD / unit)
    - \* European market: 0.1% from each transaction, but min 4 EUR (usually no max!)...+conversion EUR -> USD costs 4 EUR
    - \* Activity Fee - 10 USD per month if the account has less than 100k USD. But if you did transactions in a given month that are higher than 10 USD, you aren't paying anything.
  - Trading platform - WebTrader or TraderWorkstation and also mobile app
  - Rebalancing available (between stocks)
  - Good reporting
  - Customer support - chat, phone, messages...?
  - Very good market prices (smart routing algorithm?) - mostly for traders
  - Fractional shares
  - Everything about Interactive Brokers centers around Traders Workstation (TWS)
  - **Verdict: YES**
- XTB
  - **Verdict: TODO**
- Tastyworks
  - **Verdict: TODO**
- Lynx (written in 2020)
  - From 2006, they got departments in Holland, SK, CZ, in total about 9 different parts of Europe

- It's basically IB encapsulated into LYNX package - features, market prices, account protection are all the same
- The difference between IB and Lynx - minimal deposit (2k EUR), fees, and customer support (available in CZ language!)
- Fees:
  - \* US market: shares/ETFs - 0.01 USD / unit (min 5 USD and max 1% from the trade)
  - \* European market: 0.12% from each transaction, but min 6 EUR (no max?)
  - \* No activity fees, but cash withdrawal is 8 EUR / 10 USD (except the first withdrawal in each month)!
- Lynx is a broker, which uses for IB for trading, but Lynx has support in CZ/SK, and Lynx is cheaper if you do 2 transactions monthly at max and the value of your portfolio is less than \$100k. There is no difference between those two in terms of reliability and quality of services.
- Deposit and withdrawal are not user-friendly.
- Not user-friendly desktop platform.
- Financial information is not publicly available.
- Not listed on stock exchange.
- Does not hold a banking license.
- **Verdict: No**
- eToro (written in 2020)
  - Stocks, bonds, ETFs, crypto, Forex, be careful on CFD's.
  - Terrible reviews - <https://www.trustpilot.com/review/etoro.co.uk>
  - More like social trading platform rather than a broker.
  - No transaction fees, but probably bigger spread, \$10/month as inactivity fee, and \$5 for cash withdrawals.
  - Account only in USD.
  - Protection
    - \* eToro UK clients can expect to be compensated by the maximum amount of £85,000 guaranteed by the Financial Services Compensation Scheme (FSCS).
    - \* Other investors will have their live trading accounts with eToro (Europe) Limited, which is regulated by the Cypriot watchdog, CySEC.
    - \* The amount of investment protection coverage at eToro Europe is a maximum of €20,000. This threshold is set by the Cypriot Investors Compensation Fund.

- Even in 2020, eToro is still considered a startup. It is not listed on any stock exchange and it also does not provide regular financial statements to the public.
- **Verdict: No**
- Degiro (written in 2020)
  - Probably not available for SK people since 23.10.2018? Only available to people for which countries Degiro got a department (CZ for example).
  - From 2013, available in 18 EU countries.
  - One of the biggest EU broker.
  - Trades in 60 markets in 30 countries, the range of products very similar as IB/Lynx.
  - Cash/Margin account, but it's important that your account is associated with certain country, currency, and language.
  - Account protection - up to 20k EUR (Holland protection scheme), but all account money is fairly separated.
  - Reporting - basic report each year for taxes, no sophisticated analysis.
  - Customer support - phone or emails.
  - Fees:
    - \* US market: 0.50 USD / transaction + 0.004 USD/share
    - \* European market: shares: 0.058% from each transaction + 4EUR, ETFs: 2 EUR + 0.038% for transaction (but there are “free” ETFs)
    - \* + 2.5EUR fee/year for each market you did a trade in or hold a position
    - \* + currency exchange is 0.1%
  - **Verdict: No**
- Trading212
  - Quite popular in the UK, not available in Canada and USA.
  - They did some weird account/trading suspensions in the past, is it even safe and reliable?
  - They are operating under Interactive Brokers, so if I choose IBKR, then - for the sake of diversification - I wouldn't like to use Trading212.
  - **Verdict: No**
- Fidelity International
  - This is an independent company from Fidelity Investments, but both are mostly run by the Johnson family.
  - For non-US people, doesn't seem to be that advanced.

- **Verdict: No**
- Charles Schwab
  - No commissions, stocks, ETFs, options, futures, Schwab intelligent portfolios.
  - \$25k or more needed for being able to open non-US account.
  - **Verdict: No**
- Revolut
  - Not really that advanced (yet).
  - **Verdict: No**

## 10.3 UK

- Vanguard (written in 2020)
  - ETFs are free, but stocks are not - \$7 per trade for the first 25 trades, then \$20.
  - \$20 fee annually, minimum of investing in their funds is quite big - \$1k or \$3k.
  - **Verdict: Maybe if it's less expensive**
- Freetrade (written in 2020)
  - Quite young and not really developed?
  - [EEA COUNTRIES 2021+]
  - **Verdict: No**
- Robinhood (written in 2020)
  - In 2017, it didn't support DRIP, tons of features are not there, just a simple graph...but they finally have fractional shares and DRIP.
  - Pros: Tons of them, no commissions for trades nor options!
  - Cons: See <https://www.youtube.com/watch?v=g8GqZfmbVdA>. Not so good customer services. They are on market from about 2013, they haven't been through recession yet. Management - they did fast decision (3% on checking/savings accounts) Money to withdrawal or deposit - it takes 4 working days!
  - **Verdict: No**

## 10.4 Abroad (Especially USA)

Mostly for inspiration; plus, these brokers can expand to the Europe in the future. Since some of them seem to be truly excellent, it's good to know about these. Written in 2020.

- M1 Finance (USA only)
- E-Trade (USA only)
- Fidelity Investments (USA only)
- FirstTrade
  - Long time on the market, from 1985, commission free model, different retirement accounts, trust accounts, stocks, mutual funds, options, ETFs, bonds, international accounts, DRIP, extended hours; but desktop platform is quite outdated.
- Webull
  - Free stock trading, 5k stocks and ETFs in US, short selling, free extended hours trading, for intermediate investors, but no options, mutual funds, no bonds, no crypto, no retirement accounts, it's not a web-based platform!
  - It's more for traders probably than long term investors.
- Robo-advisors
  - Betterment (EU-alternatives <https://robo-advisors.eu/> and <https://www.quora.com/Is-there-a-European-equivalent-of-Betterment-If-not-why-is-the-European-market-inhibiting-financial-market-innovation>)
  - EquityMultiple (Real Estate Platform - bad liquidity, REITs have them better; it's crowd-sourcing, minimum 5k dollars) - there is also RealMogul as an alternative.
  - Wealthsimple

## 10.5 Brokers/Platforms For Real Estate

- Fundrise
  - Passive long-term real estate investing with 8-12% returns, minimum \$500 and probably mostly for USA, they are here from about 2016.



# 11 Various Tips And Miscellaneous

- Biggest waste of money - paying interest. Don't take a loan until you are confident that you can earn more in interest in stock market (for example). So always have a look on loan's interest and decide what to do.
- Big three costs in life: housing, transportation, and food.
- Can you afford a car? *20/4/10 rule*
  1. minimum 20% down payment
  2. maximum 4 year term
  3. total vehicle cost (including all! insurance etc) 10%  $\leq$  gross monthly income (GMI)

The price of your car should not exceed 1/3 of your annual income. And don't pay more than 1/3 of your income for rent/mortgage. See [this](#) and never pay more than what KBB says.

- From the book Money Master the Game (by Tony Robbins):
  1. Financial security. Your passive income can pay for the most basic necessities.
  2. Financial vitality
  3. Financial independence. Your passive income can pay for all your current expenses.
  4. Financial freedom
  5. Absolute financial freedom. Your ultimate dream lifestyle is supported by your investment income.
- Clarify is power! Calculate the money you want or need! When the brains knows a real number, your conscious mind will find a way to take you there.
- How much you should invest into stocks? There is a recommendation:  $110 - \text{your age} =$ . So in the age of 30, it should be about 80%.
- Paying off a debt (use <https://www.vertex42.com/Calculators/debt-reduction-calculator.html>)
  - *Debt snowball* - you will order your debts from smallest to highest balance, and you'll get rid of them one by one from the smallest so that you have small "psychological wins" one by one.

## 11 Various Tips And Miscellaneous

- *Debt Avalanche* - you will order your debts from highest to smallest interest rates, and you'll gonna get rid of them one by one from the highest. You can save much more money using this technique.
- *Rule of 72*
  - A very simple rule, which takes a time period, taking a number 72, which is divided by rate of growth. Resulting number represents a number of periods after which your investments will be doubled.
  - $72 / 10 = 7.2$ , which means that with 10% annual interest rate, your initial investment will be doubled after 7.2 years.
  - It works also inversely:  $72 / 10 \text{ years} = 7.2$ , which is interest rate that would be needed for your money to be doubled after 10 years.
- Margin calculator TODO

## 11.1 Bank Accounts And Cash Tips

- Cash:
  - Emergency fund/account - **you should have 3-6 months of savings.**
  - Also, **have some liquid cash, at least 10-30%.** You never want to be desperate to make an investment. You would get desperate results.
- Checking/Savings account - money waiting for the opportunity to be invested.
  - Checking account aka transaction account (in Slovak language: bezny ucet). It is held at a financial institution that allows withdrawals and deposits.
  - Savings account is an account you can make via a bank (profit, owned by shareholders) or a credit union (non-profit, owned by a credit union board). You can put there any amount of money for a small interest rate.
    - \* It is a deposit account held at a retail bank that pays interest (0.1% for example) but cannot be used directly as money in the narrow sense of a medium of exchange.
    - \* These accounts let customers set aside a portion of their liquid assets while earning a monetary return.
    - \* Usually you can add money there any time, but withdrawals are more complicated. You cannot even use it usually for cashless payments. There can be fees for withdrawing money earlier.
    - \* TFSA - Tax Free Savings Account In USA, there is an equivalent called Roth-IRA.
    - \* There are limits to contribution limits (about \$5k).
    - \* All income is Tax Free: dividends, funds, stocks, bonds, trusts.
    - \* RRSP - Registered Retirement Savings Plan.
    - \* RRIF - Registered Retirement Income Fund You will eventually (when you get older) transfer money to RRIF from RRSP and you will close that RRSP account. When you withdrawal money from RRSP, then you pay taxes for it. It needs to happen at / before the age of 71. After 71, you no longer can have RRSP account.
    - \* 529 plan - in US, is a tax-advantaged savings plan designed to encourage saving for future education costs.
- Brokerage account - money that will be invested soon.

# 12 Portals And Tools

## 12.1 Magazines

According to Jason Kelly, you should spend time on magazine subscription.

- <https://www.marketwatch.com/> - the online Wall Street Journal Magazine, and it's excellent. In 2012, SmartMoney was merged into MarketWatch.
- <https://www.kiplinger.com/> - broader scope than MarketWatch - beyond investing, also personal finance such as spending, loans, college tuition, and more.
- <https://www.theweek.co.uk/> and <https://www.theweek.com/> - best written stories and trends and highlights.

## 12.2 Newspapers

- <https://www.wsj.com/> and <https://www.investors.com/> - "to the point, and get there quickly" !
- <https://www.ft.com/> - it has a nice feature Saturday Weekend FT that summarizes week's key events.
- <https://www.barrons.com/>

## 12.3 Newsletters

- <https://grantspub.com/> - the pros read this; it publishes some of the most insightful market commentary - careful look at balance sheets, CEO comments, analysts recommendations, ...
- <https://www.morningstar.com/>
- <https://valueline.com/> - very nice analysis and ranking system

## 12.4 Stock Screeners

- <https://finance.yahoo.com/screener>
- <https://www.finviz.com/>

- <https://www.morningstar.co.uk/uk/tools/default.aspx>
- [quickfs.net](http://quickfs.net)

## 12.5 Membership

- <https://thecleantrader.com/category/blog/ftse-100/> - buy membership for at least 1 month?
- <https://sven-carlin-research-platform.teachable.com/p/stock-market-research-platform> - buy membership for at least 1 month?
- <https://www.tradesmart.cz/investmaster-trenink/> and <https://www.tradesmart.cz/opcni-kurz-101/> - if interested in trading, in CZ language

## 12.6 Misc

- <https://bigcharts.marketwatch.com/>
- <https://www.bloomberg.com/>
- <https://briefing.com/>
- <https://seekingalpha.com/>
- <https://stockcharts.com/>
- <https://www.sigfig.com/site/#/home/am>
- <https://www.zerohedge.com/>
- <https://finance.yahoo.com/>
- <https://www.nasdaq.com/>
- <https://www.msn.com/en-us/money>
- <https://www.reuters.com/finance>
- <https://www.economist.com/>
- <https://www.businessinsider.com/>
- <https://dealbreaker.com/>
- <https://www.footnoted.com/>
- <https://www.nakedcapitalism.com/>
- <https://www.pragcap.com/>

- <https://abnormalreturns.com/>
- <https://www.realclearmarkets.com/>
- <https://www.nyse.com/index>
- <https://www.betterinvesting.org/>
- <https://www.aaii.com/>
- <https://www.calculatedriskblog.com/>
- <https://www.valueinvestorsclub.com/>
- <https://www.vanguardcanada.ca/advisors/v/jack-bogle-a-look-back.htm> TODO
- <https://entrepreneurshandbook.co/according-to-warren-buffett-honing-this-one-skill-can-improve-your-worth-by-50-percent-9221cd79356> TODO
- <https://p2p-millionaire.com/> TODO
- <https://www.sec.gov/edgar/searchedgar/companysearch.html>
- <https://www.sharesight.com/uk/> TODO, good for tracking, also for currency gains
- <https://thejoexpedition.wordpress.com/2016/10/13/measuring-economic-moat-roic-vs-wacc> TODO
- <https://www.investopedia.com/terms/r/returnoninvestmentcapital.asp> TODO

## 12.7 Various Portals

- <https://www.realvision.com/>
- <https://www.starcapital.de/en/research/stock-market-valuation>
- <https://www.financialsamurai.com/>
- <https://www.shadowstats.com/>
- <https://wtfhappenedin1971.com/>
- <https://www.reddit.com/r/interactivebrokers/>
- <https://ibkr.info/node/3587>
- <https://www.moneysavingexpert.com/> - UK !
- <https://www.warriortrading.com/day-trading-terminology/>

## 12 Portals And Tools

- <https://www.rozumnyinvestor.cz/clanky/>
- <https://www.fool.com/investing/>
- <https://political-economy.com/treasury-vs-federal-reserve/> !!
- <https://www.investing.com/>
- <https://www.marketwatch.com/>
- <https://www.magicformulainvesting.com/> TODO
- <https://www.nasdaq.com/> - see statements here for example
- <https://money.visualcapitalist.com/>
- <https://www.biggerpockets.com/>
- <https://www.madfientist.com/>
- <https://www.berkshirehathaway.com/letters/letters.html>
- <https://www.fidelity.com/learning-center/overview>
- <https://uk.tradingview.com/>
- <https://www.zacks.com/>
- <https://ycharts.com/>
- <https://www.tipranks.com/> - !
- <https://www.newcannabisventures.com/cannabis-company-revenue-ranking/>
- <https://www.wsj.com/>
- <https://www.simplysafedividends.com/>
- <https://www.gurufocus.com/> and <https://www.gurufocus.com/stock-market-valuations.php>
- <https://simplywall.st/>
- <http://dividendchampions.uk/>
- <https://dividendvaluebuilder.com/dividend-champions-list/>
- <https://www.marketscreener.com/>
- <https://www.tradingview.com/>
- <https://finviz.com/>

- <https://seekingalpha.com/>
- <https://www.worldometers.info/gdp>
- <https://jllcollinsnh.com/calculators/>
- <https://www.stockstracker.com/>
- [https://www.personalcapital.com/get-started?utm\\_source=talkable&utm\\_medium=other&utm\\_content=Referral%20Center%20-%20Users%20\\$20&utm\\_campaign=60895&talkable\\_visitor\\_uuid=b281ba15-f79a-4cec-9377-c56ba870da28&talkable\\_visitor\\_offer\\_id=108467983&talkable\\_event\\_category=link\\_investment\\_account&transactionID=2b816ef4d1644bc692a0893aecd5a044&friend=Tech%20Lead&pageMode=referral&c3ch=Referral&c3nid=user](https://www.personalcapital.com/get-started?utm_source=talkable&utm_medium=other&utm_content=Referral%20Center%20-%20Users%20$20&utm_campaign=60895&talkable_visitor_uuid=b281ba15-f79a-4cec-9377-c56ba870da28&talkable_visitor_offer_id=108467983&talkable_event_category=link_investment_account&transactionID=2b816ef4d1644bc692a0893aecd5a044&friend=Tech%20Lead&pageMode=referral&c3ch=Referral&c3nid=user)
- <https://capexinsider.com/gammon-special/?orid=28700>
- <https://www.georgegammon.com/blog/>
- <https://www.justetf.com/de-en/> and <https://www.justetf.com/de-en/find-etf.html?query=gold&assetClass=class-preciousMetals&groupField=index&fsg=more500>
- <https://www.multip1.com/s-p-500-pe-ratio>
- <https://subscriptions.finimize.com/promotion/7d-free-trial?cjevent=b1417c85751a11ea8>
- <https://www.investicnigramotnost.cz/>
- <https://finlord.cz/>
- <https://www.capitaliq.com/> - perfect screener
- <http://damodaran.com/>
- [valueline.com](http://valueline.com)
- [Screener.co](http://Screener.co)
- <https://wallmine.com/plainbagel>
- <https://portfoliocharts.com/>
- <https://fred.stlouisfed.org/> - brutal, they have almost every macroeconomic factor! they also have a mobile app and excel plugin
- <https://www.dividend.com/>
- <http://jeffersonresearch.com/investment-thoughts/why-dividends-matter/>
- <https://money.cnn.com/retirement/guide/>



## 12 Portals And Tools

- <https://www.sec.gov/>
- <https://www.morningstar.com/>
- <https://quoththeraven.podbean.com/> - good podcast
- <https://www.mifinance.com/articles-1>
- <https://www.tradinghours.com/exchanges>
- <https://tradingeconomics.com/united-states/inflation-cpi>
- <https://tradingeconomics.com/country-list/gdp-growth-rate>
- <https://markets.ft.com/>
- <https://www.infrontanalytics.com/>
- <https://www.oldschoolvalue.com/best-stock-valuation-methods/>
- <https://finbox.com/> and <https://finbox.com/NASDAQGS:AAPL/models/ddm-ms>
- <https://thefelderreport.com/>
- <https://www.tradingview.com/>
- <https://acquirersmultiple.com/screener/>
- <https://www.visualcapitalist.com/worlds-money-markets-one-visualization-2017/>
- <https://www.theinvestorspodcast.com/>
- <https://robintrack.net/leaderboard> - !
- <https://hypercharts.co/>
- <https://github.com/mr-karan/awesome-investing> - !
- <https://developer.yahoo.com/>
- <https://www.screener.in/>
- <https://in.tradingview.com/>
- <https://www.investors.com/ibd-university/find-evaluate-stocks/exclusive-ratings/>
- <https://www.reddit.com/r/investing/>
- <https://www.reddit.com/r/personalfinance/>

- <https://www.reddit.com/r/SecurityAnalysis/>
- <https://www.reddit.com/r/StockMarket/>
- <https://aswathdamodaran.blogspot.com/>
- <https://www.statista.com/statistics/274326/big-mac-index-global-prices-for-a-big-mac/>
- <https://www.undervalued-shares.com/aff/2/>
- <https://www.stock-analysis-on.net/NYSE/Company/Exxon-Mobil-Corp/DCF/DDM>
- <https://www.valueinvestorsclub.com/ideas>
- <https://www.incrementum.li/en/> - macro
- <https://www.ruleoneinvesting.com/investment-calculators-ty/>
- [onlinetradingconcepts.com](https://onlinetradingconcepts.com)
- <https://www.reddit.com/r/eupersonalfinance/>
- <https://retireinprogress.com/blog/binge/>
- <https://www.bvdinfo.com/>
- <https://www.annualreports.com/>
- <https://www.investicniweb.cz/>
- [https://www.newsoveraudio.com/subscribe?planId=plain\\_bagel\\_offer\\_91lpv\\_afl](https://www.newsoveraudio.com/subscribe?planId=plain_bagel_offer_91lpv_afl)
- <https://alternative.me/crypto/fear-and-greed-index/>
- <https://www.lookintobitcoin.com/charts/>
- <https://www.georgegammon.com/rebel-capitalist-pro/>
- <https://www.lynxbroker.cz/vzdelavani/>
- <https://www.dogsofthedow.com/>
- [https://www.reddit.com/r/eupersonalfinance/comments/ixti09/interactive\\_brokers\\_brexit\\_account\\_migration/](https://www.reddit.com/r/eupersonalfinance/comments/ixti09/interactive_brokers_brexit_account_migration/)
- [lynalden.com/](https://lynalden.com/)
- <https://us.spindices.com/spiva/#/>

## *12 Portals And Tools*

- Patrick Ceresna - <https://www.optionmatters.ca/author/pceresna/>
- Doug Casey - <https://www.caseyresearch.com/>
- Marc Faber - <https://www.gloomboomdoom.com/>
- Stanley Druckenmiller !

## 13 References

Some of those YouTube channels helped me tremendously, especially during my first year. But books are books, they cannot be replaced by any means.

Disclaimer: I knew nothing about the topic and had no background, my journey started during Christmas period 2019 and my first investment (Coca Cola) was in April 2020.

### 13.1 Books

1. [The Richest Man In Babylon](#) (George S. Clason)
2. [The Little Book of Common Sense Investing](#) (John C. Bogle)
3. [Intelligent Investor](#) (Benjamin Graham)
4. [One Up On Wall Street](#) (Peter Lynch)
5. [The Little Book of Valuation](#) (Aswath Damodaran)
6. [The Neatest Little Guide to Stock Market Investing](#) (Jason Kelly)
7. [Common Stocks and Uncommon Profits and Other Writings](#) (Philip A. Fisher)
8. [The Most Important Thing](#) (Howard Marks)
9. [Mastering The Market Cycle: Getting the odds on your side](#) (Howard Marks)
10. [Rich Dad Poor Dad: What the Rich Teach Their Kids About Money That the Poor and Middle Class Do Not!](#) (Robert T. Kiyosaki)
11. [The Essays of Warren Buffett: Lessons for Investors and Managers](#) (Lawrence A. Cunningham)

### 13.2 YouTube Channels

1. [Investicniweb](#)
2. [Finax Slovakia](#)
3. [Joseph Carlson](#)
4. [Joseph Carlson After Hours](#)

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5. [Value Investing with Sven Carlin, Ph.D.](#)
6. [Aswath Damodaran](#)
7. [George Gammon](#)
8. [Rebel Capitalist](#)
9. [Real Vision Finance](#)
10. [Peak Prosperity](#)
11. [Meet Kevin](#)
12. [Graham Stephan](#)
13. [Financial Education](#)
14. [Financial Education 2](#)
15. [Jeremy Lefebvre - Financial Education 3](#)
16. [The Plain Bagel](#)
17. [Ben Felix](#)
18. [Hamish Hodder](#)
19. [New Money](#)
20. [Michael Jay - Value Investing](#)
21. [MamaFurFur](#)
22. [Chris Chillingworth](#)
23. [Investing with Tom](#)
24. [The Swedish Investor](#)
25. [Rozumní investor](#)
26. [Dominik Kovarik - Trading](#)
27. [Martin Babocky](#)
28. [InvesticnyBlog.sk](#)
29. [Podnikajte.sk](#)
30. [Vojtech Rohlena Investing](#)
31. [Investopedia](#)

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32. [Cameron Stewart, CFA](#)
33. [Focused Compounding](#)
34. [Felix & Friends](#)
35. [Andrew Brown](#)
36. [Tom Heavey](#)
37. [Ted Bauman](#)
38. [Bridgewater Associates](#)
39. [Corporate Finance Institute](#)
40. [Informed Few](#)
41. [Interactive Brokers](#)
42. [The tastyworks](#)
43. [Marko - WhiteBoard Finance](#)
44. [Mark Moss](#)
45. [Phil Town's Rule #1 Investing](#)
46. [Let's Talk Money! with Joseph Hogue, CFA](#)
47. [HyperChange](#)
48. [Justin Scott](#)
49. [Andrei Jikh](#)
50. [Ryan Scribner](#)
51. [Learn to Invest](#)
52. [Cooper Academy](#)
53. [Ale's World of Stocks](#)
54. [Positive Investing](#)
55. [Andrew Letendre](#)
56. [Millennial Money](#)
57. [Investors Archive](#)
58. [The Motley Fool](#)

### *13 References*

- 59. [Dividend Investor!](#)
- 60. [Oaktree Capital](#)
- 61. [Jason Greene](#)
- 62. [projectoption](#)
- 63. [The Warren Buffett Spreadsheet](#)
- 64. ... and potentially a few more here and there