Conclusion – Tying It All Together

If you're not confused, you don't understand things very well. Charlie Munger

The Investing Environment

- **Behavioral Issues⇨ No MPT Or CAPM⇨ Short-Term Mis-pricings**: In the short term markets are emotional and irrational enough to either underreact or overreact and therefore regularly misprice investments above or below values indicated by their long-term fundamentals. Current price does NOT equal long-term value, which creates opportunity.
    - Mis–pricing opportunities are often caused by: erroneous conventional wisdom such as misunderstanding economic patterns and causality, differing reactions and reaction times to events, differing investor time horizons (events 2+ years in the future have little effect), differing risk and return objectives, and motivations other than profit (ego, hedgers, central banks etc.).
    - The biggest drivers of stock returns are future changes in investor emotions (often exhibited in PE ratios). In declining markets (corrections and bear), macroeconomic concerns can overwhelm the impact of company fundamentals, as can euphoria in a rising market. Emotions often stray from a reasonable interpretation of fundamentals (eyeballs and clicks). Emotions shift very quickly causing people to weigh the short-term more than the long-term, but then emotions revert to the mean. Liquidity flows resulting from emotions (aka short-term demand) are one of the primary drivers performance (the other is longer-term supply), and can swamp fundamentals. Common human emotions and behavioral biases include conformism, overweighting recent data and the first information presented, over extrapolating past trends indefinitely into the future, and avoiding complexity. Stories simplify and re-frame anchor points. Overconfidence (associating past success with skill and repeatability) develops the conviction needed for action, and shunning regret (denying responsibility for failure) both motivate the successful and unsuccessful. Emotions like hope, preference reversal, optimism, eagerness, impatience, auction fever, euphoria (sometimes justified with a story about revolutionary new technology), and greed cause people to overestimate the probability of a plausible scenario and overprice the low-probability, high-payoff alternative. Other emotions like uncertainty, pessimism, fear, and panic (more potent than euphoria); can also become excessively dominant at times and creating unwarranted PE compression or expansion.

- **Correlations Up, Diversification Benefits Down:** Correlations have roughly quadrupled since the mid-1990s (increased globalization and indexing, better and faster information), which is reducing the power of asset class diversification.

Strategy

- **Disciplined Research-Driven Investing Profits From Temporary Inefficiencies And Pricing Anomalies**: Temporary mis-pricings provide the opportunity to profit from the long-term corrective forces of an inefficient market. Informational advantages that generate deep and unique asset-class knowledge and insight about inefficient, opaque and uncertain markets are an investing competitive edge. A practical, data-driven understanding of market behavioral biases, combined with a fundamental bottom up valuation analysis and a top down macro economic approach, together identify patterns and their underlying causalities to capitalize on longer-term trends that are ignored, misperceived and shift, because that is what moves markets. Reality need only be different than expectations to change sentiment (emotions) and therefore prices. Buying today at cheaper prices what others will pay up to own later achieves superior returns. Independent thinking and acting contrarily in periods of maximum pessimism (market bottoms) or optimism (market tops) distinguishes investment track records. Discipline enables risk-reduced daring.

Find investments that are unsustainably bargain–priced relative to future value to reduce risk and capture gains. Future value increases (from either multiple and/or cash flow expansion) and current pricing should in theory be highly correlated, but in reality they often are not. A consistently disciplined, process-driven and opportunistic approach that captures market valuation discrepancies between current price and future value (often from mispriced future growth) will produce strong absolute returns over a 3-7 year average holding period. Target future exit prices 60%-100% over the initial purchase price (a 50%-60%+ discount to future value). Hold cash when bargains (risk-adjusted returns above your minimum acceptable returns) are not reasonably expected.

- **Systematic Investment Process**: The asset allocation decision to stocks, bonds, cash (multi-currency), or alternatives was responsible for the vast majority *of a diversified* portfolio's return patterns over time. Based on forward looking macro-economic conditions and capital market assumptions, start with a strategic asset allocation as your most impactful decision on returns, along with the weighting of your goals (such as maintaining a lifestyle, avoiding an irretrievable real loss of capital value, growing capital assets/income, length of your investment horizon, timing and magnitude of liquidity demands and the ability to tolerate losses).

  1. **Top Down Macro Analysis**: In beta years, when asset class correlations are high, "top-down" calling the direction of the market and trends is most important (sell to avoid a bear market).
  2. **Strategic Allocations**: Address sub asset allocations to factors such as passive and active investment strategies, business, credit, economic, and political cycles, market cap size, GIC sector and industry concentrations, value/growth/momentum styles, geography (country and region), sentiment, inflation protection, long-short factor positions, carry [trades?], volatility, and capitalizing on market behavioral errors – market sentiment, under or overreaction, erroneous conventional wisdom.
  3. **Tactical Allocation Adjustments**: Continue with tactical and opportunistic allocation shifts from your strategic allocation based on the changing market environment. Consider how each investment, and as a result your portfolio, might perform under a range of different economic scenarios (expansion, recession, inflation, deflation, bear market, strong or weak dollar, high or low oil prices). Incorporate these shorter-term trends, opportunities and risks into your allocation.
  4. **Fundamental Bottom-Up Security Selection**: Then consider optimized security selection based on fundamental analysis – current pricing versus anticipated future asset values – which may cause tactical allocations to shift to take advantage of current market pricing inefficiencies.
  5. **Manage Risks**: Finish with risk management before investing.

- **Core And Explore Strategy**: The core majority of an equity portfolio should be in fairly constant, low cost, beta–generating, diversified, passive, equity index fund investments (like VTI or RSP), allowing an investor to take some greater risks in the rest of the portfolio with concentrated, out-of-favor, shorter-term, return-enhancing, tactical strategies that may include true active managed funds, alternative investments, over-weights by passive and active investment strategies, market cap size, sectors and industries, value/growth/momentum styles, geography (country and region), and inflation protection, or some concentrated individual stock selection in a few companies that you believe you know something about that others don't e.g., 40 stocks with half your investment in 10 stocks, to provide enhancements in the quest for incremental alpha generation.

  - **Invest With A Primary Strategy And Diversify With An Uncorrelated Counter Strategy Based On Various Macro-Economic Conditions**: Have 15% of your assets in one or more counter strategies, blending investments that are non-correlated or negatively correlated to the primary strategy to moderate risk; an insurance premium against being wrong. When your primary strategy is mostly correct, this insurance will cause you to underperform, but when your primary strategy goes bad, the counter strategy might prevent disaster, and out-performance that leapfrogs over benchmarks.

- **Focus On Reducing Unrewarded Costs:** A study that considered the predictive value of different metrics, including a fund's past performance, Morningstar rating, alpha, and beta found that a fund's expense ratio was the most reliable predictor of its future performance. The odds of outperformance increase if investors simply aim to seek the lowest possible cost for any given strategy. Low turnover, taxes and transaction fees makes compounding more powerful. The use of advisors that base their fees on the portfolio's value unaffected by time, demonstrated track record, services rendered, or most importantly results should be minimized or avoided. Be aware that higher–cost funds often try to compensate for their higher expenses by investing in riskier assets.

  - A $10 million portfolio that is being charged a 0.50% annual fee, or a $5 million portfolio paying a 1.0% fee pays about $1.3 million in fees over twenty years, and $1.8 million over 25 years. Has the recipient of those fees created at least as much value?
  - When stocks return 10% over the long term, a 2% annual fee starts you 20% in the hole. On an after-tax basis a 2% annual fee means your advisor needs to be roughly 30% smarter than the market to compensate you for the greater risk of a high cost structure. If he was consistently 30% smarter than the market, odds are he wouldn't be advising you; he would be managing money under a promote structure.
  - **Manage Your Largest Cost ⇨ Income Taxes**: In tax-deferred accounts, income and capital gains are allowed to compound without taxation, and this can have a much more profound effect than the difference in current vs. future marginal tax rates. High income taxes penalize interest payments, which are the main return from bonds. High income taxes are kinder to stocks, which give more of their return in market appreciation. Poorly performing funds that do not pass through capital gains or income distributions can appear to be tax efficient. Don't buy into a fund just before the year-end distribution, typically in December; otherwise you can owe

taxes on gains you never received. Consider donating appreciated stock as charitable contributions.

  - **Optimize Trades After 3:30 PM**: There is a dramatic shift in volume to the end of the day; more competition compresses bid/ask spreads (large and small cap – 30% of all small cap volume is traded after 3:30pm). Realize that stop orders generally guarantee execution, but do not guarantee that execution will be at or even near a specific stop price.

- **Ride Your Winners By Being Slow To Sell**: Allow your "best ideas" to have a meaningful impact on your performance (*after* they have proven out your thesis) by letting winners ride up to 10%–15% weights. Be willing to hold onto fast-growing winners when they have strong long-term potential, even amid climbing valuations (multiples) morphing into a growth or momentum profile and resulting in market cap drift. The "hold" part of "buy and hold" reduces turnover and can create the appearance of growth investing because of average price multiples that are greater than the S&P 500 Index. In the 1998 peak, just 2% of the stocks in the S&P 500 accounted for 49% of the benchmarks return, large cap growth. 80% of the S&P 500 stocks were lagging the index by 15% or more.

  - Don't sell to "lock in profits;" or if it's underperforming but part of your counter strategy, or because an index is at a record high, or being down any given arbitrary amount (which tells you nothing about what the stock does next). Don't reflexively sell the stock that has risen the most. Being quite anxious to receive a positive reward causes investors to sell rising securities too soon, because they are afraid they might drop and become losers. When a stock doubles, consider selling half the position, rather than liquidating the position because it has reached "your estimate of intrinsic value." Typically the stocks investors sell significantly outperform those that they then buy over the following year. But beware regret shunning; holding on to a stock hoping it gets back to "breakeven".
  - Sell to avoid a bear market, or to avoid position or sector over-concentration (>22%), or a company suffers a material ethics/ governance issue, or on tangible failure to execute (increase earnings or cash flow), but not valuation.

Top Down Indicators Provide The Best Outlook On Future *Multiple And Timing*

- **Macro Timing, Micro Underwriting**: Valuation models are poor timing tools because crowd psychology can cause an overvalued market to become even more overvalued, or an oversold market to become even more oversold. Because an investment is up a lot doesn't mean it can't keep rising. Growth investors may pay more than your intrinsic value estimate, even when you have "correctly" estimated that value. All portfolio decisions should be considered in the context of current market conditions and an economic outlook. Your investment plan should have a long-term perspective and judgments of how asset classes will perform, focus on allocations, tax efficiency, low costs, provide discipline to endure through changing market conditions, and be systematic, but incorporate sufficient tactical flexibility to adjust for unexpected events.

Buying When Out-Of-Favor (Value Investing) Is The Complete Opposite Of Momentum Investing

- **Seek Investments That Are Cheap For Temporary Reasons:** Premium companies at premium valuations typically are poor investments. However, valuation anomalies provide the opportunity to invest in premium companies at attractive prices, which can occur suddenly from:

    - Emotions like optimism, impatience, auction fever, overconfidence, and euphoria and greed cause people to overestimate the probability of a plausible scenario and overprice the low-probability, high-payoff alternative. Periods of changing sentiment from common human emotions and behavioral biases such as conformism, overweighting recent and the first data presented, over extrapolating past trends, and relying on stories to simplify complexity and re-frame anchor points.
    - The most common cause of low prices (lower PE multiple) is uncertainty, pessimism, fear and panic sometimes from misunderstood macroeconomics (business, credit economic, inflation, and political cycles and dynamics), sometimes specific to an investment strategy, market cap size, sectors/industries/companies, styles (value/growth/momentum, and geography (country, region, currency).
    - Differing investor time horizons (events 2+ years in the future have little effect). Differing reactions and reaction times to events and economic releases.
    - Market inefficiencies resulting from unfounded macro fears, sometimes from outsized market responses to economic releases. In declining markets, macroeconomic concerns can overwhelm the impact of company fundamentals. Liquidity flows (short-term demand) are one of the primary drivers performance (the other is longer-term supply), and can swamp fundamentals. Exploit market inefficiencies by buying when valuations decline, as a result of macro fears (typically a correction – since 1950, there has been at least a 7% intra-year correction in all but 14 calendar years). When stocks fall fairly swiftly, it's more likely normal equity market volatility or a correction than the beginning of a bear market.
    - The market focuses on a short-term trend or risk, and ignores or disregards a corresponding long-term trend. This dichotomy between the market's short-term focus (perhaps based on real short-term issues) versus long-term trends is most apparent in a handful of key economic and political factors:

        - interest rates, inflation, energy prices, deficits, consumer and governmental debt, governmental regulation, downturn of the economic cycle, slow GDP growth or forecasts or recessions, tax changes, unemployment, sharp currency movements or currency strength, international regions in distress will harm the global economy, and PEs.
        - Geopolitical tensions (war) typically must be global and surprising to smack markets. Markets typically then recover fairly quickly creating a buying opportunity after they have dropped sharply.

    - Forced liquidation of large positions in an illiquid stock. Little-followed post bankruptcy-reorganization equities with a poor reputation when the issues causing the poor reputation have been cured through the bankruptcy proccess.

- Differing risk and return objectives, and motivations other than profit (ego, hedgers, central banks etc.).
- Sudden shifts in relative valuations across country- and sector- levels. An industry and sector is out-of-favor or underperforming.
- Sudden shifts in style preferences and/or asset classes.

- **Maintain But Underweight Classic Value Strategies**: A minority of your portfolio should be attractively priced companies with extremely low built-in expectations (from poor historic management underperformance or unexpectedly worse results), which can appreciate on very little good news because it is unexpected and therefore not built into the stock's price. Invest in these turnarounds only when there are a limited number of turnaround variables that are within management's demonstrated competence to fix, realizing that if the value of a company is measured in the quality of its management, there is little margin for safety.

  - Instead invest a majority of your portfolio in the highest quality, best-of-breed, leading GARP, QARP, and consumer staples companies. Over the past 30 years, the highest-quality stocks have outperformed the lowest-quality ones by about 3.8 percentage points by curbing big corrections and bear market losses, even though they underperform the market during rising markets [creating a buying opportunity]. Require strong balance sheets (sufficient liquidity to fund debt maturities, to avoid being forced to sell valuable assets at pawnshop prices, and to meet the challenge of fat tail risk occurrences); high margins (evidences sustainable cost advantage and pricing power leading to enhanced market share, operating leverage and free cash flow, and also provides downturn protection); high ROE/ROIC (accretive cash flow> capital cost); sustainably growing revenue (core focused, geographic or market scalable) becomes a catalyst to unlock value, earnings (positive revisions drive price momentum and liquidity flows) and cash flow (more reliable than EPS); and paying sustainable dividends (greater locked-in gains, reduced risk from capital allocation mistakes and result in 50% greater appreciation, and when reinvested 75% of annual US stock market returns); and purchased at a discount to future value (safety) after momentum-driven, speculative "risk-on," late-cycle bull markets result in a reduction or elimination of their typical pricing premium (a situation missed by many).
  - Quality SMID stocks with compressed PE's due to trading illiquidity (small size or complexity).
  - The highest one-third of dividend payers, after interest rates have risen.

- **Assets Bargain–Priced Relative To Future Value**: Rather than return chasing last quarters or last year's top performing strategies, sizes, sectors, industries, styles, and geographies; concentrate in the best companies within any given industry when their pricing is appropriately discounted (keeping your turnover and trading costs low) in the worst performing strategies (active, passive, inflation protection), market cap sizes, sectors, industries, companies, styles (value/growth/momentum), and geographies (country, currency and region). That are:

  - **ID Economic Conditions And 7% 1+ Year Market Trends, Catalysts, Momentum**: Exhibiting some signs of momentum, or a catalyst, and that based on your economic outlook you believe will recover first (business, credit, economic, inflation and political cycle timing, and sentiment changes), even though they currently appear unattractive. Ideally identify trends in their early stages that typically develop into moves of at least 7% of the S&P 500, lasting at least a year.

  - **Repeat Independent Action**: As, and whenever, the strategies, sizes, sectors, industries, styles, geographies rotate you will be the recipient of higher value. Then make acquisitions in the strategies, sizes, sectors, industries, styles, and geographies that fell from grace and that you believe will next recover. This contrarianism requires a willingness to stand in defiance of prevailing wisdom and patience to "look beyond the valley" to find alpha.
  - **Significant Bottom-Up Over Weights Require Macro Top Down Confirmation**: Focus investment selection on fundamental bottom-up, valuation strategies (current pricing vs. future company values) and timing on outlooks and trends. Only allow stock selection to result in factor (strategies, sizes, sectors, industries, styles, and geographies, and inflation protection) over–weightings if confirmed by your macro thesis. Brandes over weighted Japan, telecom and deep value simply as the result of their bottom-up security selection, and were crushed by macroeconomic headwinds.
  - **But Be Slow To Invest In Worst Bear Market Sector**: In a bear market, some sector often goes bad first, and typically underperforms for many years. The sectors that had the biggest market-cap weight at the peak of the bull market (therefore probably the highest PE and not likely to be the "discount sector") fall the most during the entire bear market. Be slow to invest in this sector.

- **Buying Opportunities Often Don't Last Long**: Emotions shift very quickly causing people to weigh the short-term (valuation swings and corrections) more than the long-term, but then emotions revert to the mean. When stocks fall fairly swiftly, it's more likely normal equity market volatility or, a shift in sector rotations strategies, or a correction than the beginning of a bear market, and therefore a buying opportunity.

  - **Usually Buy The Dips, Subject To Your Bear Market Macro Call**: To earn above-market returns you have to take advantage of bear markets, corrections and dips. If you can be patient until opportunities arise and have cash available, then when some news makes investors nervous and you retain the courage of your convictions, you should be able to generate excess returns.
  - **If Not A Bear, But Market Quickly Drops 10%, Invest Half Your Cash, Down 20% Invest All Investible Cash**: Since 1915 the markets have averaged almost one 5% correction every quarter. About three-quarters of all 5% drops in the market never develop into anything serious. Since 1950 in 75% of all calendar years there has been at least a 7% intra-year correction. Once stocks slide a bit more than 7%, there's an even chance the downturn will worsen into a full-fledged bear market (down 20%+). There have been only two-dozen calendar year declines of 10%+ since 1925. If the stock market drops 10% from the point you started investing, immediately invest half your investible cash. If the market drops 20% from the point you started investing, invest all your remaining cash (only about a dozen times over the past seven decades.)

- **Invest Your Big Cap Allocation First, Then Small Cap:** Look for sectors, industries and stocks that have already been knocked down and are attractively priced.

- **Average In As Conviction, Discounts And Momentum Build:** Bring an investment into your portfolio in steps, building positions as you get more comfortable with the company and the investment thesis. Assemble large portfolios through a series of smaller acquisitions, big "small deals." Assign each potential investment and each holding a conviction rating of high or moderate and a valuation rating reflecting the degree of discount: large (40%+), or medium (25%). Have less conviction in riskier sectors and companies. Have the greatest conviction when value and momentum are aligned. For high conviction and large discounts investments consider an initial position size of between 3.5%-5%, for high conviction and moderate discounts 2%-3.5%, moderate conviction and large discounts 2%-3.5%, and moderate conviction and moderate discounts 1%-2%. If a holdings price declines, take advantage of the opportunity to "nudge" the stake higher when and if your conviction in a pick remains strong. Since the stock market rises more than it falls, there are far more examples where adding to your best investment ideas as their prices fall, creates significant value over the long term. But doubling down shouldn't be a knee-jerk response. You need to fully assess whether facts have changed – reread your investment thesis and reread opposing viewpoints.
- **Rebalance Annually Or At 5% Allocation Deviation With New Money**: Rebalance with cash 1-2 times annually to target factor percentages or when allocations deviate from targets by 5 percentage points. Rebalance with new money, dividends, interest payments, and distributions to maximize the impact of stock selection, reduce trading costs, and eliminate turnover improving tax efficiency. With rebalancing you buy more of an asset that has recently declined and sell a portion of an asset that has risen, in other words, buy low, setting you up to sell high. Reduce re-balancing from selling winners because this triggers capital gains tax and transaction costs and your new investments may not do as well.
- **After A Really Long 20 Years, Timing Less Critical**: Dollar cost averaging eliminates the possibility of one big mistake that would cause significant regret accumulation, so it is emotionally appealing. However, lump sum investing typically works better than dollar cost averaging, particularly for broad indexes, because the market moves higher more often than not and you incur lower commissions. If you believe the market might be at a bull market top and therefore soon to be down a lot, don't dollar cost averaging; wait. Over 20 year periods, perfect timing added 23% more value over the worst possible timing but the worst possible timing beat cash by 225% – the worst returns belong to investors who waited indefinitely, and never invested. The performance difference due to timing is realistically around the midpoint between 0% and 24%. Timing impact on returns for investment holding periods of less than twenty years can be much more significant. It's highly unlikely that your patience will last for two decades to see a positive return.

Allocations

- **Allocation Drivers**: Allocate by passive and active investment strategies, business, credit, economic, and political cycles, market cap size, sectors and industries, value/growth/momentum styles, geography (country and region), sentiment, and inflation protection to manage the individual, systemic, and passive factor exposures that drive a portfolio's returns. Within the equity universe for the world's 500 largest stocks, 44% of investing results are driven by stock selection, 28% by sectors, and 15% from country effects. After those allocations, costs become the most powerful determinant of performance within any given investment category.

- **Index ETF Advantages**: Index ETF's can offer diversification, low expenses, lower turnover (with lower associated transaction costs and higher tax efficiency), and competitive long-term performance versus active managers. Additionally, ETF redemptions don't cause capital gains. ETF's invest all their cash, so their downside performance typically matches the market. However, a better upside capture ratio typically more than makes up for the lack of cash downside protection.

  - **Market Cap-Weighted Indexes Assume Markets Are Efficient:** Market capitalization weighted indexes rely on the wisdom of the market to correctly price stocks, reflecting investor consensus estimates of each company's relative value and how the average investor has performed. You are buying what everyone else is also buying at the worst times, disproportionately the most expensive, large cap stocks, typically at peak sector and style (growth vs. value) pricing. The 50 largest US companies represent over 25% of GDP. Yet only the top 10 positions account for 20% of the index and 85% of the portfolio is concentrated in only one-half of the 500 stock sample (250 stocks), none of which are in favored (overweight) sectors. They are concentrated in the financial (3) and tech (4) sectors, with none in the smaller-cap industrial, material, telecom or utilities sectors. Market mis–valuations result in mis–allocations. However, broad capitalization weighted index funds do avoid the need to re-balance reducing turnover, transaction costs and taxes.

    - Since 2008, 240 of the 500 companies in the S&P 500 have changed.

  - **Equal Weighting**: Equal weight rebalancing is a bet against market wisdom, providing a contrarian bias, reducing concentration risk in a few mega individual securities thereby offsetting the higher weights placed on volatile smaller stocks, but results in selling winners too soon and creating higher costs and taxes. It reinvests profits in out-of-favor index sectors, styles and companies; building positions early and better captures the reversion to the mean.

    - With two significant bear markets (2001 and 2008) the equal weight S&P 500 index outperformed the market cap-weighted index, even though its level of outperformance narrowed during the depths of the 2008 bear market. In one of the worst stock market downturns (2008-09) the spread advantage of the equal weighted S&P 500 index over the market weighted dramatically narrowed, most likely demonstrating the out-performance of large and mega caps in a down market. However, given the equal weight index outperformance prior to the downturn, its absolute bottom was still above the market cap weighted performance of the S&P 500. The equal weighted S&P 500 index has beaten the capitalization-weighted index by about 50% from 1990 through 2012 (typically 200 basis points a year in developed markets and more in less–efficient markets like emerging markets) with slightly less volatility. In virtually every time period from 1926 through 1996 an equally weighted index outperformed the capitalization weighted S&P 500, by almost 200 basis points over a 10-year, 51-year and 76-year time period.

- **Equal Weight = Small Cap Bias**: An equal weighted index effectively disregards the important market cap size factor, and the potential benefits of holding mega-cap companies during the later half of bull markets and during bear markets. One way to address during the last half of a bull market is to invest in the Guggenheim S&P 500 Equal Weight (RSP) and rebalance by buying Bridgeway Blue Chip 35 Index (BRLIX), which equal weights the largest 37 companies in the S&P 500. BRLIX has a weighted average market cap that is twice that of the S&P 500, and over eight times that of RSP. BRLIX was down 33% in 2008, while RSP was down 40% (but from a materially higher base). By comparison the market capitalization weighted Vanguard S&P 500 ETF (VOO) was down 37%.
- **Equal Weight Or Smart-Beta Any Sector Funds**: Equal weight may be better than market cap weighted funds for tactical investments in sector funds. For the S&P and MSCI equal weight indices, sector allocations change only when the number of sector constituents changes. The consistent rebalancing results in sector exposures that are relatively stable and tighter over time, reducing exposure to market bubbles. Also consider a smart beta approach like the Alphadex funds. Equal weighting has a slight overweighting in utilities, materials, and consumer cyclical (discretionary) stocks and underweighting in telecommunications, technology, financials, and health-care stocks. This varies over time. Check current equal and market cap weighted index sector weights and compare to GDP by sector.

○ **Benchmarks = Average Performance, Focus On MAR**: The narrower an index, the more volatile it will be and with higher trading costs and less tax efficiency. Volatility reveals how much the components inside an index are negatively correlated to each other in the short term. Volatility doesn't correlate with return. Select the benchmark with the least volatility. The broadest indexes are the globally oriented ones. Russell indices are rebalanced annually in June, which can generate significant turnover, volatility, and return-reducing front running. SPDR indexes cannot reinvest dividends, lend securities, or invest in index futures. S&P rebalances throughout the year. CRSP indices mitigate size turnover with buffers.

○ **Minimum $100mm AUM**: Many tiny ETFs aren't profitable, 295 US-listed ETFs have terminated since the end of 2007, which could result in adverse investor tax consequences. A fund smaller than $50 million probably loses money for the firm that sponsors it, and funds with less than $100 million in assets have wide trading spreads and low liquidity.

- **Determine Active Vs. Passive Mix**: The investment objective is to maximize the expected return above the MAR, subject to the risk of falling below the MAR. Favor not only diversification of asset classes and factors, but also diversification of methodologies. Determine what combination of low-cost active managers (outperformance likeliest with international, small cap and value) and passive indexes will achieve the targeted MAR and offers the opportunity to outperform, while adding some risk control. Active managers need to add value (alpha) over a portfolio's average passive index MAR to be a justifiable investment. 75% of actively managed funds underperformed the average low-cost index fund across investment categories and time periods. As more money flows from active funds to index funds, it should become easier for active funds to find underpriced stocks and outperform. Active management presents an opportunity to generate positive returns even if the indexes do not.

  - **Index 80% Large, 40% Small, 30% Foreign**: Index 80% of large capitalization stocks, 40% of small capitalization (requires more diversification via active managers), and 30% of international stocks.

- **The Key To Active Management ⇨Hold Onto Winners⇨ Low Turnover, Expenses:** Passive index investing has a 2% advantage from low expenses (0.1% expenses vs. 1.3%) and low turnover (5% turnover vs. 62%, which results in a 0.8% trading expense advantage). The average US stock fund's typical holding period is just 15 months and is a key reason that active managers underperform indexes. Replacement stock and fund investments usually underperform good picks that have subsequently been sold, reducing returns and adding trading (both selling and buying) and tax expense. To compete with passive funds active managers must find and heavily overweight undervalued businesses that can withstand the test of market cycles over time. Active managers must practice a long-duration stock picking discipline by holding onto their winners, thereby drastically reducing turnover and trading expenses. This requires investing in the highest quality, best-of-breed, leading GARP, QARP, and consumer staples companies with strong balance sheets (limited debt moderates distress); high margins (market share and pricing power, cash flow, downside protection), strong ROE/ROIC (accretive cash flow> capital cost); growing revenue (core focused, geographic or market scalable), rising earnings (positive revisions drive liquidity flows) and cash flow (more reliable than EPS); and paying dividends (greater locked-in gains, reduced capital risk); and purchased at a discount to future value (safety).

  - **Active Manager Top 3%, Concentrated Selection Criteria**: Look for those managers in the top 3% over ten years that have low expenses, low turnover, concentrated portfolio's, the same management as the historic performance period being evaluated, and have been through several up and down market cycles – ideally at least one bull and one bear market. The average active US stock fund has 19% in its five biggest positions (~4% each), so it's too diversified for the fees they charge. Avoid funds that perform significantly worse than the market in down markets.

    - **Rules–Based Methodology (Smart Beta) To Reduce Expenses**: Research to find value results in higher expenses, but lower expenses are the most reliable predictors of future performance. An effective rules-based methodology may reduce research expenses.
    - **No Closet Indexers (⅓ Of All Equity Fund Assets), Prefer Concentrated, High Active Share**: High conviction active managers represent less than 20% of all funds. On average, funds with lower active share didn't beat their benchmarks. Managers with the highest active-share rankings in their categories often focus on just a couple of dozen holdings and are willing to make big moves into cash when they don't see compelling bargains in the market.
    - **Large>70%, Mid>85%, Small>90% Active Share**: Large stock managers should ideally have an active share above 70%. Mid-cap managers should have an active share above 85%, and small-cap managers should exceed 90%.

- **Closed End Funds Prefer Z-scores <-2, Avoid >2**: The z-score, or z-statistic, compares a fund's current discount (or premium) to its historical discount (or premium) over a specified time frame.

- **Don't Change Manager Unless >4 Of 10 Years In Bottom Half**: A consistent corollary is that underperforming managers fired by US pension plans actually outperformed the managers hired to replace them by 49 basis points in the first year, 88 basis points over the first two years, and 103 basis points over the first three years. It is difficult to maintain discipline and consistency of application during periods of underperformance, but the willingness to underperform an index and peers, is a critical component of most great track records. More than 90% of the top quartile managers over the last 10 years spent at least three years of the ten in the bottom performance half compared to their peers. Almost 70% spent a three-year+ period in the bottom quartile relative to peers. 65% of the time awards–winning Morningstar US stock fund managers tend to beat their benchmark over 10 years. Of the 5,763 funds available to investors in 2007, only 174 (3%) achieved top-quintile excess returns over *both* the five years through 2007 and the five years through 2012. Most fund managers that outperformed on a 5-year basis underperform in two or three of those five years. Even if the fund outperformed for 10 years (only 15% managers outperforming for 5 years, outperformed for 10 years), its odds of outperforming over the following 3 to 5 years are only about 50–50. 85% of former five-year top performers fell significantly below their benchmarks' returns (the fourth and fifth quintile funds trailed by 2.07 and 4.59 percentage points, respectively), meaning that past leaders are more likely to underperform than to continue to be winners. These results are no better than random. Don't invest in mutual funds based on their first year performance. Require at least 3 years of performance history at a minimum and preferably history that spans a bull and bear market cycle.

  - **Active Manager "Red Flags"**: Assets under management grow too large or too quickly, internal processes change or style drifts, fees increase, or communication deteriorates. If key man compensation shifts from cash to an ownership interest, realize this can change focus to asset marshaling rather than performance, and ultimately to a closet indexing strategy.

- **Concentrate With Only A Few Funds To Beat Averages**: Instead of chasing past performance returns, seek active managers with proven track records, research-driven, disciplined, repeatable investment processes that produce excess returns that work for the stated reasons at costs competitive with indexing. To maximize the benefits of active management select just a few active managers and monitor their personnel changes. Keeping the good manager who created the performance track record is a key challenge. Increasing the number of active managers can lower a portfolio's chances of beating index funds, as underperformance tends to wash out the outperformance from funds that win. The more active funds a portfolio has, the closer the overall portfolio performs like an index fund.
- **No Equity Hedge Funds**: If the overall market is up 10%, then hedge fund operators would need a 17% return to beat that return for investors, given a 20% carry, a 2% annual fee and taxes (heavy short term gains). It is difficult to understand opaque hedge fund performance attribution and how likely is

replication. Hedge fund indexes probably overstate actual returns because they may only report returns for funds with strong returns and opt out of reporting returns for weak performers and exclude the 10% – 20% of hedge funds that go out of business each year, an attrition rate four times the level experienced by mutual funds. Over half of all hedge fund managers have track records of less than five years, and 90% have less than 10 years. Balancing short and long positions hasn't proven a success, probably because of the broader influence of (ineffectively managed) factors: growth versus value, market cap, sectors and industries, and countries. Most long/short equity hedge funds and mutual funds tend to stay net long. As a result of this net positive equity exposure, long/short equity strategies generally remain highly correlated with equities. As long as market volatility doesn't exceed the collar, the manager's returns will look positive. The last time markets crashed (volatility greater than the collar), so too did hedge fund returns. The alpha of hedge fund investors is close to zero for the period from 1980 to 2008. Dollar weighted hedge fund returns are reliably lower than the return of the S&P 500 Index. Most hedge funds are too expensive considering that too much of their return comes from equity markets going up, an investment return available for far less.

- **Judge Management By Its Results, Not Its' BS**: Good people can be identified from their past record, alignment of incentives, candor, and long-term focus. A survey of more than 400 senior [public] corporate executives in 2003 found that 59% wouldn't invest in a project that would generate significantly higher long–term profits if it reduced earnings in the short run. Management should have a willingness to subordinate immediate profits for greater long-range gains; after all a competitive advantage of a public company is its "permanent equity" structure. Review a company's corporate governance structure and management incentives and compensation to ascertain if management's interests are aligned with shareholders and they are paid for the long-term value created. Consider if performance is commensurate with the amount of risk taken. Management equity awards should be based on value added (not tenure). Consider if current management created the past track record, stability of the team, turnover and "key–man" risk.
- **Selecting A Financial Advisor**: The single most important advisor selection criterion is their recommended asset allocation.

    - **Banking Relationships**: Choose one lead banking institution, with two additional institutions for risk diversification. Criteria may include the quantity and quality of: investment advice to generate investment ideas, discretionary and/or customized investment mandates, sourcing of investment opportunities such as private placements and less conventional investments, access to global research publications (from strategic views to tactical advice to asset class focus), and access to various types of debt financing (asset-based and securities lending on a broad-range of asset classes). Consider the institutions capital base and historical financial performance, paying particular attention to down markets. Ideally performance management and reporting can be consolidated to improve decisions. UBS and Wells Fargo research seem to be heavy on conventional wisdom and low on insight, while Fisher Investments, Credit Suisse and JP Morgan seem to have more independent ideas and insight.

Bottom–Up Fundamental Analysis Provides The Clearest Picture Of Potential Future *Earnings And Specific Investment Selection*

- **Stock Selection – The Core of Fundamental, Bottom-Up Investing**: To narrow the investable universe isolate and exploit the specific economic phenomena of successful companies by using a rule–based methodology that establishes minimum hurdle levels for measurable, fundamental, multi-factor performance criteria over several years as a way to gauge the repeatability of a track record. A firm's five-year track record is the single best indicator of future success; reducing reliance on a "story". So carefully examine a company's "business model" as revealed by historical financial performance. A true economic moat must be evidenced somewhere in a company's financial statements or it is not an advantage to be valued. Such financial evidence may include high returns on equity, assets or capital, high margins, and strong consistent generation of revenue and free cash flows. Additionally your macro view could narrow your focus to particular countries, sectors and industries. Stock selection matters. Tailwinds (business, credit, economic, and political cycles, market cap size, sectors, styles, geography, sentiment, and inflation protection) also matter. Define a universe of the best public companies and from this universe of stocks, have a "watch list" of several hundred stocks and a "short list" of 30-40 stocks that are not in the portfolio, but are put "on hold" waiting for the "valuation event" or "catalyst event", so they can move into the portfolio, guided by your top-down analysis.

    - **Low Costs And High Margins**: A consistently high operating margin evidences pricing power, often as a result of dominating a market, eliminates mediocre businesses, and enhances cash flow. Low cost providers with a significant, sustainable cost advantage can increase prices slower than competitors, and profitably steal market share. Companies with low cost structures have low breakeven points (providing downturn protection) and operating leverage that can create tremendous upside with large earnings gains from even small sales increases; but unlike operating leverage created from high fixed costs, without the downside amplification when revenues decline. Companies with lower overall fixed costs (often services) have less operating leverage, which is favorable when sales are down, but a negative when sales are rising.
    - **ROE**: The most important management act is the allocation of the company's capital. Companies that generate significant cash flow, in combination with high returns on capital, make incremental growth accretive, and build a strong long-term investment return. Cash flow greater than the cost of capital required to generate that cash flow, leads to strong returns on equity. Compare the trend in historic asset spending to the trend in sales and earnings (a real problem with MLPs). Self-funded profitable growth generates high free cash flow and retained earnings for expansions (either organic growth or smart serial acquisitions), R&D, productivity enhancements, debt reduction, cash accumulation, dividend payments, or stock buyback, rather than relying on risk-increasing debt or dilutive new paid-in capital secondary offerings (also a problem with MLPs).
    - **Sales Growth**: Acquisitions are a unique skill; organic growth is typically more predictable. 87% of the most successful growth companies had a single, dominant core business that they expanded systematically and organically – if you can't earn more business from current customers, you

won't win your competitor's customers or keep business from customers you buy through acquisition.

- Only small minorities of companies achieve true sustained, profitable growth (5.5% average annual revenue and income growth *and* earn the cost of capital) over 10 years. The odds of success for a major business growth initiative far from a strong core are low, probably less than 10%. Less than 3% of sustained growth companies had three or more strong cores. Small and mid-cap companies tend to be more focused on a single line of business. Fast changing industries (earnings increasing over 15% annually), and cyclicals, don't provide businesses whose earnings are virtually certain to be higher in the future. Focus on an absence of change. Growth scalability, internationally or otherwise, is the key to long-term success, which eliminates cost cutting companies in decline and companies unprofitably buying market share. The size of a company's existing and potential markets doesn't appear in its financial statements.

- **Access To Credit ≠ Cash, High Debt = Risk**: Be certain a company has sufficient liquidity to fund debt maturities; a debt maturity date can change a manageable situation into a fatal one. In 2008 even the most credit worthy firms were shut out of the credit markets, forcing them to sell valuable assets at pawnshop prices. High levels of debt increase refinance and downturn repayment risk, and impede a company's ability to meet the challenge of fat tail risk occurrences such as lawsuits, the loss of a major customer, inflationary and deflationary environments, or currency crisis's. Debt can artificially increase, and therefore mask, the returns of a mediocre business. Any company that requires constant access to new capital indicates they are financed with short-term funds (hedge funds and banks) and therefore is a company at risk. Seek cash rich companies, ample free cash flow, a low total debt to capital, debt to EBITDA, and cash to liabilities ratios, but seek high interest coverage. Evaluate a companies credit score, credit default swap market ratings, and how a company's bonds are trading compared to their par value. Consider debt covenants, any onerous interest payments coming due, any asset restrictions – particularly on cash, and cash per share (net of total debt) as a percentage of the share price. For companies with options available, short interest above 5% may be bearish, for stocks without option trading 1% may be bearish. Short interest in small cap companies and in stocks with generous dividends is more bearish. Limiting debt eliminates many classic value plays.
- **Focus On Sustainable Dividends**: Consistent and growing dividend distributions require ample free cash flow, reduce the risk of a capital allocation mistake or dividend cut, and meaningfully raise the odds of long-term success. From 1974 to 2013 stocks that grew or initiated dividends appreciated roughly 50% more than those with no change in dividends or that never paid dividends, and more than double stocks that cut or eliminated dividends. After adjusting for inflation, reinvested dividend income has accounted for nearly 75% of annual US stock market returns over the last century. S&P 500 dividend growth has exceeded inflation, and there is less short activity with dividend payers. In all the bear markets since 1972, stocks that pay dividends suffered about half the losses of non-dividend payers, except dividends don't cushion stocks from downturns caused by rising interest rates. The stock market cannot take away

previously paid dividends. The highest-yielding quintile of dividend-paying stocks does not produce the best results. Look for a company's ability to sustain cash flow to support the dividend, a quality indicator. Payout ratios over 50% indicate danger (REITs, MLPs). A multi-year history of raising dividend payout ratios is a plus. A dividend requirement is attractive to yield-seeking baby boomers, but eliminates many classic growth plays, and leads to more mature, free cash flow-generating companies. Watch dividend fund sector allocations; don't overweight telecoms, utilities, REITs, or MLPs. Unlike dividends, stock buybacks tend to peak when pricing peaks, resulting in a "buy high" repurchase, that also improves EPS. But when buybacks slow in a down market, so will EPS, amplifying downside volatility.

- **Cash Flow And EPS**: A strong earnings history (dividends plus after tax retained earnings) is a critical driver of a stocks price. An improving earnings outlook, as evidenced by positive revisions, along with improving capital flows, will often drive share price momentum. However, it takes very little accounting sleight of hand to change an earnings picture completely. Cash flow is a more reliable measure of performance.
- **Price-to- Cash Flow And PE Ratio**: Investment returns depend on the one variable you can control; initial purchase price. At acquisition a PE should be less than or equal to its five year average or the sector or market average, or less than the companies five year sales growth rate (PEG ratio), or less than its five year earnings growth rate, or less than its return on equity. Consider historic price trends (momentum).
- **Source Of Over Confidence**: Remember that careful procedures themselves often lead to an over–confidence in their outcome. *Charlie Munger*

Four Investing Strategies

1) Quality Growth At A Reasonable Price

- **GARP**: Over a full business cycle it is better to own a few outstanding companies at reasonable prices, than a larger number of average businesses at cheaper prices. The highest quality, best-of-breed, leading GARP and QARP companies have the resources to tolerate operational and financial adversity, temporary mismanagement, below–average sales, or ugly headlines, uncertainty, class action lawsuits, a government probe, indictment, pending illegality or criminal charges and potential downturns in the industry or economy without causing permanent capital impairment. Higher quality, stable growth companies are typically a defensive style (avoiding the big losses that occur during corrections or bear markets), and tend to have lower Beta's. Because the highest quality, best-of-breed, modestly growing, leading GARP and QARP companies are typically priced at a premium, timing is more important than with other strategies – you must invest when they are underpriced relative to future growth prospects and a bargain (a PE multiple substantially less than its expected growth rate). When PE's converge, that premium is often below average, creating a "stock pickers" buying opportunity. Instead of picking stocks that appear to be at a discount, focus on stocks that should have a premium (quality and momentum).
- **High Quality Growth Is An Organic Catalyst**: Buying a dollar for 60 cents (when it's PE multiple is untenably compressed from top-down macro timing impacts) requires a catalyst (takeover, merger, liquidation, management change, or top-down macro tailwinds - business, credit, economic, and political cycles, market cap size, sectors, styles, geography, sentiment, and inflation trends), with uncertain

timing to unlock value. Making a dollar from 60 cents requires growing cash flow by two-thirds. But by investing in growing enterprises the investor is not forced to wait for a catalyst, as its own growth becomes a self-fulfilling catalyst (the results of high quality is more likely to be "discovered" in a timely fashion).

- **Sales Growth**: Market or geographic scalability of a single, dominant core business expanded systematically and organically (typically SMID), is the key to long-term growth. Self-funded profitable growth generates high free cash flow for expansions (either more predictable organic growth or smart serial acquisitions – a unique skill), rather than relying on risk-increasing debt or dilutive new capital secondary offerings. Relatively few companies achieve true sustained, profitable growth (5.5% average annual revenue and income growth *and* earn more than the cost of capital leading to strong returns on equity) over 10 years. Fast changing industries (earnings increasing over 15% annually), and cyclicals, don't provide businesses whose earnings are virtually certain to be higher in the future. Slower growth is more predictable and less expensive (low PE multiple) than faster growth. Strong (top-third) growth rarely lasts 10 years.

    - **Relationship Networks Increase Quantity And Quality Of Acquisitions ⇨ Performance Persistence**: Relationships become competitive advantages from unique insight in and access to private or shared information, contacts and experience; returned favor reciprocity; and a reputation of adding value.

- **Generally Unrecognized (Non-Consensus) Cash Flow Growth May Originate From**:

    - Improving pricing power from re-positioning's; industry consolidation;
    - Near completion of a capital expenditure cycle and realization of subsequent benefits,
    - Other meaningful reduction in capital spending;
    - Research and development;
    - Accretive asset sales and spin-offs at retail prices (sum of the parts valuation);
    - Fixing temporary or correctable flaws related to a capital structure such as freeing trapped excess cash;
    - Accessing more favorable financing and increasing leverage;
    - Deleveraging debt reduction;
    - Free cash flow returned to shareholders as increased dividends or stock repurchases (but only when stock is undervalued);
    - Improving margin outlook from corporate restructuring and productivity-enhancing initiatives, cost saving synergies and more efficient operating programs.

- Warren Buffett's discipline to stick to his approach, and his structure, contributes to his success. Berkshire Hathaway is an evergreen vehicle (avoiding asset churn to trigger carried interest promotes and investment banking fees) that owns a few stocks and often takes public companies private, but the public companies in which he has invested have outperformed the private ones. He combines about 60% long-term margin leverage borrowed from his private insurance companies without risk of redemptions or margin calls, at as much as 3% lower than the average T-bill rate; with stocks that tend to be much less risky than the market, cheap, safe, quality stocks whose margins (as a percentage of assets) are above average and growing (over 5-years) at an above-average pace and that pay out a significant portion of their earnings as dividends.

  - **Avoid These Examples Of Low Quality**: Typically avoid companies (except as part of a well-defined counter strategy) with: 1) depleting assets, 2) companies that are capital intensive, and 3) commodity-oriented businesses, which will probably be reflected in sector weightings resulting in minimal exposure to basic materials, energy, telecom, or utilities, as it's difficult to create a competitive advantage in these sectors. The hunt for consistent earners underweights sectors such as financials and materials stocks.

2) Unrecognized Value Of The Parts Worth More Than The Whole

- **Buy Wholesale, Sell Retail**: SMID companies with hidden asset value such as appreciated real estate; under-water carried interests or incentive payments; under-stated inventory values, brand names and franchises; overfunded pension plans; or other dormant assets selling below probable liquidating value and a catalyst at a company or industry level to capture it.

  - **Private Market Catalyst**: When the public markets are undervaluing the assets of a public company, take it private (perhaps using virtually all debt?) in a friendly transaction (or conduct a proxy fight to get board seats and control) and then sell the company, or sell off all the assets or sell off pieces on a timely basis that will enable you to recoup most, or all of, the purchase price so that you're left with assets at virtually no cost or cash, to capture the company's unrealized value. Alternatively you could greenmail the company by selling your shares back to them for a premium to go away or entice a third party to purchase the company, which would cause the shares to go up.

    - When an entity is contractually entitled to a significant promote, but given the underlying (poor) performance of the investments doesn't put significant value on that promote, buy the entity in a private market transaction when you believe you can turn the underlying investment's poor performance around.

3) Diamonds In The Rough

- Seek SMID companies that are under-followed, widely misunderstood, underestimated or misperceived, and less liquid (like spin-offs, owner-managed companies, or private companies) and when a catalyst exists to change it. McKinsey studies showed that family firms beat global stock market returns by an average of 3% a year between 1997 and 2009. The family gives the company an inherent focus on long-term growth of the company. Owner managed companies tend to spend capital as if it is their own money and are adverse to debt. The strongest corporate model may be family owned, publicly traded and professionally managed.

4) Be Careful With Uncertainty And Headline–Risk Public Companies

- High quality companies with wide competitive moats infrequently trade at steep discounts, so it requires buying when either their market premium is below historical averages and growth rates – the previously discussed GARP strategy, or when their prospects appear uncertain or under a cloud. This strategy focuses on good businesses temporarily generating returns below its own historic average, or under a temporary company-specific cloud with ugly headlines, uncertainty, or experiencing temporary business disruptions such as depressed operating margins or interrupted earnings patterns that can be fixed. Perform a re-buy decision; ignore the hype because that is priced in. Complexity and opaqueness that leads to the largest mispricing's require exceptional fundamental bottom-up research within your circle of competency to determine if the "bad news" is just temporary PR adversity or a really serious issue i.e. class action suits, or a core dysfunction, or a government probe, indictment, pending illegality or criminal charges, and whose ultimate reversal depends on a very small number of variables that management has demonstrated they can execute on. This approach is riskier than the GARP strategy.
- **Turnarounds**: Turnarounds should depend on a very small number of variables that management has demonstrated they can execute on. Turnaround and restructuring plans often are not successful, so avoid paying too much for what could go right with this riskier strategy and look for a margin of safety, typically a low price. Turnarounds are more often successful in private markets with their greater control and reduced quarterly return focus.

    - **Shareholder Activism**: Activist investors also focus on corporate governance changes (poison pill and supermajority voting rule removal, board declassification, corporate restructuring, and payout policy) – which produce the most substantial benefits as undervalued companies are often acquired within 18 months, along with excess cash reduction. One-third of activist exits are M&A related. Activists focus on return on equity and ROA with; the median target firm ROE of 4.5%, well below the 15% average, by encouraging new debt to finance M&A, buybacks and dividends, often with a meaningful reduction in capital spending. The return dispersion of activist events is massive, much closer to those seen across individual venture capital transactions. A few high-returning events distort the average return. *JP Morgan*

Private Market Investing

- **Public Vs. Private Markets**: Private markets provide more opportunities than public ones; there is an increasing pool of growth companies staying private longer and the number of public companies in the US has declined almost 40% from 1995. In Europe and the US there are approximately five times more private companies than public companies and less competition. In the private markets there is a greater opportunity to exert operational influence and/or control by changing senior management and focus on productivity-enhancing initiatives, re-positioning's and cost savings. Activist shareholders are increasing pressure on companies to sell non-core underperforming businesses, with private equity able to acquire and restructure them. Private equity buyout funds outperformed the S&P 500 in each of the last three decades. Stock market investing is more difficult than any other kind of investing, as it is a more efficient market (short-selling arbitrages "correct" pricing). The dispersion between top and bottom quartile private equity funds is wider than with equities; but does not correlate to fund size. There is not an identifiable relationship between higher manager fees or lower GP ownership levels ("skin-in-the-game") and buyout fund performance. Investors don't earn calculated IRRs unless they can reinvest distributions at the IRR itself (which they can't and is why funds are typically evaluated along with multiples of invested capital).

  - Try to get a portion of your personal service compensation as warrants on the deal, which in essence are rights to purchase stock at a preferential rate. Alternatively try to get "sweat equity" via a "carried interest aka profit interest" in exchange for your efforts with a company. Carried interests are taxed at capital gains rates.
  - Consider buying a company and then use that as a basis of a public offering, but raise much more capital than you need. You are not raising a blind pool, but say a 50% specified pool with the company as the 50% identified investment.

- **A Consistent, Disciplined Real Estate Turnaround Strategy**:

  - **Acquire Right**: Acquire high quality assets in strong space markets at the best possible price below replacement cost through a series of smaller acquisitions (rational capital allocation). Develop expertise in identifying properties that suffer from temporary or correctable flaws related to their capital structure, capital requirements, physical structure, or management, and acquire them at attractive pricing levels.
  - **Create Value With Asset Management**: Unlock value through intensive and aggressive asset and capital structure management techniques and turning around assets in distress. Generate synergies, such as more favorable financing, and more efficient operating programs.
  - **Disposition Harvesting**: Pursue asset sales either once business plan have been executed or immediately sell at retail prices individual assets acquired at wholesale portfolio prices. Synergies also broaden the range of available exit strategies.
  - **Risk Control**: The biggest risk is doing ever-bigger deals (perhaps driven by ego), misjudging the economic cycle and/or debt cycle and then losing it all on your last (and typically your biggest deal). Limit deal size (as you become successful, this will require discipline as capital seeks you out) and scale up your organization to do more, small deals. Limit exposure to development. Never get into anything you can't get out of. Use OPM to reduce risk, but don't lose control.

- **Real Estate And REITs**: Adding income-producing real estate raises the risk-adjusted return of a stock and bond portfolio. As of April 2013 the FTSE NAREIT Equity REIT Index was up 19.5% in the past year, up 17.1% in the past three years, up 7% in the past five years, up 12.7% in the past 10 years, and up 11.0% in the past 20 years. REITs, which rarely pass quality screens, are a mix of real estate, complicated interest rate plays, and operating businesses that are bought for their yield. REITs are 85% correlated with small capitalization value and steep(ening) yield curves. REITs appear to do well in the year following below-average GDP growth. Consider health care REITs that benefit from private-pay, nongovernmental revenue sources (Ventas); and medical office buildings in desirable locations (Healthcare Trust of America).

Risk Management

- **Risk Identified**: Investing is about surviving ruinous, permanent loss of capital purchasing power, often from extreme, "fat tail," exogenous worst-case events. Some common risks include imperfect knowledge and insufficiently challenged or unchallenged views – perhaps combined with insufficient, inappropriate or excessive quantitative analysis or an over reliance on a "story"; incorrect macroeconomic beliefs; deterioration a company's competitive position, management inability to execute their strategy; or regulatory environment (including probability of capital controls).

    - **Volatility Isn't Risk**: Price volatility isn't risk unless you react to it with an ill-timed emotional decision (an 18% loss feels more like 45%); it's a buying or selling opportunity. The most common investor response to a period of underperformance is to give up on a proven investment discipline or manager at exactly the wrong time, which makes temporary underperformance permanent. So focus on the more predictable operating performance of the underlying businesses (earnings and cash flow), rather than the less predictable multiple (stock price). The market may ignore business success for a while, but eventually (up to 4 years) will confirm it.
    - **Consider Correlations Of Business Earnings:** Watch for concentrations and seemingly uncorrelated assets moving in the same direction during corrections, and cross correlations across passive and active investment strategies, business, credit, economic, and political cycles, market cap size, sectors and industries, value/growth/momentum styles, geography (country and region), political cycles, sentiment, and inflation protection that unduly expose you to exogenous "fat tail" event risk.
    - **Beware Little Considered Government Risks**: Market risks today are primarily tied to regulatory legislation, major monetary policy or accounting policy errors. The Fed owns a $4.5 trillion mega-portfolio in Treasury's and mortgage-backed securities, five times larger than the next largest sovereign-wealth fund (Norway at $880 billion), with massive interest rate risk and no investment management experience. There is also a risk that non-transparent political forces will have a negative influence on its investments (perhaps a higher tolerance of inflation, or buying foreign bonds to manipulate the value of the dollar).

- **Risk Mitigation:** Investing is primarily about not making mistakes and to a lesser extent, doing something right. Returns are asymmetric, lose 50% and breaking even then requires a subsequent (and often difficult) 100% gain, so build a defensive portfolio to mitigate market declines. Many investments can do more damage on the way down than they do well on the way up. Portfolios should first strive to decline less than the overall market in down markets and then have an upside capture ratio of over 100% (together resulting in a high Sortino ratio). The Sortino ratio measures risk adjusted return. It is upside potential (average annual rates of return minus your MAR), divided by the downside risk, which is the standard deviation of the annual returns below the MAR (with returns above the MAR included as zero's to adjust for underperformance frequency). For the vast majority of investors, risk is reduced by:

    1. Diversification. The first dollars into any asset class have the most powerful impact on improving a portfolio's risk adjusted return. Some amount of

diversification may be a counter strategy. Reduce risk by allocating between return enhancer assets (offense) and defensive risk control positions to moderate downturns but without unduly missing or overly moderating upturns, and between liquid and illiquid assets.

- **A "Best Ideas" Strategy**: Making concentrated commitments of capital in a limited number of intensively researched great businesses will generate higher returns with less risk over time than a diverse portfolio of investments chosen with less care and conviction. However, this requires intensive research including forensic accounting analysis and due diligence (see the Stock Selection – The Core of Fundamental, Bottom-Up Investing section, Underwriting Due Diligence subsection of this book) to develop more insight than others doing the same research. Interviewing competitors is more revealing than interviewing management, but is time consuming and requires following a reduced number of companies. Deep sophisticated research takes significant skills and an immense amount of time that few with another full time job are able to devote. If you believe you have this skill, without an above-average track record over a full market cycle, beware overconfidence and other behavioral mistakes; it leads to very serious errors.

  - **Informational Advantages And Insight Reduces Risk**: Making investments based on what you believe you know that others don't can be a core strategy. The only basis for a concentrated portfolio is if you know a lot others don't. Wait for an investment that you know something uniquely about within your circle of competence. When people are drawn to an investment because of superficial ideas rather than business fundamentals, they are more likely to be scared away at early signs of trouble and in all likelihood, lose money in the process.
  - **Bet Your Time, Not The Ranch**: Are you prepared for the consequences of big concentrated bets? Always know that with every decision you make you could be wrong. Just because you were right once, or twice, doesn't mean you will be again. Being lucky and right is no way to manage your assets. If your overall investment into any one stock is more than 5% you're being overconfident. For a stock to do better than expected, the company has to be widely underestimated, or it would sell for a higher price to begin with. When the prevailing opinion is more negative than yours, you have to constantly check and re-check the facts to reassure yourself that you are not being foolishly optimistic, or missing important facts.
  - **Concentrate If Within Your Demonstrated Competence, Otherwise Diversify**: If you eliminate one dozen of Warren Buffett's best decisions, his investment performance would be no better than average. Aim half your portfolio "core" for average results (by definition less downside and less upside) with diversified market index fund(s) to manage risk and gain exposure to areas outside your circle of competence; and augment this with a dozen concentrated investments each at no more than 5% of your stock portfolio (max 50%).

2. Invest with a margin of safety, i.e. stocks with a large gap between their current price and future value.

3. Overweight, within your equity investments, GARP, QARP, mega-cap, dividend payers, international stocks, defensive and low beta staples, healthcare (pharma with EM distribution), and alcoholic beverages.
4. Invest in private equity, real estate, commodities, and currencies.
5. Limit sector weights to 22% or 3-4x sector growth. Since 1980 only three sectors in the S&P 500 were weighted more than 20% of the index. Energy was 7% in 1972, but 28% in 1980 (4X growth in eight years); the US tech sector weight rose from 6% in 1990 to 29% by 1999 (4.8X growth in 9 years), and the US financials rose from 7.5% in 1990 to 22% by 2006 (2.9X growth in 16 years); all high's indicating market and sector bubbles, subsequently leading the general market down and suffering the worst losses. Sector weights should be limited based on the rate of growth in the percentage that the sector constitutes of the total. Limit a sector once it increases 3–4 times from its low point, or reaches an absolute level of 22%, to avoid over-concentration.
6. Seek out the second opinions (emotional detachment) of an investment committee or people who think you are wrong (short sellers).
7. Set in advance a threshold of profit at which you must review any holding, say a 50% gain, and determining in advance how much money you're willing to lose on any given investment, typically calculated as a percentage of total capital.
8. Consider each investment under base, best, and worst-case scenarios, from a cash flow and multiple perspectives and both at once.
9. Prior to investing, write an "elevator pitch" investment thesis detailing what you think you know that others don't, and at least three reasons why you believe the company is a good investment; sell only if those reasons have become invalid. Before making an investment decide what material events or changes, either positive or negative, would make you want to sell that investment in the future, regardless of whether you have a gain or loss (not how you emotionally re-interpret the prior thesis). Material changes may include an unexpected dividend cut or when an anticipated, and probably external, catalyst is no longer valid, or on a failure to execute. When your emotion attacks your investment decision, go back and re-read your thesis.
10. **5%–30% Cash Provides A "Buy The Dips" Value-Timing Opportunity**: Being defensive, liquid, agile, and offensive (not conservative like bonds) by holding cash when bargains (or returns above your MAR) are not available, waiting for opportunities to emerge. Keep cash, other then your investible assets, equal to six to twelve months of your annual expenses for short-term liquidity, emergencies and to prevent panicked, desperate selling at inopportune times. In addition to your non-investible cash, your investible cash should range from 0% to 30% of your investible assets, depending on your macro view. Holding cash requires purposefully losing a small amount of money to inflation over a shorter term so you can take advantage of future opportunities by buying in bulk during blowout sales with 40% discounts, creating a much larger profit later. If you can't invest and expect to earn above your Minimum Acceptable Return (MAR), say 5%, stay in cash until you can.
    - **Online Savings Account Or CD's Are Better Than Money Market Or Ultra-Short Bond Funds**: Money market funds invested in (short, intermediate, long-term) government bonds have risk levels that approximate intermediate municipal bonds, but yields that are less on an after-tax basis. Some funds try to boost meager yields by mixing in lower quality long-term issues and then use derivatives and hedging tactics to

lower duration, but the risk remains. Ultra-short bond funds trade in debt that generally matures in less than 12 months, and pays a higher interest rate than bank CDs, savings accounts or money-market accounts. Ultra-short bonds typically provide too little reward for the amounts of risk they incur. Ultra-short funds still have to contend with both interest rate risk and credit risk. Some ultra-short funds may also use leverage. The meager interest rate risk over an online bank savings account (no interest rate or credit risk) is not worth the risk.

- **Short-Term Municipals May Be Better Than Money Market Funds**: Municipal bonds offer slight premium over money market funds invested in Treasury's. The reduced risk of short-term municipals may be worth their 1% point lower return as compared to intermediate term municipals. Short-term & intermediate municipals offer a better after-tax return with less risk than government securities. Because municipal bonds yield less than taxable bonds, the effect of rising rates is usually less pronounced. To reduce interest rate risk, buy bonds with short duration and instead search for yield by overweighting investment-grade corporate and municipal bonds, both with credit risk.

Additional Top Down Considerations

1) Merged Business, Credit, Economic, And Political Cycles

- **Key Macro Timing Factors**:

    - **Stock Vs. Bond Yield**: If the S&P 500 earnings yield (inverse of a PE ratio, like a Cap rate) equals or exceed the tax adjusted Baa corporate bond yield (after multiplying the bond interest rate times 1 minus the effective tax rate), buy stocks.
    - **Leading Economic Indicators (LEI)**.
    - **Slope Of Global Yield Curve – Particularly The US And Country Differences:** A positively sloping yield curve favors low PE, and small- and mid-cap value companies [materials, energy, industrials, real estate]. A flat yield curve favors high PE, and growth companies [consumer discretionary, healthcare, tech].
    - **Monetary Conditions**: US money supply vs. the monetary base growth to indicate liquidity conditions, and inflation's impact on monetary policy – primarily via interest rates.

        - **Rising Interest Rates Hurt**: Inflation and higher interest rates are two different risks, but both cause eventual compression of PEs. The impact on high-PE stocks will be the most pronounced because future earnings brought to the present (discounted) are a lot more valuable in a near-zero interest rate environment than when interest rates are high. Rising rates hurt growth stocks, the highest-dividend yielding third of stocks, small cap stocks, bonds, bond holders (insurance companies), and bond-like (REITs, MLPs), stocks in the material sector and small and mid cap energy stocks, public private-equity firms, commodities (unless accompanied by high inflation), the stock market, companies with high financial leverage and low operating leverage (utilities). Rising rates hurt top third of dividend payers, creating a buying opportunity. If the economy is booming, stable cash flow and dividend-paying stocks don't generate as much investor demand as stocks from cyclical sectors that stand to benefit the most from economic growth. Initial rate hikes in a tightening cycle have no relationship with stock performance; markets react six months to a year after Fed tightening is completed.

- Most bear markets are preceded by a nice long period of either rising short-term interest rates, rising long-term rates or both. When bear markets begin without rising interest rates, the dollar is weak. Bear markets rarely develop when there is lots of liquidity available. Rising interest rates in the US typically make the dollar more attractive to overseas investors pushing up the dollar, which tends to knock gold down. Since gold doesn't generate income, it also becomes less attractive as interest rates rise.
- Rate cuts when inflation is low almost always promptly lead to higher stock markets.
- **Rising Interest Rates Benefit**: Rising rates benefit cyclical sectors like manufacturing or durable goods, services, short-duration TIPS (if interest rates rise without an accompanying increase in inflation, TIPs would likely fall sharply), retail banks and finance companies, mergers and acquisitions and therefore investment banks, and the currency experiencing rising interest rates. When the US dollar is strengthening (Presidential election years), overweight the US (unless rising rates coupled with other factors are likely to cause a bear market, then overweight international). A rising-rate environment in the U.S. will less negatively impact international stocks than their domestic counterparts (as foreign money repatriates to home stock markets), but when selling the benefit may be lost upon currency conversion if the USD strengthens and international currencies don't (i.e. they also don't raise their rates).

- **Sentiment Identifying Extreme Market Conditions**: Optimism, eagerness, complacency, overconfidence, impatience, auction fever, euphoria, and greed; or uncertainty, pessimism, fear, and panic.

- **When US Dollar Weakens, Stocks Are Up More Than Down, Overweight International:** Investors are attracted to the dollar as a safe haven, so a strong dollar is often a result, not a cause of, factors contributing to a weak market. Conversely with a strengthening dollar (often presidential election years) invest in US. Over multi-year cycles, currencies revert-to-mean, so if you are a long-term investor, save the cost of hedging. In strong dollar markets US defensives and services tend to perform best, EM equities have under-performed 67% of the time (often commodity exporters) and; commodities have declined 62% of the time (Sell materials and energy. Mining companies have a somewhat offsetting benefit from a strong dollar as their non-USD expenses become cheaper).
- **Identify Bear Markets Before They Occur**: During periods of market stress and exuberance stock price variation is due almost exclusively to changing PE ratios rather than changing expected cash flows. New bear markets typically feature weakening fundamentals, little-seen risks, and euphoric investors blind to the first two.

Watch:

1.) Euphoric Sentiment: Near uniform simple complacency, or the abatement of widespread negativity, or intense and comforting euphoric sentiment, as indicated by:

- **Capital Inflows**: Massive dollar inflows into the stock market.
- **Corporate Capex Unleashed**: Corporations start freely spending down cash reserves.
- **Stretched Projections**: Analysts are confident to make multi, rather than just single year positive forecasts; a sign of optimism.
- Perma-bears capitulate.
- **IPOs Surge**: A huge increase in IPOs (often in one sector with pricing well above market).
- **Heightened M&A Activity**: Particularly when completed with all-stock rather than at least some cash.
- Investment grade corporate bond spreads narrow.

2.) LEI Turns Negative: No US recession in LEI's 55-year published history started with LEI rising.

3.) Yield Curve Inverts: The yield curve is the difference between the shortest-term Treasury bill (not the government-set, interbank Fed funds rate) and longer rate maturities. Whether an inverted yield curve causes a bear market or not depends on whether the related bad news is priced into the market (media coverage?), and if the global yield curve is also flat or inverted. The change in the yield curve tends to happen abruptly. The average time from yield curve peak to inversion is approximately four years. The GDP-weighted global yield curve is causal and a more useful leading indicator for stocks and the global economy than any single countries yield curve. A flat or inverted single country curve in an overall positive yield curve world is an argument for under-weighting that particular country. The 30-year yield curve divided by 10-year yield curve has inverted in front of every recession with an average lead-time of 16 months (ranging from 13-22 months), since 1956. 10 of 10 recessions have been proceeded by this inverted curve.

4.) Rising Interest Rates: A long period of either rising short-term interest rates, rising long-term rates or both, or a weak dollar.

5.) Momentum Declines: Economic or earnings visibility declines.

6.) Sector Stall: Often in a bear market, some sector goes bad first. The sectors that had the biggest weight at the peak of the bull market fall the most during the entire bear market (energy in 1980, tech in 2000, financials in 2008). The average recovery time from most bear markets this century is five years and to equal the total return on Treasuries requires a dozen years.

7.) Regulation, Tax, Monetary, Accounting⇨ Unexpected Worst-Case Shocks: Markets hate the redistribution of money and property rights and the unintended consequences inherent in new major legislation; and therefore markets do best when government is gridlocked. Unintended consequences of governmental tax and regulatory changes, major monetary policy or accounting policy errors are perhaps the most likely bull market risk and among the most difficult to anticipate. Regulation can increase the mispricing opportunity.

8.) Bear Market Timing Declines Slow At First, Then Fast: After the bull market peak, a rolling top fakes out almost everyone over a year or two. You needn't try to forecast it before it peaks. Wait until the quiet period after the top and scope out what has already occurred rather than trying to see a vision before hand. Wait three months after you suspect a market peak and you will miss most of the drop. If you see a market decline exceeding a 2% average monthly decline, wait for it to bounce back before getting out. You may simply be experiencing a correction.

- **Reinvest Within 18 Months, Don't Miss the 46% Recovery Bounce Off The Bottom**: Better to err on the side of getting in too early. If you remain bearish for longer than 18 months, you may miss out on the rocket–like ride that is almost always the beginning of the next bull market. First year returns following true bear markets averaged roughly

46%! If you're illiquid or you ease your way back into the market, you're likely to miss the big bang. At real bottoms, when stocks start to rise, bond prices rise too, net new liquidity pushes down on both stock and bond long-term yields.

- **2nd Half Presidential Midterm Elections And 3rd Years Best**: Stock returns in years three and four of a president's term are uniformly positive with higher average returns than years one and two. Presidential midterm years' second halves, particularly fourth quarters and the next two quarters (post-midterms), have positive stock markets 86.4% of the time. Stocks do worse on average in year one under Republican Presidents and better under Democrats. If in that first or second year it becomes clear a president won't or can't pass much, or it will be less egregious than feared, then when returns are positive in years one and two, they tend to be strongly positive. Presidential election years commonly see a bulk of stock market returns in the latter half of the year and tend to be good for the US dollar.

2) Market Capitalization Size

- Market capitalizations of varying sizes are 85%-90% correlated.
- **Small Cap Outperforms Off Market Bottoms And When US GDP Growth>G6 GDP Growth**: All other things being equal, when US GDP grows faster than foreign GDP small cap outperforms large cap (substantially larger percentage of foreign revenue) and when foreign GDP grows faster than US GDP large capitalization stocks typically outperform small caps. Small capitalization stocks initially outperform in the V–shaped bounce following a bear market.
- **But Mid Caps Better Than Small Caps**: Mid cap stocks ($5–$15 billion market cap) provide many of the benefits of small stocks, but with less risk. Mid-cap companies tend to have deeper market penetrations, have more room for expansion, greater resources, are less likely to go bankrupt, make good takeover candidates, have more established and experienced management, and more trading liquidity than small companies; and adapt more quickly to changing markets than larger, more established companies.
- **Seek Out The SMID IL-Liquidity Premium**: Alpha increases as liquidity decreases, so avoid highly liquid “crowded” stocks. Because of its typically short-term orientation, the market worries about the cost of quickly entering or exiting a position (affecting both up and down momentum), and therefore will not pay as much for a stock that is lightly traded. These bargain prices produce excess returns. The illiquidity premium assigned to SMID stocks is another example of the market’s inefficiency. A large fund has to build its position over a long period, gradually driving prices up as it does. If you have a long-term ownership horizon, unnecessary liquidity is not worth receiving a lower return. A buying opportunity may arise from the forced liquidation of a large position in an illiquid stock. A tiny fund can take a relatively large position in a promising stock immediately.
- **Mega Cap Late-Stage Bull Market Rotation**: As sidelined investors gain confidence in the bull market, they typically buy the largest, well-known, established quality, stable stocks (which have higher return on invested capital, but slower revenue and EPS growth) or broad market-capitalization weighted index funds, so mega-cap stocks get the biggest benefit (greater multiple expansion) from renewed investor enthusiasm. Try to buy the mega capitalization stocks before they do, and let increasingly confident investors push valuations higher. Mega cap outperformance tends to widen as the bull market endures and through the

following bear market, which lessens the strategic imperative of knowing when to exit the strategy.

- **Blue Chip Defensives Beat Value In Downturns**: Expensive stocks on a PE, PB and EV/EBITDA basis outperformed value after both the Lehman failure and 1998 low.

  - **Anticipate Nifty-Fifty Relative Strength By Mid-Cycle Or Skip It**: In 2000 the PE of the largest 100 companies within the S&P 500 was above 50. The next quintile (101-200) was less than 25. The third quintile had a PE of 15; the fourth quintile 10 and the bottom quintile (401-500) had a PE that was less than 10. In every bull market a select group of stronger-than-market stocks (high relative strength) often emerge as leaders and outperform. Investing in these high relative value strength stocks, late in the cycle can often be disastrous. Evidence suggests that market mis-pricings occur when investors extrapolate recent growth too far into the future, creating a contra-trading opportunity to buy on weakness and sell on strength. Underperforming in this kind of rising market creates a susceptibility to greed, as a temptation to "chase hot returns". Avoid "hot" areas and invest in other parts of the market such as the highest quality, best-of-breed, leading GARP, QARP, and consumer staples companies. Over the past 30 years, the highest-quality stocks have outperformed the lowest-quality ones by about 3.8 percentage points by curbing big corrections and bear market losses, even though they underperform the market during rising markets [creating a buying opportunity]. Require strong balance sheets (sufficient liquidity to fund debt maturities, to avoid being forced to sell valuable assets at pawnshop prices, and to meet the challenge of fat tail risk occurrences); high margins (evidences sustainable cost advantage and pricing power leading to enhanced market share, operating leverage and free cash flow, and also provides downturn protection), ROE/ROIC (accretive cash flow> capital cost); sustainably growing revenue (core focused, geographic or market scalable) becomes a catalyst to unlock value, earnings (positive revisions drive price momentum and liquidity flows) and cash flow (more reliable than EPS); and paying sustainable dividends (greater locked-in gains, reduced risk from capital allocation mistakes and result in 50% greater appreciation, and when reinvested 75% of annual US stock market returns); and purchased at a discount to future value (safety). Investing in an overlooked and therefore cheaper portion of the market is a value strategy that has a recognized future catalyst (high quality is more likely to be "discovered" in a timely fashion).

3) Sectors

- **Target Sector Weights**: Many believe that sectors greatly influence the performance, correlation and risk characteristics of an overall portfolio, but it's never been proved. Don't just mirror current sector weights within any index. For each country you invest in examine five and ten-year average sector weights and compare to the current sector weights. Compare sector weights of the market to the weight each sector contributes to GDP. By limiting exposure to regions and sectors when their index weights become elevated, substantial benefits can be achieved compared to a market-cap weighted approach (which is based on the assumption that liquidity is the most important criteria) by striking a balance between liquidity, concentration and valuation risk.

- **Limit Sector Weights To 22% Or 3-4X Sector Growth**: Since 1980 only three sectors in the S&P 500 were weighted more than 20% of the index. Energy was 7% in 1972, but 28% in 1980 (4X growth in eight years); the US tech sector weight rose from 6% in 1990 to 29% by 1999 (4.8X growth in 9 years), and the US financials rose from 7.5% in 1990 to 22% by 2006 (2.9X growth in 16 years); all high's indicating market and sector bubbles, subsequently leading the general market down and suffering the worst losses. Sector weights should be limited based on the rate of growth in the percentage that the sector constitutes of the total. Limit a sector once it increases 3–4 times from its low point, or reaches an absolute level of 22%, to avoid over-concentration; however, the portfolio may have no exposure to one or more sectors (typically telecom and utilities). Compare your portfolio sector weights to the proportion each contributes to global GDP; be strategically and tactically intentional with any significant variation.
- **Sector Recession Defensive Strategy By Sector:** During a recession sector correlations increase. During recession's health care, utilities and consumer staples outperform. Materials underperform. Typically recessions are accompanied by falling interest rates, causing financials to underperform.

    - The following industries outperformed in the six months following both the Lehman Brothers bankruptcy, and the 1998 downturn: consumer services, software and services, equipment, pharmaceuticals, food and staples retailing, food beverage and tobacco, personal products, and health care equipment and services.

- **Mega Cap Favors US, Tech, Consumer Discretionary And Health**: The US is home to the majority of the world's mega-cap stocks. Sector and country positioning become heavily influenced by market capitalization size factors. The mega capitalization universe has large US and technology weights, followed by consumer discretionary and health care (and consumer staples?).
- **Aging Demographics; A Political, Economic And Capital-Markets Game Changer:** By 2022 (in 9 years) there will be 10 new senior citizens for each new working-age citizen, which will boost the prices of health care, assisted living and leisure.
- **Sector Rotation Strategies**: More than 90% of "tactical-allocation" mutual funds, which attempt to jump in and out of various asset classes at opportune times, underperformed a passive benchmark index over the past decade. They have to get the timing of sector outperformance right, have to buy before it happens, and then have to sell before it declines; and the magnitude of the gains needs to be enough to offset transaction fees and taxes incurred along with losses from missed calls.
- **Focus Sector Rotation In Tech, Consumer Discretionary And Industrial Sectors**: Sector rotation is greatest in the third year of a bull market, and is best accomplished with tech, consumer discretionary and industrial; with other sectors use either "permanent" over- or under-weights.

    - **Overweight Health Care Late Stage Defensive *And* Growth**: This defensive and noncyclical, but yet growth sector, does well in the second half of bull markets and slowdowns, with the second lowest Beta of any sector. Revenue is relatively stable because people require treatment regardless of the economy, and the utilization need among approximately

78 million baby boomers for greater treatment makes for a compelling secular growth story, often with the power to pass potentially higher costs to consumers. However, drug stocks can be very sensitive to the notion of increased governmental regulation of prices. Buy pharmaceuticals with the largest emerging market presence (25% of total demand) that invest in their EM distribution. Highly correlated multi-nationals reduce the benefit of international diversification in this sector. Healthcare M&A has not historically led to outperformance (the last two binges occurring in 2000 and 2009). By market cap Pharma constitutes roughly 70% of the sector, while the better performing Health Care Equipment & Services is only 30%. Consider this in your investment selections.

- **Overweight Consumer Staples (Except Retailing)**: This defensive sector does well in the second half of bull markets and slowdowns. Staples have inelastic demand and the lowest Beta of any sector. From the peak of real economic output in 2Q08 to the low in 2Q09, real consumer spending fell 1.2%, while the US economy overall declined by a much greater 3.8%. The consumer staples sector offers a large number of mega-cap stocks with stable earnings growth. But during expanding global economic activity, the sector's lower economic sensitivity is a headwind, creating a buying opportunity. Pricing can often be at growth levels without growth type increases in sales, so timing purchases can be particularly important. The best performing Household and Personal Products Industry is the smallest of three, only constituting 15% by market cap, so if using a sector fund try to find one that over-weights the Household and Personal Products Industry and underweights retailing.
- **Overweight Materials (Agriculture, Fertilizer, Containers And Packages), Diversification And Hedge**: This low beta materials sector diversifies portfolios because commodity prices can inversely affect the profitability of firms in other industries. Material sector companies can be both a dollar and inflation hedge, but without Contango /backwardation. Materials have both high capital and fixed costs creating high operating leverage; therefore they are a high-risk, high-reward sector most sensitive to US and global growth expectations. The materials sector performs best in the first half of a bull market; avoid in recessions. Buy in this value sector when they are at a low PE to historic averages and to the market to mitigate operating leverage and recession risk. Even if prices stay high, most commodity companies will still generate a poor return on capital (ROIC) over the long term.

  - Increased inflexible commodity supply capacity cannot quickly adjust production to keep pace with changes in demand. For most commodity companies' capital spending increases at roughly the same rate as commodity prices and earnings and often after commodity prices have already risen, spending the vast majority of their windfall profits to simply replace what they just sold, and just in time for the next downturn in commodity pricing. Declining commodity prices from the end of the ten-year commodity super cycle (2008) benefit commodity users, but producers suffer. Overweight agriculture, fertilizer, paper, and containers. Avoid gold and other mining stocks, which have very high, risky, operating leverage. EM population and income growth leads to increased meat, fertilizer, agricultural chemicals, genetically modified seed grain demand and specialty chemicals which are less cyclical and higher margin than commodity chemicals. US chemical and fertilizer producers' benefit from cheaper US energy.

- **Industrials (Commercial And Professional Services, Automation) Rotate**: This economically sensitive, small and mid-cap value sector generally does best in the first half of a bull market. This sector is high Beta (underweight), but can outperform materials during long business cycles. The electrical components and equipment sub industry group were a best performing industry group from 1970-2000, as were the commercial and professional services industry. The commercial and professional services industry only constitutes less 10% of a market cap weighted industrial sector, rendering an industrial sector fund ill advised as 90% would be invested in less or undesirable industrial industries. Industrials typically benefit from cheaper US energy.
- **Consumer Discretionary (Education And Consumer Services, Advertising, Cable/Satellite, Movies/ Entertainment, Leisure Products, non-Multi-line Retail) Rotate**: This economically sensitive, cyclical growth sector generally does best coming out of a recession, i.e. the first half of the bull market; however it can have unpredictable business results. Eight of the consumer discretionary industries are small cap value, but many Mega caps (automotive and durables??). Leisure products and movies and entertainment are defensive, performing better in the second half of a bull market. It will be difficult to overweight these desirable consumer discretionary industries in a consumer discretionary sector fund.
- **Tech (Consulting, Services, Software) Cash-Rich, Mega–Cap, Economically Sensitive, Low–Beta, Growth ⇨ Rotate**: This economically sensitive, low beta, growth sector does well in expansions. Focus on electronic equipment, instruments, components and software. In the US, about 50% of corporate capex is tech spending, which has been terrible since 2007, slowing tech's earnings growth rate. Constant changes make long-term stock selections difficult in this sector. The desirable software and services industry is less than half the total sector by market cap.
- **Underweight Financials (Except Real Estate Services/Operations & Insurance Brokers):** This worst performing industry group (1970-2000) and cyclical growth sector has inconsistent earnings, the highest beta, and does best emerging from a recession in the first half of a bull market and poorly during recessions. Larger companies and financials have more opaque accounting. The banking business model (borrow short, lend long) is a bad one. The largest asset of most insurance companies is their bond portfolio, which can be a big positive in deflationary environments. Return chasers may abandon REITs in a rising interest rate market.

    - **No Preferred Equity**: Over 80% of preferred equities are in the financial sector, which has regular crises and typically poor returns on equity, followed by the utility sector. Preferred's tend to be more correlated with stocks than bonds. Typically preferred's are more liquid and have higher yields than bonds, and they cost less to buy and sell in commissions and bid ask spreads.

- **Telecommunications Underweight**: Overcapacity, excess debt, and profitability issues resulted in a worst performing industry group designation from 1970-2000. Overall sales and earnings growth remain under pressure from declining voice services. Other obstacles in this value sector include costly next generation network build-outs, which require significant capital expenditures and net neutrality regulatory issues. Return chasers may abandon in a rising interest rate market.

- **Utilities Underweight**: Utilities are interest rate sensitive, devoid of mega-cap stocks and have the worst combination of low operational leverage and high financial leverage (a rising cost). Declining demand leads to less investment, lower earnings and valuations and eventually consolidation in this value sector. Heavily regulated utilities cannot grow as quickly as other equities in a rising market. Return chasers may abandon in a rising interest rate market. Inelastic demand does well in slowdowns & recessions.
- **Energy Underweight**: A glut of new oil and natural gas supply (shale), along with only modest economic growth, along with increased energy efficiency; an economic shift from manufacturing to less-energy intensive service industries, decreases demand and dampens energy prices. Real (inflation adjusted) oil prices have steadily declined over the past four decades, overwhelming business cycle effects. Underweight this economically sensitive, value style and second highest Beta sector. A worst performing industry group 1970-2000, the US economy is far less energy intensive than 40 years ago.

  - **Energy Master Limited Partnership Conclusions:** Positives include strong appreciation (appreciation 2X S&P 500, market cap up 10X in 10 years), a good yield (6%), inflation protection (a regulated inflation-plus pricing formula), lowly correlated to both stock market (0.56) and the business cycle, interstate competition limited by FERC, and a nice tax advantage (only 10%-20% of the distribution is at ordinary income tax rates but may be required to file and pay state income taxes everywhere the UBIT-generating MLP is operating a business), and liquidity. However, it is difficult to be confident that you know what this industry will look like in five and ten years given: the lack of self funding for massive capital far above operating cash flow (resulting in equity dilution and/or risk-increasing debt) for (slowing) organic expansion (further subject to increasing GP distributions-sometimes 50% above a hurdle); the possibility that dividends are being funded with debt; increasing M&A and consolidation of a fragmented industry and divestitures from large energy companies (continued need for capital); are sensitive to macroeconomic interest rates (distributions and prices fall when interest rates rise); debt availability (must pass through taxable income so no cushioning retained earnings); commodity pricing issues (indirectly and perhaps inversely affecting volumes); arbitrary and political FERC enforcement as a political alternative to failed cap and trade legislation ($1.23 billion in fines 2009-14); and potential tax changes. Allow time for interest rates to normalize, wait for the dynamic nature of this small and mid-cap industry (underperform back half of a bull market and in bear markets) to become more predictable, and until after the 2016 presidential elections to possibly reduce regulatory concerns.

4) Styles

- **Steady Trends Favor Momentum, Volatility ⇨ Poor Down Market Results**: Momentum (trend-following) strategies do best when there is a large difference between the best and worst performing markets, sectors, holdings etc. During periods of high market volatility, momentum strategies can significantly underperform (poor down market results).

- **Key To Value Investing = What And When Is The Unanticipated Catalyst?**: The difficulty with value stocks is they can languish for years waiting for market perceptions to change, or the company to be discovered, or purchased at a premium. Identifying what specific problems are overstated or temporary is much easier then divining exactly when they will get turned around. Successful value investing requires some good news catalyst that is unanticipated by the market to send an out-of-favor stock rising, or an acquirer, liquidator, activist shareholder, or green-mailer to arbitrage a sum-of-the-parts that is worth more than the whole (takeover candidates tend to have PE's below 20). Predicting both the catalyst and the timing of the catalyst is fraught with error.

    - **Don't Be A Premature Ejector**: Generally it takes two to three years for the gap between stock price and true business value to close. The average US stock fund hangs on to its typical stock for just 15 months, thereby selling too early and missing a substantial part of the reward associated with the investment's risk.

- **Value Stocks Unexpectedly Beat Low Expectations For Strong Returns**: Meaningful price changes only occur when investor expectations change. A minority of your portfolio should be constructed around the core value investing principle that companies with extremely low built-in expectations, acquired when attractively priced, can appreciate on very little good news because it is unexpected and therefore not built into the stock's price. Low expectations often occur when companies whose small size, complexity or illiquidity results in only a few analysts/investors following them or they are misunderstood.

    - **Turnarounds**: Low expectations are also typically the consequence of poor historic underperformance from management missteps, lackluster execution or worse than expected results causing low PE's. Invest in turnarounds when there are only a limited number of turnaround variables that are within management's demonstrated competence to fix. Major business changes increase the likelihood of major business errors. Avoid disasters that would make future earnings or multiples worse than the past. Avoid IPO's; only 40% are up at all after 10 years.
    - **Look For 40%+ Off Sales**: The goal of fundamental research is to identify companies with gaps between their current market value and future business value, which typically requires sales, earnings and PE forecasts. Such gaps often take years, to close. Buy at low enough prices so that you can have a successful investment even when you are wrong about the outcome for the company's sales, earnings, PE fundamentals, or terminal value estimate; a margin of safety. If the value of a company is measured in the quality of its management, there is little margin for safety. Instead invest in businesses that are so wonderful that an idiot can run them. Target appreciation potential of over 40% within 24 months, from improved valuations (an expanded PE) applied to rising earnings and more importantly cash flow.

- **Avoid The Worst Style Strategy**: Different styles are favored at different times, and cycles recur over the long term bringing opportunities for style rotation outperformance. Identify the worst performing styles, and avoid them. Styles often play leapfrog before longer-term leadership trends take hold. Typically there is a large spread (over 300 basis points) between the two winning styles and the two laggard styles.

- **Value (Debt=Interest Rate Sensitive) Vs. Growth Style Depends On Yield Curve**: Value companies typically have more debt (double that of growth companies), which makes them more interest–rate sensitive. Therefore, value stocks outperform when the global yield curve steepens or is positive. Value funds tend to underperform when the profits cycle decelerates. Growth stocks outperform when the global yield curve is flat or inverts. This change tends to happen abruptly, if you can get ahead of the curve twice (entering/buying and exiting/selling), you can realize outperformance. When the yield curve spread moves from a more negative number through -1%, rebalance to growth. When this happens the spread will likely shrink until it is either flat or inverted. Hold growth until the spread widens to -3% and spends at least two consecutive months below -2.25%, and then rebalance to value. At -3%, the spread won't widen much; instead, it will shrink again, loosening credit and favoring value. When value outperforms growth, then low price-to-sales ratio stocks do best.

    - **Buy Growth At A Discount To Future Value:** As an alternative to the unpredictability in identifying the nature and timing of the catalyst, results can be improved by investing in growing enterprises so that the investor is not forced to wait for a catalyst (takeovers, mergers, liquidation, or new competent management) to unlock the nascent value.

        - **Growth As Catalyst**: Invest in growing companies with cash flow generation (returns in excess of capital cost) sufficient to fund the requirements for capital reinvestment and expansion without excessive need for new and dilutive equity offerings and/or risk-increasing debt.
        - **But Not Expensive Growth Stocks**: Growth stocks that sell at premium PE ratios, based on fallible predictions, need their earnings to increase significantly and for a long time in order to justify their high PE multiples and resulting prices. While the market does a good job of incorporating available information into stock prices, due to behavioral biases the market tends to over–extrapolate recent performance too far into the future. Analysts and experts have a notoriously lousy record for predicting future earnings. Strong (top-third) growth rarely lasts 10 years. Premium companies at premium valuations typically are poor investments.
        - **Mega Caps Aren't Usually Growth Companies**: Other than technology, mega-caps are not typically growth companies. Once a company's core business has matured internationally, the pursuit of new platforms for meaningful growth entails daunting risk. The growth for large companies often stalls. Mega-caps have higher ROIC/ROA, but lower EPS growth.

- **For The Majority Of Your Portfolio Buy Quality**: Unless you can facilitate the liquidation of a poorly performing company and profit from the difference between your purchase price and the sum-of-the-parts market value of the assets of a company, your performance will replicate the poor economics of the underlying business. The majority of your portfolio should consist of the highest quality, best-of-breed, leading GARP, QARP, and consumer staples companies with strong balance sheets (limited debt moderates distress); high margins (market share and pricing power, cash flow, downside protection), ROE/ROIC (accretive cash flow>

capital cost); growing revenue (core focused, geographic or market scalable), earnings (positive revisions drive cash flow) and cash flow (more reliable than EPS); and paying dividends (greater locked-in gains, reduced capital risk); and purchased at a discount to future value (safety).

- **In Momentum-Driven, Risk–on, Late-Cycle, Rally Markets, High Quality Stocks Typically Lag, Creating A Buying Opportunity:** These markets are the macro-created opportunities to buy high quality at a discount.

  - In a market focused on high secular growth, investors prefer companies with high cash balances and exposure to the "quality" factors, which leads to massive outperformance of large-cap US tech stocks.

- **Quality + Value + Price Momentum = Conviction And Outperformance**: Buy those value stocks that have begun to stir i.e. increasing trading volumes [money flows], or earnings (surprise) revisions. A mix of quality and momentum characteristics has outperformed within mid cap since the late 1990's.
- **Buy Market Leaders In The Sector/Industry During Market Downturns**: Buy shares in the strongest company in the sector, industry or market over several business cycles, when it is selling at a bargain price. The firm with a dominant market share or niche position typically controls distribution channels and leads on price increases. Avoid investing in a lessor competitor that may be selling at a lower price.

5) Geography

- **EM Sector:** Overweight your foreign investments with small and mid cap companies that do a large portion of their business in their home regions and countries to reduce reliance on multinationals and correlations. Watch your sector weights by country, growing emerging market middle classes will spend more on consumer discretionary and staples, retail and healthcare, but financials, materials, energy and industrials dominate many emerging market stock exchanges; which means emerging market index investments may be missing some of the highest growth sectors, and are not well-positioned investments.
- Low volatility strategies performed better in emerging markets, which typically have larger bid/ask spreads and trading costs.
- **Real Country And Currency Exposure**: The location of corporate headquarters, and the country of the stock exchange in which the stock is traded, may be less reflective of governmental policy risk. A company's reporting currency typically does not necessarily represent broad underlying currency exposure. Currencies are cyclical and revert-to-mean over two- to eight-year cycles.

6) Inflation Protection

- The key risk to be managed for capital preservation is inflation protection, the most likely "fat tail" exogenous risk. Equities historically underperform when inflation exceeds 5%, by crushing PE multiples. Markets are typically moved by factors that are fundamental, material and underappreciated; inflation pressure would "surprise" the consensus. Buy inflation protection when it's out of favor and therefore underpriced, and can produce above-average returns. To do well you will only need inflation that's greater than whatever everyone is already expecting.

Inflation forecasts consistently underestimate actual price changes. Some also believe the CPI underestimates actual inflation.

- **Monetary Policy**: As a consequence of the 2008 credit market lock up, monetary velocity slowed tremendously. The traditional 6X loan multiplier impact has been rendered almost non-existent from tighter bank regulation, lack of demand from deleveraging consumers (consumers have $10.8 trillion in cash and cash-like holdings) and businesses (S&P 500 companies have an additional $2 trillion of available cash, with its own reduced multiplier effect). The purchase of long bonds as part of QE artificially flattened the yield curve, removing banks desire to lend and be exposed to credit risk. Money not lent isn't yet inflationary. Velocity will return as QE ends, (the yield curve steepens thereby rewarding lenders for taking credit risk), regulatory and litigation issues abate (Dodd Frank rule writing completed/eased reducing uncertainty) leading banks to aggressively lend on their $2+ trillion excess reserves, causing massive future inflation. Monetary stimulus affects the real economy with long lag times. To curb inflation the Fed, could increase the interest rate paid on excess reserves, likely sending the economy into a recession, and put the Fed into negative carry – creating huge potential losses on its $4.5 trillion mega-portfolio of Treasury and Agency securities. Fed interest raises will continually lag the rate of inflation so they don't hurt the economy or the job market. Alternatively the Fed could increase required reserves or increase bank capital requirements (the leverage ratio) or invent other novel heavy regulation approaches. Monetary policy mistakes are probable given the magnitude, complexity and uniqueness of the "exit phase". The Fed's track record during the 2008 financial crises doesn't inspire confidence. Additionally the Fed is experiencing unprecedented decision-making personnel turnover. Politicians prefer easy monetary policy versus difficult fiscal and structural reforms.
- **Currencies**: Developed Western nations with higher short-term interest rates that keep moving higher tend to have the stronger currencies as they drain funds from other countries that are not as strong. Consider a carry trade fund that borrows short-term money in one currency, converts it to another currency, and invests in the new currency – often in bonds. The difference (spread) between the investment return and the interest on the borrowed currency plus the appreciation on the invested currency is the return. When the US dollar is weak, stocks are actually up more than down. Investors are attracted to the dollar as a safe haven.
- **Commodities**: Gold can be an international currency hedge against weakening currencies. Silver is exceptionally volatile and amplifies gold's price changes. Commodities account for about 40% of the CPI, with pricing that is very closely correlated with the strength of the dollar. Commodities are volatile with their expected return over the risk-free rate close to zero. The current metals super cycle is ending, commodity prices as a group nearly doubled between 1998 and 2008 and haven't regained their 2008 peak. Assets under management in commodity investments are down over 25% from their peak. Prices for a given resource rise continuously for a decade, and then prices fall for two decades, pushing prices of major industrial commodities down 70% below where they were in the year 1800, after adjusting for inflation. There are exceptions to the rule. Low inventory backwardation is preferred to oversupplied Contango markets. Avoid unsecured promissory notes (ETN's).

- **Inflation Resistant Equities**: To avoid Contango invest in stocks of companies principally engaged in the production of commodities, see also the sector bullet on the materials sector. Small cap value outperforms with inflation. Stock market investments in stable economies rich in commodities that may have been less inflated from the global credit bubble (Canada, Australia) also provide back door commodity exposure and avoid not only negative roll yields (Contango) and hedged pricing by producers, but also downside–volume operating leverage and rising producer costs. High US inflation probably has less effect on the Canadian stock market.

    - Focus on companies with low debt. Inflation benefits companies with leveraged balance sheets because they'll be paying off debt with inflated (cheaper) dollars; offset by the likely higher interest rates these companies will have to pay on newly issued debt. Leverage is extremely dangerous during deflation because debts fixed costs don't shrink as fast as nominal revenues.
    - Low cost providers with a significant, sustainable cost advantage tend to do well because they can increase prices slower than competitors, and profitably steal market share. Businesses with sufficient fixed assets for the medium term (how much excess fixed asset capacity does it have?) also do well but not businesses that need to acquire fixed assets, which become expensive with inflation (MLPs?), reducing historic profitability. Compare the dividend yield of your portfolio to your market benchmark, it should be the same or greater.

- **TIPs Bonds**: TIPS will lose value in a rising interest rate environment, *unless held to maturity* because while the principal is adjusted for inflation; the interest rate doesn't change. The shortest new issues are five years and spreads are often wide. A 2-year duration portfolio will lose 2% for every one-point interest rate increase. To fight inflation, interest rates could be pushed to very high levels, exposing TIPS to large principal declines (a 40% loss at a 20% interest rate), somewhat offset by the CPI adjustment that could be far less than the interest rate increase, assuming the high interest rate was effective in reducing inflation.

    - **Consider TIPS When Yield > Historical 2.5% Average**: From its inception in February 2002 to the end of February 2014, the Bank of America Merrill Lynch 1-5 Year US Inflation-Linked Treasury Index was only 27% and 50% correlated with monthly and yearly changes in the CPI, respectively. The historical average yield on the 10-year TIPS since it was floated has been 2.5%. The best time to buy TIPS may be when their yield is above this average. When the break-even rate is below its historical average TIPS may be relatively cheap compared with a Treasury with a corresponding maturity. A TIPS bond will outperform its corresponding maturity Treasury if realized inflation is higher on average than the break-even rate during the lifetime of the bond (that is, inflation comes in unexpectedly high). TIPS will be taxed currently on the inflation adjustment to principal but you will receive the inflation payout only at maturity of the bond. Therefore, TIPS may be better suited for tax-sheltered accounts or investing through a TIPS mutual fund, because while the gain is still taxable, the fund must distribute the gains to investors every year, providing the income to pay the taxes. The government promises to return at least the investor's entire initial principal at maturity even if there is deflation (no negative inflation adjustment).

- **Other**: Also consider "hard assets" like hotels, farm and timber land, and other real estate not encumbered by leases that don't reflect inflation on a timely basis. It has been over three decades since inflation was significant in the US. TIPS, commodity funds and gold ETF's and funds have only existed for a decade, so their actual performance in high inflation economies has never really been tested.

7) Recession/Deflation/Bear Market Safe Havens

- Allocate one-third in cash, one-third in equities (half in US and half in foreign) the highest quality, super large cap [size provides liquidity], best-of-breed, leading GARP, QARP, and consumer staples companies. Over the past 30 years, the highest-quality stocks have outperformed the lowest-quality ones by about 3.8 percentage points by curbing big corrections and bear market losses, even though they underperform the market during rising markets [creating a buying opportunity]. Require strong balance sheets (sufficient liquidity to fund debt maturities, to avoid being forced to sell valuable assets at pawnshop prices, and to meet the challenge of fat tail risk occurrences); high margins (evidences sustainable cost advantage and pricing power leading to enhanced market share, operating leverage and free cash flow, and also provides downturn protection), ROE/ROIC (accretive cash flow> capital cost); sustainably growing revenue (core focused, geographic or market scalable) becomes a catalyst to unlock value, earnings (positive revisions drive price momentum and liquidity flows) and cash flow (more reliable than EPS); and paying sustainable dividends (greater locked-in gains, reduced risk from capital allocation mistakes and result in 50% greater appreciation, and when reinvested 75% of annual US stock market returns); and purchased at a discount to future value (safety) and, depending on interest rates, and one-third in long-term US government bonds. Favor the lowest cost firms and low-cost consolidators and producers, price elastic companies, firms with really strong brand names, noncapital intensive producers, insurance companies. Avoid capital-intensive industries, big chemical producers, banks and material sectors, paper and metals producers, borrowers and leveraged companies. Carefully consider a small position in inverse ETFs (not ETNs) that limit downside, and/or index puts to express short exposures (decrease equity allocation commensurately). Keep index put proceeds in cash in case you are wrong. An equity short position has unlimited downside, and is too risky.
- **Bonds Provide Deflation And Bear Market Protection**: Bonds can provide a good hedge against deflation.

  - **But Otherwise Bonds Are Currently Return–Free Risk**: The risks of capital loss in traditional safe-haven assets, such as Group of Seven sovereign bonds has consigned the traditional 60% equities/40% bonds portfolio structure to the history books for the foreseeable future. 10 year U.S. Treasury bonds currently yield less than 2%. A modest rise in rates would lower the value of bonds and more than offset the income earned. The last time interest rates were at today's levels; bonds went on to decline in value for more than 20 years. On an inflation-adjusted basis, investors in US treasuries lost more in those 20 years then stock investors did during the Great Depression. Between 1926 and 2013, large-cap U.S. stocks on an inflation-adjusted basis, a dollar invested in stocks would have grown **to**

$358.97, compared with **just $8.39** for a dollar invested in bonds. Long-term capital gain taxes on dividends are typically much less than the ordinary income tax on bonds. It may be smarter to pay off your mortgage, rather than invest in bonds.

- **Earn 5%+ Or Stay In Cash:** Once you subtract the effects of inflation (3% long term), costs (1%+), and taxes (25% long term capital gains + state taxes) you need to earn a MAR of roughly 5% just to not lose purchasing power. Below 5% be very risk averse (go to cash). The dividend yield on many high quality and durable companies, representing a payout of less than half of earnings, is higher than the coupon on a 10-year government bond, and should be somewhat inflation protected compared to bonds. Coca-Cola's long-term debt currently yields 3.1% while the dividend on its common stock, which represents less than half of earnings, yields 3.2%.

- **Bond Due Diligence**: A bond ladder is created, with a minimum of $50,000 by purchasing bonds with successive maturities on a fixed schedule, that you are prepared to hold to maturity, thereby reinvesting at prevailing rates. With a 2-year duration a bond fund will lose 2% for every one-point interest rate increase. For investors that hold fixed-income securities to maturity, changing interest rates and fluctuating prices of the securities that move inversely to rates, are somewhat mitigated. When inflation rises, interest rates usually also rise, causing bond prices to drop. Even buy-and-hold investors get hurt because higher inflation erodes the real value of the interest payments and principal. Buy long-term bonds but with only a couple years to maturity to reduce market risk. Shorter (vs. longer) maturities perform better when rates rise in a bear market. The tiny additional premium for mid and long term bonds are not worth the extra risk and increased stock market correlation (less of bear market protection). Insured bonds historically have retained more of their market value then comparable uninsured bonds in difficult economic times, but the insured component of the outstanding bond inventory has fallen to 30%. Don't trust rating agency ratings. Fees eat away at the returns of a municipal bond ladder. Broker bond markups can be substantial, and hard to identify. Minimizing fees is absolutely crucial to maximizing gains from a low-returning asset like a bond. Bonds often have call options allowing the issuer to repay the debt and reissue bonds at lower interest, resulting in limited upside and a bigger downside. Know what your yield would be if the bond was called at worst time. Know what the bond's interest coverage is.
- **Consider Inverse Bond Fund With Negative Duration**: If duration is -4 years, the investment will rise on average 4% for every one percentage point rise in the average interest rate for the bonds in the portfolio. Look for offsetting long positions on inflation protected [variable rate] debt in various countries.
- Consider short-duration investment grade corporate bonds. Also consider TIPs bonds; see the paragraphs in this conclusion on TIPS bonds.
- **Cautiously Consider Municipals With 25% Max**: The muni market can be illiquid and opaque, and because foreigners have no need for the tax-free advantages of municipal bonds, are less liquid than treasuries. Muni bonds make up about 10% of the bond market, so limit municipal bonds to 25% of your bond portfolio. Avoid tender option muni bonds, which take the income from a muni and split it into two pools of cash flow. Bonds with interest rates that are multiples of 0.05 are likely to be tender option bonds. Most municipalities have a large gap between their pensions assets and liabilities. About half the US states allow municipalities to file

for bankruptcy. Avoid states with the highest debt service ratios (IL, CT, HI, NJ, KY, DE, MA WV, MD). Politically difficult COLA adjustments and medical caps will be necessary. State's debt service ratio = Interest on state bonds, excluding revenue bonds not paid back from general funds + Pension costs accrued and partial pay down of unfunded liabilities (public plans assume back-loaded contributions and use much higher (riskier) return and amortization period assumptions) + Retiree health care (includes life insurance and long-term care)-pay as you go or accruing and funding portions of future liabilities + Defined benefit plan contributions (typically small amounts vs. 70% of corporations / Revenue (annual taxes).

  - **Ticking City Time Bombs?**: Even when a state's credit fundamentals are strong, there may be questions about the finances of its cities which share the cost of unfunded pension and retiree health care liabilities (typically for education, Medicaid and corrections), and which could reverberate back to the state. Between 2010 and 2012 US school systems cut spending on salaries by $7 billion and increased outlay on benefits by $6 billion, largely driven by pensions. Cities are harder to analyze than states given data quality issues and the vast number of them. The following cities have the highest ratio of pension liability to operating revenues: Chicago, Los Angeles, Cook County, Houston, Jacksonville, Dallas, Denver and Phoenix.

    - New York City has the largest unfunded retiree health care liability per capita in the country, followed by Providence, Boston and Detroit. There is a large gap between these four cities and the next four: Bridgeport, Honolulu, Bridgeport and Baltimore. Most states have not significantly prefunded their medical liabilities; only 11 have funding ratios over 10%, and only 3 are over 50% (Arizona, Alaska and Ohio).

- **Junk Bonds**: Almost half of all the corporate bonds are considered junk bonds. A constant erosion of mutual fund principal (1.5%-2% annually) due to bankruptcies reduces potentially strong junk bond yields. Junk bonds are stiffly taxed, and are also recession sensitive. Liquidity has diminished, an unintended consequence of the re-regulation of banks, which will result in higher volatility in times of stress.

  - **Invest New Funds When Convertible Bonds 2%> Corporate Bonds**: Convertibles tend to perform well when the broad market is doing well. In 2008, the total return of the Barclays US Convertibles Composite Index was -34.7%, even worse than the return of the Barclays Corporate High-Yield Bond Index. Convertibles offer inflation protection, are less volatile than stocks but more volatile and less liquid than bonds, and are typically rated as junk. Prefer convertibles with shorter maturities to reduce volatility. Invest in convertibles through a fund; half of all convertible issues are only available to institutional investors, but determine how much of the fund is invested in securities that are not convertibles. Turnover in convertible funds is higher because convertibles are eventually sold for common stock.

- **Avoid Floating Rate Funds**: Smaller index increases may not result in increased interest payments if they are still below the floor. Floaters still carry interest rate risk if they have longer durations. Floaters are a smaller market that might be illiquid in times of financial stress, and can also get hammered if investors perceive the underlying loans as too risky (covenant light and default risk). Typically floater issuer's are financial companies (a sector to be underweight).

- **Avoid International Bond Funds**: Expenses are double the US norm, returns not high enough to compensate for currency and political risk, and yields can be elusive, since they are calculated before currency losses.