Perspective

The "Postmodern" Financial Pyramid

Thomas Schneeweis

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"The true finish is the work of time, and the use to which a thing is put. The elements are still polishing the pyramids." David Thoreau

Please address correspondence to:

Thomas Schneeweis TRS Associate 86 Mahtomedi Avenue, Mahtomedi, MN 55115 Phone (cell): 413-218-0206

Email: thomas@trs-assoc.com

The "Postmodern" Financial Pyramid

Every day I am astonished as to the degree that the investment industry increasingly uses a wide variety of visual presentations (digital and print) to convince investors of the benefits of the firms' products or processes. In this world of unlimited financial data and of unlimited forms of its presentation, an increasing amount of time is being spent on determining how best to create visual data that best impacts t investor's cognitive processes in the investment decision making process including perception, memory, thinking, reasoning, etc. Sometimes this process falls within what is widely described as behavioral finance (Hirshleifer, 2014). For many academics and investment practitioners, behavioral finance with its emphasis on individual decision making (both form and fluff) has overtaken traditional finance with its emphasis on data driven empirics. To put it bluntly we may soon come to a point when investors have no other option or desire but to turn their chairs around to see screens of visual data representing a wide range of geometrical presentations which help them in their investment choices. The only book in the room may be what they can upload on their dated IPad.

Despite the proclaimed benefits of the dominance of the graphical interface I believe we will be less for it. In this, "Once There Were Books World", I fear that we will be held captive by the purveyors of visual data with little understanding of its real use or of its controlled evolution over time. Of even greater import is how little impact we have in determining how that data is collected and how that data is presented visually for investors' use in decision-making. Many investors respond however, that the new visual summaries of more complex mathematical systems make the decision process faster and easier to implement. How easily we are won over by flash rather than substance. Of course, this point is well known in "great" or at least good

literature. In Norman Juster's Newbery award winning "The Dot and the Line: A Romance in Lower Mathematics" the story details a straight line who is hopelessly in love with a dot. The dot, finding the line to be unexciting and structured, looks for affection in a less controlled squiggle. The line wants the dot's attention so badly that it creates shapes so complex that he has to label his sides and angles to keep organized.

Fortunately, for the 'line' in Juster's story, "function trumps form" and the dot realizes that she has made a mistake and that the squiggle is nothing more than "form over function". In short, the line's ability to create meaningful structural presentations has its benefits. This is no more so true than in the use of pyramids in financial presentations. The use of the word "Pyramid" in finance has had a checkered past. On the negative side, the word pyramid has been used in a variety of financial enterprises where a few individuals get rich at the top off of the payments of many folks at the bottom (see Ponzi scheme, Madoff...). So often has the pyramid been used to entice individuals into certain types of investment that various government bodies have had to directly investigate various 'pyramid ventures' and to warn investors against similar "Pyramid or Ponzi schemes". Yet they continue despite governmental warnings. In the first six months of 2014, at least 37 Ponzi schemes were uncovered, with a total of more than \$1 billion in potential losses. This equated to the discovery of a Ponzi scheme (1) more than once per week, (2) every 4.9 days, or (3) every 118 hours.³

¹ A Ponzi scheme or pyramid scheme is an investment fraud that involves the payment of purported returns to existing investors from funds contributed by new investors. Ponzi scheme organizers often solicit new investors by promising to invest funds in opportunities claimed to generate high returns with little or no risk. With little or no legitimate earnings, Ponzi schemes require a constant flow of money from new investors to continue. Ponzi schemes inevitably collapse, most often when it becomes difficult to recruit new investors or when a large number of investors ask for their funds to be returned.

² "SEC is Beefing Up its Enforcement Over Web-Savvy Pyramid Schemers," Wall Street Journal (December 4, 2014). Page C1. See Ponzitracker. Ponzi Schemes Remain Prevalent in 2014: Jordan D. Maglich Thursday, August 21, 2014.

³ See Ponzitracker. Ponzi Schemes Remain Prevalent in 2014: Jordan D. Maglich Thursday, August 21, 2014.

If it seems too good to be true, it probably is!

B4

Str

4,988

32,788

In the typical pyramid scheme for every individuals to pay.
So, if you are not one of the first individuals in, then it is going to be very difficult to recoup your money - not to mention benefit from additional gains!

PYRAMID SCHEMES

OF AUTOMOTOR Play...
You Pay

Where to go for Help

Contact the...

Burcan of Consumer Proceetion
14th Fibro. Strawberry Square
Harisburg. Pennsylvania 71:20

CONSUMER

PROTECTION HOTTINE
1-800-411-2555

Tom Corbett
Attorney General
Commonwealth of Pennsylvania

Tom Corbett
Attorney General

Exhibit 1: Sample Governmental Pyramid Scheme Warnings

The purpose of this article, however, is not to discuss the mathematics of Ponzi schemes or the use of the pyramid structure in discussing them but to offer an alternative view as to the use of the pyramids in finance. Pyramids are found in a wide variety of marketing, management and product descriptions. The most famous perhaps is the well-known "Food Pyramid" whereby individuals are given a simplified presentation as to what foods to eat and how often to eat them. In recent years, however, it has been shown that the 'historical' food pyramid failed to properly represent today's "alternative" understanding of modern nutrition. Emboldened by those who turn the "Food Pyramid" on its side (and in fact this is what the new nutritionists have done)⁴, it is the purpose of this article to propose our own "Postmodern Investment Pyramid' whereby individuals can determine their own investment calorie count. The hope is that this alternative "Postmodern Investment Pyramid" may offer readers a different view of the use financial images

⁴ See Willet (2005).

in financial decision making and encourage others to suggest alternative approaches to

investment presentations that may result in greater financial health for all Americans.

Figures in Finance

When speaking of figures in finance, no one would be criticized for expecting a host of

numbers or mathematical notations to flood the page. At this point it may be a good idea to ask

the question why, that is, why do people use figures to present more basic ideas which have their

origin in a more complex mathematical world? One reason rarely discussed is that many ideas

are tough, I mean really tough to convey to others. It is hoped that somehow people's 'on shelf'

computer (e.g., their brains) are able to see things in figures that for some reason does not come

though when they see written words on pages (the Where is Waldo Phenomena). I am sure that

many of us have commented to ourselves the oft mentioned "this hurts my head" when reading

financial analyses similar to that shown in the following excerpt from an article on Payoff

Patterns in Structured Equity (Henderson and Pearson, 2007)

For the structured products based on individual equities, the vast majority of the payoff

profiles are concave, and many of them are qualitatively similar to the payoff profiles of

covered calls. These products offer relatively large interest income in exchange. For

example, only one of the structured products in our sample includes a digital payoff for

truncated exposure to stock price increases. The underlying common stock is usually a

growth stock, and often a technology stock. In contrast, when the underlying asset is a

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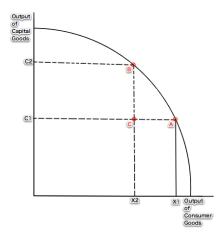
diversified stock index, the majority of the payoff profiles are convex. The index-linked notes generally offer very low coupons, often lower than the dividend yield on the portfolio underlying the reference index, and offer limited downside risk together with participation in the upside performance of the index. Given these findings, it seems unlikely that investor purchases of SEPs can be explained by any plausible normative model of the behavior of rational investors. That is, it seems implausible that purchases of these products are due to (rational) hedging or rational speculation. Thus, our interpretation of the patterns we document is that these patterns in the SEP payoffs are likely to provide information about the cognitive or behavioral" biases of investors in these products. Notably, the payoff patterns suggest that the cognitive or behavioral biases differ depending upon the underlying asset. These biases cause investors predominantly to demand concave payoff profiles when the underlying asset is a common stock, and convex payoff profiles when the underlying is an index.

If one continues into this article, there are real figures (numbers) presented which reflect the aforementioned convex/concave return patterns. The article concludes that in the context of the structure equity derivatives analyzed and the cognitive and or behavioral bias of investors it is implausible that the pricing patterns of the financial products analyzed are due to rational hedging or speculation. Since most of us are not looking for implausible answers for anything. Without the promise of an assured answer, it is out the door to my friendly investor representative for more understandable plausible alternatives for our investment options.

Academics have long been aware of the 'quantitative hurdles' involved in explaining asset pricing and allocation to the average investor. Given concerns over the mathematical depth

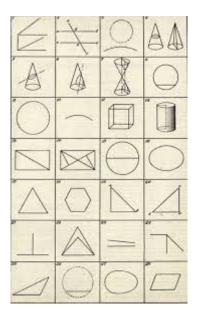
of the average investor, many academics have illustrated their results using certain shapes and sizes that reflect their numerical figures so as to better convey the 'conceptual' nature of numbers to the waiting public. In fact, geometric figures in finance such as lines, circles and the like have been an inherent part of financial and investment education. One need but remember such classically known financial concepts as 1) the Capital Market Line, 2) the Security Market Line, 3) the Efficient Frontier (OK a little bent line). We have even gone beyond such simple 'vector' representations to more evolved concepts such as curvilinear presentations involved in investments such as option pricing as well as economic concepts such as production functions and the oft used circle for presentations such as portfolio holdings or the changing pattern of asset class investment in tactical asset allocation programs.

Exhibit 2: Alternative Graphical Representations in Finance and Economics



There is certainly more to say about this topic. There are entire books on data presentation as well as modern software with a myriad of alternatives to illustrate alternative means of financial presentation (see Excel.....). The following are but a few examples of what is available from even the most basic of sources.

Exhibit 3: Sample Design Figures In Excel



In the above Exhibit 3, there are multitudes of shapes of all sizes and contortions.

However there is only one pyramid. Why? Given the negative stereotype of "Pyramid Schemes"

in finance it would not be surprising that finance in general and investment in particular would have used other geometrical forms to describe the pros and cons of various investment enterprises. However, this of course was not always the case. While data presentation is an art and takes many forms, throughout history, the pyramid in general and in certain cases in the specific has been directly linked to money and finance. While not the focus of this article, for many the early Egyptian Pyramids were really large banks and the smaller ones in front just associated AMTs. Throughout the ages, attempts by many European archeologists to find their way into these stone monoliths were merely false fronts to find their way into these banks.

Exhibit 4: Early Egyptian Banks with ATMs



So important was the pyramid in finance that it found its way onto the America Dollar bill. On the version of the seal that was eventually approved, the Eye of Providence is positioned above an unfinished <u>pyramid</u> of thirteen steps (symbolizing the original States. The symbolism is explained by the motto that appears above the Eye: <u>Annuit Coeptis</u>, meaning "He [God] approves (or has approved) [our] undertakings".

Exhibit 5: The Pyramid in American Finance



More to the point, with the pyramid on the everyday dollar, the pyramid could easily find its way into other more common uses such as the financial planning arena, where the pyramid has been used as an educational tool to describe a series of processes by which financial professionals can help protect or manage investors' assets. The following are but a few examples of how financial practitioners have used the 'Primordial Pyramid Form' to describe their financial services and product structures.

Exhibit 6: Sample of the Pyramid in Financial Planning



Similarly investment professionals have used this accepted form of financial wealth presentation to help explain the investment process. Unlike the line, it can accommodate a broader three dimensional view of the investment process. Unlike the circle it has a definite start and stop and has an apex we can aspire to (often similarly associate with Maslow's Hierarchy of needs). It is interesting to note that despite academics attempts to use straight lines (Capital Market Lines, Security Market lines) or curved lines (Efficient Frontiers) to describe the investment process, the more complex Investment Pyramid remains a primary focus among investment professionals. As intimated earlier, perhaps there is something in our cognitive map that is simply attracted to the Pyramid form, its broad base, its top reaching for the sun. Similar to the Dot in the Norman Juster book, perhaps it has just taken time for investors to stop searching for beta, multi-factor, conditional eigenvalue based squiggles and return to the more basic solid pyramid forms as a basis for their investment decision process.

⁵ See Maslow (1954). His description of personal self –actualization was centered on a Pyramid in which the base was Psysiological Needs, and then rose through Safety Needs, Belonging Needs, Esteem to the Apex of Self-Actualization.

Exhibit 7: Sample Investment Pyramid Forms or (Schemes)



Food Pyramid Versus the Investment Pyramid

So wherein lies the problem or the potential for the growth of the Investment pyramid in investment planning in general and the alternative investment industry in particular. Well simply put, things change. Even the original Egyptian banks were more in the form of a basic stone block. It did not take long for early bank architects to see the benefit of shaving off the sides (reduce cost) and giving the bank owners a nice perch at the top better to survey their holdings (or incoming armies) rather than the original half circles.

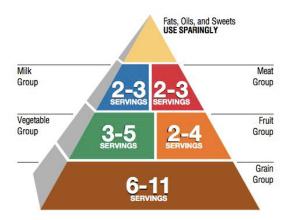
Exhibit 8: Early Egyptian Bank (60 cubits by 100 cubits)

Note Deposit Entry at Top



Change is inherent in the human condition. Unfortunately change for many individuals, and those with a stated interest in the current investment paradigm, often refuse to accept changes in concepts or the forms they take (see Thomas Kuhn's Structure of the Scientific Revolutions (1962)) despite the factual evidence in favor of the change. The evolution of the change in the historical food pyramid is but one example. In 1992 the USDA created the original Food Guide Pyramid. The original "Food Pyramid" unfortunately was based on less than solid scientific ground. It was promoted by the government agency responsible for supporting American agriculture rather the government agency in charge of nutrition and health. In brief, the 'food politics' involved in the creation of the Food pyramid determined in part by its form and function.

Exhibit 9: Sample Original Food Pyramids

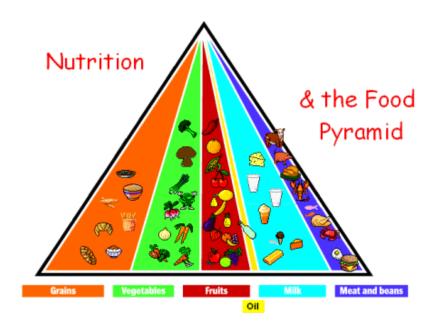


By 2005, its known failures lead to an attempted revision which some maintain fell victim to political infighting which even included use of the marketing firm used to promote the original food pyramid.⁶ Change had to come from the outside. For those interested, the detailed description of the new "Food Pyramid" is detailed in the book "Eat, Drink and Be Healthy" (Willet, 2005). Its primary adjustment is basically to turn the original "Food Pyramid' on its side such that each food category is not built on top of each other but is considered alongside (that is simultaneously) with the other food groups when considering a diversified and complete nutritious diet.

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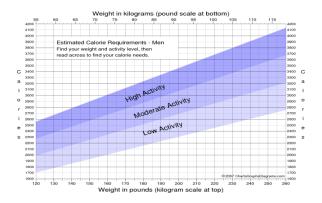
⁶ See Willet (2005).

Exhibit 10: The New Food Pyramid



In addition, Willet's book emphasizes that each food group needs to be further analyzed as to the benefits and costs of each food within that category. For example, while all breads might be made of grains not all grains are equal (some have higher HDL and sugar and salt context). In addition, each individual has their own unique "nutritional profile" based on their personal attributes (height, age etc.) such that acceptable calorie consumption may differ among different individuals.

Exhibit 11



If Willet's "New Food Pyramid" approach, that is turning the classical "Food Pyramid" on its side can work to suggest a more diversified and beneficial approach to nutrition than the one considered in the Traditional Food Pyramid, why not the Investment world; that is simply turn the 'Investment pyramid on its side' instead. In today's world of Postmodern Investment one requires a Postmodern Investment Pyramid which differs fundamentally from its traditional form.

It may have taken time to get here, but this article requires 5,000 words (we all live in a world of constrained optimization and journal requirements). If one looked at the original traditional investment pyramid, one might have a majority (up to 50%) of one's investment in savings, bank accounts, pennies under the mattress (e.g., basic grains and foodstuffs in the basic food pyramid). Only after fulfilling those needs should the investor try to scale the sides of the pyramid and look to more fixed income and yield-based investments (bonds, annuities) perhaps in the range of an additional 30%. After one had the appropriate servings of bread and potatoes as well as fixed income assets one may wish even to add a little meat and fish (U.S. and foreign

⁷ Crowder et. al., Postmodern Investment.

equity – a final 20%). If one had not completely filled one's investment basket, one could have added a little desert (some speculative investment in individual stocks like Apple or Facebook) but for most investors desert is not allowed and investment in this part of the financial pyramid is a big zero. Some more advanced investment nutritionists might adjust for age or occupation (similar to life cycle or targeted investment programs) but the traditional financial pyramid led investors to a series of the sequential decisions from secure low yield financial instruments to higher risk higher yielding assets.

TIER 2

20%
Speculation
(Optional)

TIER 2

20%
Stock Funds

Make sure you meet
Tier 1 minimum before
starting Tier 2 or 3

Minimum 6
menths gross
ramily pay. Better
is 1 year

Exhibit 12: The Traditional Investment Pyramid (Repeat)

Again, if something as widely used as the food pyramid was based on faulty science and required a major rethink to reestablish its place in the nutritional program, it may also make sense to take a look at the well-known 'Traditional Investment Pyramid'. To summarize, the traditional investment pyramid advocates that an investor start with a major portion of his

investment portfolio with cash investments. Only after meeting Tier 1 requirements is the investor permitted to move into Tier 2 investments and then only in rare cases should he/she consider investment in 'optional 'Tier 3 speculative investments (e.g., alternative investments). The basis for the traditional investment pyramid structure was concern over the underlying risk of the investor's portfolio. Advisors were concerned over the potential loss of investor capital, however, over emphasis into cash based assets also resulted in an even greater failure; that is, the failure to make an adequate rate of return. Most investors kept a large portion of their capital in low yielding bank and guaranteed funds. If one had a more conspiratorial view one might suggest that the original investment pyramids emphasis on Bank deposits was driven in part on the impact of that financial industry on the design process. Similarly, the focus on bonds and stocks as secondary to bank deposits but superior to other investment forms may have to some degree being influenced by the relative size of that industry in the investment paradigm. If one turned the Traditional Investment Pyramid on its side what would we see? While this article is only exploratory and we have not fleshed out the entire new 'Postmodern Pyramid Design" one can see an investment smorgasbord that similar to the simultaneous food court in the New Food Pyramid. The New Postmodern Financial Pyramid would have investments across all Asset Classes even at the most basic investment level. In contrast to the Traditional Investment Pyramid's answer to the investment question of Bank Deposits first and nothing in anything else until later, the Postmodern Investment Pyramid would instead invest even at the most basic level in multiple asset classes as a means of promoting investor financial health or wealth. In the current Traditional Investment Pyramid, the concentration of beginning wealth in bank or low yield guaranteed products simply means that there will never be a chance to move to higher levels of wealth or health unless one is blessed with a rich uncle or aunt, a winning lottery ticket or something similar. One simply never earns enough in the basic grain\bank Tier 1 to make it to the second level.

Growth of \$1 at 1% Gross Return Under Various Fees

1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 Years

Growth of \$1 at 4% Gross Return Under Various Fees

6
5

Exhibit 13: Growth in Wealth For Alternative Levels of Return and Fees





It is obvious from the above graphs, that fees impact results but the highest fees at 7% still outperform the lowest fees at 4%. In short, what we own matters. At 1% (Tier 1 of the Traditional Investment Pyramid) there is almost no growth in assets even under the lowest fee assumptions. In brief, the traditional investment pyramid is relatively constrained and the

expected return may be limited. More importantly, the investor at the most basic Tier 1 level has almost no means to realize growth in value and to become familiar with other asset classes other than through discrete jumps in investment

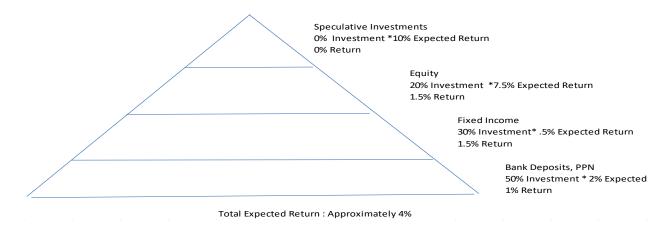
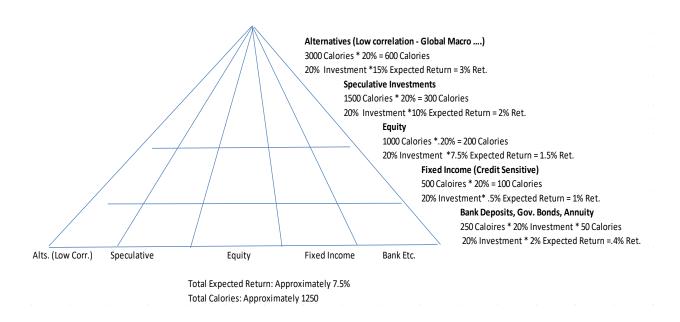


Exhibit 14: Traditional Investment Portfolio

In contrast, in the New Postmodern Financial Pyramid (Exhibit 15), investment across multiple asset classes provides, even for relatively basic Tier 1 investors, expected returns which offer the potential of increasing value. As one desires to rise up the pyramid, one has access to less liquid and perhaps less available assets within any asset class, but the decision is what assets to hold within an asset class rather than the prescription against investment in an asset class.

Exhibit 15: The PostModern Investment Pyramid



Some investment academics and practitioners may not be comfortable with this new design which in its basic form calls for a simultaneous non-sequential approach to investment decision across multiple assets in contrast to a simple sequential approach to investment allocation. Considerable effort has gone into creating the existing Traditional Investment Pyramid 'marketing design', but if change is good in one area such as nutritional health, one should feel comfortable in stealing their ideas if they can be used efficiently in other areas. Consider this just an efficient market in ideas. However, one may ask if the new Investment pyramid provides a clean understanding of the bedrock of modern finance; that is the tradeoff between risk and return. Again, the nutritional standards industry may offer us a solution. In the New Food Pyramid, quantifiable nutrition standards include estimates of desired calories as well as the cost and benefit of various food classes in reaching a desired calorie level. Similarly, the Postmodern

Financial Pyramid, each investment will have its expected return as well as an expected calorie count. Since calories provide the basis for the heat our bodies need to burn, they could easily be related to expected return in the investment world. Just as we need a certain level of calories in a nutritional sense we need a certain level of calories (return in an investment sense). There is, of course, more to this than simple calorie counting, but that is for the next section.

Risk and Return in the Postmodern Investment Pyramid

So to, perhaps this is the time to rethink the whole risk and return presentation in the investment pyramid in terms of the concept of calories (return for investment) and quality of calories (risk). The traditional food pyramid was founded on the basis that one required a certain number of calories each day and that those calories were available in less costly and somewhat nutritious grains etc. Unfortunately, just as all calories were found to be equal, not all grains were (some are more beneficial in other aspects of nutrition than others – some have more sugar, harder to digest). Similarly, even in the original investment pyramid, after the 2008 financial crisis we have come to realize that not all banks' investments (see Grains in the food pyramid) are equal. More importantly, the banks and other low yielding sources of guaranteed products were found not necessarily to be safe (similar to high salt, high sugar bread such that Tier 1 financial products exist that had high risk (e.g., default) with very little return (calories).

Thus for food nutritionists, the Modern Food Pyramid requires an expansion of the food characteristics of various food types at the basic nutrition area. While, the original food pyramid focused primarily basic proper food consumption,, the new food pyramid requires an understanding both of the calorie intact and how those foods interact (e.g., a greater range of risk concerns). For example, one requires one to weight a food by 1) Glycemic Index (high) and 2) its

Glycemic load (low good), 3) Protein, 4) Calcium and magnesium, 5) Sources of Folic Acid. As discussed earlier, all grains are not alike (white bread (bad)/rough brain bread (good), all fruits are not alike (oranges good/orange juice bad).....

What we are suggesting in this section is for investors to think of their Postmodern Investment Pyramid in the same conceptual terms as their New Food Pyramid. Each investor should have a calorie goal based on their age, wealth, and overall current financial health. For example younger investors with few financial resources may be required to focus on a 1500 a day calorie goal. Note this is not and cannot be reached by investment in traditional investment pyramid Tier 1 bank and guaranteed deposits. They simply do not provide enough calories (return) to give you the energy (growth in current savings) to move to Tier 2. One requires a more diversified mix of asset classes (similar to a mix of food classes) some of which have a higher calorie count (see alternatives) which may provide the energy to move asset growth to your financial goal. Note this is not a static concept. As individuals' health changes over time, one may wish to for a higher calorie count (more risky alternatives and/or high risk assets within an asset class). As in Exhibit 11 for the New Food Paradigm, in the Postmodern Investment Pyramid some individuals can accept a higher calorie count because they simply can afford it (they are young, they have better bodies (e.g., financially fit)). Moreover, one can expand the risk characteristics of each asset class such that one can better compare the impact of various investments on the overall risk index of one's portfolio.

One may say this cannot work. It is simply too simple. Well as in all things there is a tradeoff between risk and return and in limiting ourselves to the Pyramid form. While not the focus of this article, other more complex geometrical forms may allow more detailed examples of more complex asset allocation patterns, but for the moment we stay with what is good for the

U.S. dollar is good for us. In addition, the new Modern Investment Pyramid is not that simple and provides a fairly adequate view of the benefits of multi-asset investment at the most basic level... First, one must estimate the calorie (return) in each investment asset (food) class). Historically in finance this return was fundamentally related to estimated risk (standard deviation or beta). However, as in the nutrition area, there are investments that can be seen as having high calories (high relative return) or low calories (low relative return) and relatively high or low risk depending on what else is in the portfolio. In the nutrition area, the differential value of various foods in the same Tier could be broken up into Good and Bad HDL, LDL and other food characteristics. Similarly, in the investment area, assets must be viewed across a range of risk characteristics. Certain bonds may have a low return (low yield or calories) and have low risk (low duration) but have low liquidity or transparency. In short, just as in the food area where one should consider various foods impact on ones total body, in the investment period, various financial assets need to looked at across a wider range of risk characteristics; that is, they need their own HDL\LDL classifications so that individuals can balance various characteristics of assets within their own portfolio or asset class.

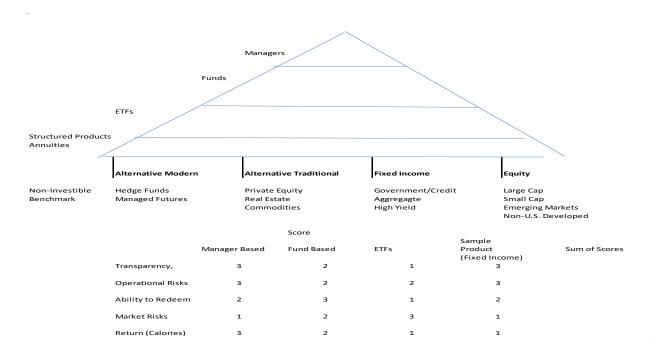


Exhibit 17: The Alternative Post Modern Investment Risk Index Scale

In short as in the nutrition area one is looking for a more proper nutrition index, in which the characteristics of an investment (e.g., high calories) may in fact have real benefits to the overall health of the individual given its other characteristics (e.g., balance blood sugar in nutrition; increase over all asset diversification in investments). Similarly, moving to a multirisk based Modern Investment Pyramid will also allow us to compare assets on a more common level. In Finance we have often criticized looking at the investment portfolio in isolation and not considering one's other assets (job, health, age). Adding these characteristics onto the pyramid and presenting it in more three dimensional form will provide the basic multi-asset form with the mix of assets within any individual asset class a function of additional individual factors.

There is certainly more to be explored in this area and one need not limit the discussion

of investment risk and return to a single Pyramid form. Perhaps the Dot could find a way to date

both the line and the squiggle. Perhaps investors could come likewise to learn to love both

modern financial terms (beta, duration) and modern forms of Pyramid based investment. One

thing for sure, the old investment pyramid like the food pyramid needs a makeover. Here is to

good financial health and as stated at the end of the Juster's the Dot and the Line "to the Vector

belongs the spoils".

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Professional Bio: Thomas Schneeweis is the Co-Founder and the current Director of Research at YES Wealth Management, a Registered Investment Advisory Firm in the Minneapolis/St. Paul area in Minnesota (Email: tschneeweis@yeswealth.com and Website: www.yeswealth.com). He was the Michael and Cheryl Philipp Professor of Finance and Founding Director of the Center for International Securities and Derivatives Markets at the Isenberg School of Management, University of Massachusetts-Amherst. He was also the Founding Editor of The Journal of Alternative Investments and the Managing Editor for over fifteen years. He is Co-Founder of the Chartered Alternative Investment Analyst Association (CAIA: www.caia.org) and the Founder of Chartered Alternative Investment Analyst Foundation. He is also the Co-Founder of the Institute for Global Asset and Risk Management (INGARM: www.ingarm.org). He has published more than 100 articles in the area of investment management and is the coauthor/editor of over six books in the area of investment management including New Science of Asset Allocation (John Wiley, 2010) and Postmodern Investment: Facts and Fallacies of Growing Wealth in a Multi-Asset World (John Wiley, 2012). He has been awarded with the CAIA Award for Research in the Area of Alternative Investments (2012). He has been a frequent speaker on financial news programs and contributor to various financial publications. He received his Ph.D. from the University of Iowa, M.A. from University of Wisconsin, and a B.A. from St. John's University.

He has more than forty years of experience in asset management including President of a firm (Schneeweis Partners) which specialized in 'bespoke' structured finance as well as Director of Research at Ursa Capital, LLC which managed an approximately \$4 billion hedge fund managed account platform. He has been managing partner of a managed futures fund (White Bear Managed Futures Fund) as well as an equity long short hedge fund (White Bear Equity Long-Short Fund) and President of an approximately \$1 billion commodity-based investment firm (Alternative Investment Analytics). For over forty years, he also was on the Board of Trustees of the AMG Funds (a retail distribution arm of Affiliated Managers Group, Inc., a world's leading provider of boutique investment management expertise to institutional and individual investors).

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Perspective

An Alternative View of the Meaning of Life In Search for Big Alpha or Little Alpha

Thomas Schneeweis

June, 2019

'Could you tell me, please, which way I ought to go from here?' 'That depends a good deal on where you want to get to,' said the Cat. 'I don't much care where--' said Alice. 'Then it doesn't matter which way you go,' said the Cat.

'From Lewis Carroll's Alice in Wonderland

Please address correspondence to:

Thomas Schneeweis TRS Associates 86 Mahtomedi Avenue, Mahtomedi, MN 55115 Phone (cell): 413-218-0206

Email: thomas@trs-assoc.com

An Alternative View of the Meaning of Life In Search for Big Alpha or Little Alpha

Many of us are on a constant search for answers to basic questions of how to achieve individual and professional success (whatever that is defined to be). The importance of determining one's goals or life targets is illustrated in the classic Cheshire Cat/Alice episode in Charles Dodgson (Aka Lewis Carroll) book Alice in Wonderland's. In the book Alice questions the Cheshire cat as to which path she should take. The Cheshire cat points out correctly to Alice that; "If you don't know where you are going it does not matter what path you take". One's path in life should be somewhat based on where one wants to go. Similarly in one of his somewhat lesser known pieces, "The Hunting of the Snark", Carroll also focuses on what path men should take on their constant search for truth, justice and some might say the 'Meaning of Life'. One problem in "The Hunting of the Snark" is that the Snark was a mythical beast and if found could in fact also be the mythical dangerous Boojum who, if encountered, would result in the finder simply disappearing thus rendering any evidence of the discovery moot (an extreme case of survivor bias in the search for the meaning of life).

Now so as not to bury the lead, we investment professionals (academic and practitioner alike) are looking for meaning in our personal life as well as in our professional life. In the Monty Python film, "The Meaning of Life" the hostess from 'The Middle of the Film' is handed an envelope containing the "Meaning of Life" with a relatively simple recipe; 1) Try and be nice to people, 2) avoid eating fat, 3) read a good book every now and then, 4) get some walking in, and 5) try and live together in peace and harmony with people of all creeds and nations. In Douglas Adams' Hitchhiker's Guide to the Galaxy, one of the intergalactic inhabitants decides to

build a supercomputer with the goal of answering "The Meaning of Life". The answer the computer eventually came to was the number 42. This, of course, was not the answer the assembled multitude desired. The problem the computer said was not in the answer but in coming up with the proper question. This would require an even bigger computer (in this case the really big computer was Earth which was unfortunately destroyed to make way for an intergalactic highway just before coming up with the correct question).

But to return and focus on the point of this article; that is, the Alternative View of the Meaning of Life. For investment practitioners and academics, that meaning of at least in their professional life comes in the "Search for Alpha"; that is, the search for unique investment opportunities which offer expected return above that associated with their underlying risk. It is, in fact, this effort (that is the Search for Alpha) that has provided the central focus upon which the investment industry has grown over the past almost sixty years. If one were to include the word "Alpha" in the search section of the social science research network one hundreds of hits. Obviously for academics the 'Search for Alpha' is a means to attain at least "Academic Alpha"; that is, tenure (excess return for a position (tenure) relative to a similar position with greater risk (untenured)). In this search, academics have at least been prescient enough to set up the game board by which one can win the "Search for Alpha" game. There are even different levels that the game can be played at; Level One (CAPM), Level Two (APT), level Three (Fama French size and value); Level Four (Multi-Factor Models) and so on..... Similarly, the professional world of investments has been on its own 'Alpha' crusade. Given that the monetary returns to a successful Professional Alpha search is higher than that of an Academic discovery. It should come of little surprise that the number of citations of 'Alpha' on a google search is over 40,000.

Moreover, we have individual sites dedicated to tracking this search. "Seeking Alpha" and "All About Alpha" are two popular sites dedicated to individuals offering their own discoveries as well as information as to where to focus a search. Not wishing to cross paths or to start a crusade for True Alpha with competing academic crusaders, professional investors have come up with their own rules of "alpha engagement" such as level one (Simple Beta), level 2 (Exotic Beta);

Level three (Smart Beta)......

As important (as asked in Hitchhikers Guide) are we really asking the right question or are we only asking questions for which we have a ready-made answer. In Academics we have created an entire industry around the "Search for Alpha". The frustration in our search is that often just as we thought were closing in on it, the academic powers that be snatched it from our hands (first CAPM, then APT, to Multi-Factor...) and forced to continue our voyage using a new boat. Given the constant evolution of global markets, the search is an everlasting analysis of the dynamics by which information is made available at what cost and who uses that information is to value assets (tradable and non-tradable). In this search, academics have created an entire vocabulary (e.g., multi-factor\behavioral\continuous time\conditional) by which one must present their findings with the knowledge that in fact this is a vast universe of unending possibilities which makes any discrete historical data analysis time and condition specific such that any discovery may be relatively irrelative for the current investment climate. Still the search continues.

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For those investors who want an even simpler basis for measuring the success of one's personal exploration or favorite explorer (e.g., fund managers) more popular definitions of 'alpha success' exist. CNBC has listed its own definition (see. <u>Alpha and Beta: CNBC Explains - CNBC.com www.CNBC</u>).

Simply put, Alpha is a measure of an investment's performance compared to a benchmark, such as the S&P 500. It's a mathematical estimate of the return, based usually on the growth of earnings per share.

Beta, on the other hand, is based on the volatility—extreme ups and downs in prices or trading—of the stock or fund, something not measured by alpha. But beta, too, is compared to a benchmark, like the S&P 500. You can think of beta as the tendency of a security's returns to respond to swings in the market.

How are they calculated?

Alpha and beta use formulas that end up looking like a calculus problem. Got your calculators?

The alpha for a portfolio, asset type, goal, or investment type is determined by calculating excess returns from a weighted average of the investments in that group. The weighting is based on the ending value, usually of earnings per share.

OK, for those who do not know, the above statement contains numerous errors (we are not telling you or you might know what path to take). So, who says practitioners or academics have to get it right. In brief, both academics and professionals have learned from Douglas Adams that the proper questions are much harder to determine than an answer to an incorrect but simple question such as What is Alpha? Each group (academic and practitioner) having not decided on how to ask the proper question, have instead focused on determining their own question (e.g., Does My Investment Return Alpha?) for which the answer is 'just right' for the intended audience. (See the following examples of reported alpha from the same investment. As a hint not

all of them can be correct. In this case none of them may be correct. In fact, each is merely model dependent excess return but that is for a different day and a different story).

What is Alpha: Benchmark Determines Reported Alpha on Same Investment

Alpha Benchmark Model	Alpha Determination	Alpha
T-Bill	$E(R_i) - R_f$	5.26%
САРМ	$\alpha = (E(R_i) - R_f) - \beta(E(R_m) - R_f)$	4.42%
Sharpe Ratio	$\alpha = E(R_i) - R_f - \frac{E(R_m) - R_f}{\sigma_m} \times \sigma_i$.68%
Multi-Factor	$\alpha_{i} = (E(R_{i}) - R_{f}) - \beta_{i1}(E(B_{1}) - R_{f}) - \beta_{i2}(E(B_{2}) - R_{f}) - \dots$	-0.97%

In brief, it is obvious that if one is going on a crusade it is best that given all the expense and effort to search for something you can bring back as proof of your successful search and not spend the effort looking for something that may not even exist or if it does will result in you disappearing from the face of the earth. In short, rather than spending time "Searching for BIG ALPHA" we spend most of our time finding evidence of "Little Alpha" (See above chart). BIG ALPHA is all about the fundamental disparity between those with access to information, trading liquidity, investment alternatives and those who are on the outside looking in. If one is searching for "Meaning in Life" finding evidence of BIG ALPHA and a means to reduce that inequality would seem like a worthwhile venture. Instead, most of us search for Little Alpha indicate that a particular strategy or investment may show evidence of returns greater than some self-determined passive benchmark or academic/practitioner determined comparison investment (again see above chart).

So be it, I am willing to live in the world of "Searching for Little Alpha", where others get to determine what alpha is and how it is measured. I know that in a world of BIG ALPHA, little Alpha really has little significance. In a macro BIG ALPHA sense, I simply do not care about small stocks or small hedge funds or small anything that has little real impact on total investment. I understand that if there exists an investor with infinite wealth or the ability to manufacture money in the markets he/she (e.g. the government) may pay more for an asset (currency, bonds) that the underlying theoretical model determines should exist; I understand that there are markets where as long as there are new entrants willing to enter a market (e.g., poker game) in which current players (skilled poker players) can consistently take their money and those gains can be shared among the current players, a type of alpha exists for current players. I understand that there are numerous accepted Little Alpha models (OK but even here, please what is the basis for the use of a twelve month momentum model on anything) that tells us little about BIG ALPHA but helps us get published. We have at least learned this from Mr. Carroll that it is better to look for Little Alpha and succeed than to Search for the BIG ALPHA which is really an Academic Snark which if found tells us a lot but leads to academic reviewer (Boojum) rejecting the article because it fails to fit the current paradigm (an academic equivalent of being made to disappear).

In Search for the Alpha Snark



So where does this take us? Merely that for many of us, there has to be a reason for getting up in the morning and searching for "The Meaning of Life". If our professional life requires the "Search for Alpha", however small that alpha is, I am sorry. I am sorrier that we are tempted to bring back creatures that we call 'Alpha' with the full knowledge that, as in Lewis Carroll's "Hunting of the Snark", we really starting out the crusade with map that is in fact closer to a blank piece of paper. In my own hunt, I do not require BIG AlPHA even to exist. I understand that in a world of knowledgeable investors dealing with large amounts of capital who invest in large, liquid pools of money that those assets will be valued at something close to something that reflects full knowledge of both their expected cash flows and of the risks surrounding those expectations as well as of the marginal risks those investments add to investors who have enough capital to impact the asset's price at the margin (the rest of us are merely price takers).

I also realize that I may wish to use active investment managers for reasons other than their purported trips from the office in search of "Alpha". I don't have the time in my own

"Academic Alpha Search" (e.g., an academic whose biggest asset is his salary which is based on publications) to monitor my 'Investment Alpha Search'. As a result, I am willing to pay a management fee and perhaps a performance fee as a type of insurance payment or option payment to a discretionary investor who just might be walking past the ACME Chemical Company and seeing it burning down might call it in before others do and sell ACME short. In short, I do not expect my active discretionary manager to beat a passive risk comparison product on a regular or even on an infrequent basis. I am willing to pay him a service fee and at times a small option payment for the out of the money call or out of the money put that he or she just might add over time.

I also expect him or her to get their own "Gross Return" as payment for the time and effort he or she expends on my behalf. I expect Goldman Sachs to have a higher "Gross Return" than my manager, Bill. They have more information and higher expenses. After expenses the net returns however may be similar to an investment in Bill. I have the choice to make the decision as to who will give me a greater share (Little Alpha) of their "Gross Return" on their professional skills or corporate structure.

But I have gone on too long. Despite my knowledge that those hunting for the true "Alpha Snark" (as in Carroll's Hunting of the Snark) are doing so with a blank map and most often they return only with Little Alpha despite their claims of BIG ALPHA. I will also continue to read "Seeking Alpha" and "AllAboutAlpha" Web sites and go to "Delivering Alpha" Conferences if for nothing else other than for their entertainment value. I will continue to let my investors believe that if I simply walk long enough and search hard enough that I will find "BIG ALPHA" or if not at least I may bring back a lot of "Little Alphas" that will give them great

stories to tell their friends and colleagues (a sort of 'personal' alpha return for their continued

support and confidence).

If nothing else "Searching for the Alpha Snark" encourages us to get up the next morning

and to continue our search for Meaning in Life. The search permits us to tell great stories that we

all know fail to capture the true story or the big picture but that should be enough as long as we

accept that the "Little Alpha" we get is a mere illusion of BIG ALPHA and that the greatest risk

in our search is not the illusion of success but the self-delusion that we have achieved it; that and

the chance that if we really do ask the right question and find the BIG ALPHA answer to the

"Meaning of Life (at least in the investment world), that our discovery might not be received

well by others, even to the extent that we might disappear never to be seen or heard from again.

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Perspective

Thomas Schneeweis

The YES Wealth Financial BLOG: A Series - Refreshingly Human

May, 2021

Please address correspondence to:

Thomas Schneeweis TRS Associates 86 Mahtomedi Avenue, Mahtomedi, Mn 55115 Phone (cell): 413-218-0206

Email: thomas@trs-assoc.com

The YES Wealth Financial BLOG: Refreshingly Human

The last year has been a difficult one for many of us. In the financial management profession we have been restricted in how we interact with our clients and service their needs. As we move forward, one of the ways we hope to reach our clients as well as others is through the publication of a series of short "informational pieces" at Yes Wealth. The 'Hope' is that these "short" word stories or "BLOGs" will help all of us at Yes Wealth Management to better interact with our clients and others in helping them meet their present and future investment goals.

What can you expect from these BLOGs?". For those who may not know, the word 'BLOG' is short for "We'bLog" and today it is often considered as: a record of news and/or opinions about a particular subject that may be of interest to potential readers and is often posted on the internet. It's estimated that there are currently' more than 600 million blogs on the internet out of the 1.7 billion websites. The number of active bloggers in the United States is estimated to hit 31.7 million in 2020.Jul 5, 2021' (source - Google, September 2021). These blogs may be personal in nature while others are corporate or insititutional in their framework. These Blogs may be targeted to particular subject matter while others are more diverse and multi-source in nature.

The following are a sample of money blogs currently in existence all of which focus on a unique set of readers each with their own unique set of concerns.

- 1. Nerdwallet
- 2. GoodFinancial Cents
- 3. Mint
- 4. The Penny Horder
- 5.

There are of course many more covering a wide range of subjects. A Quick search on Goolge provides a list of various sites under various topics.

- 1. The Most Popular Personal Finance Blogs in 2021
- 2. The Best Financial Independence Blogs
- 3. The Best Financial Blogs for Women
- 4. The Best Money Blogs for Parents
- 5. The Best Personal Finance Blogs for Canadians
- 6. Summary: The Best Money Blogs in 2021

Some of those BLOGs offer 'real' information while others act more like BLOBs (BLOBs are just large amount of amorphous material attempting to take over the world (See the truly great 1958 movie titled "The BLOB")). One of the principal concerns with any of these BLOGs is the quality of their information and how often prior information contained in their BLOGS are updated. For the most part these BLOGS are not "Referred" by a set of outside experts as to their truth or accuracy. There is little or no information as to the background of the individual or individuals responsible for the information. In short, the reader is in many ways, responsible for keeping track of the quality of the information made available on any particular site.

At Yes Wealth Management we hope our BLOGS offer our clients information that hopefully has real value to them in contrast to common BlOGS that act more like BLOBs that simply try to overwhelm investors with "large amounts of meaningless material". In the upcoming weeks and months, we will be addressing topics related 1) Free Education – Is it Really Free, 2) Does the Past Forecast the Future In all cases we are trying to offer real answers to everyday issues that are of concern to us all and in all cases we are trying to make our Comments: Refreshingly Human and both not so long that we bore you or too short that we do not offer you real information. We look forward to your suggestions and responses.

Those Who Only Follow the Past Are Plagued to Repeat It

July, 2021

One of the first questions I often receive from others is how past investments will continue to provide solid means for future growth. They are often surprised and often disappointed when I tell them that investment management has evolved as investment markets, technology and regulation have forced changes in what investments are traded, how investments are traded, and who packages and sells certain types of investments. As a result, investors should be aware of investment advisors who are restricted by corporate culture or firm practice to provide only those investment products (such as stocks and bond) which investors may feel comfortable with but which do not reflect today's investment world.

In short, investment programs based primarily on the ways things were done (e.g., individual stock and bond trading, mutual funds, long term annuities.....) may not be the best way to actively managed assets into the future. Research now shows that individual equity or bond selection or even concentration on the use of stock and bond mutual funds may result in portfolios which mostly underperform portfolios which use new investment vehicles such as ETFs and or investments such as liquid alternatives. Moreover, firms change characteristics so quickly today, that stocks or stock indices such as the S&P 500 may not reflect their composition or performance going forward. In addition, bond investment in a portfolio may not provide the risk reduction benefits once believed. Today it is well known that equity is often three times more volatile than traditional bond investments such that even in simple 50% equity and 50% bond portfolios equity dominate performance. Lastly, today fixed income investments that once offered yields near six to eight percent are currently offering two to six percent. In short, things change, be aware of the changes and change with it.

If you need help in implementing these changes, YES Wealth provides meaningful investment advice using a broad range of modern investment solutions representing the very best in investment advice. We look forward to seeing you soon and helping you focus on your future.

Free Education – Worth the Price?

July, 2021

Over the past year many of us and our children have been forced to look to new avenues for new information.

With Covid we have been prevented from leaving our homes and visiting directly with our friends and advisors who in the

past may have been considered our best source of information. As an alternative we have used the internet as a primary

source of information covering a wide range of subjects including financial information

Whether you are five or ninety-five, the internet has a lot to offer. Particularly when the topic is education, the

resources on the internet are endless and that they are often completely free or at the very least low cost. One of the

problems is how we assured ourselves that the sites we visit are of the highest quality and what is the meaning of the

word free. The following was taken from a well-known investment site that stressed its potential services related to

retirement planning.

Education and support to help empower your investment strategy

Education: Our free (italics mine) educational resources can help with managing and

maintaining your retirement strategy.

Support: Knowledgeable (italics mine) specialists are available to answer questions and

connect you with the *right* (italics mine) resource.

Ok, but is it really free? What is the quality of its information? How really knowledgeable are their investment

specialists? Upon further analysis, there was no information on the background or knowledge of their 'investment

specialist' or the actual source of their resources. In short, despite their assertions, investment education and support are

not really 'free'. You may pay for it in other ways (e.g., the actual performance of their products or how the product fit

your needs).

In the future, just make sure you know what you really need and who you are working with to reach those needs. But

remember saying it is so, does not make it so or if we can help just contact www. Yeswealth.com.

Asset Allocation Simplified: Part I

July, 2021

Investment management has evolved as investment markets, technology and regulation have forced changes in what is traded, how it is traded, and who packages and sells it. Unfortunately, even today many Registered Investment Advisors are locked in the past and recommend portfolios that do not reflect current market conditions or investment

knowledge. For example:

• Despite the overwhelming evidence that traditional stock/bond diversification fails to deliver full risk management, most investment advisors fail to consider modern alternative investments (e.g., liquid alternatives)

as a means to reduce investment risk.

• Despite overwhelming evidence of market efficiency (i.e., stock prices reflect all current information), many investment advisors continue to concentrated on individual stock selection based on assumed under or over

equity valuation.

Despite overwhelming evidence of the importance of "Advisor" independence in the choice of investment product or approach, most investment advisors are dependent on the product creation and risk management

services of others (e.g., Schwab, Fidelity...).

So, what should investment advisors do? Since it takes time and effort to education one's investment clients,

should. At the very least investment advisors should be honest about what they can and/or cannot do. At its very simplest

many investment advisors simply sell what they can or what their associated firm permits them to sell and not what they

allocation across multiple asset classes. A number of factors go into this decision; the age of the client, the wealth of the

client, the risk aversion of the client, but at the end of the day, the investment advisor must determine the extent to

level one of the primary responsibilities of any investment advisor is to determine for each client the proper asset

which, he or she believes an asset class or individual asset will meet his/her client's needs. At the end of the day, the week

or the quarter, however, remember asset allocation decisions must be made. We look forward to helping you make them.

Twelve Beats Ten: A Lesson to be Learned

August, 2021

When I was in my twenties, one of the reasons that I chose the finance profession over many of the alternatives was that I believed that the investment field fit into that profession in which the major questions had specific answers. In fact, in contrast to many other professions, investments are often regarded as being a more mathematical or statistical in nature. At the very least, it uses mathematical models or statistical based variables as the basis for describing the risk and return performance of various alternative investments. The following is a typical example of how the performance of a particular fund's performance is presented.

				Maximum	Equity Beta (S&P	Fixed Income Beta
Performance Comparison	Annualized Ret	Annualized Stdev	Return/Risk Ratio	Drawdown	500)	(AGG)
Wealth Starter Conservative	7.7%	6.2%	1.25	-13.3%	0.29	0.57
iShare Core Conservative	7.2%	6.3%	1.14	-14.5%	0.28	0.56
Wealth Starter Growth	11.3%	10.6%	1.06	-20.4%	0.54	0.43
iShare Core Growth	10.4%	10.9%	0.96	-22.9%	0.54	0.39
				Maximum	Equity Beta (S&P	Fixed Income Beta
Sample Security Benchmarks	Annualized Ret	Annualized Stdev	Return/Risk Ratio	Drawdown	500)	(AGG)
SPDR® S&P 500	18.3%	19.1%	0.96	-33.7%	1.00	0.20
Devied of Investment, 2017 9/2021						

Annualized Return: The Annualized Return is the Cumulative Return of the period adjusted by the trading period to provide an estimate of the annualized return. Annualized Standard Deviation (Stdev) is measured as the daily standard deviation times the square root of 260 (estimated annual trading days in a year). The Return/Risk Ratio: The Annualized Return divided by the Annualized Standard Deviation and is a measure of the relative return per united of risk

Maximum Drawdown - Measure of Worst In period investment return for Buy and Hold Investor Within Period of Investment (Peak to Valley) Beta: Sensitivity of Asset Return with Index Return (e.g., Beta of 1 means if index moves up 2% then asset moves up 2%).

Note this example includes a wide variety of performance (annual returns, ...) as well as risk analysis (beta, standard deviation, drawdown ...) measures. Is there one right question of performance or risk? When speaking of performance, should we be taking one year, two years, three years? When we are speaking of risk is there a single or best way to measure it, for a particular fund or for a particular time frame? Case in point, my four-year-old grand my niece said she only had to count to ten. I said if she ever wanted to tell time she had to go at least to twelve. She said no. I showed her a clock and had her count the hours. She got to ten and noticed that there were two additional numbers. She showed a 'strange' look in her eyes as she realized that there was a lot left to learn in this world. Life is never so easy as to only simple questions and simple answers. Unfortunately, we all have to grow up and often that means counting beyond ten and a whole lot more. We look forward to hearing from you or seeing you soon. Hopefully we will have some answers to your questions.

If the Question is so Important Why Are Two Different Answers Not Better Than One

August, 2021

In a previous Blog, I pointed out that one of the reasons that I chose the finance profession over many of the alternatives was that I believed that the investment field fit into that profession in which the major questions had specific answers. In fact, in contrast to many other professions, investments are often regarded as being a more mathematical or statistical in nature. At the very least, it uses mathematical models or statistical based variables as the basis for describing the risk and return performance of various alternative investments.

Simply put, if asked a simple question there had to be a single, albeit not simple, answer. I was ready. When I was teaching my first investment class, I asked the expected, does anyone have any questions? The following are a list of some of those questions.

- 1. Is this material going to on the exam?
- 2. Why is the copyright of this book 2005 when this is 2010?
- 3. If you were really good why are you not at Harvard rather than at UMASS?

Certainly not the questions I expected to receive and I am sure my answers were not what my students expected to hear. In any event I did point out to them that regardless of the quality of the questions, since I was the Professor it was my right to offer an answer to the question. Right or wrong I decided. So as to an answer to the above title of this Blog, if the questions is so important why not two answers instead of just one: Answer: Because I said so. I am not sure if the questions have changed over the years, but I hope I have learned something and that I am a little more humble now when I try to answer them. Hopefully by now there will be more than one answer. We look forward to seeing you soon.

What is an Alternative Investment?

Who said in the long run we are all dead: I don't know but I think he is dead.

September, 2021

What is an Alternative Investment: An investment which supports an Alternative Life Style.

What is the Greatest Risk of Investing in Alternative Investments: You may have to create an Alternative Life style which is consistent with Alternative Investments (e.g., Private this and Private That)

What is the greatest risk of a Hedge Fund: Not being able to find your way out of one of the Hedges (See Alice through the Looking Glass).

What is a CTA: A misspelling of CAT.

What do investors in CTAs invest in: A litter Box.

What is Real Estate: What the Third Estate lives on (For those who do not know, the third estate are the commoners (First estate is the church and the second estate in the nobility).

Why do people invest in Real Estate: Because it is easier to live on the ground than in the air.

What are Commo'dites': A series of short songs (a dity) that we all have in common.

How do you begin to invest in Commo'dities': Pick up a book about Cole Porter.

How would you describe an investment in Private Equity: Equity in something which is private (e.g. Partial ownership of a Brothel).

Name Three risks in Private Equity Investment: 1) your significant other finds out, 2) You get a socially transmitted disease; 3) your place of investment is raided

What is a diversified portfolio: Having three dates on a Friday night.

Why should one have a diversified portfolio: One of your dates could get sick.

Give a definition of Tail Risk: I refuse to answer since the word (Tail) is not politically correct. For those with no concern over the commonly accepted standards of communication, tail risk is the risk that two of your dates show up at the same time.

What is mean by the phrase "Diversification reduces Standard Deviation": Diversification reduces the chance that you may end up with someone even below one's already low standards

What is Slope: The Side of Hill.

What is a Sharpe Ratio: A measure of how easily one can be cut.

How "do" a Call and Put Option Differ: They differ in terms of what you are "Due" if prices move.

What does CAIA Stand For: Can't Answer It Anyway

Name several forms of Hedge Fund Investment: 1) Crooked, 2) Crookeder, 3) More Crookeder (e.g. Crookedest)

The difference between Absolute and Relative performance: How I absolutely perform relative to my brother

Who said in the long run we are all dead: I don't know but I think he is dead.

Give short definitions for the following

- 1. Primary Dealer: The guy holding all the cards
- 2. Secondary Market: Where you go after the primary market has closed (generally about 4PM U.S. A DST)
- 3. Stakeholder: The one who prevents vampires from attacking your firm
- 4. High-Frequency Trading: Trading no one ever 'hears' about
- 5. Side pockets: Places where you put your loose change

Is Market timing illegal: Only if you get caught

Does a futures price forecast the future value of an investment: How would I know it is all in the future

What is leverage: The picture of your client doing something their wife or husband would not approve of

What is double leverage: Two Pictures?

A derivative is often called a secondary investment. Why? Because that is where you put your money if you have no primary idea of what to do with one's money in the first place.

What is a high water mark: Generally two feet above the deck that surround one's home

Describe 2 and 20: it stands for what you pay a managers (2%) so that he can make (20%) while you get what is left over.

The difference between Gross and Net Profits: Gross Profits and the insanely disgusting returns that managers make while the rest of us "net" what iis left over.

The concept of fair value: I would have no idea since I cannot remember every getting it.

Random Walk: Refers to The "chance" that while one is wandering down Wall Street and that if one randomly steps into a Brokerage house that one would actually make money

An Efficient Market: A market in which if one trades is the one where one is cleanly and smoothly taken advantage of on an efficient and consistent basis.

Name at least four Greeks of Option Trading Fame: Conquest, Death, War, Famine

What is Put-Call Parity: The fact that one can lose money trading options or the cash mark; in short, they are in parity with one another

Who are these Famous Names in the Alternative Investment World

- 1. A.W. Jones Famous train engineer (son of Casey Jones)
- 2. Bob Merton Lead singer of 1970's Rock band "Puts and Calls"
- 3. M. Miller Noted Baseball commissioner
- 4. R. Dalio Italian painter and clothing designer
- 5. T. Schneeweis Never heard of him

When is Just Being Good, Good Enough

What is the cost to society of being too good. As important who decides?

In recent months and years there has been increased discussion of the impact of "Bestism" on education growth and in fact societal change. Many schools have attempted to change certain admission and educational directives in order to provide more educational opportunities to a diverse set of students. Various schools have removed the more test based, educational exam centered means of determining those students who may have been 'historically' more qualified for certain classes.

A recent example is the Thomas Jefferson High School in Virginia. Long considered one of the prime 'STEMS" - Science, Technology, Engineering and Math centered educational centers in Virginia. As part of its attempt to diversify its student body, the school changed the composition of its student body by changing the demographics of its incoming class to reduce the number of Asian students and increase the number of black and certain other minority students. In addition, it changed in part the process it used to determine new students by reducing the importance of certain incoming tests and stressed more 'background' factors. The reason was simple. In a diverse world, student success would be due not only to their "specific" talent but their ability to work with others of a more diverse background. Outside of the fact that some of the students who were excluded from consideration were among the most gifted students available, outside of the fact that there was no evidence that these more academically gifted students had shown no lack of ability to interact with students of a different race, color or creed, the decision was made. In fact, the new process at Thomas Jefferson which offered a more 'diverse' set of students was similar to many other 'Excellence Focused' High schools in the country, who have attempted to offer many historically excluded students within the school's potential student body a way into the classroom. Only time will tell if this new way of acceptance and exclusion creates a more 'equal' and beneficial student atmosphere.

One could only hope that the selection process aimed at offering 'less academically advantaged' students a means of quality education access is also used to provide less 'athletic advantaged' students a way to participate in a range of high school activities. I am sure the High School Board is making sure that there are a number of 5-foot 4-inch students on the basketball team and 150-pound girls on the high school football squad. I want a mixed LGBTTIQQ2S (Lesbian, Gay, Bisexual, Transsexual, Transgendered, Intersexual, Queer, Questioning, 2-Spirited) on the school track team. I also want to ensure that the faculty represents a diverse set of faculty by race, age, height weight and language skills. I want to make sure that this diversity is found at the grade, middle school and high school level. I want to ensure that there is no evidence that a group of students, parents or faculty have a set of beliefs or talents that separate them from less diverse or academic qualified competitors. In fact, I want the word competitor stricken from the school vocabulary. I want any student who tries to outperform another and creates a level of fear or exclusion at any level to leave the school.

Moreover, I want the state to ensure that those students who for any reasons are asked to or desire to leave the school as a result of their attempt to be the best not be offered those opportunities elsewhere. This goes for administrators too. They too must reflect our desired society and must reject "best' opportunities elsewhere. We do not want the best; we want the good enough as long as it reflects adequate opportunities for all. Just don't try to hard.

Professional Bio: Thomas Schneeweis is the Co-Founder and the current Director of Research at YES Wealth Management, a Registered Investment Advisory Firm in the Minneapolis/St. Paul area in Minnesota (Email: tschneeweis@yeswealth.com and Website: www.yeswealth.com). He was the Michael and Cheryl Philipp Professor of Finance and Founding Director of the Center for International Securities and Derivatives Markets at the Isenberg School of Management, University of Massachusetts-Amherst. He was also the Founding Editor of The Journal of Alternative Investments and the Managing Editor for over fifteen years. He is Co-Founder of the Chartered Alternative Investment Analyst Association (CAIA: www.caia.org) and the Founder of Chartered Alternative Investment Analyst Foundation. He is also the Co-Founder of the Institute for Global Asset and Risk Management (INGARM: www.ingarm.org). He has published more than 100 articles in the area of investment management and is the co-author/editor of over six books in the area of investment management including New Science of Asset Allocation (John Wiley, 2010) and Postmodern Investment: Facts and Fallacies of Growing Wealth in a Multi-Asset World (John Wiley, 2012). He has been awarded with the CAIA Award for Research in the Area of Alternative Investments (2012). He has been a frequent speaker on financial news programs and contributor to various financial publications. He received his Ph.D. from the University of Iowa, M.A. from University of Wisconsin, and a B.A. from St. John's University.

He has more than forty years of experience in asset management including President of a firm (Schneeweis Partners) which specialized in 'bespoke' structured finance as well as Director of Research at Ursa Capital, LLC which managed an approximately \$4 billion hedge fund managed account platform. He has been managing partner of a managed futures fund (White Bear Managed Futures Fund) as well as an equity long short hedge fund (White Bear Equity Long-Short Fund) and President of an approximately \$1 billion commodity-based investment firm (Alternative Investment Analytics). For over forty years, he also was on the Board of Trustees of the AMG Funds (a retail distribution arm of Affiliated Managers Group, Inc., a world's leading provider of boutique investment management expertise to institutional and individual investors).

He is currently President of Quantitative Investment Technologies, LLC, an investment management firm specializing in downside risk management and investment strategy replication programs (Email: thomas@quantinvesttech.com and website: www.quantinvesttech.com) and the founder of TRS Associates (Email: thomas@trs-assoc.com and Website: www.trs-assoc.com), a financial consulting firm. A collection of his other publications, comments and current writings can be found through his personal email: trschneeweis@gmail.com or at his personal website: www.thomas@tschneeweis.com.

The Word Police in Finance

Thomas Schneeweis

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"It is Better to Lie and Believed It to be the Truth than Speak the Truth and Believed it to be a Lie"

Please address correspondence to:

Thomas Schneeweis TRS Associates 86 Mahtomedi Avenue, Mahtomedi, Mn 55115 Phone (cell): 413-218-0206

Email: thomas@trs-assoc.com

The Word Police in Finance

In the modern world of the internet, google, twitter, Facebook and not to say political correctness, there seems to be a global aversion to calling into questionable financial statements made by practitioners and academics alike. The previous sentence is but one example of 'word speak' where we accept an incorrect or poorly worded concept (e.g., not to say political correctness where in fact we are saying it) simply because it is too much an effort or cost to point out its failings. One of the problems in the finance area is that there are few 'publically accepted' voices that are regarded as the final arbitrators of word correctness. There are many reasons for this. The SEC is regarded as one of the principal 'government' sponsored overlords of financial word usage, but often their attempts to enforce their meaning of a word (i.e., derivatives) in legal cases has often come up short. One need but spend some time reviewing the commentary on proposed SEC rules and regulations to see the wide range of concern over SEC definition of financial concepts. With the failure in the belief of the Government so has the sole arbitrator of financial word correctness, the financial community has been forced to look elsewhere.

The choices for determining the best definition of a financial word are almost endless. In a previous world (that is, BC - before correctness) the primary purpose of the financial news media and academic publications was to call out individuals and organizations who failed to use words or financial concepts correctly. Increasingly, however, there seems to be a tacit acceptance of the 'If I don't rain on your parade, you don't rain on mine'. On a recent 'business news program, one of the 'financial pundits' was asked where the S&P 500 was going. His answer was "well let's look at the S&P 500 futures; they say it is going to increase to 1800". For those who do not get the

joke, the S&P 500 futures contract does not forecast the future value of the S&P 500, its value is

determined by an arbitrage based cost of carry model. Yet no one said anything. It was easier to

accept something that sounded right rather than 'correcting' an associate. As I saw the episode

unveiling I said to myself, "Where are the Word Police"?

I do not have an answer, but to call out the problem. I realize the hopelessness in this. In

an earlier life, I called Fisher Black who was working on Wall Street at the same time I was. I was

concerned over an article in the Journal of Futures Markets where an individual used the word

arbitrage to equate S&P 500 spot close at 4PM in New York and the S&P 500 futures contract

close in Chicago at 3:15PM (4:15PM Eastern time). No one in the press or academia complained.

I asked how anyone could use the word arbitrage to equate the prices between similar liquid

benchmarks 15 minutes apart. His answer was short and swift. "If you waste your time trying to

correct every misstatement you find, you will never have time to create something truly

meaningful". He then added, "If you ever call me to waste my time on such an idiotic question

again, I will not pick up the phone again". For Fisher there was a cost for saying or asking

something stupid. Fisher was also right that for the most part it is a waste of time to pick over the

'word mistakes of others'; as it is said, "it is a waste of your time and it annoys the pig".

Unfortunately, I am much older now and I have the time to waste, so this article's goal is simply

to raise the red flag on the use of some commonly used financial phrases that we may wish to

relegate to the area of "Washington Lies" where I am lying, you know I am lying, I know that you

know that I am lying...."

The problem with the "Washington Lie" is that not everyone gets the joke. Earlier in my

career I wrote an article in which I called a "Managed Futures" investment a 'hedge' against

downside stock market returns. Of course, that was a poor word choice; ok not poor it was

incorrect; a mistake I pointed out in a following article where I wrote a sentence that stated "as

incorrectly stated in my previous article". The purpose of the above is not to ask for forgiveness

now, only that several years after the incorrect statement in the article, another academic pointed

out to me that he was writing an article that showed that the statement on Managed Futures being

a hedge for equity market returns was incorrect. I said thank you, but that I knew it was incorrect

years ago. The problem with the incorrect use of the word "hedge" in the article was that while I

knew it was incorrect, the article in which I used Managed Futures as an equity market hedge had

gone on to have a life of its own. Others for their own use and benefit would quote the first article

but never refer to the second. I always wanted, but never had the courage, to add a section in my

academic vitae in which I listed all the articles I wrote that I thought were right at the time but that

I now know are incorrect.

In short, individuals should be aware that there is a type of "Moral Hazard" in the words

that financial and academic practitioners use. Using the exact word correctly (e.g., hedge) may

simply confuse your readership because they have become comfortable with how other individuals

use it, however incorrect. Using the word 'futures contract' and pointing out that it may have little

to do with the future value of an asset, is often too complicated given the time and space allotted.

At the same time, unless one eventually stands up to such word usage, it increasingly becomes

commonplace and those individuals who are not in on the joke, may honestly begin to believe the

new 'politically correct' definition at their own peril. Case in point. In a recent advertisement for

a particular mutual fund, the headline read, a hybrid mutual fund which "hedges the downside

while letting upside run". Interested in how they would achieve this, I read the prospectus to find

that the managers were writing puts. Ok, I understand writing puts and the potential source of

income it provides even in down equity markets, however, no one should and I repeat no one

should call what this fund was doing (writing a put to offset potential equity market losses) a

"hedge".

Where was the outrage? Perhaps Fisher Black was correct in that this was just the tip of

"word injustice". If one goes through either the financial press or academic articles one sees other

financial word 'misstatements'. In my own life, the Chartered Alternative Investment Association

was started out in part due to my unwillingness to accept the oft stated "hedge funds are absolute

return investments that offer the opportunity to make money in any market environment". We in

the industry all knew it was a lie; it was just a convenient Washington Lie (see previous definition).

As now often pointed out (but not often enough) hedge funds may be better referred to as a host

of private pooled vehicles which are generally structured to avoid certain Security and Investment

Act restrictions. Since at the end of the day they hold a set of assets (generally long or short), they

will make money in certain market environments and lose it in others. More importantly, for

anyone versed in the field, we know what those markets are. Generally, they are not absolute return

vehicles which supposedly provide the opportunity of making money in all market environments

and therefore can cite the risk-free rate as a suitable benchmark.

There are of course many more examples some of which are detailed in The Graveyard of

Investment Concepts (Schneeweis, 2020). Very few people go there if for no other reason than

who wants to visit a graveyard. We want answers to questions that often are not given by the dead.

A visit to Investopedia, financeopedia, optionpedia, futurespedia, alternativepedia and all the

future pedias is a more fruitful visit. If that fails, a Google, Yahoo or Bing search will always offer

someone saying something, someplace that we can cite as a source of our word choice (see here,

right here it says hedge funds are absolute return vehicles. You know it has to be true, it is on the

Web).

In such a world what we need is a 'Financial Word Police' in which the uses of certain well

known mathematical, economic or financial terms are monitored and evaluated. If one says

something truly stupid (e.g., Writing a call option is a hedge against a long position in an equity

position), there should go out an immediate "Alert' perhaps via the email. One of the problems is

that of course, the email is already overused. The other is that word choice and its meanings change

over time. Is there such a word that the rest of this article can focus on that perhaps raises the point

and provides let us say a "Robust" argument. In fact why not the word "Robust" which has been

used in several recent "on-line robo asset allocators". The front pages of the 'robo-asset allocator'

web sites often maintain that their approaches are often Robust since they have tested them and

for which the results are consistent over numerous market environments.

Now who does not like Robust. "Robust Coffee is strong, with a full taste", a Robust

adventure takes us to a challenging effort from which we return if not well rested at least

invigorated, but what of a "Simple Robust Model". I do not know which word to discuss first. If

the model is simple it is quite often not Robust (although the goal of any model builder is a Simple

Robust model which can provide correct answers in a wide variety of changing conditions that

may impact the underlying factors driving the model). I would have left the whole 'Simple Robust'

go if the site did not go for an additional eight pages trying to describe their simple robust model.

A Robust model, the site continues, is one which is strong and effective in all or most situations

and conditions. The article then goes on to detail the Robustness of their approach. If one needs

to tell the reader to pull up the armchair, grab the single malt scot, turn on the TV and start to read

the numerous 'in house white papers' which fully describes this "simple' model one is already

down a dark road. Moreover, the next pages were basically a detailed discussion as to why the

Model was Robust (that is performed well over a number of past economic environments). Of

course, for the knowledgeable investor one could see that the so called Robustness of the suggested

portfolio selection models were due to the time tested means of back testing. Given the time and

effort, one would hope that a model could be created that performed over a wide variety of

historical markets.

This may be one definition of Robustness, but it is one built on a false foundation. A model

may be regarded as Robust if it performs consistently over a wide range of changing conditions.

Those changing conditions must be built into the model to take into consideration for future

economic sensitivities and not a model which is managed to fit past economic conditions that may

not repeat. The new product was successful in that it did get me to sit down and focus on their

product. We are all behavioral creatures and 'Simple and Robust' often wins out over 'Complex

and Variable'. But since I was sitting down anyway, and I had determined that the Robust part

may require some "Word Rethink". I took the computer to find out what "Robust" is.

From the practitioner literature, Robust is not simple. The following are a few common

'Robo-Asset Allocation" Web and investment dictionary examples.

Investment Web Site Definition of 'Robust'

A characteristic describing a model's, test's or system's ability to effectively perform while its

variables or assumptions are altered. A robust concept can operate without failure under a variety

of conditions.

INVESTOPEDIA explains 'Robust'

Robustness can relate to both economic and statistical concepts. For statistics, a test is claimed as

robust if it still provides insight to a problem despite having its assumptions altered or violated.

In economics, robustness is attributed to financial markets that continue to perform despite

alterations in market conditions. In general, being robust means a system can handle variability

and remain effective.

The problem is that the above definitions of Robustness are more of a promise than a

fact. If the suggested models were as robust as suggested that would have provided a dominant

commercial model driven set of returns that were more than competitive with more discretionary

based mutual funds or investment portfolios. In fact, the very statement that a model is

supposedly robust over many economic conditions is suspect. In contrast, the best that one can

hope for is a model that consistently works in a single economic condition. At least then the

result is consistent with a known condition. In other conditions one sometimes simply has to put

down one's model and look to the heavens and say we just don't know. The entire questions

surrounding the fragility of model based asset allocation was the core of Nasim Taleb's book

'Anti-Fragility' in which the very dynamic of the investment world brings into question the

promise of Simple Models of Robustness and instead calls for discretionary trading as the most

Robust of trading approaches in which the conditionality of the markets requires a much bigger

'computer' (e.g., the discretionary traders mind and experience) to meet market conditions than the 'Simple Robust' models described in many 'Robo-Allocation' programs.

Again, we find ourselves back at the door of the Financial Word Police. A review of the Web found a source which maintained that they found "56 dictionaries with English definitions that include the word robust.

→General (30 matching dictionaries)

- 1. <u>robust</u>: Oxford Dictionaries [home, info]
- 2. <u>robust</u>: American Heritage Dictionary of the English Language [home, info]
- 3. robust: Collins English Dictionary [home, info]
- 4. robust: Vocabulary.com [home, info]
- 5. robust: Macmillan Dictionary [home, info]
- 6. <u>robust</u>: Merriam-Webster's Online Dictionary, 11th Edition [home, info]
- 7. Robust, robust: Wordnik [home, info]
- 8. <u>robust</u>: Cambridge Advanced Learner's Dictionary [<u>home</u>, <u>info</u>]
- 9. Robust: Wiktionary [home, info]
- 10. <u>robust</u>: Webster's New World College Dictionary, 4th Ed. [home, info]
- 11. <u>robust</u>: V2 Vocabulary Building Dictionary [home, info]
- 12. <u>robust</u>: The Wordsmyth English Dictionary-Thesaurus [home, info]
- 13. robust: Infoplease Dictionary [home, info]
- 14. Robust, robust: Dictionary.com [home, info]
- 15. robust: Online Etymology Dictionary [home, info]
- 16. robust: UltraLingua English Dictionary [home, info]
- 17. <u>robust</u>: Cambridge Dictionary of American English [home, info]
- 18. Robust: Wikipedia, the Free Encyclopedia [home, info]
- Robust: Online Plain Text English Dictionary [home, info]
- 20. <u>robust</u>: Webster's Revised Unabridged, 1913 Edition [home, info]

- 21. robust: Rhymezone [home, info]
 22. robust, robust: AllWords.com Multi-Lingual Dictionary [home, info]
 23. robust: Webster's 1828 Dictionary [home, info]
 24. robust: Free Dictionary [home, info]
 25. robust: Mnemonic Dictionary [home, info]
 26. robust: WordNet 1.7 Vocabulary Helper [home, info]
 27. robust: LookWAYup Translating Dictionary/Thesaurus [home, info]
 28. robust: Dictionary/thesaurus [home, info]
- → Art (3 matching dictionaries)
 - 29. Robust: Epicurus.com Cheese Glossary [home, info]
 - 30. <u>Robust (see also Brawny)</u>, <u>Robust</u>: Epicurus.com Wine Glossary [home, info]
 - 31. <u>robust-</u>: A Cross Reference of Latin and Greek Elements [home, info]
- **→**Business (6 matching dictionaries)
 - 32. Robust: MoneyGlossary.com [home, info]
 - 33. ROBUST: Accounting Glossary [home, info]
 - 34. robust: BuzzWhack [home, info]
 - 35. Robust: Investopedia [home, info]
 - 36. robust: Legal dictionary [home, info]
 - 37. <u>robust</u>: BusinessDictionary.com [home, info]
- **→**Computing (4 matching dictionaries)
 - 38. <u>robust</u>: Free On-line Dictionary of Computing [<u>home</u>, info]
 - 39. robust: Netlingo [home, info]
 - 40. robust: CCI Computer [home, info]
 - 41. robust: Encyclopedia [home, info]
- **→** Medicine (4 matching dictionaries)

- 42. Robust: MedTerms.com Medical Dictionary [home, info]
- 43. <u>robust</u>: online medical dictionary [<u>home</u>, <u>info</u>]
- 44. <u>robust</u>: Medical dictionary [home, info]
- 45. Robust: Drug Medical Dictionary [home, info]
- **→** Miscellaneous (2 matching dictionaries)
 - 46. ROBUST: Acronym Finder [home, info]
 - 47. ROBUST: AbbreviationZ [home, info]
- **→**Science (4 matching dictionaries)
 - 48. <u>robust</u>: Bryological [home, info]
 - 49. <u>robust-</u>: Glossary of Roots of Botanical Names [<u>home</u>, info]
 - 50. Robust: Fundamental Statistics for the Behavioral Sciences [home, info]
 - 51. <u>robust</u>: FOLDOP Free On Line Dictionary Of Philosophy [home, info]
- **→**Slang (1 matching dictionary)
 - 52. <u>robust</u>: Urban Dictionary [<u>home</u>, <u>info</u>]
- **→** Tech (2 matching dictionaries)
 - 53. Robust: Glossary of Cheese Terms [home, info]
 - 54. Robust: Wine Taster's Glossary [home, info]

Obviously the Robustness of the Word Robust is questionable. As an alternative to a review of multiple definitions of the word, I looked to some more academic discussions. This discussion left me even more confused. Pardon me but the breadth of the discussion can be seen form the relatively long quotation from the article "Economics as Robustness Analysis (Jaakko Kuorikoski, Aki Lehtinen and Caterina Marchionni 25.9. 2007).

Robustness

The *robustness* of modeling results with respect to particular modeling assumptions, parameter values or initial conditions plays a crucial role for modeling in economics for two reasons. First, economic models are difficult to subject to straightforward empirical tests for various reasons. Second, the very nature of economic phenomena provides little hope of ever making the modeling assumptions completely realistic. Robustness analysis is therefore a natural methodological strategy for economists because economic models are based on various idealizations and abstractions which make at least some of their assumptions unrealistic (Wimsatt 1987; 1994a; 1994b; Mäki 2000; Weisberg 2006b). The importance of robustness considerations in economics ultimately forces us to reconsider many commonly held views on the function and logical structure of economic theory.

In short robustness is not the result of past successes but in how it creates an approach to capture the anticipated conditions. Perhaps the goal of obtaining a Simple Robust model can only be achieved if we limit what Robustness is.

Rather than bore the reader with an inaccurate summary. In a recent paper, James Woodward (2006) distinguishes four notions of robustness.

Inferential robustness refers to the idea that there are different degrees to which inference from some given data may depend on various auxiliary assumptions,

derivational robustness to whether a given theoretical result depends on the different modelling assumptions. The difference between the two is that the former concerns derivation from data, and the latter derivation from a set of theoretical assumptions.

Measurement robustness means triangulation of a quantity or a value by (causally) different means of measurement.

Causal robustness, on the other hand, is a categorically different notion because it concerns causal dependencies in the world, and it should not be confused with the epistemic notion of robustness under different ways of determination.

The article continues to argue that robustness analysis, is not an empirical confirmation procedure in any straightforward sense and that demonstrating that a modelling result is robust does carry epistemic weight by *guarding against error* and by *helping to assess the relative importance* of various parts of theoretical models (cf. Weisberg 2006b). Robustness provides consilience via triangulation; a result is deemed real or reliable because a number of different and mutually independent routes lead to the same conclusion. If these separate ways of determination are indeed independent of each other, it would be a remarkable coincidence that they yield a similar conclusion if the conclusion does not correspond to something real.

Maybe what is required is an acceptance of the relative 'Robustness' of various financial models. A kind of Morningstar 5 Star, 4 Star, 3 Star signaling process that would let investors

know that the results of a particular financial model or strategy may or may not perform in the

future exactly how it performed in the past under similar conditions (3 Star) or under new

conditions (2 Star). Perhaps relative robustness is all we can expect or at least good story (Value

always outperforms Growth, Small outperforms Big..... except when they don't). Still a story is

required; maybe even a Robust one where Little Red Riding Hood always beats the Wolf and our

Heroine always returns from the Land of Oz regardless of the hype of the original model (follow

the yellow brick road). Here we bring ourselves back to the issue that the most Robust of Models

may in fact not be the computerized solution (pay no attention to the man behind the curtain) but

to the anti-fragility of the Wizard or the trader. Despite all the flaws of the Wizard, he did have a

solution to the tin man's heart, the lion's courage and the scare crow's brain. He even came up

with an out for Dorothy (a hot air balloon). When that failed, the trader (Dorothy) had to find a

way home that was not based on any of her quantitative models but in herself. Perhaps the most

Robust Model is the one in which we depend on no one model but in the realization that there is

no model other than the "Anti-Fragile' self.

And if you disagree, or if the Financial Word Police show up at your door, remember, however

you define it, it was on the Web.

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Professional Bio: Thomas Schneeweis is the Co-Founder and the current Director of Research at YES Wealth Management, a Registered Investment Advisory Firm in the Minneapolis/St. Paul area in Minnesota (Email: tschneeweis@yeswealth.com and Website: www.yeswealth.com). He was the Michael and Cheryl Philipp Professor of Finance and Founding Director of the Center for International Securities and Derivatives Markets at the Isenberg School of Management, University of Massachusetts-Amherst. He was also the Founding Editor of The Journal of Alternative Investments and the Managing Editor for over fifteen years. He is Co-Founder of the Chartered Alternative Investment Analyst Association (CAIA: www.caia.org) and the Founder of Chartered Alternative Investment Analyst Foundation. He is also the Co-Founder of the Institute for Global Asset and Risk Management (INGARM: www.ingarm.org). He has published more than 100 articles in the area of investment management and is the coauthor/editor of over six books in the area of investment management including New Science of Asset Allocation (John Wiley, 2010) and Postmodern Investment: Facts and Fallacies of Growing Wealth in a Multi-Asset World (John Wiley, 2012). He has been awarded with the CAIA Award for Research in the Area of Alternative Investments (2012). He has been a frequent speaker on financial news programs and contributor to various financial publications. He received his Ph.D. from the University of Iowa, M.A. from University of Wisconsin, and a B.A. from St. John's University.

He has more than forty years of experience in asset management including President of a firm (Schneeweis Partners) which specialized in 'bespoke' structured finance as well as Director of Research at Ursa Capital, LLC which managed an approximately \$4 billion hedge fund managed account platform. He has been managing partner of a managed futures fund (White Bear Managed Futures Fund) as well as an equity long short hedge fund (White Bear Equity Long-Short Fund) and President of an approximately \$1 billion commodity-based investment firm (Alternative Investment Analytics). For over forty years, he also was on the Board of Trustees of the AMG Funds (a retail distribution arm of Affiliated Managers Group, Inc., a world's leading provider of boutique investment management expertise to institutional and individual investors).

He is currently President of Quantitative Investment Technologies, LLC, an investment management firm specializing in downside risk management and investment strategy replication programs (Email: thomas@quantinvesttech.com and website: www.quantinvesttech.com) and the founder of TRS Associates (Email: thomas@trs-assoc.com and Website: www.trs-assoc.com), a financial consulting firm. A collection of his other publications, comments and current writings can be found through his personal email: trschneeweis@gmail.com or at his personal website: www.thomas@tschneeweis.com.