This is the eighth chapter of "WORDS ON THE STREET" ("Language and the American Dream on Wall Street"). In the published version, these pages appear at pages 343-436. © Leo Haviland, 2014 All Rights Reserved

## VIII. SEEING, SAYING, and HERDING

"All I ever asked for was an unfair advantage." Trader's remark to the author

Wall Street conversation in a "fast moving" marketplace with "skyrocketing prices": "It's a feeding frenzy out there! They're all buying!! " "Who are 'they'? Besides, if everyone's buying, why are there any trades?"

"In my remarks today, I would like to return to the issue of how we should respond to possible asset price bubbles. I will first focus on the conceptual framework I use to evaluate these issues, based on a core set of scientific principles for monetary policy." US Federal Reserve Board Governor Frederick S. Mishkin, "How Should We Respond to Asset Price Bubbles?"; speech in Philadelphia, Pennsylvania at the Wharton Financial Institutions Center and Oliver Wyman Institute's Annual Financial Risk Roundtable, 5/15/08

In "The Benefits of Systematic Monetary Policy", Charles I. Plosser, the President of the Federal Reserve Bank of Philadelphia, comments: "Economic science and the science of monetary policy have come a long way in the last thirty years. However, they have not progressed to the point where we can specify a formula for setting monetary policy and turn decisions over to a computer. Judgment is still required." (p3). Later: "Many of you are familiar with this model [the "real business cycle model"], and while it does not provide a fully accurate representation of the true economy- and we don't have a model that does…" (p10). Speech to the National Association for Business Economics, Washington (DC) Economic Policy Conference, 3/3/08

"Enron's Collapsing House of Cards [picture of a house of cards]". NYTimes, 11/29/01 (pC1). "None of the rating agencies seemed overly concerned about a detail disclosed by Enron at the time: a \$1.2 billion reduction in shareholder equity related to what it later said were accounting mistakes involving a partnership run by Enron's chief financial officer." (pC7)

"Valuing the Market [US S+P 500]. Strategists ground their forecasts of where the stock market is going on assessments of where it should be. Some assign a 'fair value' to the market- an appropriate price to pay for companies' future earnings. Others base market calls on technical factors- trading patterns and the like." The article gives "the historical model, the technical model, the interest rate model, the new paradigm" and advocates of each. NYTimes, Business Section, 8/16/98 (p4)

The Chairman of the US Federal Reserve, Alan Greenspan, states: "Nor do I intend to project [foreign] exchange rates. My experience is that [foreign] exchange markets have become so efficient that virtually all relevant information is embedded almost instantaneously in exchange rates to the point that anticipating movements in major currencies is rarely possible. The exceptions to this conclusion are those few cases of successful speculation in which governments have tried and failed to support a particular exchange rate."

"Nonetheless, despite extensive efforts on the part of analysts, to my knowledge, no model projecting directional movements in exchange rates is significantly superior to tossing a coin. I am aware that of the thousands who try, some are quite successful. So are winners of cointossing contests." Speech on "Current Account" to the Economic Club of New York, 3/2/04

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All Wall Street pilgrims yearn for and joyfully sing hymns in praise of their shared American Dream goal of money. Yet quarrels echo throughout Wall Street and economics regarding how to define and apply important common terms such as investment. Moreover, despite the shared money making dream and the gigantic amount of dollars at risk in Wall Street, no universal perspective, strategy, or pattern of action exists in any marketplace. Let's investigate in greater detail the subjectivity of marketplace perspectives, methods, behavior, and definitions. There are both theoretical as well as practical reasons (including trading related ones) to keep pushing ahead and bothering about these issues. After all, much of Wall Street and economics have scientific pretensions or ambitions.

Language, action, and reasoning intertwine. They are not separate islands, whether in scientific realms or cultural ones. In genuine sciences such as physics, chemistry, biology, mathematics, and engineering, objectivity in reasoning is displayed in objective language and action. In cultural territories, language, behavior, and perspectives and thought processes all are subjective. In cultural battlegrounds, with their conflicts between perspectives (worldviews; ideologies), many truths are called reasonable (or rational, intelligent, logical), but these faiths are true only for their believers. They are never objective. Unending debates resound in cultural arenas, for these playgrounds offer extensive scope for sensible subjective choices between various reasonable perspectives, strategies, and actions.

Since in cultural domains reasoning is never scientific, observers should be wary of pretensions to objectivity (science) within them. If someone cannot be scientific, there's no reason to have faith they are or ever will be. Also, there's no reason to have faith they have scientifically certain or probable knowledge of, or objective influence or control over, cultural phenomena (including marketplace outcomes).

Substantial and sustained differences in key definitions and propositions involving them strongly suggest that the field (subject matter) and viewpoints regarding it are cultural. Definitions always are part of a perspective and thought processes (reasoning) regarding phenomena. So subjective definitional disagreement implies and is reflected by the cultural diversity of perspectives and thought processes. Thus it is extremely significant that Wall Street participants (observers; including allegedly neutral or outside ones such as economists or central bankers) express a great variety of subjective outlooks regarding how to perceive and analyze (profit from, manage risks related to) marketplace phenomena. Also, the subjectivity of perspectives and thought processes finds its reflection in diverse trading strategies and actions. An investigation of the rhetoric and actions of people within and regarding economic fields like Wall Street illuminates how these players reason.

Wall Street's high priests proclaim assorted rhetorical gospels. A significant expenditure of words, ink, effort, and cash attempts to herd professional and Main Street viewpoints, strategies, and actions into a pattern desired by the given evangelist, not merely to build confidence that speaker understands marketplaces and (even better) knows how to make money. Are the perspectives, methods, arguments, and conclusions of any of these squabbling sects of Wall Street and economics objectively rational? No. They are merely and entirely opinions. Though much of Wall Street and economics battles to talk the talk and fights to walk the walk of science, these would-be scientists never succeed in being scientific- or even approximately or partly so.

Wall Street marketplaces sure do not resemble an orderly physics classroom or laboratory with their textbook knowledge and replicable true for all experiments. If Wall Street is a genuinely scientific arena or an approximation to one, why does Wall Street repeatedly underline that past performance is not indicative of future results? Inside and outside Wall Street, why can't everyone- or at least respected experts- agree on what is rational, objective, relevant, logical, and probable? Why so much excitement, tension, and often even screaming? With billions of dollars at stake in Wall Street games, why do Wall Street players and marketplace watchers, including academic luminaries and financial media, not all look at the same data? Why do many of them assess the supposedly "same" information, facts, factors, news, and evidence in different ways and reach diverse conclusions? In a given marketplace at a similar point in time, why do two traders with a similar risk taking horizon (such as the short term) differ in their trading perspectives, strategies, and actions? Or, why does one trader elect to assess and take risks over a brief time horizon, whereas another one chooses to play over some version of the long run? If a marketplace is a Natural environment with objective laws, why does the same hero in a given jungle sometimes change its opinion and course of action? If a Wall Street marketplace has only one reasonable (or a clearly superior) perspective and strategy, why are there numerous species of bulls and bears? And why do people ever trade at a price? After all, both the seller and buyer declare they act according to reason and follow logic.

Economists dream of discovering objectively rational truth. However, are the definitions, perspectives, and methods of economists and other supposedly scientific outsiders regarding marketplace phenomena any more objective than those of Wall Street participants or other

viewers? No. Despite their seductive scientific pretensions and dialect, do these would-be Newtons, Einsteins, Darwins, Edisons, and Fords really reason or act like natural physical scientists do? No.

In cultural arenas, a subjective perspective or procedure inspired by genuine sciences and the scientific method can assist others in their efforts to achieve valued goals such as making money. Even though within a cultural realm scientific wordplay is subjective (metaphorical), it often can educate others. Yet that imported from cultural fields such as games, love, war, politics, religion, and the fine arts also teaches audiences.

The public believes in real sciences such as physics, and has faith in their experts. Nevertheless, if a field is cultural, and though a would-be scientist may make money (or achieve political power or become socially respectable) via allegedly objective principles and methods, neither viewpoints regarding nor methods and outcomes within it are ever objective (scientifically rational).

Allegedly objective cultural zealots seek to impose their missionary positions on cultural phenomena and to attract loyal followers. All such would-be natural physical scientists of Wall Street, economics, and elsewhere- though they cannot escape subjectivity- proclaim their dogmas objective, rational, and scientific. Ironically, in their illusory and often flashy visions of objectivity, they are blind. They are blind to the implications of the inevitable diversity of subjective perspectives, thought processes, definitions, and propositions of participants within the cultural field as well as within the communities of inquirers that investigate it. They do not sufficiently appreciate the consequences of the difference between cultural values and scientific ones. They do not see the implications of the widespread and sustained use of metaphors

regarding cultural domains. Almost all are unaware that their scientific orations and models are metaphorical, or expressions of religious faith, rather than scientific.

Swarms of purportedly objective theories buzz around Wall Street marketplaces and academic corridors. However, in culture, trying to talk like a scientist and striving to employ the scientific method does not make someone a real scientist, or even like a scientist. That trading (investing, speculation, hedging, risk management) is, almost is, or someday will be objective (or partly or approximately so) is science fiction. That a supposedly independent or outside observer not engaged in trading is, almost is, or someday will be scientifically rational is a fairy tale. The viewpoints of revered economists, distinguished central bankers and other marketplace regulators, media pundits, in-house research wizards, outside consultants, and risk managers always are subjective.

What is paraded to the public as objective, scientifically rational, and true for all is not so. Many famed theories and respected conclusions (laws) of the natural physical scientists of Wall Street and economics are wrong. Their fabrications are not restricted to the mythology that economics and Wall Street analysis is (or is like, or can be like) authentic sciences such as physics, chemistry, biology, mathematics, statistics, or mechanical engineering. Doctrines masquerading as science such as the information as body and container fiction, the fair value fable, the anti-skill ideology, and the efficient market theory infatuate many of these dreamy inventors. That an objective marketplace ("The Market") exists is a fantasy. Keep in mind their remarkable rhetorical strategy (fantasy), in which they objectify phenomena (variables) as "out there", available for supposedly objective perception, analysis, and conclusions. Think of "The Economy", "The Price", "The Fundamentals", "The Technicals", "The Facts", "Investors", "Inflation", and so on.

How many of the scientific advocates of Wall Street, economics, and financial risk management point out that their definitions, perspectives, and arguments are subjective? The erroneous claims of hard science objectivity (or of approximations to such rationality) by all these aspiring positivists delude themselves and their devoted pupils. Such blind faith in objectivity often helps to engender blind (or at least great) faith in the opinions and recommendations of supposedly objective experts. In addition, it frequently breeds confidence in mistaken and misguiding doctrines that marketplace processes and outcomes (such as those relating to price) are objectively probable or certain (or objectively random or unforeseeable).

This marriage to the fallacy of objectivity, the fiction of scientific rationality, sometimes can have unhappy economic consequences. This is true even for legendary smart money gangs. In the aftermath of the subprime mortgage (and worldwide economic) crisis unleashed in 2007, why not ask if the models and methods of the rating agencies, banks, investment banks, marketplace regulators, accountants, and others are scientific? Or, suppose one owns US stocks because one believes that objectively they must or probably will rise in price. Yet since US equity marketplaces prices are not objectively perceived and do not move with objective probability or certainty (or randomness), they have no objective certainty or probability of rising (or falling, or moving sideways) over any given time horizon. Or, suppose one has faith that a financial model is objective, based on ironclad scientific principles. Financial engineers worshiping their trusty models imagine they have an objective understanding and control (or at least substantial control) of risk. Even when everything in the marketplace is going haywire and real (serious) money is being lost, how easy is it to abandon an apparently scientific outlook, especially if one has spent millions of dollars on the model and numerous employees devoted to

it? How easy is it for a marketplace evangelist to discard its wonderful so-called science and adorable models when it has promoted them around the world?

Let's survey the diverse ways in which Wall Street participants and observers handle information and create perspectives. The substantial, sustained, and widespread lack of uniformity of marketplace language and actions reflects the diversity and subjectivity of marketplace perspectives and thought processes. Opinions regarding the virtue or wisdom of a marketplace viewpoint, strategy, way of dealing with information, and course of action display differences in ways of viewing and thinking. Since people in a given battleground, such as the United States stock marketplace, do not talk and behave the same, they do not look at or think about the phenomena related to that field in the same way. Differences in perspectives and thought processes imply the inescapable subjectivity of all such reasoning. Numerous intelligentyet still subjective- and alternative ways of viewing and assessing cultural phenomena exist. For any Wall Street stock, debt, currency, and commodity marketplace, there is no objectively (scientifically) good, better, best, or true for all way of understanding phenomena or taking risks.

In this overview, recall the evidence from metaphors and similes. Wall Street and other economic discourse carries in words from games, love, war, politics, religion, natural physical science, and elsewhere. Suppose a field constantly imports language from other arenas to create metaphors to describe and explain its phenomena. That indicates that viewpoints and reasoning within and regarding the field are subjective, cultural rather than genuinely scientific (objectively rational). The variety in definitions, perspectives, thought processes, methods, and actions finds its parallel in great and sustained metaphorical creativity. Natural physical science jargon within and regarding a cultural field is just as metaphorical (poetic) as wordplay based upon games, love, and so forth.

Although figurative language can entrance listeners (and those who speak it), marketplace information is not a religious or magical revelation, sign, or command. It never tells, advises, signals, or indicates to one or more participants to think or act. There are no signs to buy, to sell, or hold securities for the long run.

Significantly, Wall Street or other marketplace information is not a unit (or combination of units) akin to elementary particles, planets, forces, powers, chemical molecules, or other physical science phenomena. In the US stock arena and in other economic worlds, facts do not objectively add up or break down. In culture, information is not an object of scientific perception. It is not out there objectively waiting to be discovered so that it can belong to a true for all natural physical science-like perspective or law. In analyzing marketplaces (as in other cultural realms), no one can objectively apply the scientific method to information.

Marketplace information of course is grounded in the real world. Much even has a physical sensory basis. Obviously marketplace players and other observers look at, listen to, and interact with others. Stocks, bonds, currencies, wheat, and crude oil exist. However, such Natural grounding does not make marketplace reasoning and methods related to such information objectively scientific. After all, poets and novelists speak of people and the natural environment, but that does not make their viewpoints and conclusions the same as or like those of natural physical scientists. Many religions pay close attention to Natural phenomena in order to reach conclusions on theological issues such as the divine plan or will. Philosophers may use some formal logic. However, those that develop ethical, political, or similar doctrines create rhetoric, not science. Sometimes many marketplace viewers have much in common in their opinions regarding data. Yet such agreement does not alchemically transform their perspectives, thought processes, or actions into scientific ones. Also, this is not a matter of looking at phenomena in a variety of objective fashions. It's not like two different branches of physics. Neither is it like physics looking at Nature one way while chemistry views Nature through a different lens.

The inescapably subjective viewpoint on information places marketplace theories, marketplace analysis and advice, and trading viewpoints and decisions completely outside the scope of science. This diversity in selection and handling of variables (phenomena) itself indicates and reflects the existence of a great variety of subjective perspectives on and reasoning regarding phenomena. Regarding any given playground, coaches and players and anointed gurus speak and debate a lot not merely because there may be mountains of information about which one could talk. Since observers (participants) both within and outside Wall Street have varied perspectives on information, they think, talk, and act differently. A review of marketplace words and actions does not reveal any scientific theories and experiments or Natural laws mandating a particular approach to the selection or analysis of information.

For any given marketplace, even experts do not agree as to which variables to study, how to define them, how to place them in context, their relation to each other, and their relative importance. Marketplace facts are not objectively "out there" independent of the observer. Wall Street individuals, economists, and other watchers subjectively decide what constitutes (is) marketplace information as well as what falls within the scope of relevant information. An objective "all the information" or a scientifically finite amount of data awaiting top-notch comprehensive analysis are mirages, fantasies dreamed up by would-be natural physical scientists. Each trader and any other marketplace participant or other observer creates and applies a subjective meaning regarding data, facts, factors, news, and evidence according to, within, and as a result of its individual perspective. They select between different threads of marketplace information. Each stitches information (even the same facts) together in a personal way within a perspective, and as part of the process of creating that viewpoint. Traders, salespersons, allegedly clear-sighted analysts, and others inside Wall Street disagree on the choices, relative importance, interrelations, and consequences of information. So do supposedly independent outside experts such as respected economists and astute journalists. Individuals choose how information should be perceived, presented, assessed, and "tested"- both as evidence and in relation to other facts. Traders and others design and choose between a potpourri of fundamental and technical methods. These subjective strategies and their application influence the selection and study of variables. Thus we hear that marketplace perspectives and approaches compete with each other.

Suppose everyone trading (or studying) a marketplace agreed as to what phenomena should be included as relevant phenomena within and for that arena. That is a way of saying they agree on what that marketplace "is". Imagine they also saw and interpreted the phenomena of that field in the same, or almost the same fashion. The subjective conclusions on probability, risk, and causation- and therefore trading actions- would not differ significantly if at all.

Since there are numerous different and reasonable (good; appropriate) subjective perspectives on phenomena, it is impossible- and unnecessary- for any Wall Street trader or other observer to perceive or gather "all" (or what some high priest deems the most relevant or crucial) information. Moreover, the variables chosen reflect and help to create not only personal perspectives on marketplace phenomena (including the relationship between past, present, and future), but also opinions on marketplace probabilities, risks, and causes. What is labeled as high probability or low probability, a cause or a trend, important or unimportant, high or low, long term or short term, fast or slow and so forth depends on one's personal perspective. Regardless of the amount of time, effort, or money spent, no scientific experiments, strategies, or laws result from this analytical process. Instead and inevitably, only rhetoric- including metaphors- pours out.

Depending on a cultural observer's vantage point, a fact or other indicator may be crucial, relevant, less important, or irrelevant. And, depending on that perspective, the "piece" of information is bullish, neutral, bearish, interesting, or no longer important for analysis. In the same marketplace, such as that of United States equities (including a particular stock), different gladiators ask different questions. Generals frequently disagree as to what constitutes a satisfactory response.

The given subjective perspective on phenomena of each trader or other observer creates any apparent contradictions or tensions between information within various fundamental approaches, as well as within the assorted technical doctrines. For the same reasons, fundamental and technical ideologies- and marketplace information, analysis, and outlooks related to themare never in an objective (natural physical science type) conflict. Fundamental approaches to information are just as subjective as technical ones.

Because choices in relation to perspective and information are made and assessed subjectively- not objectively mandated or evaluated objectively via the scientific methoddebates between marketplace all-stars, kingpins, wizards, rocket scientists, and tycoons ensue. Like religious devotees or partisans of political parties, eloquent advocates of particular marketplace viewpoints compete for adherents. The greater the number of perspectives on information and the more differences of opinion related to it, the more waves of words. Since marketplace pioneers and engineers select, assess, and figuratively add up facts in numerous ways, they reach various conclusions. They also consequently have different trading strategies, probability assessments, and deeds. Different marketplace probability assessments and marketplace actions reflect divergent ways of seeing and interpreting facts.

This great diversity generates whirlwinds of words (and numbers and pictures) that strive to explain and justify marketplace choices or theories about marketplaces. A fair amount of propaganda- often packaged by those infatuated with natural physical science- also battles to interpret and resolve differences of opinion relating to information, viewpoints, strategy, action, and so forth.

Look at any given marketplace or marketplaces in general. Many researchers who do not trade for a living (including economists) and many traders rely heavily on numbers, including formulas, in how they think and talk about marketplaces. Yet do they all handle numbers and formulas in the same fashion? Do they all interpret the same numbers the same way? Other people comprehend the world more verbally (or visually) than numerically. One can display verbal and numerical evidence in a visual fashion in a variety of ways. Some players enjoy looking at chart presentations of numeric data, others less so. Many choose to place numerical data in or alongside verbal formulations. A trader or other marketplace observer may vote to give verbal information a quantitative value. Wall Street observers (participants) vary in how they mix these verbal, numerical, and visual presentations. This indicates differences in their perspectives on and thought processes regarding marketplace phenomena.

Culture of course does not abolish the rules of formal logic or mathematics. However, because marketplace perspectives and thought processes are cultural (not scientific), science does not handcuff marketplace reasoning, including the selection and handling of information. Cultural reasoning chains (and logic) differ from those of science; more on this in "Cashing In: Words, Thoughts, and Poetry". Thus regardless of marketplace- and as in other cultural fields, one reasonably (rationally, intelligently, "logically") may change the variables one reviews or how one interprets them. Sometimes within a given marketplace a player elects to change its perspective, including its approach to information. Even if you do not change your preferred marketplace variables, you reasonably can alter how you analyze them. Also, some risk takers or research oracles transform or otherwise adjust their framework depending on the marketplace. Someone is not objectively bound to analyze crude oil the same way as coffee, copper, or even another petroleum commodity such as diesel fuel. For example, they may monitor petroleum supply-demand and other fundamental information closely for crude oil, yet concentrate almost exclusively on moving averages or bar charts in coffee.

Regardless of how a trading hero, friendly coach, authoritative economist, or anyone else thinks about and analyzes information and its interrelations and consequences, each presents its subjective perceptions and perspective and rhetoric as rational, reasonable, intelligent, logical, prudent, and sensible. Irrationality does not sell easily, does it? In cultural playgrounds, scientific metaphors, including claims of objectivity and (scientific) rationality, are especially alluring marketing tools.

In cultural arenas, those who seek to guide the viewpoints and actions of others try to influence what one looks at. In the trading context, keep in mind that seeing affects doing. Since the information one selects intertwines with one's subjective perspective, thought processes, and strategies, it influences one's marketplace actions.

Usually posturing explicitly or implicitly as science (or as science-like), legions of books, articles, and speeches sponsor numerous strategies to study (and profit from) fundamental variables and their relationships. Suppose one decides to analyze a given United States security or stock or debt index. What about American gross domestic product and inflation indicators such as consumer and producer prices? What about the consumer balance sheet, including net worth and personal income? Must experts include variables such as industrial production, capacity utilization, money supply, Federal Reserve Board policy, US federal and state budget surpluses (deficits), retail sales, and merchandise trade and current account? How about US dollar strength (weakness), corporate revenues and profits, unemployment, business productivity, and new home sales? Suppose a player reviews supply, demand, and inventory measures for a security. Does it matter which individuals or institutions are buying and selling that security (or supposedly related ones), and why, or how much or how aggressively? For the S+P 500, should one monitor national politics, automobile sales, petroleum inventories, or terrorism risks? Keep in mind that no objective scientific method proves what or how to include other information in order to generate another given variable such as GDP.

An arsenal of definitions exists for words such as inflation, dollar strength, corporate profits, and unemployment. After all, definitions of and thus arguments and conclusions regarding economic terms such as investment (true investment; intelligent investment) and

speculation are opinions. Why should labels and outlooks regarding other economic variables (information) such as those in the preceding paragraph be any less subjective?

Let's glance at "inflation". The learned Federal Reserve Chairman, Ben S. Bernanke, paints a picture. "We have multiple measures of inflation, each of which reflects different coverage, methods of construction, and seasonality, and each of which is subject to statistical noise arising from sampling, imputation of certain prices, and temporary or special factors affecting certain markets. From these measures and other information, policy makers attempt to infer the 'true' underlying rate of inflation....The need to distinguish changes in the inflation trend from temporary movements around that trend has motivated attention to various measures of 'core,' or underlying, inflation, including measures that exclude certain prices (such as those of food and energy), 'trimmed mean' measures, and others, but other approaches are certainly worth consideration." (Speech on "Outstanding Issues in the Analysis of Inflation" at the Federal Reserve Bank of Boston's 52<sup>nd</sup> Annual Economic Conference; 6/9/08). Does this talk sound like the definition of an authentic science term (one from natural physical sciences such as physics, chemistry, biology, mathematics, or electrical engineering)?

That objective definitions of "inflation", "true inflation", and "core inflation" exist is a romantic fantasy popularized by those craving to be scientists. Bernanke admits there are "multiple measures of inflation" and "various measures of 'core'". Subjective choices enter into the "multiple measures". Note the "each of which" in regard to "different coverage" and "methods of construction". Who decides what "statistical noise" is? What objective proof is there that a factor is "temporary" or "special"?

As there is no objective definition of inflation, there is no objective inflationary trend. For cultural terms such as investment or inflation, there are numerous subjectively reasonable ways to "fill in the blanks" (via selection and application of other variables) to define that word and make it meaningful. In addition, subjective perspectives place inflation (and other economic) measures, like a price, in context in a variety of subjective ways. Thus for inflation, both "its" meaning and implications depend on cultural viewpoints, not science.

Subjectivity in economic definitions is paralleled and confirmed by subjectivity in economic perspective. Cultural perspectives and thought processes regarding any variable depend on its subjectively established interrelations with other information. How should scholars, pupils, and players assemble and assess economic variables? How many indicators should one include for a given analysis of the economy or the marketplace, or to understand or predict prices? Rhetoric, with its reasoning stretches, jumps, and leaps- chooses how to place cultural variables in context. No objective demonstration via an objective application of the scientific method shows what phenomena (information) cultural harvesters should gather or omit. In cultural playgrounds, subjective perspectives rather than science decides what information should be captured, how it should be organized and compared, and how variables should be associated. In the economic context, this is true regardless of marketplace and regardless of the time horizon chosen for viewing that arena.

The economists, Wall Streeters, and others that worship science and its branches and models cherish the vision of objective observation, adore formal logic, and idolize mathematics and statistics. Yet very significantly, no scientific (objective) principles or methods determine any economic (financial, marketplace) variable selection and evaluation process. If there were, there would not be such a numerous and very diverse array of marketplace perspectives

(models). There are armies of subjectively rational, reasonable, intelligent, and logical opinions as to how to place economic information in perspective. The great number and diversity of such viewpoints- especially as definitions of key words (variables) are rhetorical- underlines the subjectivity of all such outlooks.

Swing back to the study of a given American security or stock or debt index. Should variables only be those made in the USA? Should someone toss factors such as European Union or Japanese gross domestic product or central bank policy into the mix? Suppose in regard to US stocks that a marketplace warrior decides to burrow into price/earnings, price/book, and other securities balance sheet and income statement evidence. Should marketplace data miners ponder these fundamental factors for foreign nations, including emerging marketplaces? If so, which factors and which countries? Or, picture a United States Treasury 10 year note. Which American corporate and municipal debt marketplaces are necessary for an analysis? Some observers believe one should consider fundamentals of some overseas government or corporate securities.

Think of GDP or consumer prices. Should gurus review data "points" in "real" or in nominal (or seasonally adjusted) fashion? For phenomena such as manufactured goods, homes, or petroleum, how should one assess inventory levels, trends, and adequacy? Versus the prior month, prior year period, the past five years, the past decade- or even longer? Both traders and economists converse regarding changes in economic variables, including price level and movement, in arithmetic or percentage terms, or both. Which is best and why? Some people study inventory levels in terms of the total amount around (millions of barrels of petroleum). Others admire some version of consumption coverage statistics. For example, divide the millions of barrels of oil by some estimate of current or anticipated forward demand. Which is best?

What counts as an economic variable is a matter of opinion. Political, social, and religious phenomena are relevant to some analysts of US securities in regard to their economic (financial) study and decision making. Think of US election year politics or Middle Eastern political and religious complexities.

What criteria should traders or other observers select for interpreting marketplace information variables together and why? No objective proof according to the scientific method exists as to how one should analyze (weigh) the importance of and relationships between each factor. Take a fundamental indicator such as nominal gross domestic product or corporate earnings. There are boatloads of ways by which navigators may reasonably look at it and place it in context. Some will vary their answers to the question depending upon the financial instrument or marketplace it studies.

Not only are marketplace variables- even for any one stock, debt instrument, or security index- subjectively chosen and evaluated in a great range of different ways. In any given marketplace, the same marketplace expert (or community of such visionaries) reasonably can and sometimes does change its opinion as to what constitutes relevant information, or its viewpoint as to how to study and evaluate a given fact or factor.

To what extent, if at all, should rocket scientists apply technical analysis such as moving averages and trend lines to the price of a financial instrument? Though the marketplace short run and long run are matters of subjective definition and perspective, assume a given time horizon. Dozens of technical approaches and formulas compete for attention. Financial cooks can review and present so-called raw data via bar charts (high, low, close for the time increment), line charts (as between closes), candlestick displays, stochastics, point-and-figures, relative strength indices, channel indices, means and standard deviations, and so on. How should one decide between them and why? Regarding a marketplace price (including forecasts regarding it), should students review one technical indicator, or many? How should a professional read such indicators together? Arguably an analyst should study one or more moving averages in addition to bar or line charts. Yet if so, upon which time history increment should one base the moving averageson five minute data, hourly prices, or on the daily closing price? Using daily settlement prices, a ten day moving average line usually appears much different from a 200 day moving average one. Assume the crossing of a long term moving average by a short term moving average offers a socalled trading signal. For a particular marketplace pasture, which moving average periods should the money hunter select? Is the three day versus the 30 day strategy better than the five day against the 200 day method?

Everyone knows that many fundamental indicators such as GDP and consumer prices appear in numerical form. To enhance their understanding and better explain marketplace phenomena, should financial engineers apply technical analysis on fundamental statistics? Some do. Should inventory change information be reviewed for each day, or over weekly or monthly time horizons? Some traders apply personal, handmade interpretations to the technical and fundamental facts. Why not add lines or curves to a stock's price or price/earnings chart? How should they be drawn?

How far back in time should dukes of data conduct a technical study? Should or must a marketplace monarch look at price data for the given instrument only according to one time interval sequence, such as an hourly bar chart? Why not also ponder it from a five minute, or a daily, weekly, or longer perspective?

Here's another aspect of the variety and flexibility of ways by which one reasonably can present information. Traders and other voyeurs often present a time variable on the X-axis of a chart. This axis runs left to right on the bottom of a sheet of paper, computer screen, or television set. They place levels of other variables such as price, inventories, or inflation measures on the vertical Y-axis. Information appears- and thus is thought about and interpreted- differently depending on the page layout selected. Assume a variable such as price with very short term as well as long term data. Picture, for example, a bar chart's high, low, and close in regard to the time increment issue. What should the time increment for the X-axis be in order to create a barhourly (or less), daily, weekly, monthly, or yearly? Like numerical selection presentation decisions, graphical ones create and influence opinions on issues such as trend and what is a significant move (change), or a high, low, average, or extraordinary level. Since graphical portraits differ, marketplace perspectives and opinions related to them vary. After all, the time choice affects the scope of the Y-axis's data display.

In addition, regardless of the time period chosen for the X-axis, one also can vary the physical spacing between data increments on the X-axis or the Y-axis. If a trader uses smaller (or larger) increments on either axis for the same size page, this affects how the data appears. Also, how should one present the relationship between graphical axes? Suppose an analyst displays price data on a daily close basis on a sheet of paper that is 12 inches long (for the X-axis) by eight inches high (for the Y-axis). For its portrait, it enlists most of the available space of the paper. Suppose another researcher decides to present the same data as on the first sheet of paper, but its X-axis is three inches long and the Y-axis is six inches high.

For the same time horizon, one can scale the Y- axis in either arithmetic or logarithmic (percentage) terms. In an arithmetic presentation, the distance between two increments is the

same. The space from 10 to 20 is the same as that between 100 and 110. In log terms, the space from 10 to 20 is wider than that between 100 and 110, since 20/10 is a much greater percentage than 110/100. Assume a player keeps the time spacing on the X-axis the same for an arithmetical and a logarithmic graph. On each graph for the same time period, suppose it wishes to draw a trend line for a price move from 100 to 110. The slope of the line on the arithmetic graph will vary from that of the logarithmic view.

Now assume several equity marketplaces or instruments within them. A given ringmaster may elect to approach information in each of these arenas in much the same way. But it is not constrained by objective laws to do (or not do) this. To comprehend an American stock, to establish an opinion regarding risks in trading it, must one review United States and foreign short term or long term interest rates? No scientific proof demonstrates that someone must do this. What about foreign exchange, metals, or commodities marketplaces- and which ones?

Or, think of four marketplace categories- equities, interest rates, foreign exchange, and commodities. According to many viewpoints, what is relevant information (and the extent of its relevance) for each category often is quite different. However, the same marketplace virtuoso intelligently may decide to select and analyze information in these marketplaces in much the same overall way. Yet no objective doctrines mandate that this should (or should not) be done.

How deep into the Wall Street jungle should one scavenge in search of information? Assume a common time horizon in the same battleground. Traders, researchers, and other observers do not all adopt a universal perspective regarding the appropriate data variables one must collect. Likewise, they neither formulate nor prove an objective theory as to which facts one should discard as irrelevant. Nevertheless, most opinions agree that some facts are too far afield to be relevant. If it would be a very big subjective stretch to establish a reasonable connection to other useful information, players seldom if ever talk about such potential connections. In marketplaces as in other cultural arenas, some associations between phenomena (either simultaneous or sequential) appear merely coincidental to almost everyone except the medically insane and some mystics and psychics (and perhaps surrealist poets and painters). To most people, the number of runners in Central Park in New York City on a Friday afternoon at five o' clock is completely irrelevant as to whether the S+P 500 closed higher or lower the following Monday. Is it sensible to link sporting outcomes and price movement in US equities? The New York Post reports: "Financial analysts have noted that which conference wins the Super Bowl affects the stock market" (1/21/04, p25). Assume the Post accurately reported what some analysts said and that the analysts were not being playful. Should one take this "affects the stock market" theory seriously?

Suppose one generates a historical perspective on prices of (or other technical or fundamental variables apparently relevant to) a given financial instrument or marketplace such as an actively traded United States technology stock. To establish a better understanding of that equity, some- but not all- players engage in a similar process for purportedly similar stocks. What makes the stocks alike? A variety of opinions decides this issue in different ways. The potential for the creation of various reasonable perspectives again points out that all viewpoints are entirely subjective. The observer subjectively perceives and establishes likeness, resemblance, and difference. Similarity and difference are not objectively intrinsic to the financial instruments as are the phenomena of biology, chemistry, or physics. Neither the financial instrument nor its price is a body, entity, or force out there apart from the spectator like a Natural phenomenon. Do only tech stocks resemble it? Should the Wall Street general, rock star, or rocket scientist study price spreads and earnings comparisons between that stock and

these other ones? Should a trading clairvoyant or coach compare the stock to US stock marketplace benchmarks, whether technology indices, or broader ones such as the S+P 500? What about overseas technology stocks or overseas stock indices, and which ones?

That perspectives on marketplaces are subjective is underscored via a more detailed consideration of the time factor. Many heated marketplace debates and diverse subjective theories result from different approaches to cultural time.

Time from the cultural perspective is not the same as time from the scientific viewpoint. The would-be scientists of culture nevertheless objectify cultural history and the variables within "It" as phenomena "out there" for observation and study. Thus they invent fables that "The Past", "The Present", and "The Future" are objective (scientific) phenomena. In cultural fields such as games of skill, love, politics, war, religion, and the fine arts not only the present, but also the past is subjectively perceived, presented, and analyzed. Therefore viewpoints regarding the future are subjective. Not everyone sees the present or past (or the future) in the same way in Wall Street and other economic precincts. Assessments of marketplace phenomena, including current and future (and past) probabilities and risks, consequently can and often do vary significantly. Just as the probabilities and risks of other cultural fields are subjective (with the exception of matters like intrinsic odds in poker), so likewise are those of Wall Street and other financial playgrounds. How one assesses marketplace (or several past ones), partly depends upon one's personal viewpoint regarding the subjective past, present, and their relationship.

Is the present time right this instant? Does the so-called current time extend at least briefly, however long that may be, into the past and future? Does the relevant past extend into the past few minutes, the past hour, day, week, month, or some other period? How should one define the distant or ancient past?

In culture, what is the long term or a long time? "The Long Run" is not an objective phenomenon. For marketplaces as elsewhere in culture, subjective definitions of a long run vary. The same is true regarding definitions of the short run and the medium term. In addition to theoretical definitional differences, viewpoints regarding risk can influence a perspective on time. In practice, how a day trader defines long term may be very different from how a fan of the buy and hold US equities for the long run philosophy defines it. In placing variables in perspective, each Wall Street coach or player (or economist) focuses its attention on its subjective version of the short term, medium term, and long term. Some observers elect to study a marketplace or relevant variable over a combination of time perspectives. Thus someone may buy equities only if it believes both short and long term indicators point to a rally.

Depending on the risk taking time horizon, some fundamental (or technical) marketplace information subjectively may appear relevant to one high priest, but not to another wizard. What equals significant information- and the degree of its importance- for any guiding light and its followers can vary according to the duration reviewed. Even regarding the same or very similar time period, different variables can appear more (or less) relevant to different observers, including noteworthy experts.

Moreover, a given observer's perspective on or opinion regarding the importance of one or more facts- and their relationship to other evidence- may change. A pro may declare: "I now see the facts in a different light." Sometimes "adding, subtracting, or re-weighting" variables within a given time framework may encourage this alteration. Or, reviewing phenomena over an additional time horizon may prompt a new outlook.

How far within time's recesses can one unearth marketplace phenomena subjectively relevant for current understanding and future predictions? How far back in history should someone travel to place US real GDP in subjectively meaningful context? One's viewpoint on and interpretation of real GDP, unemployment, inflation, and price result partly from how far back in time one looks, as well as on how one places other information in perspective over that time horizon. How far back in time should treasure hunters and economists trek to acquire petroleum supply, demand, and inventory data? Also, how far should one retreat in time to create or analyze a relationship between variables? There are no scientific answers to these and other cultural questions, only rhetorical ones.

Which time periods within a selected overall history appear relevant? How does a marketplace professor decide which marketplace era within the overall past is relevant to (similar to or different from) the current time? In marketplaces as in other cultural fields, opinions differ.

Look at the US stock marketplace. To what extent are various time periods within its history similar to or different from each other and why? What variables should one select for this inquiry? Observers differ in their answers to such questions. Different viewpoints result not only in assorted marketplace opinions, but also in a diverse set of trading actions.

Recall yet again the US subprime housing debacle unveiled in 2007 (and related crises) and the ensuing economic bloodbath. In establishing their subjective perspectives on subprime mortgage delinquency and foreclosure risk (and the potential for subprime troubles to affect the overall mortgage marketplace, equities, and other economic arenas), how far backward did most Wall Street wizards and their economic playmates travel? Most extended their analysis to cover only the preceding few years of subprime data, usually three years or so. Their beloved models reflected their sunny view of this past. Though Wall Street and outside think tanks are filled with computers, keep in mind that people- not the computers themselves- devised the models and selected variables for input. Few people questioned the creed that US housing prices would continue to advance over the long run and not retreat much in the short run, if at all. Prior to the eruption of the crisis and collapse in many housing securities (and in stock marketplaces), few sages studied in depth (if at all) housing price crashes in the more distant past, whether in America or elsewhere. Until bad news stayed on the financial stage for several months, few experts- either in Wall Street or academia- bothered to unearth analogies between credit quality and leverage in the subprime battleground and that of past eras in sectors outside the housing universe (such as US equities and corporate debt around 1929).

For any given time period, how should the marketplace analyst divide time in order to study and organize information within it? What time intervals should a maestro select for its analysis and explanation of fundamental or technical data? Picture a commodity chartist that believes a review of the most recent calendar year's data is sufficient. For its probability assessments, should that chartist place price in subjective perspective for each five minute interval, for each hour, or only once a day or some other increment? Picture a faithful stock marketplace fundamentalist with a very long run orientation. Suppose an unemployment statistic is released weekly. Should the information be presented for each week on an individual basis, or as a monthly, quarterly, or annual average?

Everyone knows that a new price data entry every five minutes draws a much different chart than one entry for each month. Another choice to consider: what date should the rocket scientist select for the starting point of one or more data series? Opinions vary. Like other variable selection decisions, gurus and players do not derive answers via an objective application of the scientific method.

Depending on the marketplace start date chosen and time interval for analysis within it, a given marketplace variable such as price appears subjectively different, often dramatically so. This creates differences in outlook and actions regarding that variable- and regarding other data (such as GDP or unemployment) that one decides to subjectively link with that indicator.

Suppose one wants to assess the current marketplace or to make predictions regarding phenomena such as price or GDP. What makes a particular starting time period a reasonable (intelligent, sensible) one? Is that beginning a given day, or range of days? What technical and fundamental variables are relevant to a conclusion?

Anyway, on the basis of a daily or weekly bar graph, compare marketplace perspectives suggested by various different start dates for the United States S+P 500 stock index. Take two starting points up to the present time (the following prices are in nominal terms). View a chart beginning with the October 20, 1987 "crash" low at 216 to the present. It looks quite unlike a chart drawn from the October 11, 2007 level of 1576 to now. Is the price decline from the October 2007 all-time S+P 500 high level a major bear move (the October 2007 level thus is a major high)? The slide to the March 6, 2009 low around 667 was 57.7 percent. Or, is the move since October 2007 an interim bear correction to a major bull move that began from the 1987

low (or some earlier bottom)? In this regard, how should one label and interpret the rally from the March 2009 low?

Did a major bull move in the S+P 500 truly (really, definitely) begin before October 1987? What about August 4, 1982 at 101 or October 4, 1974 at 61? Perhaps it began in mid-1932 (during the Great Depression) at under five? No objective application of the scientific method (even if one brings so-called fundamentals into the pictures) indicates an objective start date for a bull, bear, or sideways marketplace.

Suppose a marketplace oracle believes the best start date for review instead should be around the lows of October 10, 2002 (at 769) and March 12, 2003 (at 789). The S+P 500 price low since October 11, 2007 (667 of March 6, 2009) was beneath these. So to some viewers- and probably also because they view the percentage fall from October 2007 to March 2009 as substantial, the drop under the 2002 and 2003 lows underlines that the decline since October 2007 was a major bear move. Nevertheless, other scholars may stress that the March 6, 2009 low floats far above October 1987's bottom. Thus the nosedive from October 2007 to March 2009 still belongs to an even bigger and longer bull trend which remains intact.

Some Wall Street authorities believe a trend (major or minor) for a given technical or fundamental variable can have several stages. Is the S+P 500's advance from October 1987 to October 2007 one bull trend, or several bull and bear moves? Was the decline from the March 2000 peak to the March 2003 low a major bear trend, or an interim bear move within an overall bull trend? Even while poring over the same statistical array or visual display, experts reasonably may differ in their perceptions as to whether one or more stages exist. They also may interpret the significance of any such parts differently. People who look at a phenomenon differently and who express different opinions about it are not thinking about it in the same fashion. Not only do observers look at marketplace phenomena over different time horizons, their words express different opinions about these variables. This indicates that their perspectives and thought processes- like their definitions, arguments, and conclusions- are cultural, not those of hard (genuine) science.

Take any given instant in a Wall Street marketplace for a given financial instrument. Picture the assorted players and their risk-taking time horizons and inclinations. We hear competing opinions as to what price levels and ranges are important and why. Think of so-called key price support and resistance numbers. If viewpoints on this variable are objective, why is there such diversity? In addition, observers disagree as to whether a level will be tested or broken (and when, if at all), and what the implications will be. Note the diversity of marketplace behavior.

Take another example. The historical perspective on marketplace phenomena selected significantly influences opinions regarding high (and too high), low (and too low), average (reasonable, rational, natural, appropriate, sensible, normal, usual), and extreme (abnormal, unusual, extraordinary, incredible, amazing, unbelievable, irrational) levels for a variable as well as for relationships between variables.

Sometimes quite a few economic heroes and luminaries agree in their judgments. We often hear Wall Street comments such as this: "That stock's price is too low." But at the same moment, another player may declare: "It's at an average level based on what I see." Is America's current unemployment level normal, and based upon what time horizon and other variables? Staring at the past five or more years of yield data for a US government bond benchmark provides a sharply different perspective than a retrospective on only the most recent few days or hours. A study of only the most recent five years of US mortgage delinquency rates is a much different vista than a review which ventures back 25 or more years and that also analyzes real estate crises in other nations.

Suppose an inquirer likes to view present (and prospective) US commercial gasoline inventory levels only relative to its vision of so-called recent history. It believes statistics from more than five years ago have little or no relevance. Suppose current inventory in both arithmetic and days of coverage terms exceeds that of last year's at this time, as well as that for any period over the past five years. All else equal, and assuming for the sake of argument no consideration of other variables, this player probably will declare that these gasoline inventories are high. In contrast, picture a professor that prefers studying inventories over the past twenty years or more. Imagine the current US gasoline inventory is under the 20 year average for this time of year by about five percent. Those with such a long term perspective are neither objective nor more objective than those with the shorter historical vision. Also, those with the 20 year time horizon do not all share the same subjective viewpoint. However, and although consideration of other information may influence conclusions, most viewers with this longer term viewpoint will not proclaim that the current inventory is high. Some will say it is low. Those with a long term horizon that mention "high inventory", probably will qualify their comments by underlining that inventory is not elevated relative to overall history, but only in regard to the recent period.

Other variables may influence subjective perspectives and conclusions regarding important, average, normal, and reasonable levels and trends. Recall that Wall Street pros can place information such as price in either nominal or real (adjustments via some inflation

indicator) terms in diverse ways. Also, should financial icons measure gold prices or the Chinese trade surplus in US dollars, or via some other currency? Should veterans review seasonal factors to place an economic variable in perspective? US heating oil and natural gas inventory totals generally are higher at the beginning of winter than at its end. The historical perspective selected regarding such nominal, currency, and seasonal considerations can influence opinions on whether a past or current level for the variable is average, high, or low, as well as viewpoints regarding trends involving that variable.

In Wall Street, Main Street, and ivory academic towers, many ask questions like: "What is the current trend?" Or: "Are we in a bull market? Is the bear market over?" Investors, especially those in securities marketplaces, often are especially curious. Would-be natural physical scientists inside and outside Wall Street- whether celebrated traders, revered researchers, famed Main Street plutocrats, or learned economic authorities- have faith that phenomena such as trends and bull and bear markets have an objective reality. Note the "we" in the bull market question. Also, underline "the" before "current trend". Don't underestimate the implications of that "a" before "bull" or the "the" before bear. For a great many speakers, these words indicate their faith in the science fiction that an objective observer (rational in the hard science sense) of marketplace phenomena is possible. Since perspectives on marketplace phenomena are subjective, there is never a "we" (or indeed anyone) that sees or defines a cultural variable (or word) scientifically. Objectification is rhetoric, not science, and thus objectification does not offer truth for all. There is never a marketplace phenomenon like "The Market", "The Trend", "A Bull Market", or "The Bear Market" out there that observers (even glorious economists) objectively perceive.

Subjective perspectives on time can intertwine with those relating to other variables such as marketplace distance (movement). What makes a change for a variable such as the S+P 500, unemployment, or the consumer price index significant? Answers affect propaganda as to what is a big, major, small, or minor change. They reflect and influence opinions as to whether, say, a current price is average, high, or low. They affect definitions and thus assessments of trend, including those referring to bull and bear marketplaces. For any given time horizon, how should one assess whether a move in one or more variables has been noteworthy? Regarding these issues, no scientific rule makes an arithmetic guideline superior to or inferior to those based upon percentages or involving so-called qualitative considerations.

Suppose a trader or other observer chooses a marketplace time horizon to review "The Price" for a given financial instrument. An individual perspective on the historical time period selected may notice numerous moves, only a few moves, or perhaps no moves of significance. Significance of price (as for other cultural phenomena) inheres in the subjective perspective regarding price, not in the price variable "itself". Depending on the trader's perspective, an important move as a percentage of (or arithmetic distance from) a given starting price may vary significantly. Some traders (or non-traders) with short term time horizons in a given marketplace may find a bull move of two percent noteworthy and a five percent one massive. Others regarding that same playground, perhaps with a long term time orientation, may dismiss as trivial a price move of less than 10 percent. Would a 20pc rally be significant enough to win the badge of a bull move for those wedded to long term analysis? Or would it need to fly 25pc and stay at least that high for three weeks? Should answers depend according to marketplace? Then a bullish stock move- and this movement is not scientific motion- might be different from one in foreign exchange, interest rates, or crude oil. But all such definitions and evaluations reflect opinions,

not objective principles and methods. Declarations as to whether a move is fast, slow, smooth, or erratic likewise reflect variations in subjective perspective.

Financial pilgrims and oracles define, measure, and present "volatility" in assorted ways. The time period selected for review affects one's opinion regarding volatility. How far back in history should we look? Think of price fluctuations. What about time intervals? Five minute, hourly, daily, weekly, monthly, and yearly time horizons generate different perspectives.

Marketplace scriptures describe movement distances and patterns for variables such as the US trade deficit, unemployment rate, corporate profits, and price. Take a given calendar year. Suppose a price climbed from 100 at the start of trading on January 1 to close at 200 on December 31. One perspective is arithmetic- the price moved 100 points. Another is percentage; it flew up 100 percent. Should one assess comparative trading performance only according to such viewpoints? Since the presentation of fluctuations reflects a subjective perspective, apparent fluctuations within that year also can measure change. Assume the price marched in a straight line from 100 to 75 and then danced to 150. Pretend it then descended to 125. Next it rallied to 175, dove to 150, and then skyrocketed to 225 before resting at 200. The instrument from this subjective perspective moved 300 points over the year in snake-like fashion. This panorama on price measurement and movement dramatically varies from the preceding arithmetic and percentage ones. Was it possible for trading generals to capture up to 300 points of profit rather than a mere 100? Over the year, a more microscopic focus on price would display even more fluctuations and thus an even greater total move. What if we review an hourly (or five minute) chart instead of a daily one? Suppose an authority wishes to assess comparative trading performance and skill according to the snake movement perspective. What time intervals should it select?

Some orators proclaim that United States economic expansions and recessions definitely (others say probably or usually or typically) run a given length or range of time. Many experts preach the business cycle (however defined) in developed nations generally lasts a number of years. Marketplace scholars offer various viewpoints as to the typical duration and extent of bull and bear moves in a US stock benchmark such as the Dow Jones Industrial Average. Similar sermons exist regarding cycles for debt, currency, and commodity instruments. Most gurus implicitly or explicitly promote their conclusions as to duration- whether two years, five years, a range of three to seven years, or otherwise- as objectively derived. Also, some wizards declare that key price highs and lows for a financial instrument (whether natural gas, corn, or equities) are or tend to be reached at certain times of the year. Some guides with a long term perspective declare that major lows in the Dow Jones Industrial Average often have occurred in calendar October. For a given marketplace, a fan of cycles may perceive that major lows occur every five to ten years.

Everyone knows that the Natural world is filled with cycles capable of objective analysis by genuine scientists. Biological organisms have life cycles. The Earth orbits the Sun. Since aspiring scientists on Wall Street, in academia, and elsewhere are deluded by the fiction they can define "trend" objectively and analyze purported marketplace trends scientifically (or mostly so), many therefore believe in the fairy tale that they can objectively define and analyze cycles. Nevertheless, marketplace viewers place time and associated variables (whether GDP, inflation, price, or others) in context in a great variety of ways. Therefore it is a matter of opinion as to what is a noteworthy high or low for one or more variables, and so therefore is what is a significant time and distance between them. Consequently, just as definitions of marketplace trend and perspectives on trend are subjective, so are those regarding marketplace cycles. Take a look at a popular economic term, "recession". Recession and expansion (growth, recovery) are species of trend. What variables should observers choose to fill in the blanks of (create a meaning for) the word recession? Some define recession as two consecutive quarters of decline in real GDP. Yet the rhetoric of the prestigious National Bureau of Economic Research deploys a different definition (www.nber.org/cycles). "Rather, a recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales." The NBER definition may sound authoritative and evoke visions of a scientific approach. Though the definition may assist the development of subjective perspectives and analysis, it is not scientific at all. First, as will be discussed further below, what is "economic" is a matter of opinion rather than science. Also, "the economy" is not an objective phenomenon, out there to be studied objectively by some supposed scientist.

Also, what is significant in regard to decline is a matter of opinion. In culture, what is significant, important, key, and so forth is subjective. What is spread (or widespread) across the economy? How many sectors (however defined) must suffer and in what proportions? In addition, why more than a few months? Suppose real GDP crashed 20pc over three months along with similar dives in other variables, and then revived quickly. What is normally visible, and visible to whom? Why this crew of real GDP and other variables and not others such as deteriorating stock and real estate prices, changes in inflation indicators, or increases in debt delinquencies? Besides, which subjective definitions of real GDP, employment, industrial production, and so forth are most valuable for this inquiry?

Despite their subjective scientific theology, the NBER and other economists are not scientists at all. Everyone knows that a real science such as physics not only objectively defines its terms. It also objectively proves (and disproves) theories. Regarding recession, the NBER adds: "For more information, see the latest announcement on how the Business Cycle Dating Committee chooses turning points in the Economy [they capitalize "economy"] and its latest memo." Objective truth (science) is not produced by a committee, but by the objective scientific method.

Incidentally, the passion for and faith in objectification by the would-be scientists of economics and Wall Street inspires some with fantasies not only of an objective "The Economy", but also mirages of an objective "The Real Economy", and "The Financial Economy". Like "The Economy", these two cousins supposedly are out there, entities for objective study.

Let's revisit the bulls and bears. Allegedly objective breeds of trend include bull and bear ones. "It's a bull market in stocks!" Especially in relation to price phenomena, but also in regard to other marketplace variables, orators speak of bull, bear, and sideways trends and cycles. "Is the economic situation bullish or bearish?" Pros and amateurs speak of major, minor, interim, and intermediate bull and bear moves (and corrections to bull and bear moves). Experts speak of bullish and bearish conditions and factors. News is bullish (or bearish) for "the market" or "the economy".

Focus on a definition of bull move in relation to the price of a stock marketplace. As a preliminary, keep in mind that "the price" is not an objective phenomenon. Whether in regard to a supposed trend or in relation to other variables, the price variable only acquires significance

subjectively. For price as for other variables, what is high, average, or low (or a big, average, or small move) is a matter of opinion.

For a "true bull market", must the move travel at least 20 percent, or at least 33 percent or some other distance? Some short term traders may call a five percent climb bullish, even if most long term ones do not. Should one use arithmetic rather than percentage measures? Is a \$10 per share rally in a stock bullish if the rally blast-off point was one hundred dollars rather than twenty dollars? Some definitions of bull market link duration to distance. How long must a move last to be bullish? Is three weeks sufficient, or must it continue six months or at least two years? In defining a bull move for stocks, should one use prices in real or nominal terms?

What fundamental variables, if any, are necessary to define a bull market, for investors to happily declare that "the stock market is in a bull trend"? Must corporate profits grow, and how much, and according to which profit measure? How much and how long, if at all, should real GDP increase? To what extent are falling (or low) unemployment, retail sales, or industrial production relevant to a definition of a bull trend?

Just as all definitions, propositions, and conclusions related to investment and speculation and other economic words are subjective, so are those relating to bull and bear marketplaces. Definitions of "bull market" and "bear market" and perspectives on so-called bullish and bearish phenomena always are cultural. They reflect the personal viewpoint of the marketplace observer, not science. Crusading rocket scientists and engineers, heroes, coaches, economists, high priests, wizards, politicians, and the media may proclaim the definition of or existence of a trend or cycle. However, objective marketplace trends and cycles, including bull and bear ones, are myths. They do not exist. That marketplace conditions are objectively (intrinsically) bullish or

bearish (or neutral) is likewise a fable. Price, GDP, inflation, and other information are never objectively bullish or bearish. Bullishness and bearishness do not inhere in marketplace phenomena, but within and by means of the subjective perspective and thought processes of the marketplace participant or other observer.

So players and guides reasonably differ in their opinions as to how to define a bull (or bear) move. Some definitions may seem rather rigid, others more flexible. Intelligent analysts who share a common definition may apply it differently. Shepherds may rationally disagree as to what constitutes past, present, and relevant bull (or bear) moves. Someone may vary its subjective definitions according to marketplace. A given guru may declare a bull move in US blue chip stocks travels at least 25 percent and lasts at least six months, whereas a bull advance in crude oil runs at least 33pc over two or more months.

A Wall Street saying: "To understand this bull market and how it'll behave, you ought to study how it traded in bull moves before." To analyze the Dow Jones Industrial Average or the US dollar or US Treasury bonds, many traders, research oracles, and economists hunt through the past to identify previous periods supposedly similar to or different from the current one. Many people ask: "Which fundamental conditions or technical factors parallel those of today?" However, the history of any marketplace- like that of its present and regarding its potential future- always is perceived, structured, and assessed according to subjective perspectives. Consequently, all viewpoints and comments regarding such ancient history and its relevance reflect opinions rather than science. Because of this, and as the definition and application of bull and bear labels also is a matter of opinion, the past does not contain objective bull or bear marketplaces.

Waterfalls of words relating to trends cascade through and regarding any given Wall Street marketplace. Yet since the definition and determination of a bull (bear, neutral) marketplace is a matter of opinion, views on bullish (bearish, sideways) marketplace probabilities and risks likewise reflect and depend on subjective outlooks. From the trading standpoint, different opinions induce different actions. As someone said regarding the current trading landscape in a given stock: "Some buyers, some sellers, some sidelined, and for all sorts of good reasons."

Financial pilgrims and clairvoyants evaluate marketplace probabilities over various time horizons. However, place any specific risk taking time orientation to the side. In stock playgrounds, debt battlefields, currency arenas, and commodity jungles we often hear the question: "Should I buy or sell now?" Most Wall Street observers (participants) would love to know the objective probabilities, if they really exist, regarding the future direction and level for a marketplace price. The evangelical quest of Wall Street and its allies to promote trading relies on metaphors based upon words imported from various familiar fields. Yet genuine science is not merely interesting and prestigious; it is decisively persuasive within its objective domain. Many marketplace experts, leaders, and their acolytes enlist scientific language and strive to assume scientific poses in order to persuade audiences that they and their economic analysis and price predictions are objective. Investors are a favorite target for metaphors in general and natural physical science ones in particular.

Various metaphors from games, love, politics, war, and religion- not only from natural physical science- promote Wall Street's gospel of expertise and leadership. It is good and reasonable to follow worthy heroes, coaches, kings, generals, high priests, wizards, rocket scientists, and so forth. Much of Wall Street and many of its academic and media allies have

devout faith that their so-called science (objectivity) is really science or mostly science or very close to science (rather than fake, counterfeit, make-believe, simulated, bogus science). They have a big stake in convincing themselves and others that, as (or almost like) real scientists, one can objectively define and assess marketplace phenomena. If such marketplace objectivity is possible, then in principle and practice- as in the hard sciences- some people can acquire objective expertise related to the phenomena. And on what street might this supposedly objective expertise regarding marketplaces and money be found?

Pretend that talented rocket scientists and skilled financial engineers on and around Wall Street really can objectively define and identify bull and bear (and other) conditions and trends. Fantasize further that marketplace outcomes relating to price (for example) are objectively certain or probable (not objectively random). Then the Wall Street Newtons, Einsteins, Edisons, and Fords who eagerly dream of cloaking themselves in rational scientific garments could have objective grounds for telling avid audiences where the price will or probably will go. If marketplace objectivity indeed were possible, these illuminated experts and their loyal, trusty, and well-trained apprentices would not be offering mere opinions on bull or bear price trends. They would be speaking (and selling) science. If such so-called marketplace "science" was really science, it would be rational, in the scientific sense of that word, to follow objective marketplace recommendations on buying and selling.

We all know that economic rocket scientists often disagree in their analysis and prophecies related to a financial instrument. However, even if one supposedly objective marketplace engineer or astronomer fails repeatedly in its quest to successfully predict uptrends and downtrends, another one could do better!

Wall Street players and academicians infatuated with natural physical science generally believe that even if economic (marketplace) "science" is incomplete or imperfect now, it still is objective, or is mostly or approximately so. They note that over the ages the natural physical sciences have expanded their storehouse of knowledge gradually. Would-be scientists of economics generally have faith that they too can continue to make progress, add to their reservoir of knowledge, and become more expert than ever (and probably more rational in the objective sense).

However, in culture, a scientific façade is not science at all. Marketplace definitions, propositions, arguments, conclusions, perspectives, and thought processes are all subjective. Therefore no marketplace expert or other observers (participant) is ever a scientist, partly or approximately scientific, or even like a scientist. Marketplace experts are never objective (rational in the hard science sense). Their marketplace viewpoints are always rhetoric. The training (even years of study in Natural sciences), experience, track record, or fame the individual or firm possesses is irrelevant to the issue of objectivity. It does not matter if the marketplace observer works on Wall Street as a trader or in some other role, toils as a central bank sheriff, or labors peacefully as a renowned economist in a prestigious academic institution.

Unlike real scientists (those of natural physical science), neither Wall Street traders (or other professional insiders) nor so-called outside observers such as economists (or the media) have a shared objective viewpoint or objectively embrace the scientific method in regard to the variables (information, facts, factors, and so on) of their world. Some say that a player such as a Wall Street investor has a bias, in that it wants the price of its investment to rise. However, all Wall Street professionals (not just traders) and economists are equally biased (opinionated) in the sense that they inescapably bring and maintain a subjective (personal) perspective to the

perception, study, and interpretation of marketplace phenomena. Even if someone does not trade, and even if that cultural observer has absorbed the wisdom of thousands of economic sages, sermons, and scriptures, that person's economic perspectives and thought processes never are scientific (objective) ones.

When viewed from and thereby employed within a subjective (nonscientific) perspective, numbers, mathematical formula and calculations, and other Natural phenomena such as weather, are "subjectivized". From the standpoint of a natural physical scientist, such Natural phenomena (in themselves) remain intrinsically Natural. The laws of Nature do not cease to apply. The objective certainty, objective probability, or objective randomness of a particular Natural phenomenon does not change. Of course in both arithmetic textbooks and Wall Street marketplace analysis, two times two equals four. Rain remains rain. Planets orbit the sun.

However, in cultural fields, one does not perceive and study Nature in isolation from a subjective personal outlook. When Natural phenomena are perceived, analyzed, and acted upon from a cultural perspective (not from the vantage point of hard sciences like mathematics or physics), the cultural process bathes the Natural information (variables) in cultural perspectives and thought processes. It thereby permeates the Natural phenomena with subjectivity. From (within) the standpoint of culture, numbers, weather, and so forth lose their Natural character. Once brought within a cultural viewpoint, and in relation to other subjectively perceived variables, they no longer belong to the realm of objective (scientific) rationality.

Social "scientists" such as economists claim to seek knowledge for its own sake. However, the preceding inquiry shows (and analysis below will emphasize further) that they create and apply definitions in the same fashion as marketplace participants such as traders, salespersons, researchers, and risk managers. Economists subjectively place marketplace variables such as price, real GDP, inflation, unemployment in perspective in the same way as do traders and other Wall Street (and Main Street) players that seek the American Dream goal of money. Thus even when economists or others with significant mathematical, statistical, or other natural physical science expertise deal with Natural phenomena in marketplace or other cultural contexts, their subjective perspectives similarly imbue those Natural facts with subjectivity.

As noted above, marketplace players place a price of a given financial instrument in perspective in a wide variety of ways. Also, several traders or analysts may apply the same mathematical formula to a price history or balance sheet and arrive at the same numerical answer. However, members of this group reasonably can and do draw different subjective consequences from the mathematical output. Personal perspectives on a given number or calculation- and their relations to other variables such as real GDP, unemployment, other numbers and calculations, OPEC petroleum production policy, the likelihood of legislation, and so forth- can differ substantially.

Cold weather, drought, hurricanes, and earthquakes obviously occur or not regardless of trader or other marketplace viewpoints or interest. Severe drought may kill US wheat growing in the field. A deep freeze may motivate many American homeowners to use more heating oil or natural gas.

Marketplace observers (and not just traders) nevertheless differ in their choices as to the importance or placement of Natural phenomena such as weather within their subjective perspectives. Look at the US East Coast heating oil marketplace. Weather does not matter the same to each marketplace observer. First, some heating oil traders pay little or no attention to

weather forecasts or events. For example, think of some technical players that only study price charts. Even if many researchers and traders pay attention to weather in creating their marketplace analysis and price predictions, they do not all agree in how to place weather in perspective. They do not agree on how much to emphasize the weather factor or how to relate it to other information. A given watcher may choose to review not only current cold weather conditions and probabilities, but also long run weather history. How far back should one venture, and what are the relevant periods and why? Even though various heating oil observers may watch weather closely, they tie their interpretation of the weather phenomenon to the same (or other) marketplace variables in a great variety of ways. How should one define supply, demand, and inventories? Anyway, someone may interpret weather alongside its subjective viewpoint regarding East Coast (or perhaps the entire US) supply, demand, inventories, and refinery output. Someone else may decide not to do this. Should it extend its data analysis to US diesel fuel, or look at distillate marketplaces outside America? How relevant are jet fuel, gasoline, residual fuel oil, and crude oil? Anyway, how far back in time should any supply and demand analysis occur? For US East Coast heating oil, to what extent is it sensible to bind considerations regarding frigid East Coast weather to viewpoints on natural gas marketplaces or East Coast (or Gulf Coast or European) petroleum refining margins? In some subjective perspectives, weather may intertwine to some extent with considerations of American (or worldwide) economic growth, OPEC crude oil production policies, and so on. Is the US dollar relevant, at least sometimes?

Thus in marketplaces, people study the given weather or other Natural phenomenon in diverse subjective ways. The variety of fashions in which observers talk and behave reflects that subjectivity. Don't traders trade differently in response to the same Natural event or process? The diversity in trading actions, like the notable variations in analysis and wordplay, means that people are thinking differently in regard to the phenomenon, and that they are doing so from

subjective rather than scientific perspectives. Because marketplace participants and observers place even Natural phenomena in perspective in a variety of subjective ways, this underscores that all viewpoints regarding other marketplace phenomena always are cultural.

Survey the investor community in the same securities marketplace, whether a broad one such as US stocks in general or the narrower one of a particular financial instrument. Even with billions of dollars at stake, marketplace information has and acquires meaning only within and via subjective perspectives and thought processes. Since investors reason subjectively, they act in a variety of ways. The so-called smart money is never scientific. Even the band of allegedly objective, neutral, disinterested, or intelligent investment advisors do not all look at the same information, assess it in the same fashion, or interpret it in the same way.

Marketplace and other cultural facts are not like scientific facts. Economic information is not an objective "it", like natural physical science data in scientific observations and experiments. Marketplace information (variables) always is a subjective (cultural) phenomenon, not a natural physical science one. As cultural perspectives and thought processes are inescapably subjective, Wall Street phenomena- facts, data, news, factors, and evidence- will never have an objective (true for all) meaning, and marketplace players and other observers will never objectively deal with information according to the scientific method. Hence there always will be a great variety of reasonable (rational) marketplace (economic) viewpoints, talk, and actions. And all such rationality forever will be entirely subjective, never scientific.

The scientific propaganda and pretensions of many on Wall Street reflects and is assisted by the scientific rhetoric of economics and other social "sciences". Almost all economists and most Wall Street professionals promote economics as a science or some sort of science (perhaps a "soft" science). Most sell economics as an objective science or as a science that is mostly or approximately objective (scientifically rational). Economics allegedly is, or is like, or has substantial potential to become very much like, a genuine science such as biology, chemistry, physics, or engineering. Advertising and selling economics (including finance and risk management) as a science helps to sell Wall Street and Wall Street expertise to the public. After all, Wall Street is an economic realm. Promoting economics as science thus helps to sell trading ideas, especially investment ones. Artful scientific metaphors of economics and Wall Street help to foster and maintain faith in various illusions of objectivity. Since the would-be scientists, engineers, and doctors of Wall Street and the social sciences misguide themselves and mislead their audiences with their scientific claims and ambitions, it pays to further highlight economic language and several of its beloved dogmas.

Unlike real scientists, cultural observers- even in economics- never discover an objective world. Ten different cultural observers do not perceive, create, or invent ten different objective viewpoints. All ten perspectives are equally subjective. In cultural fields, as time passes, outlooks never march from a subjective wilderness toward an enlightened, holy land of objectivity.

Many cultural observers say or imply they seek objective knowledge or truth, whether for everyone or for a particular group. None of these hunters are scientists. Social science phenomena acquire meaning only due to and within the subjective perspectives of observers. In cultural arenas, there are no objective (true for all) definitions, propositions, viewpoints, theories, laws, or methods. So speaking with scientific metaphors, including romantic rationality language, does not transform someone into a natural physical scientist, or into an observer like a

scientist. The cultural worship of and battles to imitate the real sciences never discovers or creates genuine science, or anything like it.

Since the words "economics" and "investment" both are economic labels, why should one be objective and the other not? Investment, speculation, gambling, and hedging are all subjective words. From scholarly altars, economic preachers proclaim various definitions of economics. Despite their scientific ambitions and faith, venerated gurus disagree as to what belongs in a definition of economics, and why. To define "economics", what variables should someone choose to fill in the definition's blanks and create meaning for the word? In fleshing out the meaning of economics, how should those selected variables themselves be defined and organized (associated)? The subjective diversity of definitions of this crucial word- and other important economic tags such as inflation, recession, and unemployment- thus parallels that of important Wall Street labels such as investment and speculation. As definitions of words used within economics such as investment, recession, and gross domestic product reflect rhetoric rather than science, so should and does the general category. As there is no scientific investment, speculation, trading, hedging, or risk management, there is no scientific economics (either theoretical or applied).

Everyone knows that Wall Street hires economists. However, from the perspective of professional Wall Street insiders, cultural observers such as economists and central bankers that are not employed by Wall Street are so-called outsiders. Since Wall Street is an economic field, and as even outside economists and central bankers are never scientific, why should one ever trust any professional insider to be objective?

The famed economist, Professor Paul A. Samuelson, won the Nobel Prize in Economic Sciences. He was the Institute Professor at the prestigious Massachusetts Institute of Technology. Like "Sciences" in the Nobel honor, "Technology" conveys a natural physical science aura. Yet honors and titles do not alchemically create science (objective rationality).

Samuelson ("Economics", p3; author's emphasis underlined, italics supplied) asserts: "Economists *today* agree on a general definition *something like* the following: Economics is the study of how people and society end up <u>choosing</u>, with or without the use of money, to employ scarce productive resources that could have alternative uses, to produce various commodities and distribute them for consumption, now or in the future, among various persons and groups in society. It analyzes the costs and benefits of improving patterns of resource allocation."

As in the case of the word investment, authorities reasonably can and do disagree in their opinions as to what variables to include within the scope of economics, as well as to how to define these terms within it. How should one define money, society, resource, scarce productive resource, alternative use, cost, benefit, pattern of resource allocation, and so forth? Samuelson offers no proof that economists agree on this general definition. In this summary, he offers no details as to different past definitions of economics, or why a current definition is like or superior to these. His words "something like" indicate that there is quite a bit of room for definitional quarrels.

In the same breath (p3), Samuelson implicitly admits the subjectivity of all definitions of economics. He says: "Beginners often want a short definition of economics; and in response to this demand, *there is no shortage of supply*." He lists six quite different definitions. These include "Economics, or political economy, is the study of those activities which, with or without

money, involve exchange transactions among people." Yet there are numerous definitions of politics. What are the relations between economics (or political economy) and politics? Or, "Economics is the study of people in their ordinary business of life, earning and enjoying a living." "Economics is the study of how to improve society." "Economics is the study of wealth."

Samuelson makes important admissions. "The list is a good one. *Yet a scholar can extend it many times over*." The oracle continues: "It is always hard to compress into a few lines an exact description of a subject, *one that will differentiate its boundaries from those of other disciplines* and convey to the beginner all the things it is. Economics certainly does involve all *the elements stressed in these various definitions- and all those implied in the larger list that could be compiled.*"

Given this very extensive- arguably almost boundless- vista of subjective views on how to define economics, the scope for intelligent opinions (disagreement and debate) regarding economic propositions, arguments, and conclusions therefore is extremely wide. This subjectivity is the same as that of philosophy and other cultural fields. Definitions of other economic terms such as business, capitalism, commerce, and finance are as subjective as the word economics. How should one define wealth and capital? Is all wealth or capital economic (or financial)? Can political or social capital equal (be worth) money?

The absence of objective agreement on the economic field's content and boundaries parallels the subjectivity of its definitions, propositions, and theories. Despite its scientific rhetoric, and though it loves the alluring language of rationality, economics therefore is not even remotely akin to a natural physical science. However, economic and other social science perspectives, like those of philosophy and poetry, still can be subjectively useful to those that study and apply them. Like the "reasonable person" of the American legal world, "economic man" and "rational economic person" in their various versions are subjective heuristic devices. In their pursuit of knowledge, many economic theorists and Wall Street observers objectify other subjective concepts such as "The Economy". Within economics (however defined), mathematics, statistics, formulas, and models often may be "helpful", but they are not objectively (intrinsically) so. They also may be "unhelpful", as the subprime mortgage disaster and worldwide economic crisis that emerged in 2007 shows. In any case, their inclusion and application in economic discourse always is subjective. They reflect only the particular subjective viewpoint of the theorist. Don't many in economics and on Wall Street, especially those enamored with natural physical science, often have blind faith in their cherished models?

Though Professor Samuelson sings of "objective science", he concedes that economics is a subjective battleground with numerous perspectives. In his review of the "evolution of economic doctrines" ("Economics", ch42, pp839-857), he confesses (p839; italics supplied) "there is an *irreducible subjectivity inherent* in every objective science. How we are able to perceive the economic system must depend crucially on the *quality of the spectacles* through which *we* look at it." Samuelson lists various economic denominations and differences between them. These include classical economics (Smith- "the prophet of laissez faire", Malthus, and Ricardo), neoclassical economics (various versions; mathematics "introduced" into economics, p844), and mainstream economics (Keynes and post-Keynes). Joining this majestic parade of subjective theories are romantic and nationalist rejections of classical economics, institutional economics, conservative counterattacks against mainstream economics (Chicago School libertarians), Galbraithian critique, Marxism, and new left and radical economics.

Multiple schools within a subjectively defined field such as economics confirm the cultural character of that domain. All economic perspectives (schools, doctrines, philosophies) are equally subjective. Recall the great number of subjective perspectives regarding Wall Street phenomena. In Wall Street, the existence of an objective "we" is a fairy tale. Samuelson's suggestion that economic doctrines are undergoing evolution is a rhetorical strategy that seeks to create and maintain the spectacular fiction that economics is or can be objective (a real science), or almost so. Samuelson's "we" that looks at economic phenomena, despite his wishful thinking, is never objective. Not only do people look at economic and other cultural phenomena differently, they do so only with subjective spectacles.

Real science is never personal (cultural). The genuine scientific method is 100 percent objective, not partly so. Under the scientific method, genuine scientific truths always are completely true for all. They are never partially true for all. True sciences such as physics, chemistry, biology, engineering, and mathematics do not have an objective true part and a subjective (personal) section. Since cultural perspectives and thought processes are entirely subjective, it is impossible to objectively apply the rational scientific method of the natural physical sciences to cultural phenomena.

Economics is no exception. It is all rhetoric, and zero science. Like other cultural arenas, economics never discovers or expresses any objective truth. Like other subjective fields, economics tells stories.

Since economists, central bankers, and other financial experts on and off Wall Street are not scientists, they cannot objectively control the phenomena of their field. Objective power is not the same as rhetorical persuasion. They are not like engineers dealing with Nature that build roads and bridges or invent light bulbs. The words and actions of financial leaders and economic wizards subjectively may influence the thoughts and behavior of others, and thereby some marketplace outcomes, but they do not objectively influence them. The results of any given rhetorical display or appeal are neither objectively certain nor objectively probable.

Academic and media viewpoints in sociology, psychology, anthropology, and politics (political science) reflect personal ideologies, not the rational perspectives of real sciences like physics. The subjectivity within and regarding other social sciences mirrors that within and regarding Wall Street and economics. The definitions of these cultural subject matters and their relationships to other ones are themselves matters of opinion. Regardless of how one defines them, the social science disciplines never create scientific viewpoints. They are devoid of true for all definitions, propositions, and replicable experimental proofs objectively established according to the scientific method. The intellectual history of these playgrounds underlines there are numerous subjectively reasonable ways to define and analyze cultural phenomena, to structure (create) a cultural world. There are, have been, and always will be many subjectively rational definitions, principles, theories, strategies, and actions.

The leading sociologist Donald Levine, in "Visions of the Sociological Tradition", explores the fragmentation (diversity) of subjective perspectives, including national and intellectual traditions. In general, sociology apparently has a "self-image as a natural science" (p83). He nevertheless concludes: "What distinguishes sociology and, to a certain degree, all other social sciences [from the natural sciences] is their further division according to

*presuppositions that reflect philosophical differences*" (p271; italics supplied). He provides a schema of 18 different philosophical approaches that had emerged by the early 1970s.

The great number of presuppositions and philosophical differences reveals that the field is a cultural one. A subject matter such as sociology may have a self-image as a natural science, but such self-images by members of a cultural domain do not make that territory scientific, or prove that it is so. Believing or wishing that a cultural field is scientific will not make it so.

Similar diversity exists in psychology, political science, and anthropology. Psychological schools of Freudians, Jungians, behavioralists, and others proliferate. The political theories of Plato, Aristotle, Locke, Marx, and other important philosophers (or political scientists) have major differences. The distinguished anthropologist Clifford Geertz remarks regarding his field: *"there is no longer one prevailing standard for judging what the facts are- or for that matter, what a 'fact' is"* (NYTimes Magazine, 4/9/95, p44; italics supplied). He wonders if his analysis of others is affected by his observing them through the *"uncertain prism of himself*". Now recall Samuelson's "spectacles".

Some speakers label commonplace perceptions of cultural phenomena, perhaps involving mathematics or statistics, as science or social science. Cultural fields such as politics and economics of course involve real phenomena such as people and objects. Think of a vote tally in an American presidential election. Picture last month's worldwide purchases of refrigerators by consumers. However, neither the role of the senses in perceiving and interpreting cultural phenomena, nor the involvement of mathematical or statistical methods as part of this process, transforms cultural observations or propositions and conclusions related to them into objective ones. The observation and interpretation of political, economic, and social information,

regardless of how obvious or complicated it appears to a given subjective perspective, remains cultural. Definitions of and propositions related to terms such as politics and voting as well as economics and consumer demand are subjective. Although adding up votes is a mathematical exercise, it occurs and acquires meaning as "voting" only within culture. All interpretations and theories of voting behavior (whether by an academic, journalist, or Main Street observer) therefore remain subjective.

At first glance, the various social sciences and humanities may not appear to involve cultural values and thus theoretical or practical agendas that relate to opinions regarding good and bad individual or group action or desirable and undesirable institutional or social structure. But all these cultural disciplines explicitly or implicitly involve (reflect) values and programs in addition to the acquisition of knowledge for its own sake. Many mask their values and goals behind rhetoric of rationality and objectivity. Also, and though speakers are not always explicit, their economic, political, and social values are not divorced from ethical ones.

Depending on the cultural battlefield, debates rage as to which to embrace or prefer, the individual or some larger community, democracy or aristocracy, capitalism or socialism or communism, free markets or planned markets, and so on. Besides, how should one define capitalism? In addition to various scholarly definitions of capitalism, consider a Main Street one from Tony Montana, who rose to become a criminal kingpin in the movie "Scarface" (Brian De Palma, director). "You know what capitalism is? Getting fucked!" Are some types of capitalism better than others? What is a free market? Are Marxist and free market economics empty of opinions regarding good and bad? As values actively reside- even if quietly- in the rhetoric of these cultural authorities, emotion always plays a role within their perspectives and thought

processes. Regardless of their pretensions, these intellectuals are not beyond, above, or outside the world of values and emotions.

As in Wall Street and economics, different subjective perspectives exist in the humanities. The cultural field of the humanities includes philosophy and history, as well as so-called fine arts such as literature, poetry, painting, music, film, sculpture, and dance. In these rhetorical playgrounds, the subjective viewpoints, definitions, arguments, principles, methods, and interpretations are very diverse. In the humanities as in the social sciences, no scientifically rational observer such as Newton, Einstein, Darwin, or Edison studies anything like an objective (Natural) "out there".

Imagine a famed treatise on the Great Depression of the 1930s. Suppose the respected scholar that wrote this cultural history decides to revisit this topic. Assume that expert selects the same information as it did in its previous excavation and that its analytical method remains the same. Suppose the scholar reaches the same conclusions as before. From the personal perspective of that historian, the past really seems the same. But because this second study is just as subjective as the first one, the replication of experimental results is not scientific. It does not matter if that historian reached the same (or similar) conclusions after reviewing more (or even much different) information. Even if devoted pupils or other experts follow the subjective footsteps of the guide (perhaps varying the path somewhat), and declare the historical analysis to be true, the analysis and conclusions remain subjective. Since any and all reviews of a cultural past are subjective, approaches to and conclusions regarding it are never true for all.

Many humanists, regardless of whether they are theorists or practitioners, not surprisingly claim they are rational (reasonable) and objective. Many assert that they discover or express

universal truth for all. However, Plato, Aristotle, Kant, Hegel, Husserl, and Wittgenstein proclaim different philosophies, both in general and in regard to specific branches of philosophical inquiry such as epistemology. However, there is no objective proof that these geniuses represent various versions or parts of one true philosophy. The objective scientific method has not demonstrated that the doctrines of such enlightened philosophical sages represent journeys toward some ultimate objective truth for all. Neither poets nor ethical and political philosophers objectively satisfy the scientific method. Some humanists may study Nature, perhaps quite closely. Many poets and novelists write about Nature and use natural physical science metaphors. This does not enable them to escape subjectivity and make them scientists. Studying Nature from a cultural perspective (and thus in relation to cultural variables and with cultural aims) subjectivizes the Natural phenomena reviewed. The Natural phenomenon in the cultural context is a cultural phenomenon. There are numerous aesthetic ideologies. Arts such as painting have various subjective perspectives and strategies regarding a given topic. The vision of portraiture for ancient Egypt, Byzantine civilization, European medieval religious art, Rembrandt, Klimt, van Gogh, Picasso, and de Kooning is not the same, though they all paint pictures of people. Regardless of the fine art, the viewpoints of prestigious critics and connoisseurs are just as subjective as those of amateurs.

There's no reason to keep believing that perspectives, thought processes, definitions, methods, and actions are scientific (objective) when they are not. After all, faith in supposed science, like faith in other subjective doctrines, can have practical (including financial) consequences. Although we of course trust genuine science in a scientific context, there's no reason to trust that make-believe science- whether in economics, Wall Street, or anywhere elseoffers objectivity in outlook, strategy, or action. So a continued expose of various subjective economic notions that claim or aspire to be scientific (objectively rational) has merit.

As part of their theology regarding marketplaces and other economic phenomena, the imaginative, would-be scientists of Wall Street and economics devise a fable that we should label "the container theory". Federal Reserve Chairman Ben S. Bernanke comments: "the markets for longer-dated futures contracts are often quite illiquid, suggesting that the associated futures prices may not effectively aggregate all available information." He asks: "what information about the broader economy is contained in commodity prices?" (Speech on "Outstanding Issues in the Analysis of Inflation" at the Federal Reserve Bank of Boston's 52<sup>nd</sup> Annual Economic Conference; 6/9/08).

This ideology is part of their addiction to objectification. The container myth enables a supposedly objective placement or incorporation of "bodies (parts, types, elements) of information" into "The Economy" ("The Real Economy"; "The Financial Economy"), "The Market" (or "The Stock Market", "The US Dollar Trend"), "The Price", "The Fundamentals", "The Investment Outlook", and so on. Though supposedly scientific missionaries don't use quotation marks or capital letters for these terms, why not keep using them to emphasize the objectification (attempted science), to stress how crucial such allegedly objective words are to their subjective perspectives? In the container theory, any variable (such as the past, present, or future price) supposedly stands objectively apart from a scientific observer. However, no one has ever scientifically proven that containment exists or how it works. An objective (scientific) unitary body or entity such as "The Market", "The Price", or "The Economy" that summarizes or contains the participants (whether only traders or the entire world of observers), perspectives, thought processes, behavior, and other economic phenomena is a fairy tale.

It is a truism that a price is a number and that one can add up or subtract numbers. However, as a matter of formal logic, it does not follow from this that a price objectively contains information (data, facts, factors, or evidence) that adds up (whether by addition, subtraction, multiplication, or division of the "values" of such "bits" and "pieces"). The same principle applies to other cultural phenomena (information) such as the economy and marketplaces.

All perspectives regarding a cultural variable, including price, and its relationship to other cultural phenomena are subjective. As cultural phenomena (whether a part or a whole) are not "out there" independent of subjective perspectives, people perceive and give cultural information meaning in different ways. They subjectively define, select, and employ- and thus create meaning for- marketplace variables in diverse fashions. No one can scientifically assess the outlooks and activities of Wall Street participants (and other observers), for from the cultural standpoint those perspectives and actions are not objectively out there, apart from the viewer. Therefore, no one objectively can add up or assimilate the assorted subjective perspectives (and information within them) and behavior into the price (or the economy and so on). Subjective perspectives never can give an objective value to other subjective viewpoints (or to other marketplace information) and thereby generate an objective perspective on price. Also, since a price of course has no subjective perspectives and thought processes of its own, price cannot objectively mirror, reflect, sum up, or assimilate one or more subjective perspectives.

Thus information is never objectively, either quantitatively or qualitatively, "in" the economy, the price, or the poetic fiction of "The Market". Information is never built or incorporated into- or absorbed, digested, discarded, or discounted in or by- "The Market", "The Stock Market", or "The Price". Not even by the mystical Invisible Hand! Since neither

marketplace information nor the price are physical bodies or other Natural entities, and since marketplace information subjectively is incorporated within cultural perspectives, facts and news and statistics and so forth do not objectively hit the price (or the economy or a marketplace), or objectively cause prices to move. Besides, which facts hit the price, and when and how hard and for what length of time do they do so? A subjective perspective regarding the marketplace has a vantage point related to the price, yet that subjective perspective cannot be part of the price, because the price only acquires meaning by means of and within the subjective perspective. As the price (the economy, the marketplace) is not objectively perceived from any perspective, it has no true for all reality and cannot be an objective "container".

Other considerations display how information resides in subjective perspectives (and in diverse ways) and thus is not objectively contained in a price or elsewhere. Also, remember that Wall Street and other economic information take a variety of subjective forms. Imagine a speech, policy statement, or legislation. Even if one assigns a numerical value or qualitative "weight" to information, such assignment is subjective. Any calculation that follows remains an opinion. In addition, traders, the media, and others debate whether news is "old news" or "new news", as well as the extent of its importance. Of course a statistic released today by a governmental agency is new in the sense in that it was previously unavailable. Since even expert marketplace viewpoints are subjective, what is "new" and "old" and assessments as to its importance reflect opinion. One occasionally hears someone on Wall Street say that "the number was not a surprise" or "was already built into the price". That a subjective phenomenon surprised many people (or even the so-called "everybody") does not give that variable an objective reality. Thus the variable cannot objectively be contained in or otherwise affect the price. This statement on surprise, like other marketplace statements, merely offers an opinion.

Moreover, cultural information is made new (renewed, kept current) or outdated in many different ways. As time passes and as individuals change, an information variable may increase or recede in subjective importance to the given trader, salesperson, economist, or journalist. Or, that observer may emphasize it differently in its perspective in relation to other cultural facts. Cultural variables and views as to their interrelations and consequences are "contained" and "processed" subjectively, not objectively.

It also is extremely significant that each marketplace observer (participant) by its own perspectives and thought processes creates new information, both from current news as well as from the old facts and evidence in its personal viewpoint. Within each trader's or economist's or central banker's perspective, an individual way of looking at the world and at existing subjectively relevant marketplace information creates additional and thus new information. This ongoing process of placing in context and interpretation creates information on a "different level" within the given interpreter's subjective perspective. The "bare (raw)" fact or other variable figuratively becomes more. And it is not "objectively out there". This reasoning process is not a scientific one. Moreover, there is no evidence that this cultural information creating process "occurring within our head" and its results are objectively replicable.

For example, a subjective tapestry of information created by selecting and analyzing ("combining") company statistics, macroeconomic news releases, interest rate and foreign exchange and commodity factors is new (and can occur in an endless variety of ways), for various "parts" now comprise it. Some of these sections may be old. Or, a trader today for the first time could review some ancient history of corporate data released over the past several years. It might conclude that this so-called old news is currently relevant. Also, information previously reviewed by an observer may take on new importance (either more or less

importance), due to further study or consideration of fresh or old evidence. A fact "floating out" in the marketplace for months becomes relevant to and "falls into place" for some Wall Street high priest. Upon review of dusty data, some current information subjectively may become important, perhaps not. Suppose an all-star trader or research wizard "reads together" several years of company information, supply and demand data, and other fundamental or technical criteria. This reading together not only makes all that information current. "Now I've got it!" shouts the guru. Its review subjectively "puts the puzzle together" to give birth to one or more new informational insights.

Since viewpoints regarding Wall Street and other economic phenomena are subjective, they are never objectively complete, incomplete, sufficient, or insufficient. However, the theory of objective completeness enables many supposed natural physical scientists- whether central bankers, economists, or trading idols- an escape hatch. Rather than blame themselves for an unsatisfactory outcome or explanation, they abdicate personal responsibility by blaming data availability and adequacy.

For example, from his pulpit as a Federal Reserve Governor, Frederic S. Mishkin offers his opinion about "problems" related to "the recent experience with house prices in the United States". ("How Should We Respond to Asset Price Bubbles?", at the Wharton Financial Institutions Center and Oliver Wyman Institute's Annual Financial Risk Roundtable, Philadelphia, PA; 5/15/08). He whimpers: "These problems became apparent only in retrospect, in part, because the growth of the originate-to-distribute model for mortgages was an ongoing innovation in financial markets; as a result, neither the market nor regulators had sufficient information for evaluating the nature of the risks involved." He omits to mention that some people (even some regulators) were worried about housing and other intertwined issues before the housing and economic crises emerged. An old friend of the would-be scientists appears, "the market", no doubt hungry for information. His touching faith in objectivity also appears in his theory that "the risks involved" have a "nature".

Rather than admitting mistakes or failure, why not assault the data? Chairman Bernanke provides another sample of this orientation. He purrs: "The necessity of making policy in real time highlights the importance of maintaining and improving the economic data infrastructure and, in particular, working to make economic data timelier and more accurate. I noted the problems in interpreting existing measures of labor compensation. Significant scope exists to improve the quality of price data as well- for example, by using the wealth of information available from checkout scanners or finding better ways to adjust for quality change. I encourage researchers to become more familiar with the strengths and shortcomings of the data that they routinely use. Besides leading to better analysis, attention to data quality issues by researchers often leads to better data in the longer term, both because of the insights generated by research and because researchers are important and influential clients of data collection agencies." ("Outstanding Issues in the Analysis of Inflation"; 6/9/08). Since the economic environment is a cultural rather than a Natural one, improvements in "the economic data infrastructure" remain subjective and will not enable Bernanke or anyone else to become objective (even a little bit) in their economic perspectives, including their perception and handling of information.

In cultural fields as in science, talking about information intertwines with wordplay regarding perspectives on information. All cultural fields have ways of looking at, understanding, and explaining phenomena. Experts as well as amateurs in games, love, war, politics, religion, and the fine arts call these theories, belief systems, worldviews, frameworks, laws, and so forth. Another popular label in economic discourse is "model". Economic models can have subjective heuristic value for some observers. However, in cultural fields, the religion of scientific rationality erroneously portrays these models and definitions, propositions, and theories related to them as scientific (or mostly or nearly so). Even if venerated economists and their congregations worship the economic model, their faith does not miraculously produce either objectivity or objective truth. Since perspectives on (including definitions of) marketplace phenomena are entirely subjective, all economic models are matters of opinion, rhetorical expressions rather than genuine science. Claims of scientific or scientific-like models (theories, doctrines, laws) by fields such as economics, even if made in good faith and surrounded by other scientific metaphors, always are counterfeit.

We know the theoretical and applied natural physical sciences provide a real possibility of objective understanding of Natural phenomena, as well as the possibility of objective control over or management of the consequences related to some Natural phenomena. Economic models, like belief systems in other cultural fields, permit only subjective understanding and control (influence). Economic models are rhetoric, not science. Thus an economic model and its application of course persuasively can influence economic (and other cultural) thought and action- and thus outcomes. However, it does not objectively control or otherwise affect them like a scientific experiment or engineering effort. Recall the occasional Wall Street warnings that past performances are not necessarily repeated (do not guarantee future results). Faith in the propaganda that Wall Street rocket scientists and engineers, economists, and central bankers have objective models (or mostly or approximately objective ones) can inspire the illusion that such wizards can now- or at some future time will be able to- exercise objective control over (or at least influence) phenomena as or like authentic scientists. However, scientific knowledge of or influence over "The Economy" (and other economic phenomena) is a science fiction. It is a fable that scientific models of Wall Street marketplaces exist, or that they ever will. It is a fairy tale

that marketplace outcomes (think of money making and risk management) objectively can be influenced by the embrace and application of a model.

In addition, the myth of scientific models preached by the fake scientists of economics and Wall Street nevertheless permits these advocates to evade or minimize their responsibility for their marketplace opinions. Thus "blame-the-data" has a relative, "blame-the-model". Sometimes blame-the-model enables the oracle to devoutly proclaim that no one (or almost no one) could have foreseen the cultural processes or outcome. However, be on the lookout for scientific metaphors in these explanations. In his "Reflections on the current financial market correction", the President of the European Central Bank, Jean-Claude Trichet, sprinkles such rhetoric (International Capital Market Association's Annual Conference in Vienna, Austria; 5/15/08). "Whilst the trigger for the turmoil was clearly a myriad of problems associated with the US housing market correction, the sharpness and speed of the contagion to unrelated market segments revealed vulnerabilities with a nature and complexity that had not always been well understood. A constellation of- in my view- three broad factors already individually known to market participants and policy makers alike well in advance of the turmoil have reinforced one another in a way that almost nobody could have foreseen. These factors are an abundance of liquidity that underpinned a build up of leverage in the financial system, an increasingly interwoven and complex financial system the growth of which was fed by financial innovation, and some financial agents' incentives that were aligned against prudent practices."

Note also the International Monetary Fund's essay, "Credit Market Turmoil Makes Valuation Key" (1/15/08) in regard to the subprime mortgage crisis. "The unexpectedly poor performance of the underlying collateral of recently originated mortgage loans required abrupt changes in the models." And: "Modeling assumptions affected the expected performance of structured securities." Some may wonder who should (and who will) take responsibility for convincing so many people that the original models were good and reasonably conceived.

Genuine sciences such as physics, chemistry, and biology seek to improve their objective models and methods. They often succeed. The purported scientists of cultural fields such as economics and Wall Street also strive to improve, but they cannot escape culture. So despite their hopes, effort, and rhetoric, they can never advance toward objectivity. Though central bankers, economists, Wall Street traders and risk managers, and others battle to improve (develop, repair) their subjective models and inputs, all viewpoints involving such changes and their success remain subjective.

A variation of the blame-the-model effort is the "fix (change, improve)-the-model's inputs" rhetoric. The US House Committee on Oversight and Government Reform held a hearing on "The Financial Crisis and the Role of Federal Regulators" (10/23/08). Alan Greenspan, the former Chairman of the Federal Reserve, testified before the Committee. This sage declares: "It was the failure to properly price such risky assets [US subprime securities] that precipitated the crisis. In recent decades, a vast risk management and pricing system has evolved, combining the best insights of mathematicians and finance experts supported by major advances in computer and communications technology. A Nobel Prize was awarded for the discovery of the pricing model that underpins much of the advance in derivates [derivatives] markets. This modern risk management system held sway for decades. The whole intellectual edifice, however, collapsed in the summer of last year because the data inputted into the risk management models generally covered only the past two decades, a period of euphoria. Had instead the models been fitted more appropriately to historic periods of stress, capital requirements would have been much higher and the financial world would be in far better shape today, in my judgment."

Greenspan does not employ the label "objective" in regard to the pricing theory. However, references to insights of mathematicians and finance experts, computers and communications technology, and "discovery" of a Nobel-winning model displays faith that the wonderful doctrine is an objective one. Greenspan's blame-the-input comments fight to insulate the model (cultural theory) from criticism, thus preserving belief in it (and in its objectivity). Yet doesn't the remark about the collapse of an entire "intellectual edifice" itself hint at the subjectivity of that structure?

However, think of the subjective design of any economic model (theory). These always include decisions as to the subjective definitions, selection, and use (application) of so-called relevant variables. Just as models entirely and inescapably reflect cultural perspectives and thought processes, viewpoints regarding and decisions related to inputs to these models are equally subjective. For example, the relevant historical time span to select for marketplace or other cultural analysis is not objectively decreed by or inherent in Nature. Definitions of periods of euphoria and periods of stress (like other views of marketplace "conditions") are matters of opinion. As all economic models- including Wall Street trading ones- and their inputs are subjective (rather than scientific), so are all outputs from them.

The would-be scientific tribes of Wall Street and economics have other expressions of their impossible dream of science. As part of their ambitious storytelling, they express faith that marketplace probabilities, risks, and causes are objective. How can they show that "Probability", "Risk", and "Causation" in cultural arenas are scientific phenomena? They do not and cannot prove this. Do they identify objective probabilities, risks, and causes in cultural practice and within cultural history? They do not and never can accomplish this. Cultural probabilities, risks, and causes do not objectively exist "out there" in marketplace phenomena. Viewpoints on cultural probabilities, risks, and causes are never scientific; they are always entirely subjective. A conclusion as to economic probability, causation, or risk is never objectively determined since it always derives from the subjective perspective and thought processes of the viewer. Like other key cultural labels, definitions of probability, risk, and cause (and their application) are subjective.

However, as elsewhere, these counterfeit scientists nevertheless have faith that their subjective perspectives on phenomena are objective. Their science fiction requires that marketplace variables exist as objects of study "out there", entirely separated (independent) from their subjective perspectives. In particular, these evangelists believe they can scientifically perceive and analyze marketplace phenomena (information, data, facts, statistics, factors, and evidence). If you can objectify the individual variables, why not objectify their relationships (including their consequences)! So they objectify not only particular phenomena, but also groupings of (their subjective associations between) variables. Thus would-be scientists study allegedly objective variables (information) to produce supposedly objective (true for all) views on probability, risk and causation.

However, the identification, selection, emphasis, and arrangement of cultural variableslike the cultural perspectives and thought processes themselves- is entirely subjective. Viewpoints regarding the correctness (or incorrectness) of such relationships between phenomena, including opinions regarding "cause and effect", express faith rather than science. There is no objective proof that Natural (objective) laws determine or guide any cultural past, present, or future. As the perspectives on and choices relating to "inputs" regarding a probability, risk, or causation viewpoint are cultural, the probability, risk, and causation "outputs" (conclusions) are subjective. The subjective establishment and sustaining of linkages (associations) between cultural variables requires subjective reasoning stretches, jumps, and leaps. So the opinions on probability, risk, and causation (and differences between these opinions) reflect this cultural rationality (subjectivity). More on cultural reasoning follows in "Cashing In: Words, Thoughts, and Poetry".

Thus there is no scientific proof that marketplace phenomena occur with objective certainty, probability, or randomness. For example, there is no scientific proof that prices for any time horizon (past, current, or future) are objectively (Naturally) distributed according to the beloved theories and models espoused by the supposed scientists of economics and Wall Street. The imposition of mathematical or statistical methods always occurs subjectively, and so they never transform a cultural field or its variables into scientific ones. Like the cultural phenomena in the cultural fields of games of skill, love, war, politics, and fine arts, history for marketplace phenomena does not objectively fit or obey scientific probability principles. In practice, the lack of subjective agreement on marketplace probabilities (and causes) parallels and reflects the inescapable subjectivity of cultural perspectives and thought processes. In addition, don't marketplace warnings about past (trading) performance being no guarantee of future results underline that cultural probabilities are a subjective phenomenon?

In a scientific field of inquiry (a natural physical science), including a laboratory, we objectively know what a real scientist is. Regardless of their realm of study, all scientists objectively employ the scientific method. Via the scientific method, the scientific community in a given arena develops shared objective understandings (or have an objective lack of knowledge) regarding the probabilities of and causes for Natural phenomena. Compare a Wall Street marketplace. If marketplace variables (information), probabilities, risks, and causes were scientific phenomena (existed objectively), would there be such diversity in the perspectives on, explanations of, and strategies and actions taken in regard to them?

Within the American Dream and other cultures, acquiring and keeping the good and reasonable ends such as money, political power (liberty, freedom), and social respectability (and avoiding bad outcomes) requires probability assessment. In a cultural field, as part of their rhetorical quest to enlighten others and to persuade them to think and act in a desired way, authorities and their friendly pupils offer opinions regarding probabilities relevant to that arena. These professors often offer guidance on the related topics of risk and causation.

In the war movie "The Dirty Dozen" (Robert Aldrich, director), Major John Riesman declares: "I never went in for embroidery, just results." Probability talk- which includes the language of certainty and randomness- can refer to the past, present, or future. Some expressions of probability are quantitative (95 percent), others qualitative (very likely). A probability is objective when the phenomena are Natural, like planetary orbits or quantum particle distributions.

Obviously, human beings on Wall Street and Main Street exist from the standpoint of natural physical sciences as Natural phenomena. The cultural world has a physical basis. Traders are not imaginary beings. Marketplace transactions are not fanciful events. Observers in Wall Street and in other cultural battlefields- not just professional meteorologists or other scientistsobjectively can ascertain the Natural characteristics and probabilities of Natural phenomena such as cold weather. However, apart from these considerations, the probability perspectives in cultural domains related to Natural phenomena are entirely subjective. Natural phenomena, including their Natural probabilities, are "subjectivized" (become cultural phenomena) alongside

other variables within cultural perspectives. The cultural (as opposed to the scientific) meaning and consequences of what did or did not happen, is or is not happening, or will or will not occur, and why always and entirely depends on and reflects subjective outlooks.

Natural phenomena like weather and their Natural probabilities do not objectively influence (act as a scientific cause) upon price. Only in a metaphorical sense does "weather affect (move) price". In marketplaces as in other cultural playgrounds, people subjectively incorporate Natural phenomena (variables) within their perspectives in a variety of ways. In culture, people via their subjective viewpoints and interactions with others trade at a price. Whether, how, and to what extent subjective viewpoints and decisions regarding freezing weather in the Northeast will influence US natural gas prices, if at all, is a matter of opinion.

Assorted wizards inside and outside Wall Street have devised an assortment of enticing subjective models- many employing a great deal of mathematics and statistics, many apparently quite complicated, many resulting from multimillion dollar expenditures- to understand and forecast marketplace phenomena. Mathematics and statistics assist in the creation of opinions regarding marketplace probabilities relating to past, current, and future price action, real GDP, inflation, and so on. Objective mathematical and statistical principles, methods, and formulas of course remain objective within the Natural environment. Their intrinsic rules are not abolished when people apply them regarding (within) a cultural field such as Wall Street, social "sciences", or the humanities. However, as with other Natural phenomena, once embraced from a cultural perspective, the mathematics and statistics become entirely subjective phenomena. Thus their application within a cultural field is completely cultural, not objective. In cultural contexts, mathematics and statistics do not get a vaccination that prevents them from catching subjectivity. Remember that the mathematics and statistics relate to and are incorporated within a subjective

perspective that always is only true for some. The math and statistics subjectively intertwine with price level and fluctuations and other Wall Street variables (information) that the Wall Street observer already has sewn into the fabric of its personal viewpoint. Thus regardless of whether or how a trading hero or revered economist or other player deploys the armada of mathematics and statistics, probabilities for and causes of marketplace phenomena, including future outcomes and events, are never objective (Natural, scientific, intrinsic).

Despite all the mathematics, statistics, and other scientific rhetoric, always keep in mind what we hear and see in marketplace practice. In Wall Street, subjectivity is reflected not only by the great variety of outlooks (and experts), but also by the diverse actions in any given marketplace. Note the fervent debates regarding the probabilities relating to price movement, disagreements regarding the importance and consequences of statistical indicators such as real GDP or unemployment, and quarrels surrounding the implications of economic and political policies.

In viewpoints regarding cultural fields, not everyone claims to be (or be like) a scientist. However, Wall Street and economics, talk of objective probability, causation, and risk plays an important role in the entertaining theater of rationality rhetoric. Numerous would-be rocket scientists and financial engineers infatuated with natural physical science and its vocabulary speak of marketplace probabilities, causes, and risks as if they were objective phenomena. Much of their bewitching wordplay employs alluring scientific metaphors, including allegedly objective scientific principles and methods.

Faith in objective probabilities offers the Wall Street gunslinger, risk management expert, central banker, and economist the comforting illusion that it can think and act as (or very much

like) a real scientist. Yet why else might Wall Street and its allies adore this charming language of objective probability? Suppose probabilities relating to marketplace outcomes, notably those relating to future price, are objective. Then, as genuinely scientific fields have experts, there must be objective Wall Street wizards and economists that can offer profitable guidance related to these probabilities. These scientific pretensions thus assist Wall Street's effort to romance people to play on and stay within marketplaces. Given Wall Street's need for investors, especially in securities marketplaces, much of this oratory focuses on investment.

Within a cultural community, disagreements as to the past, present, and (especially) future probability of a particular marketplace phenomenon can wax or wane. Similarly, within any individual's subjective perspective, opinions regarding probability, causation, and risk of course are not written in stone. However, within a cultural arena, many cultural "facts" are taken for granted by the majority of cultural players. Tradition influences outlook and action. Otherwise disorder would triumph. However, this taking for granted does not allow these facts and related probability viewpoints, risk assessments, and opinions regarding causes to escape culture and become objective.

Everyone would agree that it is objectively unreasonable (some would say insane) to use information such as where a painting hangs in a museum or what someone's doorknob collection is in order to predict US stock marketplace prices. Is it sensible to cast bones, roll dice, or use a Ouija board to assess marketplace probabilities and make trading decisions? Most would conclude that regardless of the trading arena, these subjective trading perspectives and related strategies are objectively irrational. In a few cases, whether a marketplace viewpoint and method are objectively irrational or unreasonable is open to debate. Many may share an opinion that a trading perspective, including its probability assessment and strategy, is unwise. Yet is it objectively unreasonable as a matter of natural physical science? There may be some close calls. Do we know all the motives of the player? Not all of them may be so-called "economic" ones.

Picture someone who has always acted "reasonably" in their personal and professional life. Suppose this individual, who has modest financial means and relatively limited trading experience, established "significant" long positions in several US equities. Suppose these instruments had, in the opinion of many veteran professionals, moved "substantially" up and down over all three month time intervals over the past ten years. Suppose this portfolio of positions was "highly leveraged". A "tiny" percentage decline in prices would vaporize the entire net worth of the trader and plunge it deeply into debt. Assume the trader did not engage (as far as anyone could tell) in any "significant" probability assessment. However, the player declared the trading idea "felt good". It did not possess any inside (confidential) information on the stocks. The trader then embarked on a twelve month cruise without newspapers, telephones, or other means of information or communication. It gave no one authority to trade on its behalf in its absence. This individual and its trading perspective and behavior may not be medically insane, demented, or crazy. Many Wall Street participants and others would label the trading viewpoint and strategy objectively unreasonable or irrational.

Most Wall Street observers agree that some Wall Street probabilities are more likely than others, especially if the time horizon from now to the future time is "brief". For example, a wellcapitalized financial institution in business today probably will remain in business tomorrow. However, what about six months from now? Take another case. Suppose the daily settlement price of a financial instrument for the past twenty years has moved no more than one percent between closes from any given day one to day two. Assume that relative to the close of day one, the next day's intraday high price never exceeded the day one close by more than three percent. Assume the same for the next day's intraday low price. Most veterans would assert that this instrument is quite unlikely to be up or down ten percent in the next few minutes or by the close of the next trading day. When cultural probabilities are widely agreed to be very low, they are taken for granted. So many viewers mistakenly view them as objectively perceived and determined. Nevertheless, as Wall Street and other economic arenas are not natural physical science worlds, the probability distribution of these future prices or other events (such as an economic crisis) nevertheless is not fixed objectively. A couple of Wall Street proverbs underline this. "Never say never on Wall Street." "The impossible happens at least once or twice every year on Wall Street."

A majority of players or experts at a given point in time in a particular Wall Street game such as United States long-term Treasury bonds may agree as to the probability of a future event. However, a majority vote of opinions, even if labeled a consensus or reasonable by some scholarly committee of experts aiming to create a scientific aura, does not magically transform cultural probabilities into Natural ones.

In the natural physical sciences, objectively random phenomena (including outcomes) indicate an event or process that is very unlikely or without pattern, and yet is nevertheless objectively foreseeable and describable. Put Natural (objective) randomness to the side for a moment. In cultural fields, experts and amateurs subjectively define words such as randomness, luck, fortune, chance, and surprise in various ways. All refer to probability, yet all reflect a personal attitude regarding whether a cultural phenomenon (event; process) is average, normal, typical, or expected. Since the perspectives of economic observers are subjective, their probability assessments related to marketplace randomness, luck, and so on inescapably are so. What is foreseeable in Wall Street and other economic arenas, and hence what is lucky or random, is only an opinion of the given player or professor. In general, there is no objective (intrinsic) randomness, luck, fortune, chance, or surprise in Wall Street.

The probability, occurrence, or nonoccurrence of an objectively random Natural phenomenon may affect the subjective perspectives of some cultural observers. Yet it will do so in different ways. In the cultural context, the laws of Natural randomness do not disappear. However, in subjective arenas- as is the case with mathematical and statistical formulas- the Natural phenomenon becomes permeated with subjectivity. Some cultural participants may not even include that Natural variable and the objectively random probabilities related to it within their analysis. In cultural playgrounds, our response to a surprising Natural or cultural event remains subjective. A noteworthy fire due to lightning in our trading room may be a surprise and influence our near term position taking. We may close all our open trades before or not long after we flee the building. Or, an all-star leader of a trading desk may die due to a motor vehicle accident, thus affecting the team's morale.

View traders in a broad marketplace, such as United States stocks in general. Or, picture them in a narrower Wall Street arena, such as IBM, a recently issued 10 year US Treasury note, the US dollar versus the Japanese Yen, or gold. That perspectives within and regarding marketplaces are always cultural and never scientific is seen by examining the word "crowd" and thinking again about Wall Street's players (including its bulls and bears).

Like cultural words such as investor and economics, people can define crowd in various subjective ways. Depending on one's theory, there could be various types of crowds. Some popular definitions of crowd suggest that it is entirely, or at least largely, unified in viewpoint and action. Regardless of whether one is speaking of a broad marketplace or a given financial instrument, the great diversity of subjective perspectives and thought processes and the variety of actions show that traders in a Wall Street marketplace are not such a unified "homogeneous body". The same diversity in reasoning and behavior exists in regard to others that are not trading such as salespersons, research analysts, risk managers, and economists.

Besides, since players such as investors, speculators, dealers, bulls, bears and so forth differ in their subjective perspectives, thought processes, and actions, how can there be a homogeneous marketplace body or entity such as "The Market" or "The Stock Market"? It is a fable that marketplaces or "The Market" objectively is or has a shared (collective, unified) mind, soul, consciousness, psychology, thought, or behavior. As Wall Street participants (observers; communities) are diverse in subjective reasoning and action, neither "The Price" nor "The Market" objectively equals or represents a sum or assimilation of these players (and the variety of other subjective variables). Supposed scientists- like poets, religious believers, and other cultural participants- can reach subjective conclusions via leaps of faith. Yet despite their love of science and faith in objectification, would-be scientists- even learned economists or Wall Street rocket scientists- can never transform cultural phenomena (marketplace participants and other information) into objective entities. The price merely reflects a transaction between participants. The meaning for price, like that of other cultural variables, is subjective and personal, never objective and true for all.

Assume a Wall Street stock, debt, currency, or commodity marketplace. If marketplace probabilities were objective (and knowable), cultural players (or at least experts) would tend to reason, talk, and act the same (or at least similarly) in regard to them. That's what happens in real science. Yet why are there bulls as well as bears in marketplaces? These players by their diverse words and actions display the subjectivity of their perspectives in general and of their probability viewpoints in particular. Probability exists subjectively in the particular cultural perspective, not objectively in marketplace phenomena. Cultural probabilities and risks are subjective, not scientific. Stories of battles between bulls and bears reflect the diverse choices made by those fierce creatures regarding marketplace perspective (including information selection, evaluation, and creation), strategy and tactics, and trading time horizon. As such Wall Street players trade (and analyze and advise) differently, they must to some degree think (reason) differently. To trade, someone must buy while another sells. All else equal, someone would not sell at a given moment unless it believed that the price had a fairly decent likelihood of falling. Someone would not buy at that instant unless it believed the contrary. Also, at a given moment, some experts are bullish, and some are more bullish than others. Yet some gurus advise selling. The so-called crowd is quite diverse. Incidentally, no scientific proof shows that "The Market", The Price", or a unitary crowd objectively represents the bulls (longs) and their perspectives and actions while simultaneously doing the same for the bears (shorts).

Nature repeats itself (has objective certainty, probabilities, and randomness). So in a scientific laboratory, the scientists apply the same strategy to objectively replicate a given experimental result. Compare what occurs in marketplaces from the investment (or any other) perspective. Marketplace outcomes (including investment ones), unlike those of science, are not replicated; past performance does not guarantee future results. If marketplace probabilities were objective, wouldn't trading results repeat themselves in scientific fashion?

Picture either a fairly broad benchmark such as the S+P 500 or a given instrument such as a blue chip stock. Keep in mind that an objective investment crowd (community) is a fable. Both investor and crowd are cultural concepts. Despite efforts at objectification by would-be scientists, "Investors" (or "The Investment Community", "The Investment Crowd") are not scientifically out there. Anyway, the (subjectively defined) investment community does not share identical marketplace perspectives and thought processes, or behave with sufficient similarity or simultaneity for it to be viewed as a homogeneous body (or crowd). If marketplace probabilities were objective, then investors would tend to reason and act the same or similarly in regard to them. However, not all investors (or bulls) think or act the same. The diversity of perspective and behavior within marketplace investment communities underlines that investment- and all othermarketplace probability assessments are subjective. Recall the wide assortment of fundamental and technical strategies employed by rational, reasonable, intelligent, and prudent stock investors. There are short term, medium term, and long term investors. Do investors all act at the same time? No. The same variety applies to investment analysis and advice, whether within Wall Street or from outside economists, consultants, and the media.

Of course in a relatively narrow cultural community, many players think and act in similar ways. Think of so-called long run buy and hold fundamental investors in US equities. Definitions of long run, fundamental, and investor remain matters of opinion, so who belongs to this group is a matter of opinion. However, even in a particular stock, the long run fundamental investment gang is not a crowd unified in perspective, thought processes, and action. Within the given marketplace, not all these long run fundamentalists- even expert ones- assess probabilities in the same fashion or reach the same conclusions regarding them. Do they select and handle marketplace variables in the same way? No. Not all their fundamental strategies and tactics are the same. Not all community members trade at or around the same time.

Investors and their investment advisors do not all reason in the same way, adopt similar strategies, act at the same time, or give the same advice, for they have differences in subjective perspective and thought processes (including "intelligence", experience, character traits, and the so-called relative balance of reason, emotion, and instinct). Since cultural observers do not have (share) an objective perspective, even members of a community of investment experts cannot develop a scientific view regarding marketplace probabilities.

Let's focus a bit on tactics to further show that marketplace probabilities are subjective (belong to cultural perspectives) rather than Natural. Wall Street generals arm investors (and others) with a battery of fundamental (and technical) tactical approaches as to when and how best to enter or exit a marketplace. Suppose a long run investor (perhaps even a fundamental one) wonders when and how to purchase a given stock. Some may prefer to buy "at or below value", or on support, on a price dip, or on weakness. A different long run bull may elect to buy on so-called strength or on breakouts, going long only on a move enough beyond a given price number or range. Doesn't the difference in tactics reflect variation in probability assessment? Also, what is fair (true) value, support and resistance, weakness and strength, a sufficient dip or breakout, and so on are matters of opinion. In addition, don't long run investors in US stocks react to their marketplace gains and losses in a variety of ways? Again, people who act differently are reasoning differently.

"What is the risk" is another way of asking "what is the probability (likelihood)?" The subjective viewpoints on cultural risks express opinions regarding cultural probabilities. Though marketplaces involve risks, this does not make risks objective phenomena. Which information should we look at, how should we study it- and why? In their marketplace risk assessments, observers define, choose, associate, and evaluate variables from subjective perspectives, not scientific ones. Regarding the risk issue, the counterfeit natural physical scientists of Wall Street and economics again promote the falsehood that one can objectively perceive and analyze marketplace information. Just as their sermons and scriptures sow the error that marketplace probabilities are objective, these evangelists promote the science fiction that risk objectively inheres in marketplaces and financial instruments- as well as the fantasy that observers can have objective perspectives on marketplace causation.

Like other cultural terms, there are various ways to define and categorize risk. As perceptions and analyses of marketplaces are subjective, so are variables such as price risk, credit risk, liquidity risk, and so forth. Much Wall Street wordplay spends time on price risk. Enthusiasm regarding price risk of course reflects widespread interest on issues such as whether, in what direction, when, how far and how fast, and why prices of financial instruments will move. But price does not escape culture. It is not a planet, a chemical compound, or animal objectively available for scientific inquiry. As the price is not separate and apart (out there) from subjective perspectives, neither is price risk. There is no objective "The Market" or "The Economy" in which an objective price or price risk inheres.

Again, look at the variation in marketplace perspectives, talk, and action. Which variables should be chosen to reach a viewpoint on price risk (probabilities)? All choices are subjective. Within marketplace risk assessment perspectives (theories, models), the association and emphasis of information- and other reasoning- regarding those variables is always cultural, never scientific. Observers place price and price risk, like other information such as unemployment and

inflation and views regarding marketplace players, in subjective context in a variety of reasonable ways. As probabilities related to a marketplace and its phenomena, are not objective viewpoints on probabilities relating to price risk likewise reflect opinions. Think of any given marketplace. The great variety of trading strategies (including those called risk management ones) and the corresponding diversity in trading practice reveal the subjectivity of risk assessment. Risks never objectively (scientifically) inhere (exist) in marketplaces, financial instruments within them, or "The Economy"; they subjectively exist within a given cultural perspective.

In genuine sciences such as physics, chemistry, biology, and engineering, true for all conclusions regarding the causes of (and relationships between) Natural phenomena require demonstration and proof via an objective application of the scientific method. Suppose one enters a cultural realm. Someone asks: "Why did US stock prices rally?" Depending on the speaker, answers vary and are not objectively definitive. Responses may or may not include one or more comments like: "The Federal Reserve cut interest rates", "interest rates have been falling", "investors moved off the sidelines", "that investment bank finally got bullish", "short covering", "the GDP number was stronger than expected", "crude oil prices fell sharply", "the dollar trend changed", "it held major support", "the S+P 500 closed above its 200 day moving average", and so forth. In developing viewpoints regarding marketplace causation (and relationships) observers choose and assess cultural data, news, facts, factors, and evidence in a great variety of ways. In general, what are the causes of economic growth, recession (depression), or crisis? What are the causes of the recent recession? Here too, explanations regarding causes are entirely subjective.

In culture, subjective viewpoints and rhetoric on causation express faith in a relationship (association; linkage) between variables. In cultural perspectives and discussions of causation, subjective probability viewpoints are inescapable. Imagine "this" caused "that" effect. The phenomena of the "this" are subjectively selected and reasoned about (in someone's opinion, viewed as the probable causes). So therefore is the relationship between the "this" and the "that". Besides, as a cultural effect is itself always subjectively viewed (effects are variables, too), so must its relationship with any or all of its alleged causes.

In cultural realms, everyone knows that many people or newspaper headlines may agree as to one or more reasons. An explanation may be one short answer, an extremely complex discussion, or something in between. In cultural fields- whether games, love, politics, war, religion, the fine arts, economics and other social sciences, or Wall Street- widespread agreement never constitutes objective demonstration. Because perspectives on marketplaces and their phenomena are entirely subjective, all viewpoints on marketplace causes and causation likewise are rhetorical rather than scientific. For cultural arenas such as Wall Street and economics, since perspectives and thought processes always are subjective, there is no requirement that speakers agree in their viewpoints on causes (and consequences of causes).

Many of the supposed or would-be scientists of Wall Street and economics seek to hide under the bed covers of scientific objectivity in order to escape responsibility when marketplace events or processes baffle or surprise them. One hears them whine about how a cause or an effect was objectively unforeseeable (or almost so), improbable (perhaps highly so), or random. One hears them groan about how difficult or impossible it was for anyone to perceive and understand the fine (subtle; complex; hidden) links (or significant connections) between such-and-such phenomena. However, since economic probabilities and risks as well as causal explanations

(including relationships between phenomena) and predictions are subjective, they must blame themselves. They just missed it. There is more than one subjectively reasonable way to view a cultural domain.

Since perspectives on (including definitions of and propositions regarding) Wall Street and other economic phenomena are cultural, as viewpoints on probability, risk, and causation are matters of opinion, words on and regarding Wall Street are extremely extensive (some would say endless). The diverse evangelical viewpoints continuously compete for audiences and disciples. However, in this as in other rhetorical universes, arguments are never objectively proven. This great diversity in subjective outlook and explanation is reflected by and consistent with the variety of marketplace actions and advice.

The uncertainty of future Wall Street outcomes, especially in relation to price, inspires volumes of words and heated debates. The renowned physicist Werner Heisenberg discovered natural physical science's uncertainty principle. In "Physics and Philosophy" (p162), he states: "in quantum theory the uncertainty relations put a definite limit on the accuracy with which positions and momenta, or time and energy, can be measured simultaneously." As both economic culture and objective natural physical science speak of uncertainty, many supposed scientists of Wall Street and economics leap to erroneous conclusions. They imagine the objective uncertainty principle of physics is relevant to Wall Street and economics. This is part of their delusion that the phenomena of Wall Street and other economic domains are scientific and that one can objectively study them via scientific principles and methods.

Why are these aspiring scientists wrong? First, uncertainty relating to a financial outcome is not the same as accuracy of simultaneous measurement. Also, and most importantly, objective

accuracy of simultaneous measurement of two variables such as positions and momenta is not the same as the subjective selection and application of one or more variables to "position" another one. All selections of and presentations and propositions relating to Wall Street time, price, and other information are subjective. A financial instrument's "location" is "precise" (whether in one's perspective or on a chart), yet not objectively so, because in culture all presentations involving time and price (and other variables are subjective.

At the quantum level as well as in a cultural arena such as Wall Street, measurement of course involves an observer. However, unlike that of a cultural field such as economics, scientific inquiry at the quantum level does not subjectively incorporate the natural physical science variables or their environment. As Heisenberg indicates, the physical science framework of the uncertainty principle remains objective. The subjective characteristics of the natural physical scientist do not affect its objective ability to perceive and understand Natural phenomena or to replicate experimental results according to the scientific method. In contrast, subjective placement of phenomena in meaningful context within and regarding economic playgrounds such as Wall Street involves an organization of variables in relation to each other, and that process and its results always are personal for each participant. Perspectives on and conclusions as to marketplace uncertainties, certainties, and probabilities are matters of opinion. They are never true for all.

Recall that many words within and broadsides from Wall Street and economics, especially in regard to securities, relate to valuation, natural price, and related subjective theories. Many marketplace high priests are married to valuation doctrines, fair value models, and natural price dogmas. Valuation communities- especially those seeking investment- in securities, currency, and commodity marketplaces vigorously compete for professional and Main Street dollars. Allegedly objective valuation theory is a cornerstone of many supposedly scientifically rational edifices erected by the scientific pretenders of Wall Street and economics.

Numerous people in Main Street and the political sphere also are entranced with these doctrines. For example, President George W. Bush, a 1975 Harvard M.B.A., spoke in regard to "complex [mortgage] securities designed to yield large returns. These securities were then purchased by investors and financial institutions in the United States and Europe and elsewhere-often with little analysis of their true underlying value." The President adds: "One vital principle of reform is that our nations must make our financial markets more transparent. For example, we should consider improving accounting rules for securities, so that investors around the world can understand the true value of the assets they purchase." (Speech, "Financial Markets and World Economy", Federal Hall National Memorial, New York, New York; 11/13/08).

Many observers find fair value and natural price viewpoints useful. Traders and other players employ these doctrines in their money hunting efforts. After all, these theories help to generate outlooks regarding marketplace probability, risk, trend, and so on.

However, regardless of how they are packaged and labeled, valuation, natural price, fair value, true value, natural equilibrium, and central tendency theories are never scientifically rational. Valuation strategies related to price and other economic phenomena never objectively apply the scientific method. First, perspectives and reasoning within and regarding marketplaces are always subjective, never scientific. Thus like other economic definitions and models, those of and relating to fair value, natural price, and their cousins are matters of opinion. Also, as in other economic theories, the selection and assessment of variables for (inputs to) valuation models that battle to identify, explain, or forecast price and other phenomena are subjective decisions. Just as

marketplace probability, risk, causation, and other assessments are entirely cultural, objective valuation viewpoints (or even partly objective ones) cannot exist. Since neither marketplace valuations nor probability assessments based on valuation principles are objective, opinions (and therefore trading behavior) based upon them differ. Despite the objectification by avid would-be scientists, there is no objective "Natural Price", "True Value", or "Fair Value".

Keep in mind that some Wall Street experts express these ideologies in relation to allegedly objective "The Fundamentals" or "Reality". Robert Rubin, a Wall Street idol and the former Co-Chairman of Goldman Sachs and US Secretary of the Treasury, graciously enlightens us via his memoir, "In an Uncertain World". He preaches (p190): "Over the longer term, stock markets, like currency markets, tend to reflect fundamental economic conditions, although they often diverge from those averages and go to excess in one direction or the other, sometimes for extended periods." He underlines: "The stock market could fluctuate for all kinds of reasons and could overstate or understate reality for extended periods" (p192). This respected authority states later (p362) in the context of interest rates: "though fundamentals win out over time, at any given moment the psychology of the market may be at variance with the fundamentals." This guiding light enjoys rationality propaganda, as his text approvingly quotes a statement reportedly made by John Maynard Keynes, a famed economist: "Markets can remain irrational longer than you can remain solvent." Moreover, Rubin endorses the Graham and Dodd approach to investing in stocks (pp67-68).

A survey of Graham and Dodd's "investment bible", "Security Analysis", displays the subjectivity of all valuation viewpoints. In the following review of quotations from the fifth edition of this venerated scripture, only the underlining signifies Graham and Dodd's emphasis. Italics and bracketed comments are supplied. Graham and Dodd chant: "If investment is defined as paying only for the demonstrated [but how demonstrated, and in whose opinion] track record and speculation as any amount paid in excess thereof... The portion of the price paid for a stock that is based on past accomplishment [how long is this past, and what equals accomplishment] may be considered [according to whom] an <u>investment</u> component. The payment for anything more than that is a <u>speculative</u> component..." (p544).

However, "War of the Words" demonstrates that definitions of and propositions relating to investment and speculation are cultural, not scientific axioms or proofs. Likewise, perspectives on and reasoning regarding price and other marketplace phenomena are never objective. Therefore, despite the good faith and hard work of valuation devotees, Graham and Dodd and other valuation theories and experiments are not scientifically rational (objective). All characterizations of components are subjective. A price of a financial instrument does not have objective investment or speculative components- or objectively rational or irrational ones. Marketplaces do not have objective investment or speculative (or objectively rational or irrational) components, elements, parts, or characteristics. Personal perspectives (including models) may imaginatively build up or break down the price or other information. This painstaking enterprise nevertheless is not science (or partly scientific or an approximation to science).

Their liturgy declares: "Intrinsic value is the investment concept upon which our views of security analysis are founded." They seek "some defined [who defines these, though] standards of value for *judging* [not proving as in math or physics] whether securities are over- or underpriced in the marketplace...." They preach: "The *traditional* definition of intrinsic value

emphasizes the role of facts: <u>the value which is justified by assets, earnings, dividends, definite</u> <u>prospects, and the factor of management</u>" (p41). This intrinsic value generally differs from price. "A typical investment-quality issue has a *central tendency in price* that has a meaningful relationship [how is that meaning created] with the *normal level and expected* [in whose opinion, normal and expected] growth of earnings and cash dividends and the degree of risk inherent [however, marketplace probabilities, risks, and causes are subjective] in those expectations. It is this relationship that provides the essential basis for selection of a multiplier for projected earnings or a discount rate for projected dividends and thus for derivation of a central value estimate. Therefore, intrinsic value is in essence the central tendency in price. Viewed in this manner, the actual coincidence between market price and the more stable central tendency in price will usually be brief. Typically, they will coincide when an advancing price reaches and passes through value and when a declining price drops to and falls below value" (p43).

No valuation evangelist has shown that the "defined standards of value" are objective or part of an objective application of the scientific method. Wall Street gurus and economic oracles justify these values to themselves and for other professionals and the Main Street public via rhetoric. Also, if there is a "traditional definition", there must be other definitions. Tradition suggests culture, not genuine (natural physical) science. How relevant are other facts from the economic arena, or political considerations? Remember that what is "economic" is a matter of opinion. One may define and place in perspective concepts such as assets, earnings, definite prospects, and so forth in a variety of subjectively reasonable ways. The variables do not justify anything related to the price. They are silent. They are not objectively out there.

In a securities marketplace, New Era or growth investors may employ different valuation formulas or criteria than classic (traditional) value investors. Moreover, even within a given securities valuation brotherhood, different experts and their apostles believe some formulas or information are more important than other ones. Various so-called reasonable observers not only assess "facts" differently; they may apply the same valuation formula differently. How far back in time should a financial engineer review "the" fundamentals? Which fundamentals must the rocket scientist select? How should this superstar assess them together? What makes a prospect "definite", and for how long? The normal level, expected growth, degree of risk, and definite prospects vary according to the subjective perspective of the given Wall Street fair value partisan. They are not and never can be objective true for all facts. Thus Wall Street valuation evangelists- including investment authorities- disagree as to the central tendency level or range for a given marketplace.

Further exploration of "Security Analysis" (pp344-45) highlights the wide variety of choices relevant to these subjective calculations. Diverse selections and conclusions result from different perspectives on what is important and how to view phenomena. "A basic principle ["basic principle" attempts to sound like real science] of finance is that no investment *decisions* regarding a common stock can be properly made except in the light of a specific price, which is *usually the current market but may be some anticipated or calculated figure*. The security analyst *should* compare the price with earnings, dividends, asset value, and- for a valuable additional insight- sales." But must this comparison occur, and how must one undertake an analysis? For the comparison with price, why this set of factors, but not others? Focus a moment on asset valuation. This always is a subjective process. How should a bank stock analyst value a portfolio of residential or commercial real estate, or subprime mortgage securities?

The authors then list the "price-earnings ratio", "earnings yield (the reciprocal of the price-earnings ratio)", "dividend yield", "sales per dollar of common at market", and "price-to-

book value". Yet how should one interpret a given ratio? How must one assess a given ratio in relation to another one, or several of them together?

Further quotations reveal that fair value, natural price, and other valuation theories and techniques are not scientific (objective) at all. "These ratios are *ordinarily* [why] calculated on the basis of the last full year's results [why prefer this duration and not others] or the latest balance sheet [why not older ones as well]. However, the earnings may be an average [should this be an arithmetic or a weighted one] for some *suitable* [what on earth is suitable] period of years. The earnings used for a price-earnings ratio *may* be for the trailing 12 months [why not a different time period], the current fiscal year, or an *estimate* of the forthcoming 12 months [why not some other number of months]. Some brokerage house letters give two price-earnings ratios, one using *estimated* current fiscal year earnings and the second using the ratio to the subsequent fiscal year's *estimated* earnings... Since year-to-year earnings changes can be quite large, it is important that the earnings be identified as to the *time period used* and as to whether the figures are actual or estimated [yet different subjective accounting decisions can generate different actual reported earnings]. The price may be a recent price, end-of-period, an average, anticipated, or a calculated price. These same *problems* can apply to other price ratios, and therefore the analyst must be aware what price and time period are being combined in any ratio."

If an objective central tendency or natural equilibrium were a scientific fact rather than a science fiction, there would be replicable experimental true for all proof of this. The subjectivity of all natural price and fair value theories is reflected by the great diversity in marketplace advice and action.

Is the financial instrument overvalued, at fair value, or undervalued? Quarrels between valuation experts underline that valuation principles, methods, and conclusions are always rhetorical and never scientific. Heroes endlessly debate as to what the correct level or range is or should be for a given instrument or marketplace. Investment superstars dispute whether and why a securities marketplace is mispriced. To what extent has the price overshot or undershot the natural price level or range? Given the absence of genuine science, all wordplay about price (as in orations regarding other economic variables) regarding too high or too low or too far, normal and abnormal, cheap and expensive, over reaction and under reaction, overshooting and undershooting, and rational and irrational are opinions. Anyway, for marketplaces there is no objective definition or determination of high and too high, low and too low, and so on. Since an objective fair value (natural, mean, average, normal, reasonable) price is a fairy tale, a price does not have an objective probability or certainty of returning to fair value. The existence of objective mean reversion is a fantasy.

By late May 2008, NYMEX crude oil prices (nearest futures month), which were around \$50 a barrel in mid-January 2007, had breached \$130 per barrel. Kevin Norrish of Barclays Capital commented (Financial Times, 5/24-25/08, p15): "Strong oil demand, in particular from emerging giants such as India and China, along with disappointing non-OPEC supply, continues to underpin oil prices." "The market, he added, was looking for a new equilibrium. 'It is likely to overshoot and the key for the trader is being able to spot the changes in supply and demand dynamics that signal that longer-term equilibrium is getting closer." By mid-July, crude oil had stretched to \$147. Yet by mid-December 2008, crude oil had crashed to under \$35.

Whether a price change is significant depends on subjective perspective. However, we know that in cultural practice many observers speak of big price changes. We know that devotees

of natural price theologies sometimes adjust their viewpoints regarding the reasonable (rational, appropriate) level or range. Might the so-called natural price be changing? Just as there is no objective proof of that a natural price exists, there is no scientific proof that this fair (reasonable, normal, equilibrium) value or range changes.

In marketplaces and other cultural arenas, subjective perspectives (whether by one person or many people) on variables can and do change, sometimes "significantly". Thus opinions regarding and actions taken in relation to prices (and other marketplace phenomena) can change, sometimes "dramatically" (they may even "transform"). To explain changes in price- and in the cultural perspectives and actions of marketplace observers (participants), there is no reason to have faith in the existence of some mythical changing objective natural price, fair value, or central tendency lurking behind, within, or otherwise tied to cultural phenomena.

Sometimes price moves and levels shock scholarly luminaries of valuation schools. To preserve or repair their reputation for insight and foresight, many fervently will explain marketplace prices via subjective historical hindsight. "The market was mispriced."

A price always is at a level that many or at least some people view as rational, reasonable, intelligent, or logical. Otherwise, it would not be at that price. And in culture, all "rationality", "reasonableness", and so forth is subjective. Cultural rationality is not the same as or like scientific (objective; natural physical science) rationality. Also, from the standpoint of numeration itself, one number within a financial marketplace is no more reasonable than another. The number 9600 for a securities marketplace such as the Dow Jones Industrial Average is a number like 6405 or 12850. Though it is a fiction that one can have a scientific perspective on economic phenomena, though an objective natural price is a mirage, though objective valuation methods do not exist, Wall Street pros and Main Street pilgrims nevertheless want a high degree of probability that they will make money trading. Scientific propaganda is a good business tool. Most valuation advocates and their faithful adherents do their best to avoid admitting that the definitions, perspectives, principles, strategies, and applications of their venerated valuation creeds are not at all scientific. Scientific metaphors such as natural price and valuation offer comforting illusions of objectivity (science; scientific rationality) and therefore of scientific probabilities and certainties. They bolster faith that objective economic expertise exists. As Wall Street securities marketplaces need buyers and owners, much valuation rhetoric targets the actual and potential securities investment congregation. Valuation wizards not surprisingly embroider their wordplay with other inspiring natural physical science metaphors, including the rhetoric of rationality.

To acquire at least some of the prestige and influence of natural physical science, Graham and Dodd's sermon cleverly hustles to preserve a place for investment and economics close to the scientific temple. They declare: "Investing, like medicine, law, and economics, lies somewhere between an art and a science [Science is implicitly a real science like physics; though Graham and Dodd do not say "partial science" or "quasi-science", such labels convey their intent regarding this "somewhere".]. Certain aspects of investing lend themselves to the scientific approach" [actually, none of them do, except for operations like addition and multiplication and the use of formal logic such as the syllogism] but *"the number of variables remains almost infinite, and the judgment factor still dominates investment decisions*" (p6).

Graham and Dodd's faith that medicine is like law and economics is erroneous. Though medicine often requires diagnostic judgment calls, these calls are based on objective (scientific)

observations and principles, not subjective ones. Medicine is objective, an applied science. It is not a cultural arena with subjective perspectives and thought processes like politics, law, economics, and investing (and speculating and hedging). The "number of variables", "almost infinite", and "judgment factor" language itself underscores the complete subjectivity of valuation (and other marketplace) theory. Since they are not objective, valuation experiments, analysis, theories, and laws are not at all or even close to being scientific. Pseudo-science and simulated science is never real science.

So-called fundamentalists do not possess a monopoly on either scientific pretensions or language related to fair value and natural price. In securities and other marketplaces, technical devotees choose between various subjective charting, mathematical, and statistical theories. Many technical analysts believe that an objectively reasonable (fair, natural, sensible, rational, good) price exists. Like their fundamentalist cousins, they bombard audiences with opinions regarding too high and too low, overbought and oversold, target prices, and so forth.

Suppose one decides to look at the S+P 500 stock index today. Some clairvoyants declare: "the current price will (or should) move back to its mean." But "its mean", despite the use of statistics, always is subjectively determined and only has subjective significance. Assume the period from any given past date up to today; statistics will calculate a mean price for that duration. Yet what starting date for analysis should one select and why? The selection of an appropriate starting point to determine that mean (and other statistics such as standard deviations) is a subjective process. It is not the result of scientific observation and analysis. Remember that it is a matter of opinion as to what is a marketplace low or high, or a noteworthy or unimportant marketplace time. Anyway, should one begin with what many would call an important low on 10/4/74 around 61? What about 8/9/82? The S+P 500 was only a bit over 100

then. Or, consider 10/20/87, with its low under 220. Are these too far back in time? No objective proof demonstrates this is the case. Those that perceive a major bottom around 10/11/02 under 770 might prefer to start their inquiry then. Which, if any, fundamental factors should one review in making a decision? But maybe one should wait a bit later, until around the 3/12/03 low near 790. Why? Instead, should an analyst start at or around the day of the S+P 500's all-time arithmetic high to date (10/11/07 at 1576)? Why not the 3/6/09 low at 667? In any event, different starting dates relative to the present generate different means. Thus there is no objective mean (or natural price, "its mean").

Or, assume someone decides that several past marketplace periods resemble a current one. A trader may believe so-called "conditions and underlying factors" then were the same as or similar to those now. However, the identification and analysis of marketplace eras and the comparison of these periods are entirely subjective. Thus all conclusions derived from this comparison are cultural, not scientific. So all views as to what is a normal or mean price (or natural or fair value) for the current marketplace are opinions.

Though valuation theory is a sacred cow of the natural physical science clergy of Wall Street and economics (and especially investment missionaries), there is never a scientific (objective) reason to buy or own a given stock, debt instrument, currency, or commodity at any particular marketplace price. Likewise, no objective reason exists to sell, or not own, a financial instrument (or portfolio of them) at any given price.

Valuation rhetoric sometimes performs impressive acrobatic feats. Recall the Wall Street proverb: rising stock prices are good. For example, many valuation oracles explicitly or implicitly declare that the rational natural true value can change. Take an upward price move in a stock marketplace. Once the mystical fair value is neared or reached, many financial engineers invent a brand new higher fair value. Such valuation opinions often target investors, especially in securities. They seek to guide investment bulls by the nose. Those with faith that the price eventually will attain the new mountaintop consequently remain in the investment pasture.

Valuation theory of course does not assert that the natural price level in all marketplaces necessarily is up relative to the present price. Some gurus may be bearish; these convergence viewpoints are as subjective as the bullish ones. Also, most valuation advocates do not allege that merely because a particular marketplace is an equities marketplace, its natural central tendency for price (especially over the long run) is higher than the current price. In addition, many believe that so-called objective probabilities (or certainty or randomness) can vary between marketplaces. The probability of an advance in the natural price of United States equities over some long run may differ from that of an emerging stock marketplace.

Nevertheless, some valuation hymns claim or strongly suggest in regard to some marketplaces that it is objectively certain (think of Newtonian mechanics) that the natural price will increase over the long run. Some valuation scriptures espousing the dogma of objective probabilities (as in particle distributions of quantum mechanics) devotedly declare that this upward flight is objectively probable. These claims of a higher fair value or central tendency very often relate to stocks. Sometimes the fervent declaration of certainty or likelihood relates to an individual instrument. Often the lyrics relate to a representative group such as "a diversified portfolio of investment grade stocks".

Given the need for Wall Street and its corporate and government allies to unearth and keep securities buyers and owners, most of this rhetoric of objective certainty and probability

targets securities buyers- particularly the adored investors. In debt playgrounds, prices do not go up indefinitely since nominal yields remain above zero (historically, negative interest rates are very rare). Thus relative to the stock landscape, many debt valuation wizards temper or modify their enthusiasm for rising prices. Such experts therefore speak of the certainty or high probability of a "reasonable (good) return on investment". Stock promoters enlist this reasonable return oratory as well.

As the United States ("as a whole"; the nation) has a good long run track record, the same holds true for its corporations (in general). According to the American Dream, the long run prospects for the United States are at least very good (some formulations say extremely good, and others are even sunnier). Suppose the prospects for success of US corporations are as rosy as those for their country. Thus over the long run, despite occasional and even painful price drops, many say that it is reasonable to believe that prices for America's stock marketplace in general (at least for its investment grade issues) will or very probably will keep rising. For this long run, most US stock shepherds place little or no restriction on the height of this heavenly price movement. After all, stock prices have no mandatory ceiling. This dogma seldom if ever limits how long the long run period can last. In any case, this time horizon is very long, perhaps even indefinitely so.

Like other cultural viewpoints, the American Dream is rhetorical (subjective), not objective (scientific). In their cultural lives, most American Dream believers do not view themselves as professional scientists. Nevertheless, the great majority of American Dream faithful, wedded to a romantic rhetoric of rationality, perceive themselves as objective (or mostly or approximately so). The high priests of valuation also are married to the language of objectivity and rationality. Many of these would-be natural physical scientists also speak of the good

prospects for the United States. Many solemnly state or strongly hint, with few if any significant reservations, that the long run direction of United States equity prices in the United States is upward. Because natural price propaganda wears the mantle of objectivity and other trappings of natural physical science, when fair value advocates bind natural price jargon to American Dream history and language, their speeches sound very persuasive- especially to American audiences.

Not only are subjective valuation theories allegedly rational (in the hard science sense of the word) in principle. Unscientific valuation methods therefore appear to be rational tools that enable players to rationally acquire shares (invest) in the rational (and good) American Dream. These subjective fair value methods enable buyers and those that advise them to point out US stocks (and debt instruments) that in their opinion represent rational (in the objective sense) investments. However, make-believe and counterfeit science is not science in either theory or practice.

For the United States equity marketplace, suppose the long run future fair value is almost infinitely high (or at least quite elevated) relative to any present price. Valuation theory thus makes it seem common sense to wait patiently for the achievement of that lofty if not infinite level (and even if the evangelist omits or leaves imprecise the eventual actual summit). Though an infinite high is impossible, it appears prudent to be a long run owner of US investment grade stocks (for almost) forever.

Of course most valuation choirmasters do not argue explicitly for infinity. Many pay lip service to history. They say "marketplaces are risky" and "past performance does not guarantee future results". Vicious equity bear moves- such as those that reared their head as part of the worldwide economic crisis that erupted in 2007- can challenge investment faith and tarnish investment valuation models (perspectives). Yet how often do such maestros declare or forecast a definite, final top for the natural price? After all, isn't investment ("itself") rational and good? To encourage the buying and holding of US equities, most valuation missionaries spin the tale to themselves, their professional colleagues, and Main Street that US equity prices will be higher or much higher over the long run than they are now.

The Dow Jones Industrial Average may go to 17,500, 20,000, and so on. Recall the famed investor Peter Lynch's sentiments at the beginning of "The Seduction of Science" chapter. "Which way the next 1,000 to 2,000 points in the market [the Dow Jones Industrial Average] will go is anybody's guess, but I strongly believe that the next 10,000, 20,000, or 40,000 points will be up." As the Dow was under 10,000 at end September 2001, it could not descend under the rock bottom of zero- a minor detail. Though the definition of the long run varies according to personal perspective, if the long run is indefinite or nearly so, it may appear reasonable to wait indefinitely (or at least many, many years) for such wonderful price increases.

Valuation theory does not always explicitly require long run holding of positions. In "Security Analysis", Graham and Dodd croak that only the most unusual security is purchased for permanent holding (p6). Nevertheless, valuation ideologies imply that in many cases it is objectively reasonable to hold them for a long time- particularly if they remain labeled as investments. First, even if "permanence" is not forever or eternity, a very long run from the cultural standpoint can approximate permanence in duration. More importantly, the natural price of a securities (or any other) marketplace may not be achieved in the so-called short run. The price of the security therefore may not reach the promised land of its central tendency until the long run arrives. Therefore, if marketplace prices languish beneath what devout soothsayers call the fair value level, valuation rhetoric indicates it is objectively rational, reasonable, intelligent, logical, and prudent to buy and hold and await convergence- and to keep waiting for a very long run if necessary.

Valuation evangelism incorporates a prophecy that convergence will occur at some point in time. Yet many valuation icons such as Graham and Dodd believe: "Attempting to predict the timing of this convergence of price on value is not a fruitful or appropriate undertaking for the analyst" (p49). Why do these authorities adopt this opinion? In practice, many traders and other observers in stock, debt, foreign exchange, and commodity marketplaces have viewpoints regarding future relationships between price and time.

Price obviously is not the only marketplace phenomenon about which people have opinions. Moreover, observers place price (even the so-called natural price) in subjective perspective in a variety of ways in relation to other variables such as GDP, corporate earnings, inflation, and distance (as in a past or expected arithmetic or percentage price move from a daily settlement price). Experts and their followers make predictions regarding price in relation to these other marketplace phenomena. Since marketplace time is just another cultural variable, there is no objective reason to avoid marketplace forecasts directly involving that variable. Like other marketplace phenomena, one may view time factors from a variety of subjective perspectives. Thus since a Wall Street player can have an intelligent though unscientific prediction as to price in relation to one or more variables other than time ones, it can have a reasonable forecast regarding the relationship between time and price.

Also, many supposed scientists (and others) make marketplace predictions involving variables other than price in relation to time. Think of GDP, corporate earnings, inflation, unemployment, and so on. "Real GDP will grow three percent next year." "GDP probably will

grow an average of three percent over each of the next five years." So such statements imply a level or range for GDP. Since these marketplace phenomena are viewed in relation to time, one can analyze price in relation to time.

The marketplace analyst is not an astronomer or an engineer. Since subjective probability assessments involving time and price are reasonable (appropriate), a marketplace observer need not have an exact or fairly precise moment, day, week, month, quarter, or year for the time aspects of price moves. That includes "this convergence of price on value", although any marketplace "value" target (identified via Graham and Dodd or any other method) is entirely subjective. Even so-called rough or general ideas on timing are reasonable. A given prediction regarding time and price of course may rely on one or more other variables such as GDP.

Though shrouded with scientific pretensions, this theology of Graham and Dodd and their apostles is designed to encourage passive waiting for the promised land of convergence. Wall Street valuation experts guide and prepare the public, especially investment churches, for a potentially long waiting game. In many religions, the faithful await an important event that from their subjective perspective definitely will occur, even if the time of that event is unpredictable by them, and even if it will take place at some indefinite long run future point. If the allegedly objective natural price or fair value is higher than the present price, this may be a short wait or a long vigil. If much of the professional and Main Street public believes it is objectively rational (and even ethically good; see "Selling the American Dream") to be long (especially investing) waiting to make money in the US stock marketplace, it will be relatively passive in its stock ownership. Such traders are not necessarily inactive. Someone may purchase more stock, or vary the composition of its "properly diversified" stock portfolio. The bottom line: "I'm in it for the long term." Especially if a natural price towers over the current price, the convergence vigil could be quite lengthy.

Definitions, propositions, and principles regarding law and justice, like those of economics and other cultural fields, are not scientific at all. Look at civil and criminal laws around the world and throughout history. There are numerous subjective perspectives on law and related topics, including morality (ethics). Despite objectification by would-be scientists, there is no proof that an objective "The Law" or "Justice" exists. There is no scientific requirement that there be one legal perspective on phenomena. Since the legal realm is not a Natural environment, law (jurisprudence) is no more of a genuine science than investment, hedging, economics, or politics.

Since laws are cultural phenomena, their creation, application, duration, and changes do not follow objective principles. However, picture legal doctrines (compare versions of divine law) that have been consistently administered and eventually widely accepted. Especially after an extended period of time, these cultural theories and many of their specific applications tend to be taken for granted. Cultural principles, once assumed and taken for granted, often appear objective ("natural", "really true", "rational") to those with deep faith in them. Thus believers make the mistake that the "The Law" (recall "The Price", "The Market", and "The Economy") is out there objectively like a natural physical science body, entity, or force, and that objective principles and actions relate to "It".

Though an objectively reasonable (scientific) observer (participant) within and regarding a cultural arena is a science fiction, why has Wall Street never produced a broadly accepted subjective reasonable person standard akin to that in the American legal system? Imagine labels like "the reasonable trader" or "the rational financial advisor". After all, rationality rhetoric permeates Wall Street talk (and economic discourse) and American Dream culture. The American Dream not only values reasonable and good laws and the pursuit of justice, but also believes that it is reasonable and good to seek wealth, financial security and prosperity. Subjective marketplace notions such as Benjamin Graham's intelligent investor to some extent parallel the American and English common law's reasonable person. But Graham's intelligent investor and similar faiths are not nearly as widely adopted. Unlike the reasonable person standard's success in a variety of legal jurisdictions, and despite the embrace by Wall Street and economics of rationality wordplay, in no marketplace has any one such subjective standard in practice been recognized as "the" crucial, correct guiding principle for analysis and action.

Legal systems, including those married to the reasonable person viewpoint, seek to guide or direct cultural perspectives and behavior. Think of laws decreed, legislated, or judicially decided relating to contracts, property, personal injury (tort), and crime. Many ideologies have additional aspirations, such as the achievement of some subjective conception of justice and the elimination or punishment of injustice. Suppose most or all participants within and affected by a given legal world had significantly different opinions as to what was reasonable, intelligent, and common sense on the majority of legal issues. Substantial disorder would result.

Wall Street has battalions of laws and regulations. For example, think of those relating to securities issuance, acceptable orders, trading hours, margin requirements, position limits, and insider trading. Wall Street generally obeys these standards. The legal system enforces them. However, these rules nevertheless are subordinate to the money making goal.

Wall Street of course in many respects has significant commonality of outlook and action- otherwise it would not be a culture. However, there are numerous Wall Street marketplaces. Look at the stock, interest rate, currency, and commodity panorama. Picture the field of securities and its thousands of financial instruments. Diverse communities of investors, speculators, hedgers, risk managers, dealers, salespersons, analysts, and investment bankers dwell there. Assorted species of bulls and bears roam stock and debt pastures. A variety of marketplace perspectives and traditions, including those relating to definitions and trading principles and strategies, influence how individuals and communities perceive, analyze, and take risks. People make (and lose) money in all sorts of ways. Even in the United States equity arena, though traders and others share the love of money, diverse perspectives on phenomena make and keep this marketplace heterogeneous in outlook and behavior. And thus regarding (within) marketplaces, there are a great number and variety of subjectively reasonable marketplace perspectives. This great subjective diversity in marketplaces makes it a major challenge to develop a single, accepted reasonable person standard. Remember too that varieties of viewpoints have existed throughout Wall Street history. Neither Wall Street and economic experts nor trading heroes can ever identify the only- or the best or even a superior- subjectively reasonable perspective and action. Since economic domains are cultural, objective viewpoints are unavailable, so a given subjective perspective can never prove that one marketplace standard (perspective) is superior to others.

In the context of this cultural diversity, keep in mind that Wall Street's primary ambition is to make money, not to guide players to follow a shared set of rules, establish justice, or otherwise create cultural order. For Wall Street marketplaces to succeed, the majority of participants need not possess similar subjective perspectives regarding how to make money or manage risks. Marketplace faiths can vary substantially, and marketplaces still will flourish. In

any given marketplace, people do not have to believe, reason, or act in the same way- or even in almost or approximately the same fashion. Substantially different opinions regarding marketplace probabilities and opportunities or what constitutes relevant information do not risk disrupting the marketplace itself. Compare the legal domain's desire for and insistence upon widespread obedience to shared principles relating to crimes, contracts, and negligence. The judicial system and the police do not punish violations of a given Wall Street reasonable person standard (except of course when that person violates actual laws). Money making justly rewards Wall Street traders, money losing justly punishes them. The trader fights to capture and keep money now. Unlike a judge (or legislature), it does not seek to (and does not need to) set precedents for others (or follow existing precedents). Neither in general nor in any given marketplace will Wall Street achieve sufficient cultural consensus to embrace a shared interpretive standard such as law's reasonable person one.

Though of course influenced by others (by culture), each trader, analyst, advisor, salesperson, economist, and so forth subjectively establishes and follows its personal reasonable person standard. Each reasonably decides what perspective to adopt, how to place marketplace phenomena in context, the strategy to employ, over what time horizon to take risks, what and when to buy and sell, and what advice to offer others. Even within a given investment community, regardless of whether the risk taker or other observer has a short term or long term marketplace horizon, individuals have great scope for the development of reasonable subjective meaning. They therefore have great scope for rational, intelligent, logical, and prudent cultural action.

What else follows from the subjectively reasonable diversity of marketplace perspectives and that cultural variables (information, phenomena) are not objective concepts (bodies,

entities)? No one person or community has, ever can possess, or needs to possess "all" or even most of "the (available) information" (evidence) about a marketplace in order to make a socalled "most reasonable" marketplace judgment, or even a reasonable marketplace judgment. In marketplaces, there is not an objective "the most reasonable judgment" (or an objective "probably the most reasonable judgment"). There are no objective marketplace "facts (evidence, factors, and so on) of the case", and what "the relevant facts" (phenomena) are and their implications is a matter of opinion.

Law, like marketplaces, is a subjective domain. Thus law and legal issues, like marketplaces, subjectively (and reasonably) to many observers may appear to be complicated or complex. Yet compare much actual litigation as well as civil contract and property matters with a marketplace. Think of a traffic accident, a big and intricate contract and a feud over its terms, securities offering documents, and many other legal matters. In law, for most subjective decision making purposes, the potential breadth of relevant information generally is narrower than in marketplaces (even if much of the legal evidence is unclear, disputed, or unavailable). In a given legal culture, with its goal of creating and maintaining social order, debates regarding principles and the selection and analysis of variables need to be relatively more settled. Hence we hear of the role of and need for legal precedent and the force of law (whether via courts or legislative or executive action).

The existence of diverse subjective perspectives in a given marketplace itself shows- and requires- that no one has the same interest in, awareness of, and knowledge about all phenomena that may be perceived, discovered, and analyzed. To establish reasonable marketplace perspectives and to make intelligent decisions, one only needs sufficient information, and what is sufficient is entirely a matter of opinion. Each marketplace participant (observer) creates their

own "case" (framework, perspective) about which they reason and make decisions. In this process, the selection and evaluation of marketplace variables is entirely subjective. In a given trading playground or in addressing a given general practical question in it (such as "where will the price go"), one person may consider a handful of variables and their interrelations, whereas another may reasonably think about some huge number. Remember that in marketplaces people create facts (new information) within their subjective perspectives via their choice and analysis of cultural phenomena.

Suppose that in general it is only reasonable, smart, prudent, or common sense to buy. Why would anyone ever sell (apart from tax reasons or financial emergencies)? Suppose it were only reasonable to buy now, or that the most logical viewpoint was to do so. Why would anyone sell now? Because Wall Street trading requires both buyers and sellers, it needs to have different perspectives on what is reasonable. In the trading world, so-called "disorder, tumult, and confusion" is both inevitable and beneficial. Unlike law, Wall Street thrives due to the great number of subjectively reasonable viewpoints regarding what is intelligent in regard to perspective and action. For marketplaces, this diverse subjective rationality thus helps to achieve the good and rational American Dream aims of money making, entrepreneurship, and capital formation.

Despite the romantic fascination of Wall Street and economics with natural physical science, marketplace objectivity (science) and an objective reasonable marketplace person are both fairy tales. In practice, opinions regarding reasonable marketplace perspective and action will continue to differ. If Wall Street had a widely followed reasonable person standard, there probably would be less talk within and from Wall Street since there would be less disagreement. Instead, most seek to convince themselves that they are rational, and many yearn to be more

reasonable than others. In zealous efforts to display and demonstrate their reasonableness and intelligence, many Wall Street players compete to persuade audiences. Thus high priests and apostles of various Wall Street and economic temples, embracing intriguing and enticing wordplay of rationality in diverse ways, deluge Wall Street and Main Street with rhetoric. Metaphors, especially scientific ones, are fierce warriors in this cultural quest for attention, respect, power, and money.

In an example of the relativity theory of physics, picture two observers viewing one Natural event simultaneously. If the two physicists switch places, each individual in its new position will observe the phenomena as its predecessor did. Replacing one scientist in the physical science experiment with a new one, or altering the position of scientists in time and space, does not alter objective perceptions or replicable experimental results. The diversity of subjective perspectives regarding economic phenomena is unlike that of a natural physical scientist objectively looking at a Natural fact from two different positions or at two different times. Regarding the same marketplace at the same time, the subjective "position" of two observers is not the same. A different Wall Street viewer generates a different, perhaps a greatly diverging, subjective viewpoint on a Wall Street phenomenon. Different marketplace viewpoints do not express two varying or "relatively different" yet nevertheless still objective (scientific) perspectives.

All meaning (understanding) of Wall Street and other economic phenomena only exists through and within a cultural context. Subjectivity involves perception and reasoning, but Wall Street participants and even so-called neutral (outside) observers such as academics are never outside or apart (distant) from economic phenomena like a natural physical scientist analyzing

Nature. Wall Street phenomena out there are not objectively separated from subjective perceptions and perspectives.

Of course economic players see, hear, and otherwise communicate with each other. Many Wall Street observers stare at shared cultural phenomena such as prices. Many members in a given marketplace community possess somewhat similar viewpoints. Picture those bullish on the US dollar, or long term fundamental US equity investors. Yet in marketplaces, such physical events or similarities in perspective do not via alchemy or magic transform cultural outlooks into scientific ones.

Numerous marketplace investigators inside Wall Street, scholarly classrooms, and financial newsrooms diligently study the trading opinions, histories, successes, and errors of various famed money-loving rocket scientists, generals, wizards, coaches, and all-stars. Yet different trading experiments and methods do not reflect different objective positions (scientific viewpoints) relative to objectively perceived phenomena. As Wall Street, like the economic playground to which it belongs (and just how should one define economics), is not a Natural environment, as subjective viewpoints within it differ significantly, the experiments within it are not scientifically replicable. Past marketplace performance does not guarantee future results. And even widely shared views regarding past and current marketplaces, since they are cultural, are neither objective nor objectively replicable. Remember too that "a marketplace" is not a scientific (Natural) phenomenon. Because Wall Street's experimental approaches are very diverse, unscientific, and unable to objectively replicate results, Wall Street endlessly discusses, compares, and tests trading principles and methods.

"The oil price boom is turning chicken manure into a form of liquid gold" for a Pennsylvania farmer. "Surging petroleum prices" have boosted manure demand, since with "costs of fossil fuel-based fertilizers headed skyward...liquid manure is proving a bargain for farmers." (Bloomberg, 5/29/08). "As Oil Prices Soar, Restaurants Learn to Lock up Old Grease" headlines the NYTimes (pA1, 5/30/08). It has become an increasingly popular form of biodiesel to fuel cars and trucks. Via the NYTimes we hear: "'Fryer grease has become gold'", according to Nick Damianidis, a restaurant owner. Using NYMEX nearest futures crude oil as a benchmark for the petroleum complex, prices rose nearly one hundred dollars a barrel, almost tripling in a year and a half. Crude oil traveled from a bottom of 4990 (nearest futures continuation) on 1/18/07 to achieve an all-time high of 14727 on 7/11/08. Other notable (subjectively perceived) lows in this rally include that on 8/22/07 about 6865, and the 1/22/08 trough near 8610. The 12735 close on 5/30/08, around the time of these news stories, was close in price and time to the July summit. By 12/19/08, crude oil tumbled 78pc to 3240. Was the big bull move ever a mania? Why or why not? Was the subsequent collapse a panic? Periods of apparent mania and panic, of boom and bust, within a trading day or other brief time horizon almost never sail into history books as classic examples. Yet how should one label the almost thirty dollar price range for NYMEX crude oil on 9/22/08 (10335 to 13000)?

Some attach the word "mania" to "wildly bullish" marketplaces. Most observers perceive rapidly rising prices have moved very, very far. In a mania, "everything is bullish". "All the fundamentals (or technicals) are bullish." "Everyone (or almost everyone) is a buyer." "The market has run out of sellers." "The market is defying gravity." The panic is the opposite of a mania. As prices swoon in a stock marketplace panic, "everyone (or almost everybody) is bearish" perhaps because "the statistics are overwhelmingly bad". "Everyone is a seller, and no one's buying anything right now." Regarding alleged manias and panics, some proclaim that conditions, prices, or other phenomena are irrational, unreasonable, or crazy. Speakers infatuated with natural physical science sometimes bellow about how "The Market" is badly, severely, unbelievably, incredibly, or insanely overvalued or undervalued.

As economic arenas are cultural territories, Wall Street never has an objective (true for all) mania or panic. Like other cultural words such as economics, investment, and recession, definitions of and propositions relating to mania and panic vary according to the personal viewpoint of the speaker and are never scientific. As perspectives on price are subjective, no marketplace price is objectively unreasonable (irrational). Remember that traders, research gurus, economists, and others place marketplace information in subjective perspective in diverse ways. A short term trader (however defined) may have a different conception of normal and wild conditions, reasoning, and actions (and fast and far price moves) than some long term watchers of the marketplace battlefield. Regardless of the definition of mania or panic, traders buy or sell for various reasons they deem intelligent, sensible, and appropriate at all sorts of price levels. Assorted friendly financial guides likewise offer a range of advice that reflects their diverse theories.

Recall some concepts regarding crowds. Many doctrines regarding mania and panic identify an increased unity of marketplace perspectives, thought processes, action, and advice. These outlooks regarding such supposedly growing similarity are subjective rather than scientific. Anyway, let's examine the unity issue in so-called manias and panics a bit more. Even securities investors in the same marketplace express and act upon a variety of subjective perspectives. In manias as at other times, purchasers cook up various recipes of reasons for their buying or holding on to long positions. Not all members within the bull community subjectively see "bullish information"- whether one phenomenon or many phenomena combined- as equally

bullish. Also, as prices fly to heaven in a mania, there almost always are some sellers (though not necessarily at every price). Even if prices are going to hell in a panic, there are buyers. Picture a mania defined as lasting for a while; imagine a period of a few weeks, or at least several days. The buyers (including those covering shorts) do not all buy at once; they do not even all buy around the same time. If everyone or almost everyone is thinking or acting the same way, why does it take time- whether days, a week, or longer- for a marketplace to make an apparently explosive price move from one price level to another? If everyone reasoned the same way, there would be little if any disagreement and actions would be rather uniform. Marketplace prices therefore probably would take little time to move great distances, and prices would fluctuate little if at all.

As Wall Street and other economic arenas belong entirely to culture (subjectivity) rather than Nature, economic observers (not just traders and other "insiders", but also so-called "outside" or "neutral" ones such as economists) are never rational, partly rational, or approximately rational in the scientific (objective; natural physical science) sense. In culture, allegedly outside or neutral observers are in actuality neither outside nor neutral relative to phenomena, for their perspectives are not objective (scientific). Scientific rationality and cultural rationality are very different. Moreover, in cultural contexts, and like other cultural definitions, all definitions of and propositions involving words such as rationality, irrationality, and intelligent are subjective. The attachment of a label such as rational or irrational- even by respected experts and icons- to marketplace (and other cultural) perspectives, thought processes, information selection, trading strategies, and price level and movement is always entirely unscientific, a mere opinion of the speaker. Eloquent economic experts, especially those enamored of objectification and ambitious to be very much like natural physical scientists, have dreamed up subjective concepts of and other propaganda regarding a rational economic actor (participant; observer). Some economic sermons associate rationality and irrationality language with discussions of or related to mania and panic. Such rationality rhetoric may declare that an irrational, unreasonable, unintelligent, imprudent, or emotional (or overly emotional; too excited; instinctual) element in perspective, method, and action has emerged or increased.

This rationality oratory even may explicitly or implicitly accuse marketplace participants of animal or animal-like reasoning and behavior. Think of bulls or some other herd or group of animals. For example, Jean-Claude Trichet, the President of the European Central Bank, in regard to the worldwide economic crisis that began in 2007 and accelerated in 2008, stresses that marketplaces should "augment transparency" (International Capital Market Association's Annual Conference in Vienna, Austria; 5/15/08). This influential central banker declares: "it is not only necessary to make the markets more efficient and to optimise the allocation of capital, but it is also the best insurance policy against irrational herd behaviour and unjustified contagion in times of stress. The present turbulences have, once more, demonstrated that opacity regarding the stance of markets, financial instruments or financial institutions is a recipe for catastrophe. In the prelude to an episode of uncertainty and turbulence, absence of transparency inevitably triggers contagion and negative herd behaviour- we saw this at the heart of the Asian crisis, we very much see it at the heart of the present episode."

The rhetoric of would-be scientists of economics and Wall Street regarding irrational, maniacal and panicky, and herd perspectives and behavior does more than manifest their proud illusion that they are objective (or mostly or approximately objective) observers of marketplace phenomena. Their subjective rationality jargon, greatly enhanced by other scientific metaphors, aims to preserve their treasured role and prestige as experts. As ambassadors of counterfeit (make-believe; simulated) science, these allegedly objective authorities aim to be the ultimate and revered analysts and judges of marketplace phenomena. Moreover, "Reasonable People" should embrace and follow their purportedly objective doctrines and recommendations!

The quest for the valued American Dream goal of money inspires and sustains significant emotion (passion, feeling), and therefore endless tides of words, in and regarding both Wall Street and Main Street. In cultural fields, the perception and reasoning that creates and is part of an individual subjective perspective always is permeated with values and emotions (and character traits). All Wall Street people not only think about money, but also hope to make it. This is true not only of traders (including intelligent investors), salespersons, friendly financial advisors, and investment bankers, but also of Wall Street researchers and risk managers. Many are greedy for it. All love money, some lust after it. Marketplace participants fight for cash. Wall Street worships money. Many pray for it. All fear to lose it. Picture the opposite poles of success and failure: winning money (wealth, financial security) is good, whereas losing it is bad, unfortunate, or undesirable.

Therefore substantial emotion always is integral to the various subjective perspectives and thought processes of Wall Street participants. As cultural perspectives differ ("people are different"), the emotional makeup (and character traits) of players are not all the same.

Some believe that Wall Street researchers and risk managers, because they are not trading or (in most cases directly) selling to customers, somehow escape or greatly minimize emotions within their perspectives and thought processes. This is not the case. Though many analysts and risk managers may seek knowledge, few if any do so for its own sake. Unlike natural physical scientists, they analyze phenomena and hunt for knowledge with the ultimate goal of capturing money (and hopefully a lot of it) for themselves (not just for their firm or others). We only need look around Wall Street to see quite a few fervent research advocates alongside seemingly cool-headed traders.

Wall Street research rocket scientists and risk management engineers often call themselves or are labeled by others as "objective". Most aspire to scientific rationality and embrace the science fiction they can reason as (or very much like) natural physical scientists. Such scientific ambitions and pretensions do not create scientific reality. As shown by this and previous chapters (and this book as a whole), the perspectives and thought processes of these Wall Street participants, like all other cultural observers (including so-called outside ones such as economists), never escape subjectivity. Within and regarding cultural fields, even if one controls or allegedly reduces emotions, perspectives and thought processes remain entirely subjective. However, suppose for the sake of argument that these Wall Street researchers and risk managers are rather unemotional.

Though some fans of the rhetoric of scientific rationality grunt that some marketplace participants are "emotional", "overly emotional", or "acting on blind instinct", cultural (subjective) rationality is not scientific rationality. Cultural rationality does not preclude or eliminate emotions within subjective perspectives and thought processes. In cultural regions, people speak of becoming more or less emotional, or say an emotion can be more or less intense, and so on. Though many Wall Street participants (and other observers) may become more emotional, this does not mean that they have ceased to reason, or that they no longer reason well.

Though marketplace players and coaches are reasoning, this does not mean that all are reasoning the same amount, with the same intensity, or as well (however one subjectively defines and measures amount, intensity, or wellness). Someone may reach a decision or act quickly in cultural fields. This does not necessarily show they did not reason much, or that they acted solely or primarily from emotion or instinct. After all, extensive experience in a cultural domain enables many people to think and therefore move fast. Even in tumultuous, turbulent, or volatile marketplaces, and even in so called manias and panics, all participants are reasoning. In wild conditions, some warriors think harder than usual; "I put more energy into trading then."

Many of Wall Street's pilgrims devotedly obey the advice or imitate the action of experts, leaders, or other members in their community (picture a United States stock investment fraternity). Though the desire for money permeates the perspectives of such followers with emotion, they still reason. In cultural fields such as games of skill, love, war, politics, religion, the fine arts, and economics, one does not have to be an expert or a leader in order to reason. Cultural reasoning and persuasion is not that of the objective scientific method. Yet where there is rhetoric, there is reasoning. If someone is persuaded, whether by word or deed, they to some extent must have followed (thought about; deliberated regarding) an argument.

Some believe that a trader is not reasoning, or is thinking less (or reasoning poorly), once that trader falls in love with, has blind faith in, declares that it will never retreat from, or is completely heartbroken over its marketplace position. However, these enraptured or wounded players never quit reasoning. After all, they decide (choose) to stay in their position. Besides, not all such enraptured or wounded players reason less or badly. As in the fields of love and religion, a trader not only may ponder old reasons to justify its marriage to or faith in a position, but also may seek out and discover new justifications. The desire and search for the treasured American Dream goal of money and the uncertainty of achieving it does more than inescapably involve emotions. It also creates stress and anxiety. An additional source of tension and anxiety for marketplace participants (and socalled outside observers) is subjectivity itself. In cultural fields, the scientific method is never objectively applied. Thus people do not reach agreement on definitions of and propositions regarding key terms such as investment. A wide variety of subjective perspectives compete for attention. Experts endlessly debate. Numerous reasonable strategies compete for attention.

The scientific rhetoric of the phony scientists of Wall Street and economics does not eliminate emotions from subjective perspectives. It does not even reduce emotions (though it may create the illusion that this has occurred), for the monetary (financial; economic) goal remains just as valued and desirable.

Though scientific propaganda cannot affect cultural emotions, it can influence the stress and anxiety associated with those emotions. Since the American Dream goal always is uncertain, marketplace stress and anxiety can never disappear. However, scientific oratory, including persuasive metaphors, at times for some participants may reduce that stress and anxiety. Real scientists like physicists, chemists, biologists, mathematicians, and mechanical engineers are supposed to be calm, cool, calculating observers and analysts. Suppose a trader, salesperson, financial advisor, researcher, risk manager, or other participant imagines itself as thinking and acting like a scientist, or very much like one. This science fiction will tend to have a calming, soothing effect; this result often is only temporary. Similarly, by fantasizing themselves as a scientist (or very much like one) and enlisting an arsenal of scientific metaphors, economists and other cultural observers sometimes can diminish the tension and anxiety resulting from their involvement in a cultural environment. However, their perspectives and thought processes remain entirely subjective.

The great majority of outside financial gurus and consultants (including "think tanks") tell themselves and others that they are objective. So does much of the financial media. For example, picture those seeking to help securities investors. However, like other cultural observers, all remain completely imprisoned within subjectivity. The bewitching rhetorical tags of objectivity and rationality bolster their efforts to sell themselves to audiences. To what extent, if at all, do these financial gurus and news guides seek knowledge for its own sake? Emotion imbues their subjective perspectives and thought processes.

Most economists and other simulated scientists, in their dreams of evading cultural viewpoints and constraints, assert they hunt knowledge for its own sake, like authentic scientists such as physicists and engineers. Yet one does not have to seek as one's primary goal money, power, social respectability, or other cultural goods to remain inescapably imprisoned within subjectivity. Though cultural and scientific realms both use the word "rational" and its relatives, cultural (subjective) rationality is not the same as or like scientific (objective) rationality. Cultural observers such as economists indeed love to learn. However, their curiosity and hard work never generates objective viewpoints or scientific knowledge. As shown above, the perspectives on and thought processes relating to marketplace and other cultural phenomena of economists and other so-called outside observers are equally as subjective as those of Wall Street traders, research gurus, risk management experts, and so forth. In cultural fields, aspiration to objective knowledge- often displayed by devoted yet inevitably subjective and therefore unscientific applications of the scientific method- does not enable one to be objective or to

discover scientific truth. Besides, for cultural domains, no objective (scientific) knowledge ("true knowledge") exists.

Are the perspectives and thought processes of economists, other social "scientists", and humanities professors less pervaded by emotion than those of Wall Street traders, salespersons, research analysts, risk managers, investment bankers, and Main Street business persons? No. Emotion always is an important aspect of subjectivity (cultural reasoning). Emotion accompanies (though sometimes "quietly") cultural perspectives and thought processes.

Both theoretical and applied physics (and other branches of scientific knowledge) are completely objective. We all know that economics is applied, not merely theoretical. Both theoretical and applied economics are entirely subjective. Moreover, don't the assorted schools of economics learn in pursuit of other desirable (good, valuable) cultural targets (policies) such as prosperity, wealth, and financial security? Yes. As these desires and values permeate applied economics, so do emotions. Since emotions permeate the reasoning of applied economics, emotions (desires and values) pervade economic theories. After all, cultural (and scientific) practices are not independent of the doctrines from which they spring. In addition, not all economic ideologies aspire to the same beloved ends. Think of dogmas seeking to significantly change class structure, status relationships, or wealth or income distribution. In "The Age of Turbulence" (footnote at p124), Alan Greenspan, the former Chairman of the Federal Reserve Board, confesses: "Of course, the ideology of capitalism was embodied in many of the [econometric] equations- econometric models revolve around the driving forces of consumer choice and market competition." Regarding the relationship between economic theory and economic practice, look at Federal Reserve Chairman Ben Bernanke's remarks as well. He makes what he labels a "loose analogy" between "science" and "engineering" (this "science" and

"engineering" clearly means the natural physical sciences) and "economic science" and "economic engineering". Then Bernanke admits: "Also, the distinction between economic science and economic engineering can be less sharp than my analogy may suggest, as much economic research has direct policy implications." (Speech, "Implications of the Financial Crisis for Economics", at the Conference Co-sponsored by the Center for Economic Policy Studies and the Bendheim Center for Finance, Princeton University, Princeton, New Jersey, 9/24/10). And all cultural goals such as prosperity, wealth, and financial security are themselves subjectively defined. More on cultural reasoning follows in the next two chapters.

The rock band Pearl Jam sings in "Do the Evolution": "I'm the man. Buying stocks on the day of the crash." Was this purchasing evidence of skill? Is this fellow a trading hero?

Since Wall Street and other economic arenas are not natural physical science environments, it pays to unearth other important topics in which scientific metaphors mislead audiences. Marketplace skill is one of these.

Since Wall Street has wars of words regarding whether marketplace skill in the sense of superior trading or research advisory talent exists, let's focus on that meaning of skill. In the following discussion, skill refers to greater talent, not merely a satisfactory or average ability to perform tasks. Skill involves historical and current marketplace insight and explanation, not just predictive foresight and the willingness to act on it. Superior performance, or "beating the market", involves both money making and doing better relative to another reference group with which one may be identified, such as investors in United States stocks. One can evaluate marketplace performance over both short and long term periods.

Of course human beings in Wall Street from objective biological, chemical, and physical perspectives belong to Nature and thus have an objective "order and regularity". A given scientific order and regularity could involve disorder, randomness, or chaos.

Yet unlike the Nature that genuine scientists study, culture (including Wall Street and other economic realms) does not have an objective order and regularity. Within (regarding) a cultural domain, people create and use subjective variables and structures to identify, understand, explain, and handle the phenomena of that field. Unlike natural physical scientists, cultural observers (whether insiders or so-called outsiders) subjectively perceive and create subjective versions of order and regularity. Also, as the subjective perspective of any given cultural player can change over time (sometimes dramatically), its subjective perception and visions of order and regularity (of certainties, probabilities, and randomness) regarding the cultural domain likewise can vary.

To duplicate a successful experiment in physics, chemistry, or biology, the same welltrained scientist can perform the same test at any number of different times. Or, two or more natural physical scientists will get the same result, regardless of whether or not they perform this experiment at the same time or at a variety of times. If economic realms such as Wall Street had an objective order and regularity akin to a Natural one, then in principle it would be possible to have an objective perspective in regard to them. Then well-trained traders would replicate trading outcomes, or at least the overall pattern of such results. At least some expert advisors and researchers (including economists and central bankers) would predict marketplace outcomes with an ordered regularity. But this does not occur in practice; past performance in marketplace trading and forecasting experiments does not guarantee future results.

Some say: "The stock market is a lottery." The Economist Magazine declares (8/8/92, p15): "The rewards of lottery tickets depend entirely on luck. In the equity market, similarly, those who earn a better return than the market average generally have luck to thank." Many say the range of trading performance in a given marketplace over a given benchmark time horizon is a mere statistical distribution like a series of coin tosses or spins of the roulette wheel. "A great trading record is like having heads turn up several times in a row in coin flips." Such opinions are incorrect.

The grandmasters Garry Kasparov and Bobby Fischer earned chess fame. Doyle Brunson has long been a renowned poker player. Top sports coaches such as Vince Lombardi in football and Red Auerbach in basketball were superior performers over long careers. Love speaks of Casanovas. War has Alexander the Great, Napoleon, and Robert E. Lee. Politics has superior leaders like Abraham Lincoln and Franklin D. Roosevelt. Religions have priests and gurus respected for their ability to handle secular (or the secular aspect of spiritual) matters. The fine arts praise luminaries such as Shakespeare, Michelangelo, and Beethoven. Some art dealers and collectors have a better eye than others as to what paintings or antiques will rise (or fall) in price. As Wall Street is a cultural realm, should not some winning traders and other Wall Street players likewise be given credit for skill?

Cultural fields involve substantial interaction with other people. Participants within and observers of games of skill, love, politics, war, religion, and fine art generally agree that these cultural fields involve skill in the sense of superior mental ability, and that this talent accounts for superior performance. That cultural fields involve skill of course does not mean that the talent in each field is precisely the same.

The diverse array of Wall Street metaphors based upon language from cultural fields such as games, love, war, politics, and religion suggests that cultural skill rather than objective probabilities, luck, chance, or randomness generates superior Wall Street trading performance. If marketplace experts objectively could explain Wall Street phenomena in general, if marketplace outcomes occurred according to objective (scientific) principles, they probably would not resort to such widespread and sustained rhetorical wordplay involving all these arenas. Why isn't natural physical science inspired talk alone sufficient to enlighten others?

As Wall Street belongs to culture rather than Nature, trading outcomes are not determined by and do not reflect objective certainties, probabilities, or randomness. Metaphors and similes claiming or suggesting that objectivity reigns are wrong. Cultural skill (greater talent) accounts for superior comparative performance in a given marketplace as well as across several marketplaces.

In cultural fields, the existence and great variety of reasonable subjective viewpoints and the corresponding diversity of actions indicates that players have very wide scope for choice in creating, developing, and applying subjective perspectives. The existence of cultural choice implies the opportunity for the development and exercise of cultural skill. In Wall Street as in other cultural fields, superior cultural perspectives and thought processes tend to produce superior outcomes over both the short run and the long run. Trading and other forms of Wall Street analytical and predictive skill can rise to the level of brilliance and genius, but such skill is never scientific. Also, since cultural perspectives are subjective, what is superior, average, or inferior in regard to cultural reasoning "in principle" or "in theory" cannot be objectively demonstrated. Natural physical science recognizes skill in the sense of superior objective rationality. However, the objective paths of scientific thinking are not the subjective avenues of cultural reasoning (more on this in "Cashing In: Words, Thoughts, and Poetry"). Because scientific thinking differs from cultural reasoning, cultural skill is not the same as scientific talent.

To convince audiences of their expertise and the wisdom of following Wall Street leadership, to persuade listeners that economic playgrounds are the same as or very much like natural physical science ones, Wall Street propagandists enlist scientific metaphors such as rocket scientist. Yet where are the objective theorems for money making in the Wall Street jungle? Wall Street spends billions of dollars every year on devising allegedly objective (or almost or approximately objective) marketplace models, on computer hardware and software, and on employing people with natural physical science training. Yet where are the replicable, true for all formulas for success in this environment? Not all Ph.D rocket scientists on Wall Street make money or outperform others. In marketplaces, neither scientific training nor fevered subjective attempts to emulate scientific reasoning and strategies are guaranteed or probable passports to superior profit- or even to any profit. This does not mean, however, that knowledge of mathematics, statistics, physics, formal logic, and so forth is unhelpful. Everyone knows that many successful traders benefit from their understanding of such fields. But remember that within cultural arenas, since all perspectives are subjective, all such knowledge and its applications are subjective.

Everyone knows that cultural arenas involve natural physical elements in various (although always subjective) ways. Love has biological responses. War has terrain and rocket trajectories. Painters are not blind to color and perspective issues; these artists handle paintbrushes. Thus in discussions involving skill, one must be careful in making generalizations. Not all games and sports are alike, and not all games are games of skill. However, definitions of and propositions related to game, sport, play, and recreation are cultural. In addition, the objectives of games, sports, play, and recreation (winning, fun, entertainment, camaraderie, and so forth) also are cultural. Analysts can study the interactions of roulette game players with each other from a cultural angle. However, in roulette or a lottery, though interactions with others can entertain or excite players, they are not intrinsic to individual wagering outcomes or long run performance. The roulette devotee seeking to win money makes choices, but it interacts only with the natural physical science type (objective) odds of the game. Thus although roulette is entirely a cultural phenomenon, one must stress the importance of its "subjectivized" scientific aspect (odds) in regard to outcomes (performance). Though poker involves intrinsic odds, long run performance outcomes depend substantially upon subjective perspectives in interaction with others. Unlike victorious coaching of the Boston Celtics pro basketball team over an extended period of time, success in the 50 yard dash relative to other competitors depends substantially on biological abilities.

In cultural fields, everyone knows that skill does not always result in victory or fame. In a game of skill such as bridge or poker, someone with talent may be dealt several bad hands in a row. In love, suppose someone with romantic insight and great charm is very ugly according to prevailing cultural standards. In general, such physical unattractiveness reduces their chances of finding so-called true love, physical love, and most other kinds of love. In war, the superior general may lose a battle because its troops or armaments are vastly inferior to those of the enemy. A political genius aspiring to public office who belongs to a party with only a handful of registered voters probably will never be elected.

As the existence of numerous and diverse subjective perspectives indicates, and as the wide variety of strategies and actions reflects, cultural fields offer a wide range of opportunities to make important decisions. In some cultural situations, one's position (role) can affect the scope for choice. Yet the wider the horizon for choice for the individual player, the more scope for the development and exercise of skill. The greater the scope for skill, the more that superior comparative performance directly results from such superior talent.

Wall Street offers tremendous scope for individual choice. Traders and researchers create and choose their subjective marketplace perspectives. Picture a large supermarket or department store; they select the marketplace (stock, debt, currency, or commodity) and instruments in which to trade. They select the time horizon over which they assess and take risks. They select what variables to analyze and decide how to interpret them. Via analysis, they even create new information. Think of the numerous fundamental and technical marketplace strategies. Participants choose between methods for making money and managing risk. Two marketplace leaders may have similar strategies, yet different tactics. Marketplace players choose how to bet (by buying or selling or spreading; by managing a portfolio of positions), how much to wager, and when to do so. Each money lover decides whether to stay in or leave the game, how often to trade, and whether or not to employ leverage. Even dealers with customer market making obligations retain great scope for choice.

Because Wall Street has an extremely wide scope for choice, each Wall Street trader (and other marketplace observers) deals itself its own cards- its own marketplace perspectives and thought processes and strategy, its selection and evaluation of information, and its own probability assessments and choices. Marketplace opportunities, risks, and probabilities are not objectively out there like natural physical science phenomena. Only in someone's opinion are so-

called investment opportunities low-hanging fruit to be grabbed by astute observers. Traders (and salespersons, analysts, advisors, economists, risk managers, central bankers, and other watchers) subjectively perceive and determine marketplace opportunities, risks, and probabilities. Thus subjectivity itself enables some traders to display skill, to make money and to outperform others (and some observers to give superior advice), since there are always and only personal (never objective) opportunities to be perceived and seized. Moreover, in the changing cultural world, traders do not have to stick to some well-worn experimental perspective and procedure. At any time, a trader can choose to alter its outlook, method, and actions.

In the context of this great scope for subjective choice, the notable roles of experience and character traits in Wall Street- as in other cultural fields- underscores that skill is the source of superior Wall Street performance. Of course experience alone does not mint money. However, Wall Street and arenas such as games of skill, love, politics, war, and fine arts like the novel and poetry praise experience as a reason for superior performance. Many religions value a practical wisdom for everyday cultural living derived from experience. Not only do some people have more experience than others. Some seek out to gain more experiences than others. Not everyone learns the same amount, or the same lessons, from a so-called "given cultural experience". Cultural participants differ in their abilities (including willingness) to learn from similar experiences, from their successes and mistakes. A superior track record over many years indicates a talent for learning from experience. Since Wall Street heroes, superstars, and wizards gain experience over time and because numerous deliberate choices are integral to this process, superior outcomes in Wall Street result from skill.

All cultural battlegrounds recognize that choices (including the resulting habits) help individuals to acquire and develop some abilities or character traits, whether analytical insight and foresight, intuition, self-control, courage, determination, and so on. Practice and hard work may enhance so-called native, raw intelligence (brain power) and an already powerful memory. Some people are more curious than others. Some question more or in a better fashion what they hear, see, or read. Some street smart treasure seekers better interpret and anticipate the thoughts and actions of other individuals and groups. Some participants profit from the comparative lack of or weakness in "reasoning power" and experience of others. Sometimes they can exploit the character traits of those with whom they interact.

Like Wall Street, the corporate universe and Main Street worship the American Dream money icon. Competitors within these economic playgrounds fight to acquire a subjective understanding of the past and the present in order to predict the future. Though Wall Street does not formally immortalize its big money winning heroes and all-stars, it greatly honors them and declares them worthy of emulation. Investment titans are especially revered. Most people inside and outside of Wall Street recognize and praise the skill of successful, profit-making entrepreneurs, whether tycoons like Rockefeller in oil or Gates in computer software, or Main Street ones that build profitable small businesses. Like Wall Street traders, corporate kingpins and Main Street merchants make numerous choices. Since stellar entrepreneurial performance substantially results from choices and talent (superior ability), so does superior performance in Wall Street.

Also, highly profitable Wall Street banks and investment banks, like other business enterprises, are entrepreneurial creations. As superior financial outcomes of businesses outside of Wall Street generally derive from and reflect skill, so do those of Wall Street's winning institutions.

In war, for the soldier on the battlefield facing fierce enemy fire, the good of survival and the evils of injury and death often depend very little on that soldier's choices. Soldiers ask "why me?" or "why them?" as to living and dying. Some traders claim they dodge bullets in their quest for profits. Yet no military commander issues marching orders directing how individual traders must proceed. Heterogeneous Wall Street participants place price and other information in personal perspective in a variety of subjectively reasonable ways. Given the diversity of subjective perspectives and choices in Wall Street, the real bullets in Wall Street are the trader's own viewpoints and decisions. Obviously the trader lives in a cultural world, not in a vacuum. Its interactions with others (even if not face-to-face), including the marketplace behavior of others, influence its perspectives and decisions. Entertaining, exciting, and authoritative rhetoric, especially from Wall Street and other economic leaders and experts, can affect the Wall Street combatant's viewpoint and choices. Nevertheless, each fighter always makes its own decisions including whether it pays attention to or has faith in (or becomes wedded to) the rhetoric (including the metaphors) of others. It therefore herds itself into a pasture of its own design. It chooses to stay in or leave that pasture. Regardless of whether a given trader is a seasoned veteran or a green recruit (and though experience influences Wall Street perspectives and outcomes), both more closely resemble a general planning strategy in headquarters than a private fighting in the trenches.

Although prices fluctuate because of the decisions of interacting participants in subjectively viewed and understood supply and demand arenas, the trader is its own friend or enemy. Each trader is ultimately and entirely responsible for its own victorious or bloody outcomes because it makes choices. On the survival and death dimension, making or losing money, the trader enjoys far more choice than the average soldier. Wall Street traders and other participants, regardless of marketplace, are not a homogeneous "body" like a platoon of soldiers

in close proximity on a battlefield. Neither the price nor other information or actions are being fired at all of them like cannonballs from hostile artillery. Each trader deliberately chooses its own spot. The helmeted warrior in a shallow, muddy trench cannot alter the path of the enemy's bullets. Though the fluctuating price poetically seems to some like bullets flying around, the price does not hit anyone and itself determine life or death in Wall Street- trading decisions do.

Each Wall Street trader fires its own bullets at itself. Rather than dodging bullets, the trader always is biting its own bullets- by making choices reflected in its subjective perspectives, thought processes, strategies, and buying and selling actions. Sometimes it is on target and makes money on a trade. A trader also can dig itself into a hole or shoot itself, perhaps blowing itself to bits.

Since there is no shared objective viewpoint on price or other marketplace phenomena, it therefore is fanciful and misleading to suggest "the" price level or movement of a stock or bond is intrinsically (objectively) friendly to one group but a foe to another. Since an objective natural price (central tendency, fair value) is science fiction, the price never has an objective (natural) destination. People merely express opinions regarding price phenomena. Besides, price is "two sided" and neutral. As buyers and sellers trade at a price, a shared contractual meeting ground, the agreed price cannot have friendly intentions toward one camp and hostile ones toward the other.

Assertions that Wall Street money making or losing outcomes, for either individual trades or over the long run, result from luck, chance, fortune, or randomness or because of what the price (or other marketplace information) did are wrong. Such alibis, often embroidered with natural physical science metaphors, duck responsibility for one's choices.

We hear talk such as: "It's prudent to have a properly diversified investment portfolio of stocks and bonds." People say: "The US stock market is efficient." Many Wall Streeters and economists, especially would-be scientists, enthusiastically embrace diversification and efficient market theories. However, these respected doctrines are subjective, just like other allegedly scientific notions. Given their adoration of science and their devotion to objectification, the aspiring Newtons, Einsteins, Darwins, and Fords of Wall Street and economics frequently intertwine allegedly scientific diversification or efficient market viewpoints with other supposed science. As it does for other scientific propaganda spouted from Wall Street, economics, and other cultural realms, seductive rationality rhetoric permeates diversification and efficient market talk.

Sometimes a Wall Street icon or economic idol promoting these subjective faiths merely intends to explain Wall Street or other economic phenomena. However, diversification and efficient market theorists also often pursue a further rhetorical agenda. Much diversification eloquence and efficient market jargon (sometimes as allies) battles to influence professional and Main Street trading perspectives and thereby behavior. Much of the charming wordplay endeavors to entice Main Street money seekers into joining and staying within Wall Street congregations- especially those investing in securities. Many sales scriptures focus especially intently on encouraging stock investment, particularly over the long run. Many enchanting liturgies spend special attention on making the United States stock marketplace appear attractive.

Remember that especially in securities marketplaces, enterprising Wall Street evangelists (including money managers) and their corporate and governmental friends (who need to raise money) need owners. Potential owners include not only professional players, but also Main

Street ones. Even experts disagree on how to define investment and speculation. Moreover, which securities are investments, or good and reasonable investments? Investors differ in their subjective perspectives and thought processes as well as in their investment strategies, tactics, and actions. Nevertheless, the opportunity to possess the worthy title of investor entices many people to venture into and stay within Wall Street's marketplaces. Yet neither institutional pros nor Main Street fortune seekers are locked into Wall Street cathedrals. Even someone who lets Wall Street insiders manage their money can flee Wall Street and bring their cash back home or to greener pastures. Though people define the long run differently, the more securities participants that choose buy and hold for the long run as their investment (or trading) philosophy, the more stable the Wall Street capital formation process tends to be. After all, devoted buy and holders should be relatively passive in action, except for the acquisition of additional stocks and debt instruments, and perhaps for shifts between various investments (or asset classes). And of course the more money that stays in Wall Street, the greater Wall Street's profits tend to be.

In practice, players make (or lose) money by trading in one instrument or in a portfolio of them. Some people offer opinions against diversification. "A trader should stick to what it knows. It's easier to know one stock well than many. Why spread yourself thin?"

As the proverb "Don't put all your eggs in one basket" used in marketplaces as elsewhere shows, science does not inspire all marketplace diversification theory. However, even if an observer does not believe that diversification principles are objective, it still may believe they are wise.

However, since Wall Street and other economic arenas are cultural rather than Natural playgrounds, diversification definitions, theories, and methods are never scientific. It is not

objectively rational (or objectively more rational, intelligent, prudent, businesslike) to diversify. Having a position in only one security likewise is not objectively reasonable.

Diversification guides express subjective schemes qualitatively and quantitatively. Which variables should someone include (associate; link together) to compare marketplaces and thereby create so-called appropriate (reasonable) diversification? How should these variables be evaluated? Financial architects reasonably disagree as to what appropriate diversification or a well-balanced portfolio is, both in general and for a given marketplace participant. Correlation within and between marketplaces and its implications vary according to personal perspectives. Also, as in other economic viewpoints, bringing mathematics and statistics into diversification and portfolio theory does not create objectivity. If one significantly alters the time duration reviewed, say from one year to three or five or ten years, the extent of correlation (of likeness and difference) may appear quite different.

Suppose a trader owns only one stock. Or, suppose it holds equities in only one marketplace sector such as oil refiners. Over a given time horizon, that company or sector may decline (or increase) in price significantly (significance is a matter of opinion) more than a benchmark measure such as the S+P 500 of the "overall" marketplace.

Everyone knows that even in the United States stock marketplace, prices can decline. Picture the investor, especially on Main Street, that owns a single stock, or a "mere handful" of them. If the investor's stock falls to pieces, the investor may decide to escape from the arena, perhaps once and for all. Even if the participant would like to rejoin the game, it may have insufficient capital to do so. In contrast, imagine someone with a varied assortment of stocks in its basket. Even if some equities are smashed, the player may own many or at least a few

winners. That investor is more likely to stay in the Wall Street temple than someone whose only investment was crushed. Also, many players with some winners may elect to hold on to the losing stocks, especially if they retain faith these belong in their portfolio for the long run.

Faith in diversification principles enables professional and Main Street investors to reduce their worries about having the wrong stock (or a less good one; or too many of the wrong or less attractive kind). In a marketplace such as US equities, suppose a subjective investigation discovers a variety of stocks that apparently move in approximate parallel to some index for the marketplace as a whole ("The Market"). A friendly Wall Street expert can design- and help you manage, or manage for you- a properly diversified US stock investment portfolio. Even if the price of one US stock does not increase over the long run, a group of US investment grade stocks supposedly should do so, thus enabling the portfolio to be profitable. After all, the success of the American Dream and American corporations should go hand-in-hand, right?

Such proper diversification has another benefit for some US stock investors. Even if one does not expect to be a leader of the pack, who wants to fall behind in the race for wealth and financial security? Diversification enables many to keep up with (have more or less the same percentage return as) their US stock owning neighbors in general.

The various subjective diversification theories are not restricted to ownership (or investment), or equities in general or US ones in particular. In a given marketplace such as US equities (or a sector within that field), a player can be a diversified long, a diversified short, or have a mixture of long and short positions. Or, a trader can diversify across various equities marketplaces. Think of someone holding stocks in the US, Europe, Japan, and several emerging marketplaces. A trader can have a diversified interest rate portfolio. Or, someone could have

positions in stocks as well as in debt instruments, and perhaps in currencies and commodities as well. Some include actual real estate (not just mortgage securities) as part of their portfolio. Some diversification strategies extend from physical (cash, spot) marketplaces into forwards, futures, options, and other derivatives. Also, diversification has no time restriction. Diversification disciples can be short run, medium term, or long run risk takers. Although most Wall Street diversification wordplay concentrates on investment, guides do not neglect speculation, hedging, and risk management.

Your money of course can march actively around or between Wall Street marketplaces. However, that money nevertheless remains passive from the standpoint of staying within Wall Street. It may change rooms, but it doesn't leave the house.

Diversification rhetoric assists Wall Street missionaries in their crusades to keep professional and (especially) Main Street money with it in some marketplace. There are many money making paths, right? There are many avenues by which a prudent person can get a good (reasonable) return on investment! Suppose an investor or other player wants to reduce the amount of money at risk in stocks. What if it no longer wishes to own equities at all? Then it can keep some or more money in short term interest rate instruments or US Treasury bonds or mortgage-backed securities. Maybe it should take a look at gold or other commodities. "Fidelity Strategic Dividend & Income Fund. Looking for more income? Try looking in more markets. Looking to expand your income potential? Get the fund that can react quickly to market conditions by shifting allocations in four dynamic markets. You get exposure to specialized asset classes and the potential of reduced volatility- all in one fund." (NYTimes, 1/18/04, Money & Business, section 3, p2). The advertisement lists preferred stocks, real estate securities,

convertible securities, and "common stocks with a value orientation". A footnote's fine print remarks that value stocks "can remain undervalued by the market for long periods of time".

Many diversification devotees believe in the sacred natural price and valuation teachings. Most on Wall Street and in economics have faith that natural price and valuation theories are objective (scientifically rational) or mostly or approximately objective. Suppose one owns a good, properly balanced US stock investment portfolio. Perhaps engineers designed it to mirror the S+P 500. One can forecast a goal for one financial instrument, for a blended assortment of them, or for a combination of several hundred or more. An investor may have a target price (or return) for its US stock portfolio above the present price (return). Regardless of a trader's principles or analytical methods, if it has identified a price destination, it generally awaits that target. If the natural price (fair or true value) for this portfolio exceeds the present price, follow the commandment- dutifully remain in the passive buy and hold pattern and await convergence. This intelligent (prudent) investor, though generally passive, can make portfolio adjustments to ensure proper balance. Yet unless this owner's personal circumstances change significantly, it should not be a net seller, for that would be irrational, unreasonable, imprudent, or emotional.

Scientific metaphors greatly assist diversification orations since they help to manufacture an alluring edifice of supposedly scientific principles, methods, knowledge, and results. Moreover, if Wall Street is, or is very much like, a natural physical science arena, it should have scientific (or almost scientific) experts.

Even for those who do not believe in the pretensions of Wall Street and economics to objectivity (science), diversification rhetoric points out the benefits of relying on Wall Street expertise. Other fields such as games, love, war, politics, religion, and the fine arts have experts, and Wall Street has created an arsenal of metaphors based upon language from these playgrounds. Many economic all-stars, generals, princes, and wizards believe diversification is just good old common sense.

Though financial engineers debate regarding how to appropriately diversify, faith in the goodness and reasonableness of diversification and other intertwined theories encourages reliance on Wall Street professional guidance. Diversification rhetoric helps Wall Street speakers to present themselves to other professionals and (especially) to the Main Street public as expert. It is profitable as well as prestigious to be needed and helpful. In any event, as in other aspects of trading, diversification offers great scope for skill.

As Wall Street marketplaces have grown (become more diverse), especially in recent years, the apparent need for expertise has increased. Many diversification issues and choices may appear difficult. Look around the globe today. Lots of nations have stock and debt marketplaces. Thousands of stocks representing firms engaged in all sorts of businesses trade actively. Which are "investments", or "good investments" and why? One can choose between all sorts of interest rate instruments of various maturities issued by various nations and corporations. Should one own US Treasury notes, corporate bonds, or mortgage securities? Should a properly diversified portfolio include low grade as well as high grade instruments (assets)? If so, in what proportions? Remember that many currencies and commodities are busy marketplaces. To what extent are alternative investments prudent? Financial instruments trade not only in physical (spot) marketplaces, but also as derivatives in futures, forwards, and options arenas. As the mortgage securities marketplace indicates, some financial instruments appear quite complex (some would say quite perplexing). Also, many Wall Street participants, especially those entering from Main Street, lack the resources (such as specialized training, analytical models, and powerful computers) of Wall Street diversification experts. Do most full time workers on Main Street have the time and energy to create and maintain a properly balanced portfolio?

Institutions and individuals of course are not all identical or almost the same. So Wall Street does not confine its diversification talk and expertise to generalities. Suppose someone asks: "What's the right (or at least a good) portfolio to fit my particular circumstances?" Wall Street wizards and their disciples seek to identify and meet specific customer needs and desires. Trusty advisors serve up individualized plans to satisfy a given person's investment or other financial needs. With numerous items and arrangements available at the investment supermarket, some should appear appetizing, right? Personalized conversations and tailor-made recommendations enable Wall Street promoters to appear like a friend or partner.

Efficient market theory is a sacred doctrine for many of the make-believe scientists of Wall Street and economics. The various versions of the faith are applicable in principle to all Wall Street stock, debt, foreign exchange, and commodity arenas, as well as to Main Street and other marketplaces. Given the size and importance of securities marketplaces, many efficient market treatises focus on them. Many devotees spend particularly significant effort on the United States stock marketplace. Some sages intertwine investment talk with their efficient market wordplay. As they do with other allegedly scientific marketplace viewpoints, many Wall Street residents and economists married to efficient market theory use it for more than educational purposes. The theory enables them to display expertise and thus to attract audiences and clients.

People should call it the "deficient market theory". Much of the praised insight of this subjective theory and its particular forms is trite. Some of its propositions, hallowed as true for all, are wrong or misleading.

First, efficient market theory is not science, or even close to it. As Wall Street and economics are cultural arenas, perspectives regarding (within) marketplaces inescapably are subjective. Though efficient market preaching involves rationality rhetoric and other allegedly scientific doctrines, efficient market opinions are never objective. In addition, regardless of the version, each sect of efficient market theory has an incorrect analytical approach to and an inadequate understanding of cultural information (data, news, facts, factors, and evidence). The theory's lack of comprehension as to how subjective perspectives and thought processes operate regarding marketplaces interrelates with its fanciful objectification of cultural phenomena. This includes viewing information as a scientific (objective) body, force, or entity.

From the altar of his respected book, "A Random Walk Down Wall Street", Burton Malkiel offers an overview of the forms of the random walk theory. "The past history of stock prices cannot be used to predict the future in any meaningful way. Technical strategies are usually amusing, often comforting, but of no real value" (p163). Once one adjusts for earnings and dividend growth, "The next move in a series of stock prices is largely unpredictable on the basis of past price behavior" (p144). The "random walk" in this "weak form" of the efficient market theory claims: "The history of stock price movements contains no useful information that will enable an investor consistently to outperform a buy-and-hold strategy in managing a portfolio" (p145). Malkiel snorts: "I still believe that technical analysis must ultimately be worthless" (p162).

This attack on technical analysis attempts to lure audiences into the fundamental cathedral. Moreover, since the majority of fundamentalists believe that people (and especially experts) can have a scientific perspective (or a mostly or approximately objective viewpoint) on marketplace phenomena, such efficient market rhetoric promotes other allegedly scientific doctrines. These include natural price and valuation dogma and the container ideology. Note too Malkiel's focus on investor, portfolio, and buy-and-hold.

However, fundamental and technical information are equally cultural. And definitions of fundamental and technical are subjective (matters of opinion). Anyway, observers place both fundamental and technical variables (including marketplace history) in a variety of subjective contexts. So fundamental and technical phenomena acquire meaning in diverse ways. Much fundamental information is numerical. Think of GDP, consumer prices, retail sales, and unemployment. Why is fundamental study of such indicators privileged? Since much fundamental equity research relies on past stock prices either directly or indirectly (think of price/earnings ratios), why are these fundamentals of greater value? Anyway, as economics and Wall Street are cultural fields, there can be no scientific (objective; Natural) demonstration that fundamental analysis or information has or should have superior standing relative to technical study or data.

The scholarly Malkiel misses other key points. Wall Street observers are not all similarly situated like genuine scientists (natural physical scientists) in their laboratories performing the same experiment. The "next move" is subjectively defined and perceived differently by different traders (and other observers). Perspectives regarding "past price behavior" are not objective. In addition, traders and advisors make their subjective predictions by relying on variables in addition to past price behavior. And views on marketplace probability and causation are matters

of opinion. "Largely unpredictable" by whom, one should ask. Cultural fields like Wall Street involve numerous choices, and so skill (talent, superior ability) exists within them.

Physics, chemistry, biology, mathematics, and engineering identify and explain not only Natural wholes (including environments and systems), but also their parts and their relationships. Depending on the scientific phenomena investigated, elements, particles, waves, forces, energies, DNA units, and so on may constitute a Natural whole. The success of the real sciences inspires many cultural observers to strive to become objective and thereby join (or at least closely resemble) the natural physical science teams. Economists and other would-be princes of positivism enamored of container theories thus battle to construct (explain) a price or price history from building blocks of information. They likewise dream of breaking a price or price history into objective data, news, facts, factors, and evidence.

However, price history and any given price never objectively contain information. Marketplace information acquires (has) meaning within and only because of subjective viewpoints. All historical and current fundamental and technical marketplace phenomena, including that of or related to price, acquires meaning according to and within the perspective of the particular observer. This cultural meaning always is subjective, never scientific. Cultural meaning (including cultural knowledge) is not true for all because it is not derived objectively from Nature by rational natural physical science observation, experiment, and argument. Possession of information does not make or lose money; how one subjectively assesses it and acts upon it does. As Malkiel's container viewpoint is erroneous, propositions based upon it are mistaken as well.

In discussions of the weak form of the efficient market theory and technical trading methods, the efficient market clergy offer the parables of the roulette wheel (Malkiel, pp161-62) and the coin flip: "The next price change is no more predictable than the flip of a coin" (p144). In "The Age of Turbulence", Alan Greenspan states (p466): "When markets are behaving rationally, as they do almost all the time, they appear to engage in a 'random walk': the past gives no better indication than a coin flip of the future direction of a price of a stock."

However, the next move is not a scientific phenomenon. The definition of next movelike that of investment, the long run, economics, recession, and other cultural words- is a matter of opinion. Change the selection period, or how one places price and price movement in perspective in relation to other variables, and one gets different subjective views as to the next move. Is it the next tick on a second-by-second basis, the next day's close relative to today's close, or some other measure? The next move for a day trader generally is not the same as that for a long term trader. The next price is not necessarily the same even for all long term (or for all short term) traders.

Moreover, to achieve above-average or superior performance, Wall Street traders and analysts do not have to make constant predictions as to what every so-called next move will be. They need to trade or make trading recommendations only some of the time. They are not required to forecast or act in relation even to most of the next moves, though some may decide to do so. A player can pick its spots. Finally, the trader does not have to identify the next move with the precision of the minute hand of a clock. A trader may not have an opinion as to whether the price next month, or exactly six months from now, will be higher than it is at present. However, it may strongly believe the price will be higher (or much higher) than it is now sometime during the next six months.

Over the long run, outcomes of roulette wheel spins and coin flips are statistically determined. Though our friends may join and even distract us at the roulette table, our performance results only from interaction with the objective probabilities of the game itself. In contrast, economic fields belong to culture, not to Nature. So unlike odds intrinsic to a game of chance like roulette or a lottery, or the element of intrinsic odds (such as card distribution) in a game of skill like poker, Wall Street marketplaces do not have objective odds (certainties, probabilities, or randomness) inherent in them. Each trader subjectively perceives and creates its personal (cultural) marketplace probabilities, risks, and opportunities. Viewpoints on marketplace causes (causation) likewise are subjective. Someone once told me: "the odds are based in each trader, not within the game itself". The roulette and coin flip metaphors also overlook the interpersonal dealings and relationships of cultural domains. In its quest to make money, the trader (or other marketplace participant) of course does not directly interact with all or even many other players. Many of its marketplace interactions may not be face-to-face or voice-to-voice. Yet each Wall Street trader (or other observer) always interacts with other subjectively oriented marketplace participants.

Picture an investor or other owner of an appropriately diversified stock portfolio with faith that prices will increase. The weak form of the efficient market theory and its roulette and similar metaphors encourage passivity and a long term focus. If the next price is unpredictable, don't try to predict it. One should not worry what may happen next or over the short term, because not only are future price movements uncertain, any trading success inspired by an effort to perform better than average is a statistical fluke. Stronger versions of efficient market propaganda also include these opinions related to technical analysis and price changes over time.

These viewpoints thereby also motivate stock owners with faith in such gospels to concentrate on the long term and remain passive.

Even the United States stock marketplace and its prices are not subject to natural physical science odds. Interest rate earnings and principal repayments and other phenomena of debt marketplaces are not objectively certain, probable, or unpredictable. Regardless of marketplace, future price history does not (and past price history did not) have objective unpredictability (think of aspects of the weather), objective probability (recall quantum mechanics), or objective certainty (Newtonian celestial mechanics). Though many stocks may pay dividends, stock price appreciation is not objectively guaranteed or likely. There of course is no scientific proof that marketplace phenomena, including prices, have or reflect religious destinies or probabilities. Stock owners nevertheless must have faith to buy and hold for the long run. Devotees of the weak form of the efficient market theory still must marry a cultural perspective and price outlook in order to entice listeners to buy and hold equities for the long run. American Dream rhetoric helps to persuade people to buy securities, particularly American equities.

Suppose high priests of the buy and hold for the long run securities parish admitted that technical analysis (however defined) lends a hand in predicting price direction or level. If so, why should it not help to forecast the timing of marketplace moves? If technical approaches offer assistance, since prices fluctuate, some investors inclined to make marketplace timing predictions may not always want to remain long at all times. Even devout believers in a higher natural price may elect to move in and out of long positions to try to harvest more money. Suppose observers believe skill enables some players to choose the time to be long (or out of the marketplace) better than others. Then some money seekers will not remain passively long. Some of these adventurers will follow the recommendations of experts, and others will fly solo. The

more stock (and interest rate) investors that elect not to hold on for the long run or that decide not to hold on at all (and imagine a run for the fire escape), the greater the threat to Wall Street as a church of capital formation.

Some securities investment denominations assert that short selling of securities (at least of investment grade securities) is bad (or imprudent), speculative (or gambling) behavior. However, since one can exercise skill as to when to be long, one can exercise skill as to when to be short. Those who benefit from and publicize the goodness and rationality of investment in securities (especially in American ones), and regardless of whether that investment is long run or short run, do not want to provide ammunition that justifies short selling.

An efficient market theorist need not, within the bounds of the doctrine itself, have an outlook on price level or direction. Yet many trumpet their subjective predictions alongside their subjective theory. A forecast of rising prices for the long run is a prediction of a next move. Many efficient market wizards herald the "good" upward possibilities for United States equity prices in general over the long run (Malkiel, p24).

If "the next move in a series of stock prices is largely unpredictable on the basis of past price behavior" (p144), why should that next move be predictable through the analysis of fundamental information, or via an alloy of fundamental and technical information? Regardless of how one defines fundamentals, no objective proof via the scientific method demonstrates that fundamental evidence is intrinsically better for prediction than technical information.

Anyway, suppose for the sake of argument that the next price for a security is largely unpredictable on the basis of fundamental as well as technical analysis. How can a believer in efficient market theory justify with intellectual consistency long run buy and hold strategies for equities (or debt) marketplaces in the face of an unpredictable future? If the next price is largely unpredictable on the basis of fundamental research as well as technical study, as the next can be for a long run or a short run, how does one justify an investment strategy for any time period? Or, why have an owning strategy as opposed to a short selling plan?

There is no scientific justification for granting the United States stock marketplace a special exemption from all these next move rules. Why do many Wall Streeters and their playmates grant the US stock marketplace this privilege?

The random walk theory has "semi-strong" and strong versions. The semi-strong faith "says that no published information will help the analyst to select undervalued securities...the structure of market prices already take into account any public information that may be contained in balance sheets, income statements, dividend declarations, and so forth; professional analyses of these data will at best be useless. The 'strong' form says that absolutely nothing that is known or even knowable about a company will benefit the fundamental analyst. Not only all the news that is public but also all the information that it is possible to know about the company has already been reflected in the price of the stock. According to the strong form of the theory, not even 'inside' information can help the investors" (p191). Malkiel claims the strong theory is an "overstatement" if it does not admit that it is possible to gain from possessing inside information. The guru adds that trading on inside information [in the United States] would break the law. His insight reveals that the information revolution enables rapid transmission of news.

Both broad forms of the efficient market theory, semi-strong and strong, state fundamental analysis does not help the investor. "Thus, throwing darts at the financial page will produce a portfolio that can be expected to do as well as any managed by professional security analysts... <u>Fundamental analysis cannot produce investment recommendations that will enable an</u> <u>investor consistently to outperform a buy-and-hold strategy in managing a portfolio</u>" (p192, Malkiel's emphasis). These semi-strong and strong forms declare that one should not actively manage a diversified portfolio.

Note the misguided container theory as it relates to fundamental information for stock prices in the semi-strong and strong forms. However, because there is no objective observer regarding or within Wall Street and other economic fields, as all marketplace perspectives are cultural, marketplace information has only subjective (personal) meaning. Marketplace variables are not objectively "out there", available for scientific observation and analysis by an individual or a group. Prices never take fundamental or technical information into account. Instead, people take information into account. Each individual makes a price and all other marketplace information meaningful in a personal way- not in an objective (scientific; true for all) fashionvia the process of incorporating it within their subjective perspective. In Wall Street as in other cultural realms, the process and outcome of perceiving information, placing and assessing it in the context of other facts, and creating new information often varies substantially between individuals. In addition, as information is threaded throughout and is part of an individual's subjective perspective and thought processes, the personal perspective and thought processes are forms of information (variables). In cultural realms, people thus can and sometimes do "change how they think (reason) about things". People thus change themselves.

In economic fields as in other cultural arenas, since skill in the sense of superior talent exists, some people handle information (take it into account) better than others. Many individuals consequently make marketplace predictions better than others. As there is no scientific natural (rational, reasonable, normal) price, there is never objective mispricing or undervaluation or overvaluation (or unreasonable, abnormal, or irrational levels) in any securities or other marketplace. Besides, some investors (as well as other players) do outperform buy and hold strategies. Many efficient market cultists harbor a secret fear. They tremble that if they admit marketplace talent exists, some ambitious buy and holders may venture to acquire and exercise skill, or at least will seek to perform a bit better than average. This may involve not only more active trading, but even exiting the marketplace for a while. Such activity, and especially defections, will reduce the stability and cohesion of the buy and hold for the long run congregation.

"The random-walk theory does not...state that stock prices move aimlessly and erratically and are insensitive to changes in fundamental information. On the contrary, the point of the random-walk theory is quite the opposite: The market [presumably the US equity marketplace] is so efficient- prices move so quickly when new information does arise- that no one can consistently buy or sell quickly enough to benefit" (Malkiel, pp192-93).

Because efficient market theorists broadcast the blessed revelation that information is relevant to stock price movement, and that not everyone receives information at the same time, surely we all should be eternally thankful. Yet how one defines quickly is a matter of opinion. Is it immediate, over an hour, a day, a week, or another time horizon? What oracle demonstrates what enough is?

Efficient market jargon related to quickness provides rhetorical benefits. Suppose Wall Street professionals (which may include dealers) have faith in the theory and that they participate in an efficient marketplace. Surely such players will not attempt to outrun others in that marketplace when the starting gun of new information is fired, right? After all, there supposedly is no consistent benefit in such efforts. This aspect of efficient market doctrine aids Wall Street in its effort to convince itself and others that an efficient marketplace in stocks and elsewhere is a fair race. Even if perfect efficiency is difficult to achieve in practice, a very nearly efficient marketplace should be a very good one too, right? Most people of course prefer to play and wager in a fair game rather than an unfair one.

Things are always happening in cultural arenas, and thus there is always something new. Yet in addition, what is new or old information depends on the given subjective perspective. Efficient market evangelists have a too narrow view on new- and old- information. Even in socalled efficient markets, not only is new information constantly arising (including via the creativity of individual perspectives), but also not all information (including historical evidence) is equally relevant to an individual outlook. Not all observers assess so-called "same" data, facts, factors, news, and statistics in the same way or with the same results. Different cultural perspectives not only fabricate new information out of old facts and renew (rediscover) old information, but also weave new information out of fresh data (including information released only a few seconds ago). No scientific reasons mandate that observers, including marketplace participants, must or should see or study an informational "it" in the same way, or act in the same fashion (even quickly) in relation to "it".

Subjective choices affect how an individual player perceives, acquires, and handles marketplace information. Diverse subjective perspectives do not occur or develop via random processes. Also, although cultural heritage of course influences viewpoints, one can choose to modify or reject and thus replace a tradition. Given the great and ongoing room for choice regarding the selection, gathering, viewing, creation, and analysis of marketplace variables, significant opportunity exists for skill in dealing with and thus acting upon information. As an investor or any other participant chooses its spot related to its subjective perspective and marketplace strategy, it also chooses its spot related to information. Placing information, whether fundamental or technical, in subjective context involves aiming that evidence. Not all traders make (or lose) money by trying to transact business "quickly enough" as defined by some would-be natural physical scientist. Traders (including investors) win money by acting from various perspectives, for various reasons, according to various strategies, at various rates of speed. All these choices enable some marketplace risk takers, including US equity marketplace investors, to develop, exercise and demonstrate skill in the sense of superior talent. Marketplace choices may be made over both the long run and the short run, regardless of how one defines those periods. Also, short runs compose any given long run. So skill related to information management can occur over both the long run and the short run. Superior comparative performance, including that over an extended time period, is not random. It results from skill. Even in dart competitions, throws by skilled players are not random or indiscriminate.

Suppose for the sake of argument that all participants in a given marketplace simultaneously become aware of the new information. Assume economists or Wall Street financial engineers unearth a marketplace that in their opinion has long run upward potential. Might this be the US equity marketplace, at least for so-called investment grade stocks? Preaching that moving quickly produces little or no benefit attempts to lull both professional and Main Street traders- especially investors- into staying properly long and diversified in marketplaces that Wall Street or other rocket scientists deem efficient (or almost efficient). This rhetoric seeks to herd stock investors into a course of reasoning and action that tends to benefit Wall Street and its allies financially over the long run. Most efficient market theorists believe that the only kind of reasoning (or that the best or serious thinking) is scientific rationality. These would-be scientists link their subjective efficient market theory to rationality rhetoric. When anointed experts wearing supposedly scientific robes spout scientific rhetoric, including rationality propaganda, who will dare question them too much?

According to their sermons, as superior marketplace results in efficient marketplaces do not reflect skill, rational (intelligent, logical, prudent) investors should not try to exercise it. If one cannot outperform others over the long run on the basis of skill in how information is handled, one should not strive to do so. If you can't beat 'em, join 'em! In this context, if US equities probably will rise in price over the long run, the smart money buys and holds a diversified portfolio and waits.

Recall that much rhetoric in Wall Street and other cultural arenas ties the language of goodness to labels such as rational, reasonable, logical, common sense, and related terms. Many speakers in Wall Street and other arenas also link efficient to good and inefficient to bad (and less efficient to less good). Thus efficient marketplaces may receive the honored badge of rational. Since Wall Street and other fields associate investment, money, and the American Dream with the good and rational, eloquence regarding efficient often is sewn into the web of these words as well. Since it is good and rational to invest, it ought to be good and rational to invest in an efficient marketplace.

Yet most financial pilgrims will consider entering- and staying within- an allegedly good and rational land of opportunity only if they believe they have very good chances to make money

there. Again, those who cast rhetorical nets seek not only to persuade others to join their faith, but also to steer audiences to act in a particular way. Many people, not just some of the efficient market fraternity, believe the good American Dream should succeed over the long run and that it therefore is wise to buy US stocks. Anyway, suppose a Wall Street rocket scientist convinces itself that the US stock marketplace is efficient (or almost so), at least for investment grade instruments. To successfully woo others to invest in (buy) American equities, this efficient market oracle must faithfully declare that stocks probably will rise. The long run always offers time for this wonderful outcome to occur. Many valuation shepherds join the chorus promoting this lovely vista of higher US equity prices. Eloquent efficiency rhetoric can thus encourage Wall Street professionals and Main Street fortune hunters with faith in the American Dream to do a good and rational thing- invest and stay within the efficient American stock marketplace.

Efficient market cheerleaders with faith that the US stock marketplace eventually will climb higher want audiences to sit back like moviegoers and watch the price show. In this marketplace, properly diversified traders (though they may be anxious or scared) should stay long, hang on, and wait for the happy ending. Especially over the indefinite long run, isn't the natural price (fair value; equilibrium level) definitely- or at least probably- higher than the current price? Also, if superior outcomes over extended periods in efficient markets are mere statistical events like spins of the roulette wheel rather than the result of astute choices, why try to act quickly? The properly diversified investor, since it should remain rather passive, must not risk losing money by active trading. Besides, why incur unnecessary transaction charges that will reduce returns?

Although efficient market ideologies are popular, they of course are not the only supposedly scientific marketplace viewpoint. Thus remember that not all the fake scientists of

Wall Street and economics are hostile to the view that skill can produce superior performance outcomes (even in so-called efficient markets). Many would-be scientists want to encourage marketplace participation, and the language of expertise- including that of skill- helps to accomplish this goal.

In regard to the skill issue, efficient market theorists believe that expertise is necessary in the proper construction and fine-tuning (optimization) of a portfolio. For devotees of efficient market theory, it makes sense to listen to and follow the advice of efficient market wizards, right? Note also that efficient market ideology permits skill (or at least expertise) to exploit and thus profit from perceived inefficiencies in an inefficient marketplace. Moreover, Graham and Dodd's "Security Analysis" (p27) states "that one should not assume efficient pricing but should undertake to verify it by disciplined security analysis." Amateurs and even many Wall Street insiders probably will not perform sufficiently "disciplined security analysis". The need to identify efficient and inefficient stock, interest rate, foreign exchange, and commodity (and real estate and other) marketplaces therefore creates work for Wall Street and other economic experts. Nevertheless, since all viewpoints on marketplace phenomena are subjective, any conclusion as to whether a given marketplace is efficient or inefficient in any respect is always a matter of opinion, never scientific.

In recent years, some behavioral economists and psychologists have challenged or modified efficient market theory. However, as marketplaces are cultural arenas, none of the viewpoints of behavioral economists and psychologists (and other social "scientists") are scientific (or mostly or approximately so). Like other would-be scientists, the behavioral economics and psychologist tribes believe in the fairy tale that cultural phenomena are objectively "out there".

Note the allure of scientific metaphors, including rationality and irrationality language, to designers of these subjective frameworks. Don't words such as "Technology" and "Laboratory" help to create the façade of science? The Financial Times (3/25/09, p7) states: "In place of the standard assumption that all decisions are rational, behavioural economists began substituting findings from experimental psychology on how people actually make decisions. This helped to explain market crashes and bubbles, showed that investment decisions could be systematically irrational, and led to attempts to create new models of how markets set prices." The article continues: "the search is on for a new theory to replace efficient markets. Perhaps most prominently, Andrew Lo, head of the Massachusetts Institute of Technology's Financial Innovation Laboratory, has merged behavioural and efficient markets theory using Darwinian biology. In his 'adaptive markets hypothesis', markets behave efficiently during periods of calm. 'Periods of extraordinary prosperity have behavioural effects- it gives us a false sense of security and therefore there is too much risk taking. Eventually that kind of risk taking is unsustainable and you get a burst of the bubble." Lo's theory predicts: "Once bubbles burst...a period of 'punctuated equilibrium' will ensue, in which long-engrained behaviours no longer work." Lo declares: "We just had a meteorite hit us in financial markets. There will be destruction of species that have lasted a long time. Out of the chaos will emerge new species.""

Earthquakes and associated words like seismic, tremor, aftershock, and Richter Scale indeed are exciting. In the wake of the recent devastating worldwide economic crises, and given some concerns regarding the merit of efficient market dogmas, earthquakes have fascinated a band of creative would-be scientists of economic phenomena. The study of Natural earthquakes motivates such economists and Wall Streeters to devise fascinating metaphors and marketplace models. However, like other economic perspectives inspired by natural physical science, all these viewpoints are entirely subjective. The science fiction of marketplace objectivity nevertheless has a new chapter. These supposed scientists are "pursuing a new approach to economics they call econophysics. The field represents a significant break from traditional economics, by studying financial earthquakes in much the same way geologists study those on terra firma." (NY Times, "Week in Review", 8/1/10, p5).

The article continues: "Macroeconomists construct elegant theories to inform their understanding of crises. Econophysicists view markets as far more messy and complex- so much so that the beauty and logic of economic theory is a poor substitute. Drawing on the tools of the natural sciences, they believe that by sorting through an enormous amount of data, they can work backward to find the underlying dynamics of economic earthquakes and figure out how to prepare for the next one." The econophysicists faith: "Financial crises are difficult to predict....because markets are not, as some traditional economists believe, efficient, selfregulating and self-correcting. The periodic upheavals are the result of a cascade of events and feedback loops, much like the tectonic rumblings beneath the Earth's surface. Scientists have found that earthquakes, natural and financial, share similar patterns. Small, subtle market gyrations are such regular occurrences that they are barely noticed; extreme market shocks- the proverbial 'Big One'- are very rare. So too with earthquakes, which also adhere to a statistical relationship known as a power law. Economic earthquakes also trigger dangerous aftershocks."

Because the cultural goals of wealth, financial security, and prosperity are very important to many people, there's obviously a lot of talk about them. Yet why else is there so much rhetoric? A crucial source for the enormous and ceaseless waterfall of words in regard to money from Wall Street and elsewhere- and in regard to Wall Street and its phenomena- is subjectivity itself. Cultural participants, including so-called outside or neutral observers, cannot escape perceiving, reasoning, choosing, and behaving subjectively. They can navigate within this sea (labyrinth) of subjectivity only by subjective means, within and according to personal perspectives. Since differences in marketplace perspectives and thought processes are inescapable, so are variations in marketplace action and explanation. Since Wall Street is not a Natural environment, neither scientific nor scientific-like trading, investing, speculation, hedging, risk management, or research are ever possible. Though the American Dream goal of money is widely shared, on Wall Street there always will be many subjectively reasonable means by which to acquire money or manage risks relating to it. Moreover, all else equal, the more people that join in or otherwise observe Wall Street, the greater and more widespread the rhetoric.

Physics, chemistry, biology, and engineering of course have torrents of talk and occasional debates. Yet these fields eventually objectively prove or disprove things according to the scientific method. Scientists accept these conclusions. Picture a heated dispute regarding the existence of a Natural phenomenon or the truth of a theory. Suppose scientists discover the phenomenon or prove the theory to be true. Scientific quarrels regarding that phenomenon or theory generally subside and eventually end.

In contrast, objective (scientific) agreement regarding cultural phenomena is impossible. Economic variables belong to culture. They do not objectively resemble the regularities of Nature that continue through time with scientific certainty (like planetary motion), probability (like particle distribution at the quantum level), or randomness or chaos. Objective definitions, propositions, principles, arguments, methods, and laws do not and never will exist regarding Wall Street, economics, and other cultural domains. All viewpoints within (regarding) Wall Street and other economic arenas are matters of opinion merely true for the believer, never true

for all (objective). There are no scientific perspectives and thought processes regarding (within) Wall Street, even by distinguished traders, economists, and central bankers. Subjectivity means that rivers of opinion continually flow regarding which marketplace variables to select and how to organize and interpret them. Disagreements inescapably occur as to what happened in the past, what is happening in the present, and what will occur in the future- and why. Not only is the so-called rationality (or degree of rationality, or irrationality) and merit (or relative goodness or badness) of a marketplace outlook, strategy, or action a matter of opinion, but also rationality itself is a subjective (and thus a rhetorical) concept.

Wall Street players (observers) are aware of the great variety of and notable differences between marketplace faiths, strategies, and actions. Since this diversity can never disappear, concerns, questions, explanations, and debates regarding them inevitably exist and persist. In this subjective landscape in which money is worshipped, sects of enthusiastic experts and missionary institutions continually compete for followers. Many evangelists battle to prove that some marketplace viewpoints, methods, and actions are superior to others, although none ever objectively shows this. Spectators discuss who is worth listening to or following: "Who is a good (the right, the best) expert?" Many Wall Street competitors, money lovers, warriors, princes, wizards, and rocket scientists with substantial faith in the wisdom of their personal viewpoint still may wonder or worry why others have different ones. "I think I'm right being long this stock, but that top-ranked analyst just said it was a great time to go short it." Many marketplace believers seek to bolster their faith and reduce any lingering doubts and fears by speaking with and convincing others.

Views on marketplace probability, risk, and causation are subjective. Hence there's a lot of talk on these key issues. Also, in cultural worlds, the subjectivity of perspectives is reflected in the subjective uncertainty regarding outcomes and the absence of objectively replicable experimental results. In marketplaces, there's thus an extensive barrage of oratory about past, present, and future outcomes. The propaganda of many supposed experts and others (especially those courting followers) repeatedly and widely promote the brilliance of and reasons for their successful analysis, advice, and trades. However, regardless of marketplace, no magic or scientific formula enables a Wall Street player to make money with objective certainty or probability over the long run or any other time horizon. Consequently, even revered guiding lights and prophets of profit are not always right in their marketplace predictions. Many therefore spend many words explaining or justifying their money losing prophecies, perhaps generously revealing the valuable lessons they learned from that costly experience.

Like other cultural wordplay, Wall Street talk sometimes can decrease. Suppose a given observer believes that little is changing within a cultural territory. All else equal, the fewer and less noteworthy are the changes, the less to talk about since phenomena are that much more taken for granted. An individual of course is not always significantly adjusting its cultural perspective.

Yet since cultural participants are people, not robots, an individual's perspective, thought processes, strategies, and behavior are not written in stone. Also, not everyone alters their viewpoint and actions at the same time, to the same extent, or in the same fashion. Assume someone considers altering, or actually decides to change, its outlook and methods regarding cultural phenomena. They often will express their internal deliberations or decisions to others. That means talk. Many will declare their views regarding the consequences for their changes in strategy and action. That means more talk. Some of those who hear (including by reading) about these potential or actual changes will want to discuss them with the speaker or with others (especially if the speaker is an expert or a respected colleague). This means even more words.

Since the cultural field of Wall Street offers great scope for choice in creating a subjective perspective, it offers great potential for changing that worldview. Everyone knows that many Wall Street observers (players) modify their perspectives, strategies, and actions in regard to marketplace phenomena, sometimes dramatically. Since Wall Street perspectives often change, interactions between observers and subjective viewpoints regarding those interactions do too, sometimes significantly. These changes in outlook and action generate a great deal of talking (including writing).

Subject matters that scientifically investigate Natural phenomena such as planets, particles, chemical elements and compounds, and biological organisms completely differ from cultural studies of human beings. Since Natural phenomena exist and act according to unchanging scientific (objective) laws, one can develop an objective perspective on them. Because real sciences such as physics are purely objective, their perspectives and thought processes, methods, and doctrines are never a hybrid or mixture of objectivity and subjectivity. There is no such thing as a partially objective (or a partially subjective) science. The objective applications of the scientific method prove that Natural phenomena studied by genuine sciences such as biology, chemistry, physics, mathematics, and engineering have an objective nature.

In contrast, cultural phenomena have no objective "nature". Thus all efforts, even by experts, to apply the scientific method to cultural phenomena always remain completely subjective. One can investigate and talk about Wall Street and other cultural fields from a great variety of economic, anthropological, psychological, sociological, historical, philosophical,

literary, and other angles. Yet all these studies and their conclusions are entirely rhetorical, matters of opinion rather than truth for all. Cultural storytelling is not science.

Recall the objectification of cultural phenomena by the would-be scientists of economics and Wall Street ("The Price", "The Fundamentals", "The Economy", "The Market", "The Stock Market", and so on). Myth-making by supposed scientists is wide-ranging. In cultural domains, phony scientists likewise objectify "Human Nature" as a variable "out there" to be objectively studied. In studying people from a cultural perspective, attributing a "nature" to human beings does not transform the nature of which one speaks into the Nature objectively studied by the hard (real) sciences. The meaning of the word nature is not restricted to the objective definitions of Nature by natural physical scientists. In cultural fields, and like terms such as investment and economics, the word nature has no objective (scientific) definition. Thus in cultural contexts- as perspectives on cultural phenomena are entirely subjective- there is no objective "human nature". There are only opinions expressed regarding "it". Though human beings obviously have an objective biological, chemical, and physical nature, so-called laws of human nature eloquently declared by cultural observers are rhetoric rather than science. Also, cultural worlds belong to cultural history, not Natural (scientific) history.

The Philosophers' stone was "a reputed solid substance or preparation supposed by the alchemists to possess the property of changing other metals into gold or silver, the discovery of which was the supreme object of alchemy. Being identified with the Elixir, it had also, according to some, the power of prolonging life indefinitely, and of curing all wounds and diseases" (Oxford English Dictionary, Volume II, p2154). The quest for objective definitions, propositions, perspectives, reasoning, principles, methods, and laws regarding (within) cultural fields is akin to the medieval quest for the Philosophers' stone.

Objective TRUTH does not and never will exist regarding and within cultural arenas such as Wall Street, economics and other social "sciences", humanities, and the fine arts. The perspectives and thought processes of cultural observers are not scientific (objective), or mostly, approximately, or even partly scientific. Despite the dreamy aspirations, zealous labors, and imaginative propaganda of the many would-be and counterfeit scientists of cultural realms, these people never create any real science at all. Audiences should beware of implicit or explicit claims of objectivity or universal truth. In cultural domains, why grant rhetoric the authority and prestige of science? In Wall Street marketplaces (and elsewhere in culture), the unjustified faith in the illusion of objectivity (science; scientific rationality) is risky. Anyway, keep in mind that neither players in nor so-called outside or neutral observers of cultural fields can ever objectively adopt or apply definitions, arguments, viewpoints, principles, methods, and doctrines inspired by real sciences (natural physical science ones). It is science fiction that a truth seeker objectively can use the scientific method regarding or within Wall Street or any other subjective playground. Cultural observers may worship and struggle to embrace scientific rationality, but they can never possess it. Claims that objectivity and truth for all will emerge with the passage of time, that subjective perspectives and thought processes will disappear in the course of progress due to determined intellectual effort, are religious hopes. Holy Grail quests to discover one or several objective economic viewpoints will be eternally fruitless.

As authentic science has great prestige and power, Wall Street's scientific missionaries and their allies will not happily believe or readily confess that they are not- and never will be like- actual scientists. Moreover, scientific rhetoric plays a key role within the American Dream. This promotes the persuasive influence of scientific rhetoric from Wall Street and economics, not only within Wall Street, but also on Main Street. In any event, remember that Wall Street's

rhetoric- including purportedly scientific speech- not only aims to educate and persuade people to adopt a given perspective. Many Wall Street high priests and their apostles want audiences to act in a particular way.

Wall Street institutions and individuals with substantial involvement in securities underwriting and dealing, or with a large army of security-owning customers, have a huge stake in promoting securities ownership (especially investment), especially over the long run. So do numerous corporations, sovereigns, and money (asset) managers. Money talks. Much of the oratory from such powerful firms, people, and their partisans is scientific rhetoric. Scientific gospels from the messengers of Wall Street, economics, and elsewhere often aspire to overwhelm or silence competitive or opposing views. Many scientific sermons of Wall Street and its friends fiercely battle to defeat heretics that question the investment faith, especially in regard to securities ownership. Cascades of scientific rhetoric sometimes help investment prophets to drown out bearish opinions.

Since Wall Street and other economic regions are cultural playgrounds rather than Natural environments, Wall Street observers (including participants) reasonably employ a great variety of metaphors and similes based upon cultural fields such as games, love, war, politics, religion, and the fine arts to educate (not just entertain) and persuade themselves and others. Widespread and sustained importing of words and viewpoints from these subjective arenas underlines Wall Street's cultural character and the subjectivity of all perspectives and language regarding it. Although subjective viewpoints and metaphors inspired by natural physical science may enlighten others, this natural physical science rhetoric never objectively describes or proves anything about Wall Street or any other cultural domain. Like philosophy and religion, neither economics nor other social sciences possess "The Answer". The social sciences ask cultural

questions and only provide subjective answers, which are never objectively true for anyone. Like other cultural storytellers, Wall Street and economics devise and sell opinions. Therefore cultural players (audiences), including Wall Street traders and economists, need not marry themselves to natural physical science talk in order to be rational, reasonable, intelligent, logical, smart, or sensible.

Since Wall Street and economics never discover or create any genuine science, what results from their subjective scientific words, pretensions, perspectives, and efforts? They fabricate gigantic metaphorical structures. Because true science is entirely objective, because science-like is not even partly objective, the so-called science of Wall Street and economics is fictional, counterfeit, fake, phony, and make-believe.

Some poets of science intend to talk in metaphors. These speakers therefore do not believe they are spouting genuine science.

However, most of those who embrace scientific rhetoric regarding Wall Street and other economic realms do not believe that in their scientific wordplay they are speaking rhetorically and with metaphors. These worshipers of science have genuine faith that they are speaking as, or very much like, real scientists. They sincerely believe that the eloquent definitions, propositions, principles, methods, and proofs of their creeds are objective (scientifically rational), or almost or approximately so. However, faith in what is not objectively provable is not objective science. Thus even though most of these mythical scientists do not view their subjective scientific dogmas as religions, their faith in their ideologies is religious, or akin to religious devotion.

The famed artist Andy Warhol comments: "Art is what you can get away with." Both Wall Street professionals and Main Street pilgrims seeking American Dream goals of wealth and financial security are bombarded with scientific rhetoric not only from Wall Street, but also from respected economists, central bankers, finance ministers, business schools, entrepreneurs, and others. Scientific pretensions can create a bewitching aura of expertise and the comforting illusion of objective control. Nevertheless, although the would-be scientists of Wall Street, economics, and other cultural fields invest heavily in their arsenals of scientific metaphors, scientific propaganda regarding cultural arenas should not get away with calling itself science.