

WAS THE PAIN OF THE LOSS GREATER THAN THE PLEASURE OF THE GAIN?

"I can't get no...satisfaction."

M. Jagger

INVESTOR UTILITY

Economists often use a technical term called "investor utility." For example, an economist might say: "The investment portfolio is optimal because it maximizes investor utility." If, on a multiple-choice test, you were asked to identify correctly the meaning of the sentence, which would you select?

- I like the investment portfolio because it generates a high return;
- I like the investment portfolio because it has very low risk;
- I like the investment portfolio because it efficiently balances the risk/return tradeoff;
- I like the investment portfolio because it balances my hopes and fears about investing with my economic goals and circumstances;
- All of the above.

The correct answer is (d). "Investor utility" is economists' jargon for personal satisfaction. Investors may be surprised to hear economists (and financial advisors) speak in terms that are personal, unique and subjective as opposed to terms that are objective, general and quantifiable. Yet, despite the image of the economist as an ivory tower academic, virtually all economists agree that personal satisfaction represents the best measure of a successful investment portfolio.

Most investors would indicate that they seek to avoid investment losses while reaping significant investment gains. Thus, they seek low-risk/high reward portfolios. This addresses the easy question of what investors want. The more difficult question is what will they actually experience with their portfolios. To paraphrase H.L. Mencken, "For every difficult question there is an easy answer; and, it is always wrong." Indeed, the jargon term describing low-risk/high reward portfolios is "unfeasible." They just don't exist.

Why is it so hard to predict how a portfolio will perform? Risk and reward will unfold in the future and cannot be known today. We can review long-term historical risk and reward patterns. But the past is a valid guide only to the extent that history tends to repeat. Therefore, a pragmatic investor studies the characteristic behavior of past investment returns to create a portfolio that maximizes the *probability* of good future results. The pragmatic investor places greater

emphasis on the interrelationship between returns from different investment categories, than on the absolute value of investment returns, since the interrelationship exhibits more consistency than the returns do themselves.

But how should the pragmatic investor react if a portfolio constructed to maximize utility generates bad results? Should the investor create a new portfolio based on the unique pattern of winning returns from the immediate past? Or should the investor continue to rely on the long-term historical risk and reward patterns? Addressing these questions requires that we:

- Appropriately define "good results"; and
- Determine whether or not it's possible for economists or investment advisors to predict accurately the onset, severity and duration of "bad results" for various investment markets

Defining "Good Results"

To help us define "good results"; let's assume that we have already investigated the long-term historical risk and reward patterns of eight asset classes typically used in building investor portfolios. To ensure that our patterns include both good news and bad news, we review data beginning with the great bear market downturn of 1973-74. Further, let's assume that we have considered the interrelationship between the eight asset classes to construct a series of well-diversified portfolios, ranging from the most conservative (100% short-term U.S. fixed income) to the most aggressive (100% US and foreign stocks). Historical results through 1997 for these well-diversified portfolios were as follows:

	100% Fixed Income	20/80	40/60	60/40	80/20	100% Equity
Annualized Return	8.00%	9.96%	11.39%	12.89%	14.15%	15.39%
Standard Deviation (Risk)	3.27	5.06	7.52	10.87	14.27	17.64
Ending Value of \$1,000 invested on 1/1/73	\$6,845	\$10,731	\$14,846	\$20,713	\$27,326	\$35,809

From this series, which is the best portfolio? The answer depends on whether the investor seeks to maximize returns or minimize risk, as illustrated in the box, below:

Investor Objective	Most Appropriate Portfolio
Return Maximization	100% Equity/0% Fixed Income
Risk Minimization	0% Equity/100% Fixed Income

Investing represents a trade-off between risk and return, and the investor must decide what returns are required to meet their objectives and how much risk they can stand to bear.

Invest in equities only if you can be relatively indifferent when a loss materializes. "Relatively" is the key word because most people have a unique pain/satisfaction profile. Economists describe this profile as the investor's "utility function."

Of course, from the opposite perspective, the reverse is also true. For the return maximizer, the 100% Fixed Income portfolio is the least desirable, in that it accumulates the smallest number of dollars. For the risk minimizer, the 100% Equity portfolio is the least desirable, in that it experiences the greatest volatility of returns. For most investors, these results are intuitively obvious. Investing represents a trade-off between risk and return, and the investor must decide what returns are required to meet their objectives and how much risk they can stand to bear.

However, the concept of investor utility helps us evaluate our risk/return posture. The 100% Equity portfolio maximizes utility only for investors with a very high risk tolerance. Similarly, the 100% Fixed Income portfolio maximizes utility only for the most risk averse investors. Most investors will fall somewhere between these extremes. Which portfolio balances reward and risk most efficiently? The reward to risk ratio of the 100% Equity portfolio is a mere 0.87 [$15.39 \div 17.64$]. The reward to risk ratio of the 100% Fixed Income portfolio equals 2.45 [$8.00 \div 3.27$]. As we reach for increased investment return, we become less and less "efficient" in terms of balancing risk and reward. The ratio for the 20/80 portfolio is 1.97; the ratio for the 40/60 portfolio is 2.25; etc. Here's the important point, if you are not satisfied with a risk-free rate of return you must select a portfolio with a higher equity exposure. This means that you are substituting more units of "pain" potential than units of satisfaction potential in order to achieve a higher return.

Risk Tolerance is a Function of Psychology and Wealth

Invest in equities only if you can be *relatively* indifferent when a loss materializes. "Relatively" is the key word because most people (excepting compulsive gamblers who voluntarily bet losing odds because the thrill of the wager outweighs the pain of the expected monetary loss) have a unique pain/satisfaction profile. Economists describe this profile as the investor's "utility function." A graph of this function is not a straight line. Rather it is an upwardly curved line with the exact slope of the curve at any point uniquely dependent on factors including personal psychology and personal wealth. It is upwardly sloped since, for the "normal" investor *a unit of loss will usually take away more satisfaction than a unit of gain will*

provide. Stated differently, the normal individual thinks long and hard about reaching for extra return because, when things go bad, investment losses will hurt deeply.

We would all like to be rich. The truly rich can support their income requirements without taking any risk. This permits them to maximize investment efficiency by minimizing investment risk. Alternately, they can choose to take investment risk (invest in a relatively less efficient manner) because they can afford to lose the money. When Bill Gates loses \$1 billion if Microsoft stock drops \$10/share, he still has many billions left. Rich people are different.

Applying the Investor Utility Concept to Current Market Conditions

What has all this to do with recent stock market losses? The recent market downturn was well within the range of statistical projections. It thus gives you an opportunity to assess your personal utility function; and, of equal importance, test your reaction (satisfaction) with your portfolio and with your advisor. Here's a possible reaction: "Recent investment advice did not generate large gains and, consequently, must be bad advice." If you are disappointed with recent investment losses (and *everybody* is disappointed) then you have several choices to consider:

1. Fire your advisor and hope to find an advisor that will time the market so that you will be out of it during periods of decline and will reenter it just prior to periods of growth.
2. Look to yourself—i.e. if you are truly discouraged, take less risk with your portfolio. This may entail reducing your long-term economic goals. However, by adjusting your portfolio to match your personal risk-tolerance, you will be able to stay the course through future market corrections.
3. Determine how much of the up-and-down stock market ride is attributable to volatility noise. Volatility noise is a simple concept with important implications. Let's suppose that you purchased stock in the ABC Company at \$40 per share. Suppose further that the share price dropped \$1 on each of the following two days. Your reaction could be either:
 - a) No big deal—the stock is probably trading well within its statistically probable range; or

A better than 50% accurate forecasting ratio is insufficient to drive a successful market timing strategy. Concentrated positions mean concentrated bets; and, one wrong bet could wipe out years of profits. Historically, a market timer had to be correct more than 80% of the time in order to generate returns equal to a naive buy and hold portfolio.

- b) Panic—the stock’s volatility has been 5% of my purchase price over two days; by multiplying volatility by the square root of time I can expect that I could be down 47.43% after 90 days.

Over the short term, volatility noise can be significant. Long-term investors are defined as investors that are capable of ignoring volatility noise. In true bear markets, however, downside volatility is not just noise. Therefore a *successful* long-term investor:

- a) Ignores the short-term noise; and,
- b) Either stays the course with the portfolio that has the greatest chance of achieving future objectives, or times the bull/bear markets to avoid downside volatility.

4. Recognize that the risk premium implicit in the higher expected return from equities investments is your compensation for accepting the volatility in these investments. Indeed, without market volatility there would be no higher expected return. If an equity market never experienced downturns (i.e. there was no risk), over the long run, investors in this market would earn exactly the risk-free rate. Equity investors expect to earn both the risk-free rate and a risk premium as an additional reward. If you need to earn more than the risk-free rate, you must invest in volatile markets. As the old investment adage goes: Markets reward people for being in them, not for being out of them.

CHANGING STRATEGIES BASED ON MARKET CONDITIONS

Conventional wisdom promotes the idea that a good investment advisor has the ability to forecast future market movements. If you believe that stock forecasting and market timing are possible, using these strategies in your investment portfolio can help you avoid the pain of market downturns. Further, if you have identified a money manager with a successful track record based on forecasting and timing techniques, you must also believe that this skill will be both persistent and consistent. Finally, if you adopt this market timing approach, you must recognize that you haven’t eliminated risk (probability of pain) from your investment program. You have merely exchanged *market risk* for *concentration risk*. Concentration risk is putting all of your investment eggs in one basket. A

portfolio allocated 1/3rd to cash, 1/3rd to bonds and 1/3rd to stock has completely different risk from a portfolio that is 100% in cash for 1/3rd of the time, 100% in bonds for 1/3rd of the time, and 100% in stocks for 1/3rd of the time. The first allocation mitigates risk, the second allocation sends it off the meter (see our article, “Buying Track Record” in Investment Quarterly, Volume 4.2, for a more complete description of this phenomenon).

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Consistency and persistency are key. For example, Joe Granville exhibited a formidable ability to forecast market turns throughout the 1970s and early 1980s. Unfortunately, when investors committed large sums of money to his asset management firm, his forecasting skills disappeared. Therefore, prudent investors should be cautious about accepting advice from a market timer even if the timing system has a superlative track record. For example, one successful prediction method looks to the Superbowl winner to forecast the market’s direction. If an NFC team wins, the market will be up, if an AFC team wins, the market will be down. When the Denver Broncos won the Superbowl last January, we all should have fled the market. Following this system would, in fact, have created wealth for investors. But, as we have suggested, back-testing forecasting systems on historical data is very different from designing portfolios with a reasonable probability of future investment success.

Rational Reactions to Distressing Markets

Inevitably, during periods of market distress, investors look for guidance. Human nature tells us that when things are going badly, we should do something. Inaction seems like passive acquiescence to fate. The investor’s natural question “What should I do?” becomes an issue of burning importance. Inevitably, in any market turndown, some prognosticators will purport to know exactly what investors should do. Inevitably, some of them will be

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right; and, after the crisis is over, they will publish books on how to beat the market.

Most independent research studies indicate that it is very difficult either to time capital markets successfully or to achieve risk/return results that, after commissions and transaction costs, better the returns of passively managed index funds. But passively managed investments seem to fly in the face of our instinct to do something. While much of the prognosticators' advice is bogus, investor concern is real. Legitimate concerns should be addressed and the investor's decision making process should, as trust law reminds us in the Prudent Investor Standard, evidence 'care, skill and caution.'

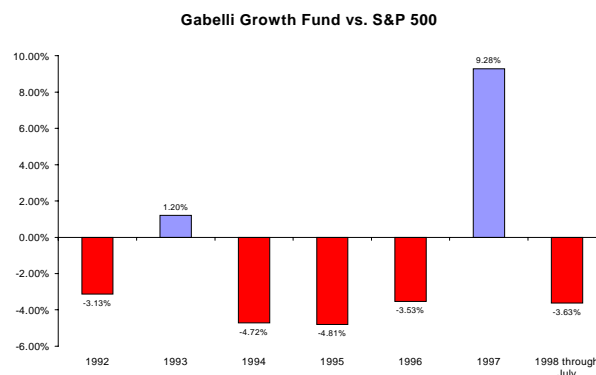
Review of Independent Research

To address whether expert advice can help investors beat the market, we summarize research studies published in two respected investment journals. Our first summary concerns "An Analysis of the Recommendations of the 'Superstar' Money Managers at Barron's Annual Roundtable," appearing in the September 1995 issue of The Journal of Finance. Each year, Barron's invites a group of eight to twelve highly regarded money managers to a Roundtable discussion of stock market activity. Considerable attention is paid to the stock forecasts made at this discussion because the participants are generally acknowledged as the most successful managers in the business (Barron's describes them as "Wall Street Superstars"). The study examines their record over the period 1968 through 1991. Members include such well-known investment managers as George Soros, John Neff, and Peter Lynch. Although these money managers operate broadly diversified portfolios, the roundtable recommendations focus on the few securities identified by the Superstars as sure winners. The study concludes that:

"An individual investing according to the recommendations of the prominent money managers at Barron's Roundtable would not benefit from the advice. We conclude that the so-called "superstars," on average, do not seem to possess superior skills in recommending stocks."¹

The analysis then examines the track record of seven money managers who made at least fifty security recommendations. It concludes that positive abnormal returns (an abnormal return is a return over and above what

the market in general provided to investors taking a comparable level of risk during the period under evaluation) were statistically significant for only two money managers: Mario Gabelli & Walter Mintz. Thus, from the entire population of Roundtable participants from 1968 through 1991, only two evidenced superior forecasting ability at a statistically significant level. Walter Mintz is a private money manager. However, the average investor can access Mario Gabelli's expertise through the Gabelli Mutual Fund group. The Morningstar database reports the following results of the flagship fund: Gabelli Growth from 1992 through July 1998. Results are percentage returns in excess (blue) or lagging (red) the returns of the S&P 500:



The study concludes:

"only Mintz may have superior skills from the perspective of consistent performance in recommending stocks. However, when a number of participants are examined, a few of them are expected to exhibit extreme positive or negative performance by chance....Overall, we are unable to conclude that any of the participants has superior skills in recommending stocks. As expected, if there are only a few superstar money managers, it is very difficult to isolate them with a high level of confidence."²

Are Banks Better Money Managers Than the Barron's Superstars?

The second study analyzes the risk-adjusted investment performance) of bank trust department equity portfolios over the 1975-1992 period. The research employs two statistical analysis methods to evaluate the performance of both Employee Benefit Trusts

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and Common Trusts. The first methodology evaluates market-timing abilities, the second evaluates stock selection abilities. With respect to the market-timing question, the study concludes, "bank trust departments are unable to collectively outperform a buy and hold strategy; that is, neither category of bank trust departments displays significant market timing abilities."³ Paralleling the findings of the Roundtable "superstar" article, the second statistical investigation indicates that a minority (four out of sixty nine) trust fund managers exhibit stock selection abilities. Thus, although in the aggregate "the portfolio managers of bank trust departments do not appear to exhibit either superior market timing or stock selection abilities,"⁴ the data displays some evidence of superior stock selection skills by a small subset of the bank fund managers.

Whether these four bank trust portfolio managers will continue to exhibit consistent and persistent abilities to add value is an open question. However, the traditional bank trust fund customer is a cautious investor relying on bank conservatism to preserve capital. Consequently, the research study's most relevant finding is that, on average, bank market timing activities subtracted value from investment portfolios.

Similar Conclusions from Both Studies

The two studies shine an objective, unbiased light on the prowess of two unique segments of the U.S. money management industry—bank trust departments and investment superstars. Although, in many respects, these two industry segments are polar opposites, they both attract funds from investors sharing common goals—avoiding large losses during bear markets. Conventional wisdom holds that all-star money managers have superior research, analytic and forecasting abilities that permit them to steer through rough markets. Conversely, bank trust departments are commonly believed to represent a traditional "legal-list" investment culture that generates solid but unspectacular returns in bull markets, while avoiding speculative ventures that magnify losses during market downturns. But the evidence suggests that neither money management segment provides a solution to the pain of a bear market.

The question remains: what should the investor do in a bear market? Academic studies indicate that consistently superior sources of investment advice are few and far between. Indeed, the risk of following any advice is often the risk of making a concentrated bet. For example, bailing out of one capital market (e.g. stocks) in favor of another (e.g. bonds) supposes that the investor doesn't miss out on the other side because he fails to get back in when the ailing market suddenly recovers. However, these observations may also suggest a reasonable answer to the question. The best course of action for a long-term investor who finds his portfolio in a bear market downturn is to do nothing beyond what his careful decision making during periods of market calm indicated should be done. This, in fact, may mean that, in the short term, many investors should do nothing:

History teaches that both investment managers and clients need help if they are to hold successfully to the discipline of long-term commitments. This means restraining themselves from reacting inappropriately to disconcerting short-term data and keeping themselves from taking those unwise actions that seem so "obvious" and urgent to optimists at market highs and to pessimists at market lows. The best shield against the outrageous attacks of acute short-term data and distress are knowledge and understanding committed to writing.⁵

¹ Desai, H., & Jain, P., "An Analysis of the Recommendations of the "Superstar" Money Managers at Barron's Annual Roundtable," *The Journal of Finance* (September, 1995), p. 1259.

² *Ibid.*, p. 1267.

³ Sahu, A., Kleiman, R., & Callaghan, J., "The Timing and Stock Selection Abilities of Bank Funds: Evidence Based on Meta-Analysis," *Journal of Financial Services Research* (Volume 13:2, 1998), p. 140.

⁴ *Ibid.*, p. 145.

⁵ Ellis, Charles, *Investment Policy: How to Win the Loser's Game*. Irwin Professional Publishing, 1992.

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