

MYTH: Investors are risk averse

A research report authored by
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EXECUTIVE SUMMARY

- > Alternative investments are still not fully destigmatized by many investors, despite the fact that their inclusion in balanced portfolios has proven their merit at least twice during the previous decade. The purpose of this series of reports is to demystify some of the misconceptions still surrounding alternative investments.
- > Equities were once an alternative asset class too. And then along came Harry Markowitz. The concept Markowitz developed in the 1950s transformed the practice of investment management beyond recognition. Markowitz assumed investors were risk averse. Volatility was used as the metric for risk.
- > And then along came Daniel Kahneman and Amos Tversky. The two psychologists developed prospect theory and the concept of loss aversion in the 1970s. Prospect theory proposes a descriptive framework for the way people make decisions under conditions of risk and uncertainty and embodies a richer behavioral framework than that of many traditional economic models.
- > Loss aversion is based on the idea that the mental penalty associated with a given loss is greater than the mental reward from a gain of the same size. However, the perception of losses varies over time; it declines in bull markets.
- > Many investors started to look to hedge funds as a viable investment when markets peaked in 2000. Falling equity markets put hedge funds and funds of hedge funds on the agenda of many private and institutional investors. Why? Because hedge funds have an absolute-return approach while the traditional investment management industry does not.
- > Under an absolute-return approach, there is an investment process for the upside (return-seeking by taking risk) and for the downside (some sort of contingency plan if something unexpectedly goes wrong or circumstances change). Changing circumstances and the flexibility that comes with an absolute-return mandate are key differentiating factors from traditional asset management.

“I’m more concerned about the return of my money than with the return on my money.”

—Will Rogers

Investors are loss averse

Financial economics and modern portfolio theory (MPT) grew out of economics. If there is a single starting point, it was a short paper titled “Portfolio Selection” in the March 1952 issue of the *Journal of Finance* by a then-unknown 25-year-old graduate student from the University of Chicago named Harry Markowitz. Markowitz was motivated by the question of how people can make the best possible decisions in dealing with the inescapable trade-offs in life. Economists insist that you can’t have your cake and eat it too.

The idea of investing in equities was quite an idea in the 1950s. By 1952, stocks in the United States had not yet recovered from their losses from the Great Depression 20 years earlier. Stock ownership was considered so risky that the stocks of some of the best companies were paying dividends nearly three times the interest being paid on savings accounts. Investors’ scars from the Great Depression and World War II were still too great for equities to become a legitimate investment alternative. Many investors – and the general public – perceived the stock market as little more than a playground for speculators. In essence, equities were once an alternative asset class too.

Harry Markowitz, arguably the founder of MPT, once mused that he got the Nobel Prize in 1990 for elegance. What he meant was that his idea of diversification and the trade-off between risk and return wasn’t particularly original. The idea of diversification can be traced back thousands of years, literally. Markowitz’s Portfolio Selection is nothing more than a formal confirmation of two old rules of investing: 1. Nothing ventured, nothing gained and 2. Don’t put all your eggs in one basket. By elegance he meant that he was the one who proved the idea of diversification mathematically. If something can be proven mathematically, it is considered pure elegance, more scientific, and therefore to be taken more seriously.

For theorems to be proven mathematically, the various variables need to be measurable. Return is easily measurable. If something rises from 100 to 110, that’s a 10% (nominal) return. However, measuring risk is more difficult. The idea of losing one’s shirt wasn’t precise enough for academic pursuits. What Harry Markowitz did was to equate risk as the standard deviation of returns, or, in its annualized form, the volatility. This was consistent with the thinking in academia of the time. Returns of securities

“Markowitz came along, and there was light.”

—William Sharpe (1934-),
American economist

Equities were once an alternative asset class too.

“Page after page of professional economic journals are filled with mathematical formulas leading the reader from sets of more or less plausible but entirely arbitrary assumptions to precisely stated but irrelevant theoretical conclusions.”

—Wassily Leontief (1906-1999),
Russian-American economist

“The efficient market hypothesis is the most remarkable error in the history of economic theory.”

—Lawrence Summers (1954-),
American economist, after the
1987 crash

that trade in perfect and frictionless markets were considered to be normally distributed around a mean. The deviation from the mean was considered the measure for risk. Investors needed to be compensated for bearing risk, that is, the wobblier a security or asset class, the higher the return ought to be. And then Monday, October 19, 1987 happened, a 25 standard deviation event, and the whole idea of equating volatility to risk flew out the window. Nassim Taleb, the author of *Fooled by Randomness* and the *Black Swan*, has made a career of ridiculing the idea of applying the normal distribution to the world of social sciences, including finance.

Nevertheless, the concept Markowitz developed to deal with the investors' trade-offs transformed the practice of investment management beyond recognition. Mean-variance optimization put some sense and system to the haphazard manner in which most investors were assembling portfolios. Up to 1952, the literature on investing had either ignored the interplay between risk and return or had treated it in the most casual manner. Portfolio selection moved away from the idea of portfolio concentration and formed the foundation of all subsequent theories on how financial markets work and how risk can be quantified. Contemporary concepts such as Value at Risk (VaR) and all regulatory funding requirements for institutional investors, including banks, derive from a 25-year-old musing about the trade-offs of life in the 1950s. And then Kahneman and Tversky came along; and *then* there was light.

Prospect theory and loss aversion

Prospect theory and the idea of investors being loss averse rather than risk averse go back to Daniel Kahneman (1934-) and Amos Tversky (1937-1996). The two started collaborating in the 1970s in the field of psychology which, back then, wasn't part of economics. Today, behavioral economics is indeed part of economics and the idea of investors being loss averse rather than risk averse is more or less accepted. The stamp of approval was given in 2002 when Daniel Kahneman was awarded the *Nobel Memorial Prize in Economic Sciences* for his work in prospect theory, an honor Amos Tversky would have shared, had he still been alive at the time.

Prospect theory proposes a descriptive framework for the way people make decisions under conditions of risk and uncertainty and embodies a richer behavioral framework than that of subjective expected utility theory which underlies many traditional economic models and thinking. The key concepts are loss aversion, regret aversion, mental accounting, and self-control. Loss aversion is based on the idea that the mental penalty associated with a given loss is greater than the mental reward from a gain of the same size. Whenever we advocate the absolute-return investment philosophy, we keep falling back to the simple notion that losing money hurts. The cyclical element of this notion is that in bear markets more people seem to agree with this idea.

“If you give a pilot an altimeter that is sometimes defective, he will crash the plane. Give him nothing and he will look out the window. Technology is only safe if it is flawless.”

—Nassim Taleb (1960-),
Lebanese-American essayist,
scholar, statistician, and risk
analyst

“The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them.”

—Sir William Bragg (1862-1942),
British physicist

“A random market movement causing the average investor to mistake himself for a financial genius.”

—Alternative definition of an
equity bull market

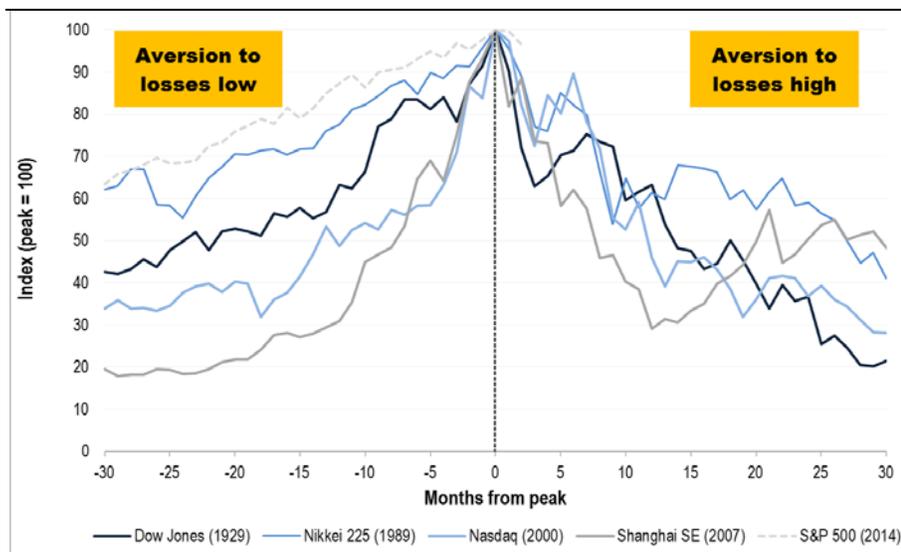
Prospect theory has three features that distinguish it from classical economic analysis. First, it is defined in terms of gains and losses rather than in terms of asset position or wealth. This approach reflects the observation that economic agents think of outcomes in terms of gains and losses relative to some reference point, such as the status quo, rather than in terms of final asset position. Because people cannot lose what they do not have, classical economic theory does not address losses. The language of losses presupposes that people evaluate things relative to some reference point. The second feature is that people are maximally sensitive to changes near the reference point. The third feature is that it is asymmetrical. The loss appears larger to most people than a gain of equal size. This characteristic is called loss aversion. Humorist Will Rogers, therefore, was a loss-averse investor. Losing capital was more relevant than fluctuations in the returns on the capital.

“I’m more concerned about the return of my money than with the return on my money.”

— Will Rogers (1879-1935),
American humorist

Aversion towards losses varies over time. Figure 1 shows four equity market peaks and the current S&P 500® that peaked in November 2014 when measured on month-end levels. The whole concept of losses is arguably different on the way up than it is on the way down.

Figure 1: Change in loss aversion



Source: IR&M, Bloomberg. **Past performance is no guarantee of future results.**

Many investors started to look into hedge funds as a viable investment when markets peaked in 2000. Prior to 2000, the hedge fund industry was quite small with only some institutional pioneer investors and very early adopters invested in hedge funds. Falling equity markets changed that. Falling equity markets, in essence, put hedge funds and funds of hedge funds on the agenda of many private, as well as, institutional investors. Why? Because hedge funds have an absolute-returns approach while the traditional investment management industry does not.

“Financial sector crises are not [as] predictable. The risks build up until, wham, it hits you.”

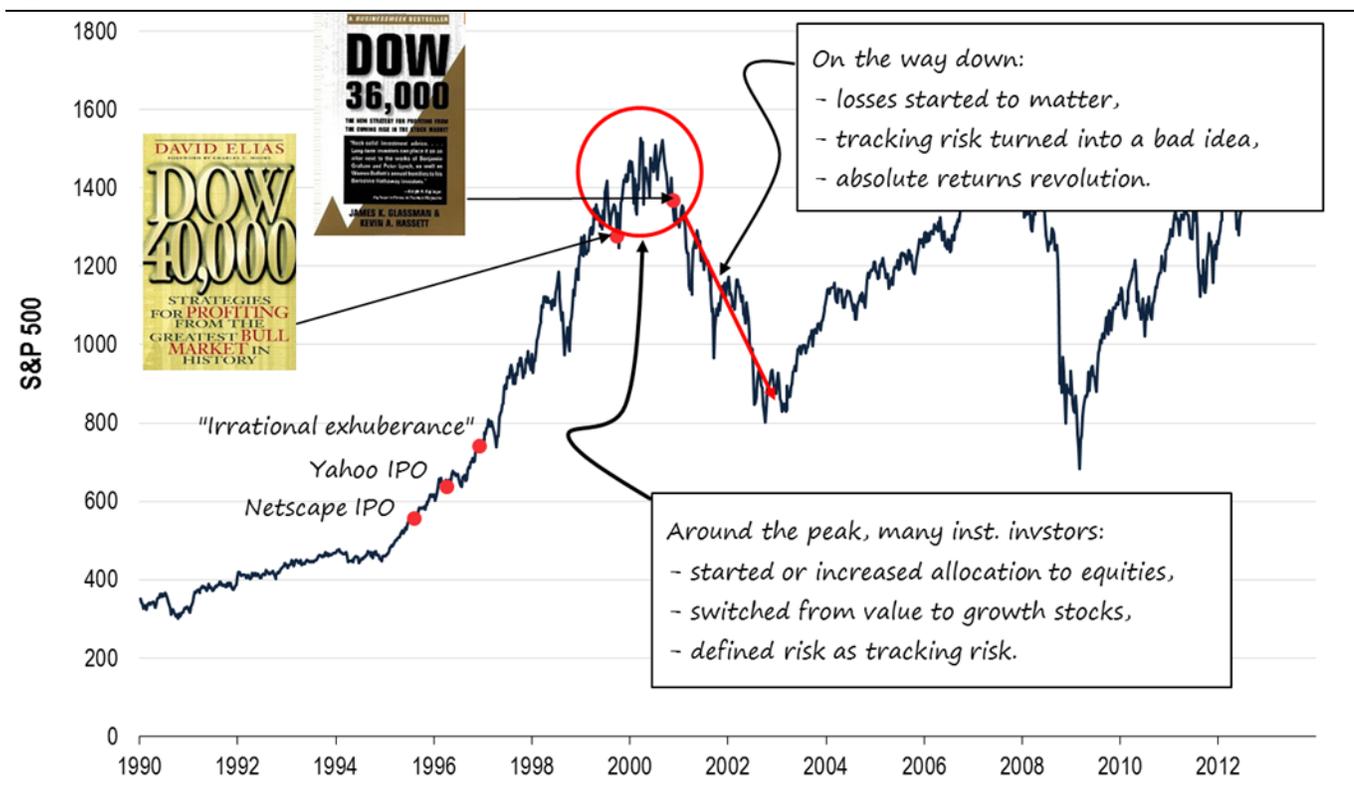
— Reserve Bank of India Governor
Raghuram Rajan

Absolute-return investing implies loss aversion

When losses become a real experience, it transpires that all investors are actually loss averse. See Figure 2. It's just that it is not as apparent in a bull market as it is when the losses are real, i.e., in the ensuing bear market. Even institutional investors, who often embrace benchmarks, found over the last two equity bear markets that they are not indifferent to losses. Generally, the return objective of a traditional relative-return manager is determined by a benchmark. A benchmarked long-only manager tries to beat the benchmark. The return objective is defined relative to a benchmark. Hedge funds do not aim to beat a market index. Their goal is to achieve absolute returns by exploiting investment opportunities while trying to stay alive, i.e., avoid the loss of capital.

“Self-preservation is the first law of nature.”
 — Proverb that can be traced back to Cicero

Figure 2: Absolute returns revolution



Source: “Repressionomics,” IR&M, Risk management research, January 18, 2013. **Past performance is no guarantee of future results.**

At the peak, perceptions are different than at the trough. Calling an active mandate with a tracking error constraint of 1-2% was perfectly normal during the bull market of the late 1990s. Absolute returns weren't even a thought among many long-only asset managers and their clientele. However, this started to change as share prices started their descent. The assumed indifference to losses slowly but steadily turned out to be ill-advised. It is this reality kick that put hedge funds on the agenda of many investors.

“You can avoid reality, but you cannot avoid the consequences of avoiding reality.”
 — Ayn Rand (1905-1982), Russian-American novelist and philosopher

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark.

Concluding remarks

Put simply, under an absolute-return approach, there is an investment process for the upside (return-seeking by taking risk) and for the downside (some sort of contingency plan if something unexpectedly goes wrong or circumstances change). Changing circumstances and the flexibility that comes with an absolute-return mandate are key differences when compared to traditional asset management. The change could be a sudden exogenous or endogenous market impact, excess valuations, heavily overbought market conditions, a concentration of capital at risk, a change in liquidity, and so on. Absolute-return investing, therefore, means thinking not only about the entry into a risky position, but also about the exit. Absolute-return strategies, as executed by hedge funds, could be viewed as the opposite of benchmark hugging and long-only buy-and-hold strategies. The former is designed to avoid losses during market turmoil; the latter is not.

It is not entirely unreasonable to believe that historical returns sell. It is also generally acknowledged that past returns might not be a good indicator of future returns. An investment philosophy, on the other hand, tells us today how risk will be managed in the future.

The aim of an absolute-return strategy is to have fairly constant positive returns, ideally irrespective of stock market direction. The absolute-return investment philosophy is targeted at loss-averse investors, that is, investors who are not indifferent to losses. Potentially that's everyone.

“When you are finished changing, you’re finished.”

— Benjamin Franklin (1706-1790),
U.S. Founding Father

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Ineichen Research and Management AG ("IR&M") is a research firm focusing on investment themes related to absolute returns and risk management.

The firm was founded in October, 2009 by Alexander Ineichen. Mr. Ineichen started his financial career in derivatives brokerage and origination of risk management products at Swiss Bank Corporation in 1988. From 1991 to 2005, he had various research functions within UBS Investment Bank in Zurich and London relating to equity derivatives, indices, capital flows, and alternative investments, since 2002 in the role of a Managing Director. From 2005 to 2008 he was a Senior Investment Officer with Alternative Investment Solutions, a fund of hedge funds within UBS Global Asset Management. In 2009 he was Head of Industry Research for the hedge fund platform at UBS Global Asset Management.

Mr. Ineichen is the author of two publications *"In Search of Alpha – Investing in Hedge Funds"* (October 2000) and *"The Search for Alpha Continues – Do Fund of Hedge Funds Add Value?"* (September 2001). These two documents were the most often printed research publications in the documented history of UBS. He is also author of *"Absolute Returns – The Risk and Opportunities of Hedge Fund Investing"* (Wiley Finance, October 2002) and *"Asymmetric Returns – The Future of Active Asset Management"* (Wiley Finance, November 2006). He has also written several research pieces pertaining to equity derivatives and hedge funds and contributed to several chapters to financial books. He also wrote *"AIMA's Roadmap to Hedge Funds"* (November 2008) which was, at that time, the most often downloaded document from their website.

Mr. Ineichen holds a Bachelor of Science in Business Administration with Major in General Management from the Universities of Applied Sciences in Business Administration in Zurich (HWZ), Switzerland. He holds the Chartered Financial Analyst (CFA) and Chartered Alternative Investment Analyst (CAIA) designations and is a certified Financial Risk Manager (FRM). He is on the Board of Directors of the CAIA Association and is a member of the AIMA Research Committee.

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