

Dynamic Asset Allocation Strategies

There are only two reasons to reconsider target allocations. Neither are determined by outside circumstances.

by **Donald R. Chambers, PhD, Research Associate**

Implementing the prescriptions of Modern Portfolio Theory for personal investments is easy except for one difficult decision: How much wealth should an investor allocate to the fully diversified market portfolio—and therefore how much will remain to be placed in a riskless or near-riskless short-term account.

Previous parts in this series have discussed how to make this decision. But the asset allocation decision is not a one-time “set it and forget it” decision. All of the circumstances that led to a particular asset allocation can change. Accordingly, as circumstances change—and perhaps as financial market conditions change through time—the investor’s optimal asset allocation also will tend to change.

Two key factors can cause investors to need to reconsider their allocations. One is changes in personal circumstances. The other is changes in financial markets.

Changes in personal circumstances. As time passes we grow older, and age is often and properly cited as a characteristic that should be considered in asset-allocation decisions. As we age, we should *regularly* reconsider our asset allocations. But other factors can change quickly. These include our prospects for

future wage income, our anticipated expenses, our wealth level, and even our psychological tolerance for risk.

The asset allocation decision needs to be re-evaluated periodically and each time there is a major change in our personal circumstances. For example, a very serious time to revisit the asset allocation

A focus on past gains and losses can cause emotions to replace careful analysis in the determination of how much risk to bear.

decision is before making an irrevocable decision to retire or a major investment decision such as buying a second home.

How a person gets to a particular decision point should not be important. Decision making should be forward-looking. In theory, whether a person has exactly \$1,000,000 because they won the lottery or because they previously had \$2,000,000 and lost half through an investment collapse should not matter.

A focus on past gains and losses (other than for tax-planning purposes) can cause emotions to replace careful analysis in the determination of how much risk to bear.

Plan for market volatility. The second reason to revisit an asset-allocation decision is a major change

in markets—specifically a large rise or fall in the market portfolio. The central message of this article is to have a plan for how to react if—or when—there is a major change in the level of the market.

As recent history showed, don’t wait until a financial collapse to think through how to react. Investment decisions can be governed by fear, greed, or evidence. Plan future decisions based on a thoughtful analysis of the evidence rather than an emotional reaction based on fear or greed.

So here in a nutshell is the conclusion that I have reached based on evidence: When the market experiences a large downward shock (or even a large rapid rise), I should not adjust my asset allocation (i.e., my holdings of risky assets such as stock). Instead I should “stay put” with a “buy and hold” strategy. I believe that to do anything else would be an unwarranted speculation on my part.

When the market makes a large and sudden move, my holdings are automatically adjusted to where they should be. When the market portfolio (e.g., equity markets) rises or falls, my proportion of wealth in risky assets automatically rises and falls in a manner that generally leaves me with the risk exposure I should probably have. Let’s begin with a concrete example to illustrate how asset allocations automatically adjust to new market levels.

Author Donald R. Chambers is the Walter E. Hanson/KPMG Professor of Finance at Lafayette College in Easton, Pennsylvania.

How the market changes allocations. Consider Denae, a middle-aged investor with \$1 million of accumulated wealth. Denae recently decided to allocate 50 percent of her wealth to the market portfolio (i.e., risky assets) and 50 percent to short-term bonds as summarized in the table below:

Denae's portfolio now:

	Percent	Amount
Total	100%	\$1,000,000
Market	50%	\$500,000
Bonds	50%	\$500,000

Now, let's take a look at what happens if the market portfolio drops by 20 percent. Her \$500,000 in the market portfolio falls to \$400,000, her short-term bonds stay at \$500,000, and so her total wealth drops to \$900,000. As shown below, the allocations in Denae's portfolio automatically change as market levels change.

Denae's portfolio after big market drop

	Percent	Amount
Total	100%	\$900,000
Market	44.4%	\$400,000
Bonds	55.6%	\$500,000

That big market drop would automatically shift Denae's asset allocation from 50 percent in the market portfolio to only 44 percent in the market portfolio. So, as Denae's wealth drops, her risk exposure also drops. The automatic result appears appropriate since the less money a person has, the less money they should risk.

Conversely, if the market had risen 20 percent rather than fallen 20 percent, Denae's allocation in risky assets would have risen to 56 percent from 50 percent rather than have fallen to 44 percent.

Should Denae accept these automatic adjustments to her percentage portfolio allocations? Or should she intervene to rebalance her portfolio allocation back to its original value or to some other level?

Responding to market moves. Let's

think about three types of responses an investor can make when market prices experience large increases or decreases.

1. Do nothing: Buy and Holders
2. Decrease risk during bull markets and increase risk during bear markets: Rebalancers
3. Increase risk during bull markets and decrease risk during bear markets: Trenders

These three strategies are labeled with terminology that is important to understand: Buy and Holders, Rebalancers, and Trenders.

Rebalancers pick a target portfolio mix such as Denae's 50 percent/50percent mix. They quickly rebalance their portfolio to return to the target mix whenever the actual mix deviates from the target.

Trenders intentionally move more money into the market as the market appears to be in an upward trend and move money out of the market in a downward trend.

In a bear market, should Denae be a Rebalancer by buying risky assets to bring her asset mix back to 50 percent/50 percent? Should she be a Trender by selling risky assets to reduce her holdings of risky assets? Or should she be a buy-and-hold investor and not move any money?

Reasons to buy and hold. I believe there are three good reasons to be a buy-and-hold investor (not making any transactions until and unless there are changes in personal circumstances).

First, the more money a person has the more they should be willing and able to risk. Investors should place a higher percentage of their wealth in risky assets when their wealth rises in a bull market and a lower percentage when their wealth falls in a bear market. This happens automatically as shown in the example.

So, the best strategy may be to let these automatic asset reallocations caused by market movements

provide the needed changes in risk exposures.

Second, reallocating typically involves transactions costs and higher income taxes. The higher income taxes are usually caused by the execution of transactions for the purpose of reaching a desired risk exposure rather than focusing on tax deferral and tax reduction.

Third, whenever one person decides to reallocate their portfolio from the market to riskless bonds, someone else has to be on "the other side of that trade" moving their money in the opposite direction. Thus, for every dollar moved into the market to increase one investor's risk there must be a dollar moved out of the market to decrease another investor's risk.

The average decision is to do nothing—to buy and hold. This implies that being a Rebalancer or a Trender is riskier than maintaining a buy and hold strategy.

The three strategies. Rebalancers transact to keep a target-asset mix. Rebalancers buy additional risky assets in the face of losses and sell risky assets after experiencing gains. Rebalancers usually do this to bring the portfolio allocation mix back to a target—not to try to time the market.

But the problem with keeping a target mix is that when a person's wealth changes their target mix should change. Denae's original preference for a 50 percent/50 percent mix would likely be too aggressive after a major market decline. With the resulting lower level of wealth, Denae should be less tolerant of risk and should prefer a lower allocation to the market portfolio.

Rebalancing in a bear market means moving money from riskless accounts into risky assets in the face of losses. It is therefore a little like a gambler "doubling up" his gamble after bearing a loss.

Trenders take the other extreme. They buy even more risky assets in an upward market and sell risky

Table 1: Summary of Actions and Performance

Strategy	Transaction in a		Performance when market:	
	Bull Mkt	Bear Mkt	Reverts	Trends
Rebalancer	Less risk	More risk	Win	Lose
Buy and Holder	None	None	Average	Average
Trender	More risk	Less risk	Lose	Win

assets in a bear market. This trend-following approach bets that the market will continue to trend in a particular direction.

But if Denae leaves her portfolio alone when the market drops 20 percent, the new 44 percent market allocation might be appropriate for her new and lower level of wealth.

Table 1 summarizes the three asset allocation approaches. The second and third columns summarize the transactions of each of the strategies in upward and downward markets. The fourth and fifth columns depict the success or failure of each strategy based on subsequent market conditions.

When markets trend (a bull market is followed by continuing gains and a bear market is followed by continuing losses), trenders win. When markets revert (market gains followed by losses or vice versa), rebalancers win.

But in all cases, the buy-and-hold investors perform between the two extremes. Buy-and-hold investors keep their performance closer to average.

Betting on market regimes. Table 1 demonstrates that strategies other than buy-and-hold can be viewed as speculations on future market conditions.

There are three major types of market conditions. Trending markets persist in a particular direction. Mean-reverting markets tend to return to previous levels. Random-walk markets are where markets do not consistently trend or mean-revert.

So an investor's portfolio reallocation strategies may be viewed as a bet on the future direction of the market as shown in Table 2.

Do markets trend or revert? Yes. Markets generally either trend or revert! The evidence is generally that it can not be consistently predicted which will occur.

The theory of efficient markets implies that markets follow random walks so that they do not persistently trend or mean revert. Investment decisions should be based on evidence.

The problem is that the evidence based on analysis of decades of market data is unclear. The evidence as to whether markets trend or revert seems to generate conflicting signals depending on the data used. Some people analyze price changes over very short periods such as every market trade (tick-by-tick). Others look at returns over long terms such as years.

In the short run, such as days or months, many markets generally seem to trend slightly. But in very long time periods such as decades, markets seem to revert back towards gently upward sloping levels.

Results also differ by the time periods studied.

Using very long sample periods such as 50-100 years provides lots of data. But the problem with using very long sample periods is that it assumes that price behavior from 50-plus years ago is indicative of how more modern economies behave.

The problem with focusing on recent data is that short-term studies may lack sufficient observations to form reliable forecasts.

With so much data being

studied by so many analysts, truly remarkable findings are difficult to distinguish from coincidences. Most people have heard of strong reported correlations between which football conference wins the Super-bowl and whether the stock market rises or falls in the ensuing year.

Surely such results are coincidences, but other observed correlations are harder to evaluate as being real or coincidental (spurious).

Results also differ by the market being analyzed. Some markets such as currency exchange-rate markets appear to have experienced trends that are remarkably significant in a statistical sense. The tendency of currency markets to trend is sometimes attributed to intervention by large central banks.

Activities by very large institutions may prevent the random walk that efficient market theory suggests would be created in markets with numerous small traders.

The problem of past correlations.

There seems to be reasonable evidence that some markets have exhibited patterns that are more than just statistical coincidences or outliers. But even if a market has very clearly exhibited a particular pattern in the past such as trending, there may not be adequate evidence to convince us that the pattern is likely to continue.

The problem with speculating on past patterns is that as soon as a pattern becomes established enough to be easily and clearly recognized, the attempt of speculators to exploit the pattern will actually destroy the pattern.

Simply put, by the time that a pattern or market anomaly has been given a name and described in books on investments, it is almost

Table 2: Summary of Wins and Losses

Market Condition	Trenders	—Results Based on Strategy—	
		Buy and Holders	Rebalancers
Markets Trend	High returns	Average ret.	Low returns
Markets Changes Random	Average ret.	Average ret.	Average ret.
Markets Mean-Revert	Low returns	Average ret.	High returns

surely no longer reliable.

Consider a fictional example in which the market almost always rises on the day preceding a particular holiday. Upon observing this tendency for enough years to be perceived as being reliable, investors will place lots of buy orders two days before the holiday and liquidate the positions after the holiday.

But these trades will tend to cause prices to rise two days before the holiday rather than one day. Thus the recognition of a pattern ends up destroying the pattern.

Similarly, enormous effort has been devoted in predicting whether markets will trend or revert. Even if patterns are observed that appear reliable in the past, it is highly speculative to predict that the patterns will continue. A buy-and-hold portfolio allocation avoids these speculations and their accompanying risks.

The strategy that appears most consistent with wise investing is to adjust asset allocations based on

changes in individual circumstances, not in attempts to time the market.

Making decisions on emotion. Fear and greed are powerful emotions—and they tend to be the major emotions that drive spontaneous decisions regarding asset allocation. The buy-and-hold strategy (except when personal circumstances change) can be difficult to maintain in the face of huge losses.

In the huge market declines of 2008, those investors that did not panic eventually found that equity prices and other risky asset prices generally recovered. There may be a tendency to think that it is possible to take advantage of huge market swings by setting profit levels and loss levels at which asset allocations should be changed.

For example, in retrospect, it would seem that selling when the Dow was over 12,000 and buying when the Dow dipped below 8,000 would have been obvious and highly profitable decisions. But retrospec-

tive analyses can be deceptive.

Generally, people who look for upside levels at which risky assets should be liquidated will miss major bull markets. In 1996 when the Dow was under 7,000, Alan Greenspan, then chairman of the Federal Reserve, claimed that the U.S. stock market reflected “irrational exuberance.”

Investors selling on his comments would have missed the huge profits that accrued in the subsequent 10 years when the Dow almost doubled. Analogously, at the worst of the recent financial crisis, there were many financial experts predicting further and even apocalyptic losses.

People should calmly and thoughtfully develop asset-allocation plans keeping in mind that markets are reasonably efficient. There will likely be good times and bad times in the future. Finding an appropriate asset-allocation mix and sticking to a buy-and-hold strategy can form a solid foundation on which to weather the uncertainties of financial markets.

American Investment Services, Inc. (AIS) is an SEC-registered investment adviser founded in 1978 and a wholly owned subsidiary of AIER. AIS offers discretionary asset management services. Our recommendations are based on the major tenets of Modern Portfolio Theory and are consistent with AIER’s empirical research methodology.

Our investment research process involves a feedback loop that combines AIER’s objective academic rigor with real-world application. Our inputs include our clients’ needs, capital markets data, and a competitive marketplace that fosters constant innovation.

Our high-yield Dow (HYD) investment strategy provides a good example of the practical benefits of this collaborative process. AIER and AIS developed the HYD model strategy to accommodate the Institute’s dual objectives of income and growth for its charitable giving program. AIER sought a combination of consistent income for trust beneficiaries and long-term capital appreciation to fund its mission. Unlike other popular but simplistic “Dogs of the Dow” methods, our HYD model is based on an exhaustive review of the monthly prices, dividends, and capital changes for each of the stocks in the Dow Jones Industrial Average beginning in 1962.

HYD has proven to be a successful large-cap value strategy for income-oriented investors. For a thorough discussion, we recommend AIER’s book, *How to Invest Wisely*.

To learn more, visit us at www.americaninvestment.com, call (413) 528-1216, ext. 3119 or e-mail us at aisinfo@americaninvestment.com.

