

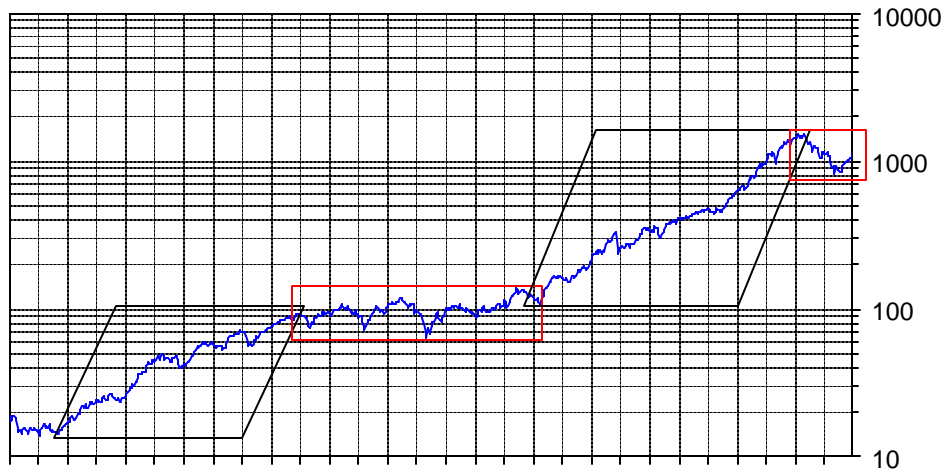
Stock Market Perspective: Investing in “Secular” Bear Markets

The normal meaning of secular is not religious as in “secular music.” However, a number of market analysts use the term to mean long-term, over quite a few years, in conjunction with bull and bear markets. It does not really matter what we call it, but the important question is whether we entered such a bear market in 2000. If so, we have many years ahead of us when stocks will not advance very much, if at all, above the highs made early that year. I will first examine some evidence that a secular bear (a religious one would be quite a find) is now on the roam. Then by using the last one in the 1966-81 period as a baseline, we will see how one can invest reasonably safely in such markets and still achieve decent returns.

Let’s start by taking a look at the S&P 500 index, which is a reasonable measure of the performance of the stock market, over a long period, the 48 years after the end of the Second World War beginning with 1946 in the graph on the next page. Note that the vertical scale is logarithmic, which is the best way to show stock price data over a wide range of values. The important property of such a scale is that equal vertical distances correspond to equal *percent* changes rather than equal index point changes. With a linear scale, it would be almost impossible to see the fluctuations in the early years when the S&P was about 1/50 of what it is now.

The chart has four boxes superimposed. The

S&P 500 INDEX 1946-2003



leftmost one covers roughly 1949-65, which was a secular bull market. Such markets are characterized by regularly pushing to higher levels and by drops that are recovered fairly quickly. The 17 year length is also typical of secular markets, which last from 15 to 20 years.

The next box, a horizontal rectangle, covers the 1966-81 period, which was the last secular bear market. The S&P did make a few new highs during period, but each was not much above the prior one. The drops were much deeper than during the surrounding bull markets, and it took longer to recover from them.

The last long-term bull market is generally said to have begun in 1982, although there are some who say it really started with the low in late 1974. That distinction is not important. Even the scary “crash” in 1987 was less of a drop than the more prolonged falls during the prior long-term bear market and in 2000-02, and it was fully recovered within two years.

The same basic pattern of stock prices has repeated for well over a hundred years. There are approximately 15-20 year alternating periods of bull and bear markets. During the bull markets, new highs occur frequently, and the drops are relatively shallow and recovered within a couple of years. The secular bear markets are essentially periods of sideways movements when any new highs are seen infrequently and do not exceed the old ones by

very much. More importantly, there are severe market drops that take years to recover. The most dramatic example was the October 1929 crash and saw the major indices eventually drop over 90% from their prior highs.

Given this pattern, it looks like a new secular bear market began in 2000, which is marked by the rightmost box. Note that the drop from the early 2000 high to the October 2002 low is about the same as that seen in 1973-74 and far greater than anything seen during the 1982-2000 period. The S&P is still about 25% below its previous high, which means it would have to rise about 33% from current levels to get to it, so we won't know for some time how long it will take to recover the last severe drop.

If we are indeed in a secular bear market, then we will see at least another dozen or so years of essentially sideways movements and considerable risks to stock ownership. What should an investor do? Does it make sense to avoid stock ownership for the time being? Over the entire 1966-81 period, T-Bills and money market funds—the first one started in the 1970s—outperformed both stocks and bonds. Yields were considerably higher than they are now, and current yields on short-term instruments are below inflation on a pre-tax basis, so even money market type investments are not currently attractive.

The graph shows that there are some very good times to own stocks during secular bear markets, such as in 1967-68, 1971-72, after the 1974 low, and currently since last March or even October 2002¹. Buying and holding stocks and even buying “on the dips” to add to one's positions works very well, possibly better than just about any other approach, during a secular bull market. However, it is going to be a prescription for significant losses for most investors during a secular bear market because they are going to get scared when the market drops like it did from May 2001 through

¹ Note that these good times are consistent with the presidential cycle that I have written about several times previously. The pre-election and presidential election years on the average see stocks doing much better than in the post-election and mid-term election years.

October 2002 and will be unable to continue hold out of fear of even greater losses.

The solution is **tactical asset allocation**², which means positioning one's investments in those asset classes that are likely to rise in the near future and not as likely to drop. In the simplest type of portfolio, only three asset classes are incorporated: stocks, bonds, and cash equivalents. Although an investor may want to include other classes such as real-estate, precious metals, and overseas stocks, the three basic ones are sufficient to meet most financial objectives. For that reason and to keep things from getting too complicated, I will stick to these three asset classes in what follows.

I believe in using investing tools and methods that are unemotional and can be tested on

Tactical asset allocation in conjunction with a conservative portfolio has been profitable every year for more than 40 years.

historical data. That means formulas that can be set up on a computer rather than my or anyone else's interpretation of

charts, the current economic outlook, and the like. Two fairly simple models are worthwhile for this purpose, and they are valid tools that can be used to manage one's portfolio. Simple is important because the simpler the model, the more likely it is to continue to be a useful investment tool. There is a more subtle advantage to simplicity when testing models on historical market data. Since it is likely that the developer of the models—they are not mine—took historical performance into account as part of the process, there is always a risk of “curve fitting.” That is virtually impossible if the model is quite simple and will be tested over an extremely long period.

² It is sometimes called market timing, but that term has been unfairly given a negative connotation in connection with the developing mutual fund investigations. The last edition of this newsletter discussed that in detail. I'll be happy to send you one. On the brighter side, I and other timers can claim, perhaps unfairly, that the government has certified that what we do is profitable!

The models were developed by money manager Mark Boucher³ as reported in the 12/17/02 issue of *Formula Research* (800-720-1080), an outstanding newsletter about trading systems and methods. I asked Nelson Freeburg, the publisher, if he knew when the models were developed and what time periods were used in the process, but Freeburg could only say that he thought the models had been around for several years. I made some minor modifications to obtain a useful model for allocating assets in or out of stocks and one for doing the same with bonds. Then I applied them to see how they would have performed during the last secular bear market and the last secular bull market.

Both models are very simple. Each has three components that are comparisons of an index value or interest rate to a moving average⁴. Two interest rates, those for T-Bills and for long-term (ten-year) treasury bonds, are common to both models although the lengths of the moving averages are different in the two models. The stock trading formula uses the S&P 500 and a moving average in addition to the two interest rate components, while the bond model incorporates the Dow Jones Utility Average. These models are evaluated weekly rather than daily, so their implementation is quite convenient. Details, the specific formulas, and some of what appears below can be found in the notes of the talk I gave at an Arlington Virginia library on November 15 of last year (<http://www.pankin.com/libtalks.htm>).

► **How would tactical asset allocation have done in the last secular bear market?** Quite well, hypothetically of course, and you will see some figures in a bit. I will also show how it would have worked during the last secular bull market because it is important to understand the trade-offs involved with any investment approach. Keep in mind that *the primary purpose is risk reduction rather than higher*

returns. However, I think higher returns in bear markets are likely, but not in bull markets.

To keep things fairly simple, I will only present returns for periods of whole years. Accordingly, the last secular bear was from 1966 to 1981, the last secular bull from 1982-1999, and 2000-03 probably are the first four years of a current secular bear market. I will use these three periods in comparisons.

As another step towards simplicity, I will consider portfolios with three asset classes: stocks, bonds, and cash equivalents. Such basic portfolios provide suitable diversification and could be considered practical in most cases. Many investors will likely want additional asset classes, and tactical asset allocation can incorporate more than three classes. We need to have representative performance for each of the asset classes going back to 1966 or earlier. I use the following:

- *Stocks*: Total return of the S&P 500 index, which is easily available for over 60 years. It is slightly better than the performance of low cost index funds such as those offered by Fidelity and Vanguard or the exchange traded Standard and Poors Depository Receipts, called “spiders,” whose ticker symbol is SPY.
- *Cash equivalents*: Weekly return of 90-day T-Bills less 0.25%. This is a good approximation of returns of money market funds, which did not exist until the 1970s.
- *Bonds*: Finding long-term historical performance is harder than for the other two. I don’t know if any bond mutual funds existed in 1966, and I was not able to find data that far back for an instrument that would approximate a bond mutual fund. However, there is a long history of “constant maturity” 10-year T-Bond yields. From those yields, I used some standard interest rate mathematics to generate prices for a hypothetical bond mutual fund that consisted entirely of ten-year T-Bonds.

³ I have never met or talked to him and have no association with him or his company.

⁴ The average value over the most recent specified number of weeks.

I compared its performance to real government bond funds since 1988 and found they were comparable. However, the hypothetical fund tended to have a higher volatility. A real fund would own bonds with a wide range of maturities, which should reduce volatility, and the fund managers may be able to smooth the ride by adjusting the average maturities based on their readings of interest rate trends. The hypothetical fund is suitable for studying the effects of investment methods such as tactical asset allocation.

First we will look at how these three asset classes did during the three periods 1966-81, 1982-99, and 2000-03. The table on the next page shows the compound annual returns and some other performance data. The worst drawdown, the largest drop from a high to a subsequent low, is shown for stocks and bonds. This worst case scenario is a good risk measure. There are other more sophisticated ones that take into account all of the down periods as well as their depths and durations. I am not showing any of them because the risk relationships are essentially the same as the worst drawdowns indicate. Drawdown has the advantages that it is the most understandable risk measure and it is a direct measure of potential loss of sleep or stomach churning. The table also shows how buy and hold would have done for the three asset classes in each of the three periods.

Stocks	1966-81	1982-99	2000-03
Annual Return	5.9%	18.5%	-5.4%
Worst Drawdown	-44.9%	-32.9%	-47.4%
Percent Months Down	44.8%	33.8%	52.1%
Percent Years Down	37.5%	5.6%	75.0%
Return in Worst Year	-26.5%	-3.1%	-22.1%
Worst Year	1974	1990	2002

Bonds	1966-81	1982-99	2000-03
Annual Return	3.4%	11.9%	9.7%
Worst Drawdown	-24.9%	-16.7%	-12.9%
Percent Months Down	48.4%	34.3%	35.4%
Percent Years Down	31.3%	22.2%	0.0%
Return in Worst Year	-6.5%	-8.3%	0.4%
Worst Year	1969	1999	2003

Cash	1966-81	1982-99	2000-03
Annual Return	7.1%	6.4%	3.0%

Keep in mind that 2000-03 in this context are the first quarter more or less of a secular bear market so the figures for this period likely will not be those for the entire long-term bear.

There are quite a few interesting things to note. For the 1966-81 period, cash outperformed both stocks and bonds, and stocks did better than bonds because interest rates skyrocketed, which depresses bond prices, near the end of the period. Cash was the worst performer in the following secular bull market period. Since 1999, bonds have been the best place to be because interest rates have fallen substantially, which raises bond prices, stocks are down since then, and money market yields have been historically low.

The risk measures for stocks show the resemblance between the 1966-81 and 2000-03 periods. The worst drawdowns are similar as is the frequency of losing months, and both are substantially worse than during the intervening bull market period. The recent period has been good for bonds, so the negative performance measures are not as bad as those in the prior secular bear market (yet). Note that on the whole, bonds were riskier during 1966-81 than in 1982-99 in addition to much lower returns in the earlier period.

Investors trying to buy and hold stocks or bonds during the last secular bear market would have found it quite difficult to do so. The

returns were meager on a historical basis, the largest drawdowns were quite severe—nearly 25% for bonds is quite a bit for a “safe” or “conservative” asset class, and almost half the months were down. That calls for a more active method such as tactical asset allocation in order to stick with one’s investment plans during a long-term poor market period.

I will consider three representative asset allocations in the following analysis of how tactical asset allocation using the models described above would have worked during the three periods. One calls for 75% in stocks, 25% in bonds, and nothing in cash. It would be appropriate for more aggressive and likely younger investors. The second allocation considered is 50% stocks, 40% bonds, and 10% cash, which is in the middle of the road category that might be suitable for those near retirement. The third is the most conservative and may be typical of what a retired investor would use: 35% stocks, 35% bonds, and 30% cash.

In all cases, there will be rebalancing at the end of any quarter in which any asset class is more than 3% away from its target. There is nothing magic about that, but rebalancing at least once a year is important. My studies have shown that periodic rebalancing is close to a “free lunch.” In just about all cases, it increases returns and reduces risks. As things work out, with tactical asset allocation rebalancing is very infrequent, only once every few years, because the approach smoothes the equity curve to a considerable degree.

For each of the three allocation specifications, the following tables show performance during the three periods for three strategies. The first strategy is essentially buy and hold, but it incorporates rebalancing, as do the other two approaches. “Basic timing” is the direct application of the models. The portion allocated to stocks will own stocks when its model is positive and be in a money market fund when the model is negative, and the same for bonds according to its model. “Alternative timing”

uses the models a little more aggressively. If one model is on a sell, but the other is on a buy, the asset class for the model with the sell signal will be invested in the asset class for the other model. For example, if the stock model is negative at a time when the bond model is positive, the portion of the portfolio allocated for stocks will be invested in bonds, along with the bond allocation, instead. The portion allocated to cash is always in a money market fund regardless of the status of the models.

We start with the most aggressive allocation. The pattern seen in the following table will repeat itself in the other two cases, but the differences will be smaller due to greater diversification and more of the portfolio being allocated to cash.

Targets: 75% Stocks, 25% Bonds, 0% Cash			
Rebalance only			
Annual Return	1966-81	1982-99	2000-03
	5.6%	17.2%	-1.0%
Worst Drawdown	-35.4%	-26.6%	-32.4%
Percent Months Down	43.2%	30.1%	50.0%
Percent Years Down	37.5%	11.1%	75.0%
Return in Worst Year	-19.0%	-1.2%	-13.3%
Worst Year	1974	1994	2002
Basic timing			
Annual Return	1966-81	1982-99	2000-03
	10.1%	14.0%	4.8%
Worst Drawdown	-6.2%	-14.3%	-7.9%
Percent Months Down	14.1%	22.2%	29.2%
Percent Years Down	6.3%	5.6%	50.0%
Return in Worst Year	-0.3%	-6.3%	-1.4%
Worst Year	1977	1990	2000
Alternative timing			
Annual Return	1966-81	1982-99	2000-03
	10.6%	15.4%	7.3%
Worst Drawdown	-7.3%	-14.7%	-11.0%
Percent Months Down	23.4%	26.9%	33.3%
Percent Years Down	6.3%	5.6%	0.0%
Return in Worst Year	-1.8%	-3.6%	3.7%
Worst Year	1977	1990	2000

The rebalance only data show the risks and dangers from buy and hold in secular bear markets. Due to modest diversification, it is not quite as bad as stocks alone, but it is not a whole lot better. In the secular bull market, this approach has the highest returns, but risk levels are still considerably above those resulting from the use of tactical asset allocation shown in the second and third portions of the table.

It is worth emphasizing *the primary purpose of tactical asset allocation is risk reduction*. An investment plan has little value if one is unable to stick with it. The usual reason for not staying with one's plan is being scared after experiencing losses that reach the sleep-loss level. With tactical asset allocation, losses to that extent are far less likely, so being able to stick with one's plans in order to achieve financial objectives is much easier to do.

The alternative timing method increases both return and risk by modest amounts. That is because the level of investment, more in stocks or bonds and less in cash, is higher some of the time than it is using basic timing. It may be a reasonable trade-off for some investors.

Targets: 50% Stocks, 40% Bonds, 10% Cash

Rebalance only	1966-81	1982-99	2000-03
Annual Return	5.5%	15.1%	2.1%
Worst Drawdown	-23.2%	-19.6%	-18.0%
Percent Months Down	44.8%	28.7%	45.8%
Percent Years Down	31.3%	5.6%	50.0%
Return in Worst Year	-10.6%	-2.4%	-5.1%
Worst Year	1974	1994	2002
Basic timing			
Annual Return	9.3%	13.0%	5.6%
Worst Drawdown	-4.2%	-8.3%	-5.2%
Percent Months Down	15.1%	21.3%	27.1%
Percent Years Down	0.0%	5.6%	0.0%
Return in Worst Year	0.0%	-1.6%	2.2%
Worst Year	1977	1990	2002
Alternative timing			
Annual Return	9.7%	14.5%	6.8%
Worst Drawdown	-6.5%	-9.7%	-9.9%
Percent Months Down	22.4%	25.0%	31.3%
Percent Years Down	6.3%	5.6%	0.0%
Return in Worst Year	-1.0%	-0.7%	3.6%
Worst Year	1977	1990	2002

The table above is for a more diversified and more conservative allocation than the first table, so it is not surprising that both the returns and risk measures are less. However, the benefits from tactical asset allocation are still quite evident.

Finally, we look at the most conservative of the asset allocation schemes in this report:

Targets: 35% Stocks, 35% Bonds, 30% Cash

Rebalance only	1966-81	1982-99	2000-03
Annual Return	5.9%	12.8%	2.8%
Worst Drawdown	-14.6%	-15.0%	-10.6%
Percent Months Down	39.6%	27.8%	45.8%
Percent Years Down	31.3%	5.6%	50.0%
Return in Worst Year	-5.0%	-1.2%	-2.4%
Worst Year	1974	1994	2002
Basic timing			
Annual Return	8.7%	11.4%	5.2%
Worst Drawdown	-3.2%	-5.6%	-3.5%
Percent Months Down	10.4%	20.8%	27.1%
Percent Years Down	0.0%	0.0%	0.0%
Return in Worst Year	1.1%	1.2%	2.7%
Worst Year	1977	1990	2002
Alternative timing			
Annual Return	9.0%	12.7%	5.9%
Worst Drawdown	-4.8%	-6.7%	-7.7%
Percent Months Down	17.7%	22.2%	31.3%
Percent Years Down	0.0%	0.0%	0.0%
Return in Worst Year	0.4%	1.4%	3.2%
Worst Year	1977	1994	2002

Not surprisingly, both investment returns and risk measures are even lower, which illustrates the importance of the choice of allocations, even if there are more than these three asset classes in the mix. Using either of the tactical asset allocation methods, the drawdowns are quite modest, most likely low enough not to cause anyone to lose sleep over them. Maybe even more significant is that none of the 38 years in the study would have shown a loss with the combination of the timing models and conservative asset allocations.

These portfolios are quite simple since they use only three basic asset classes. However, the advantages gained from a judicious allocation plan and tactical asset allocation would be realized even if there were more asset classes such as real-estate, precious metals, international stocks or subclasses such as large and small capitalization stocks, value and growth stocks, government and corporate bonds, or short and long-term bonds. The stock holdings could also include a small portion in sector fund trading, which is one of my managed account services. When the stock model was positive, one would take positions in the various stock subclasses, and when the model was negative, those positions would be

moved to cash or possibly bonds if alternative timing was being followed and the bond model was positive.

The usual disclaimer is quite appropriate here. *The results shown above are hypothetical and not the result of actual investments in real accounts. As such there are possible factors*

and considerations that might have caused real investments to have been different. You should not assume that in the future any of the results shown will be obtained or that the methods presented or my managed accounts will be profitable.