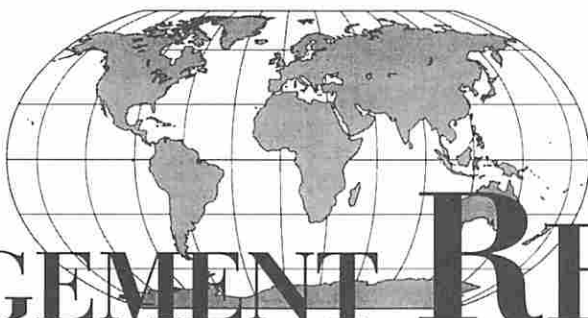


TAM ASSET MANAGEMENT REVIEW

Modern Investment Principles
For Serious Investors

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Every client of TAM Asset Management receives a copy of Charles D. Ellis' book *Investment Policy*. This book is one of the most useful, objective, and contemporary sources on prudent investment strategy. It is also less than 100 pages long and very easy to read.

Mr. Ellis is managing partner of Greenwich Associates, the leading consulting firm specializing in financial services worldwide. The author of six books and dozens of articles, he has taught courses at both Yale and Harvard. Ellis earned his B.A. at Yale, an M.B.A. (with distinction) at Harvard and the Ph.D. at New York University.

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Asset Class Returns* Through April 30, 1994

	<u>United States</u>	<u>YTD 1994</u>
	1-Yr. Bonds	+0.2%
	5-Yr. Bonds	-3.3%
	Large Stocks	-2.6%
	Large Value Stocks	-4.3%
	Small Stocks	+1.8%
	Small Value Stocks	+2.0%
	<u>International</u>	+8.5%
	Large Stocks	+8.5%
	<u>Japan</u>	
	Small Stocks	+33.5%
	<u>Continental Europe</u>	
	Small Stocks	+16.8%
	<u>United Kingdom</u>	
	Small Stocks	+10.4%
	<u>Pacific Rim</u>	
	Small Stocks	-12.4%

The U.S. stock and bond markets continued to struggle during April. The prices of long-term Treasury bonds have fallen almost 9% so far this year. TAM portfolios have benefitted by the short-term maturities of our fixed-income holdings and by the continued strength of the foreign markets.

*See "Performance Notes" on back page for explanations.

Time

Investment Policy: How to Win the Loser's Game By Charles D. Ellis (Part 7 of 14)

Time is Archimedes' lever in investing.

Archimedes is often quoted as saying, "Giving me a lever long enough, and I can move the earth." In investing, that lever is *time*.

The length of time investments will be held, the period of time over which investment results will be measured and judged, is the single most powerful factor in any investment program.

If time is *short*, the highest return investments—the ones an investor naturally most wants to own—will be undesirable, and the wise investor will avoid them. But if the time period for investing is abundantly *long*, the wise investor can commit without great anxiety to investments that appear in the short run to be very risky.

Given enough time, investments that might otherwise seem unattractive may become highly desirable. Time transforms investments from *least* attractive to *most* attractive—and vice versa—because, while the average expected rate of return is not at all affected by time, the range or distribution of *actual* returns around the expected average is very greatly affected by time. The

Continued on next page...

TAM Portfolio Returns Net of Fees* Through April 30, 1994

<u>Risk (% stocks)</u>	<u>YTD 1994</u>	<u>1993</u>	<u>Since Inception</u> <u>12/92-4/94</u>
Moderate (65%)	+2.2%	+14.0%	+16.5%
Growth (85%)	+3.5%	+16.6%	+20.8%
Aggressive (95%)	+6.4%	+21.1%	+28.9%
<u>Benchmarks Comparisons</u>			
Balanced Fund Index	-2.7%	+11.7%	+8.6%
Capital Apprec. Index	-3.4%	+14.8%	+10.9%
S&P 500 Stock Index	-2.5%	+10.1%	+7.3%
Salomon Broad Bond Index	-3.5%	+9.9%	+6.0%

*See "Performance Notes" on back page for explanations.

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longer the time period over which investments are held, the closer the actual returns in a *portfolio*¹ will come to the expected average.

As a result, time changes the ways in which different kinds of investments can best be used by different investors with different situations and objectives.

The conventional time period over which rates of return are calculated—their average *and* their distribution—is one year. While convenient and widely used, this particular 12-month time frame simply does not match the time available to all the different kinds of investors with all their different constraints and purposes. For example, some investors are investing for only a few days at a time while other investors will hold their investments for several decades. And it is the difference in time horizon that really matters.

To show how important time really is, let's exaggerate for effect, and look at the returns expected in a *one-day* investment in common stocks.

The typical stock's share price is \$40, and the range of trading during the day might easily be from 39 1/4 to 40 1/2—a range of 1 1/4 or 3.1 percent of the average price for the day. Remembering that in today's market—with today's expectations for future inflation—the average annual rate of return for common stocks is approximately 15 percent, let's postulate that an investment in this hypothetical stock would have an expected daily return of 0.06 percent (15 percent annual

return divided by 250 trading days) and a range around that expected average of plus or minus 1.55 percent (3.1 percent intraday range divided by two).

Now, let's "annualize" that daily return of 0.06 percent and that 3.1 percent daily variation. The average annual expected rate of return would be 15 percent, but the *range* of returns around the 15 percent would be a daunting +387.5 percent! (In other words, the annual rate of return for a one-day investment in our hypothetical stock would be somewhere between a *profit* of 405.5 percent and a *loss* of 372.5 percent!)

Of course, no sensible investor would knowingly invest in common stocks only for a single day or month or even for a year. Such brief time periods are clearly too short for investments in common stocks, because the expectable *variation* in return is too large in comparison to the average expected return. The extra uncertainty incurred when investing in common stocks is not balanced by a sufficiently large or sufficiently sure reward. Such short-term holdings in common stocks are not investments: They are rank speculations.

On the other hand, this deliberate one-day burlesque of the conventional use of annual rates of return leads to a serious examination of the differences in investor satisfaction when the measurement period is changed. And this examination shows why an investor with a very *long* time horizon might well invest entirely in common stocks just as wisely as another investor with a very *short* time horizon would invest only in Treasury bills. The exami-

nation also shows why an intermediate-term investor would, as his time horizon extended outward, shift investment emphasis from money market instruments toward bonds and then toward more and more equities.

Both the constancy of the average *expected* rate of return—no matter what the time period—and the profound impact of time on the actual realized rate of return is clearly demonstrated in the charts in Figure 5-1.

The one-year-at-a-time rates of return on common stocks over the years are almost incoherent. They show both large and small gains and large and small losses occurring in what appears to be a random pattern. It seems absurd to "summarize" those wildly disparate one-year experiences as having any "average" rate of return.

Shifting to five-year periods brings a considerable increase in coherence or regularity. There are, for example, few periods with losses, and the periods with gains appear far more often and consistently. The reason is that as the measurement period lengthens, the average rate of return becomes more and more dominant vis-à-vis the single year differences.

Shifting once again to 10-year periods increases the consistency of returns significantly. Only one loss is experienced and most periods show average annual gains of 5 to 15 percent. Again, the power of the average rate of return—now compounded over a decade—overwhelms the single year differences.

¹ The actual returns on *individual* investments will, in contrast, be more and more widely dispersed as the time period lengthens

Time (cont.)

Moving on to 20-year periods brings even more consistency to the experienced rate of return. There are no losses, only gains. And the gains cluster more closely together around the long-term expected average rate of return.

Despite the obvious substantial differences in the range or distribution of returns in each time frame, there is one central constant: the *average* actual rate of return is almost the same in all cases. This is because the data

shown are all samples from the same continuous stream of investment experience.

Appreciating that actual experiences in investing are samples drawn from a continuous stream of experience is vital to understanding the meaning contained in the data. Even in New England, the weather—when considered over a long period of time—becomes a sensible, reliable *climate* even though the days of bitter cold or sweltering heat

seem individually so unpredictable, particularly as to the exact date of occurrence. Similarly, in investing, the patient observer can see the true underlying patterns that make the seemingly random year-by-year or month-by-month or day-by-day experiences not disconcerting or confusing, but rather splendidly predictable—on average and over time.

In weather and investments, larger and more numerous samples enable us to come closer and closer to understanding the normal experience from which the sample is drawn. It is this understanding of the normal experience that enables us to design our own behavior so we can take advantage of the dominant normal pattern over the long term and not be thrown off by the confusing daily events that present themselves with such force.

The single most important dimension of investment policy is asset mix, particularly the ratio of fixed-income investments to equity investments.

Discussions of asset mix have attracted considerable attention in recent years, particularly among pension managers. Their analyses show that over and over again the trade-off between risk and reward is driven by one key factor: time.

Unfortunately, in most cases the time horizon being used is not chosen for the specific fund but is instead a conventional five years.

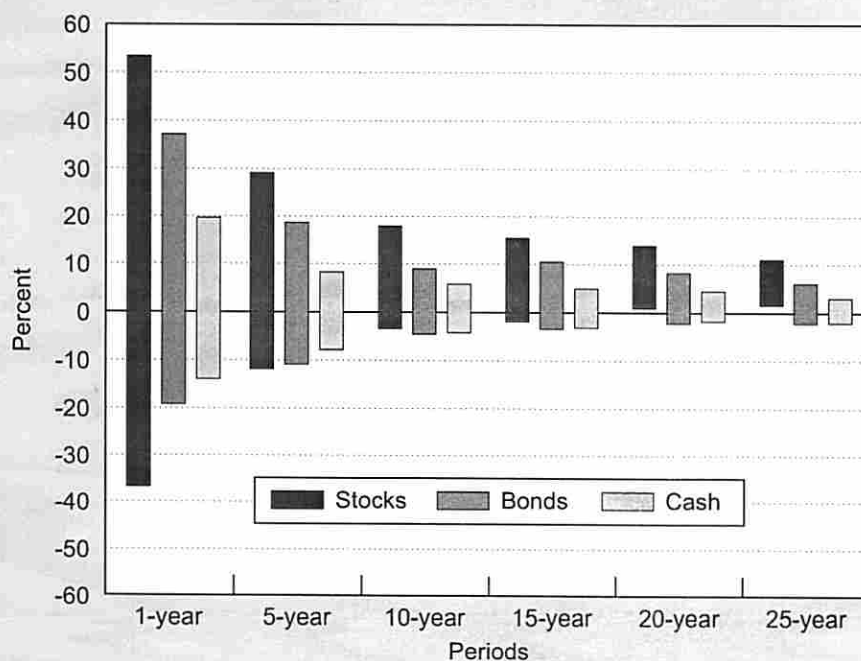
A five-year “horizon” usually leads to the familiar 60:40 ratio of equities to debt. A 10-year horizon leads to an 80:20 ratio. A 15-year horizon typically results

Continued on next page...

Figure 5-1
Range of Real Returns for Stocks, Bonds, and Cash (1901-1990)

	Stocks					
	1-Year Periods	5-Year Periods	10-Year Periods	15-Year Periods	20-Year Periods	25-Year Periods
High	53.37%	28.98%	17.86%	14.63%	13.03%	11.50%
Average	8.26%	6.51%	6.08%	6.02%	6.22%	6.57%
Low	-37.35%	-11.65%	-3.89%	-1.57%	0.78%	2.73%

	Bonds					
	1-Year Periods	5-Year Periods	10-Year Periods	15-Year Periods	20-Year Periods	25-Year Periods
High	37.15%	18.99%	9.91%	10.17%	8.64%	6.47%
Average	2.36%	2.02%	1.61%	1.45%	1.51%	1.60%
Low	-19.75%	-10.44%	-5.21%	-3.87%	-2.68%	-1.77%



Time (cont.)

in a 90:10 ratio. And so it goes. The unfortunate reality is that none of these time horizons is "right" for a pension fund or a university endowment. They are all far too short for a fund with an investment horizon of 30 to 50 years or even more.

What is most disturbing about asset mix decisions is not that they are made with an inappropriately short time horizon, but that there is almost no evidence that such decisions are made deliberately and explicitly. For example, there is no evidence of differences in asset mix between such obviously different employee benefit plans as pension plans and profit sharing plans. Nor are there significant differences among pension plans with such obvious differentiations as companies with high actuarial rate-of-return assumptions versus companies with low actuarial rate-of-return assumptions; companies with an old work force versus companies with a young work force; companies with fast growth in earnings versus companies with little or no growth in earnings; or by the percent of fund obligations now funded or by the percent of corporate profits being paid into the plan as annual contributions.

The irony is that while their nearly perpetual character enables pension funds to accept interim market risk better than any other type of investor, the typical pension fund was, in the late 1970s

and early 1980s, only 50 percent in equities. In other words, the time horizon actually being used in managing the typical pension fund was not 30 years or 50 years, but only three or four.

These funds paid an opportunity cost in returns forgone. As it turned out, the cost of not being fully invested in stocks in the decade of the eighties was very large: equities produced record returns, an astounding 17 percent *compounded!* Investment history documents conclusively (as seen in Chapter 2) that the very first weeks of a market recovery produce a substantial proportion of the gains to be experienced. Yet, it is at the crucial market bottom that the market timer is most likely to be out of the market—missing "the best part."² But that is not the point at issue here. The point is that managers and clients should have taken such a cautious asset mix decision only after examining the inherent risks and rewards and deciding what policy would be best for them. Such powerful decisions should be made deliberately and only after careful examination of long-term realities.

If more clients and managers insisted on such long-range policy reviews, their funds would typically be invested differently and would earn higher returns.

²Robert H. Jeffrey, "The Folly of Stock Market Timing," *Harvard Business Review*, July-August, 1984.

And You Thought You Were Confused

Those poor Wall Street wizards. Every time they think they've figured it out, the game changes. The recent moves by the Fed to raise short-term interest rates have been particularly frustrating for our "active" brethren. Here's how the *Wall Street Journal* recorded the action:

2/4/94: The Federal Reserve raised short-term interest rates for the first time in five years. The stock market plunged. The bond market flinched.

2/23/94: The Federal Reserve is likely to raise short-term interest rates again, Greenspan told Congress...Stock and bond prices jumped...

3/22/94: Stock and bond prices sank amid concerns about an impending interest-rate hike by the Federal Reserve.

3/23/94: The Fed's policy makers voted to push up short-term interest rates for the second time in as many months...Bond prices soared...

5/10/94: Bond prices tumbled further on disappointment with the Fed's failure to boost interest rates.

5/18/94: The Fed boosted short-term interest rates...The Dow shot up 49.11 points...The Treasury's benchmark 30-year bond rose almost two points.

Performance Notes:

Asset Class Returns—United States: 1-Yr. Bonds = DFA One-Year Fixed Income Portfolio; 5-Yr. Bonds = DFA Five-Year Government Portfolio; Large Stocks = Vanguard 500 Index Fund; Small Stocks = DFA 9-10 Small Company Portfolio; Small Value Stocks = DFA Small Cap Value Portfolio. International: Large Stocks = 57% Vanguard Pacific Index Fund, 43% Vanguard Europe Index Fund (approximates the return of the Morgan Stanley EAFE Index). Japan: Small Stocks = DFA Japanese Small Company Portfolio. Continental Europe: Small Stocks = DFA Continental Small Company Portfolio. United Kingdom: Small Stocks = DFA United Kingdom Small Company Portfolio. Pacific Rim: Small Stocks = DFA Pacific Rim Small Company Portfolio.

TAM Portfolio Returns Net of Fees—These are the actual returns of TAM portfolios in each risk category net of actual TAM management fees, custodial fees, and fund expenses. The "Growth" returns were calculated using a model portfolio from 12/31/92 to 4/30/93. The "Aggressive" returns were calculated using a model portfolio from 12/31/92 to 3/31/93. In both cases, the maximum TAM fee was deducted, representative custodial costs were deducted, and all mutual fund returns are net of expenses. Past performance is no guarantee of future returns. This is especially the case with model portfolios which are not subject to specific economic or market factors. **Benchmarks**—Balanced Fund & Capital Appreciation Fund Indexes: Lipper Analytical's indexes representing the 30 largest balanced mutual funds and 30 largest capital appreciation mutual funds in the country.