Equity Performance
1/1/03=100

(Latest Plot 6/15)

HYD Strategy *	——————
Vanguard Funds:	
Sm. Cap. Value	··············
Lg. Cap. Growth	——————
REIT Index	—·—·—·—
European Index	— — — — —

12/02   6/03   12/03   6/04
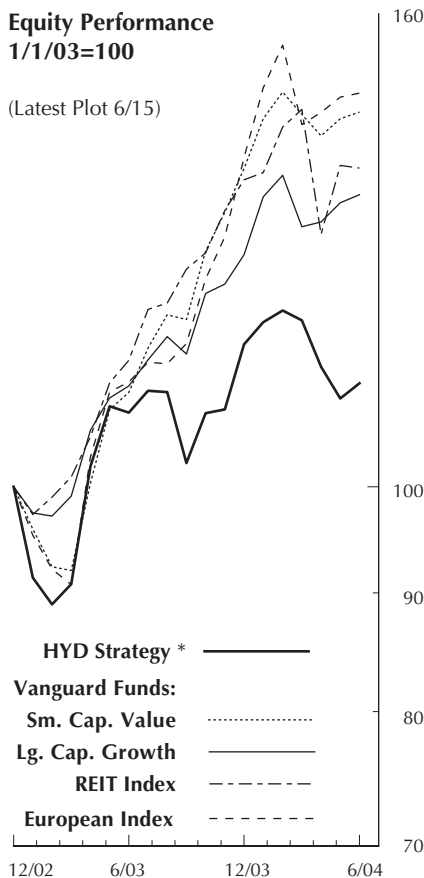
* HYD is a hypothetical model based on back-tested results. See p. 46 for a full explanation.

We offer two discretionary management services: Our Professional Asset Management (PAM) service covers all of our recommended assets and allows us to place trades in stocks, bonds, and mutual funds directly in our clients' accounts. (The accounts remain the property of our clients at all times—we are only authorized to trade on their behalf.) Our High-Yield Dow (HYD) service operates similarly, except it invests only in the highest-yielding Dow stocks, using the 4-for-18 model on a fully invested basis. Investors interested in these low-cost services should contact us at 413-528-1216 or Fax 413-528-0103.
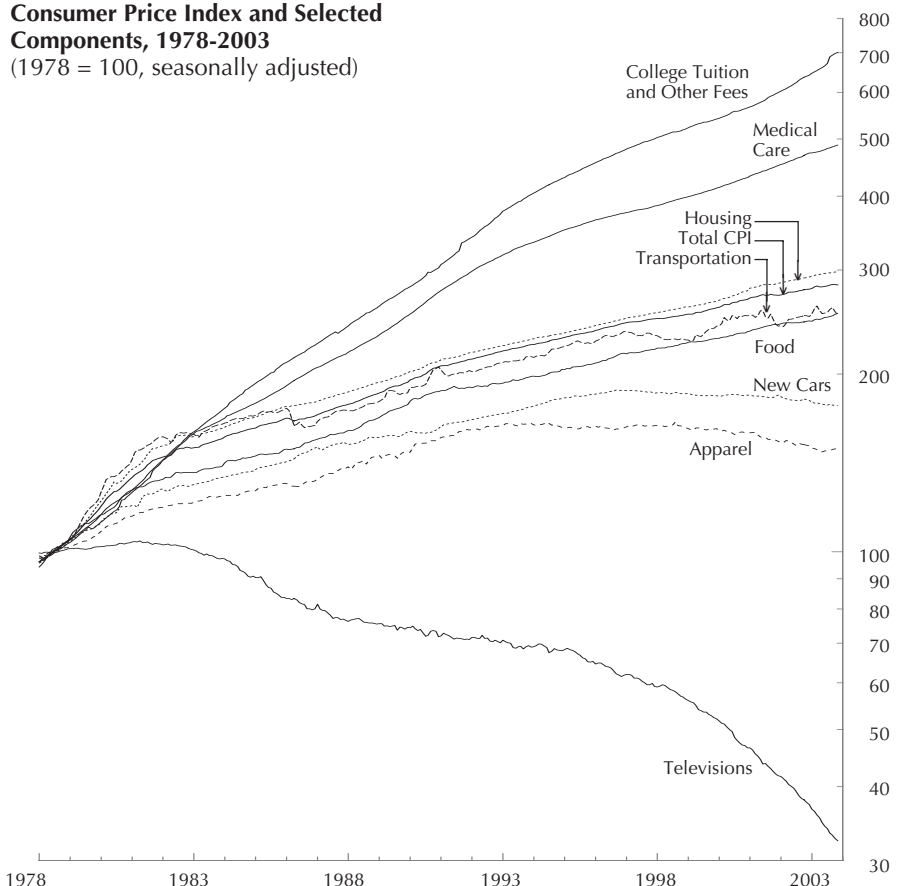
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Investing and Inflating

Price inflation is back, if the pundits have it right. Until very recently the financial media was awash in warnings of "deflation." Now, in the face of rising energy and food prices, and with statistical indicators increasingly pointing toward stronger economic growth, price inflation is back in the news. In our view, monetary inflating is all but certain in the absence of sound monetary policy, so all investors should have inflation protection built into their portfolios. But it is equally important, especially for older investors, to understand how inflation is measured in order to understand how it affects them.

As reported in the January 12, 2004, *Research Reports*, published by our parent, the American Institute for Economic Research (AIER), the Consumer Price Index (CPI) is far from perfect as a gauge of price inflation. Nevertheless, it is regarded as the best measure available, and is widely reported in the media as *the* rate of inflation; it is in fact used explicitly in cost-of-living

Consumer Price Index and Selected Components, 1978-2003
(1978 = 100, seasonally adjusted)

adjustments, including Social Security payments, benefits, wages and pensions.

The CPI is applied universally in making these adjustments; for example, all Social Security beneficiaries receive the same adjustment. But just as there is no such thing as "general price level", the "average consumer" is also an abstraction.

The chart on page 41 demonstrates that the CPI is a composite of prices, which have a varying impact on consumers, depending on their patterns of consumption. For example, those households facing college tuition bills or re-

quiring substantial medical care would be hit harder than most other consumers. It is no coincidence that both education and medical care receive significant subsidies from third parties (largely government), which confound consumer discipline.

Government-sponsored inflating forces investors to become speculators, a phenomenon that is especially pernicious in the case of senior citizens. Seniors are often on fixed incomes and devote a substantial portion of their budgets to medical care, where price increases have far outstripped the growth in the CPI. Their only defense is to hold

assets such as common stocks, which have outpaced inflation over time. But this is precisely the time of life when investors should be moving out of stocks and into assets such as short-term bonds, which are less volatile over the short-term. Thus seniors are compelled either to hold some level of stocks and hope that large expenditures will not be required during a bear market or to hold cash and short-term bonds and hope for medical price decreases. We favor the first option; it is unlikely that either of the twin culprits, government-sponsored inflating and subsidized health care, will be discontinued.

FIXED-INCOME INVESTMENT STRATEGIES

Most investors should consider fixed-income investments as part of a well-diversified portfolio. The percentage allocated to fixed-income investments is largely a function of your tolerance for risk (volatility) for your overall portfolio. Relative to common stocks, bonds lend stability to a portfolio, though they reduce expected return. Each quarter we publish our recommended portfolio allocations for various asset classes, including bonds, for investors with differing attitudes toward risk. This article is concerned with developing a fixed-income strategy once your desired allocation to bonds has been established.

Notes and Bonds: An Overview

While a bond in simplest terms can be thought of as an IOU that is issued by an entity in order to finance its activities, the financial markets are highly innovative and have spawned numerous fixed-income vehicles to match the specific needs of both borrowers and lenders. There are myriad bond issuers, including state and local governments, corporations, and others. Many varieties of bonds are available, with a host of features. Just to cite a few examples, prospective buyers can find bonds that are convertible to common stock, as well as zero-coupon issues, and bonds that can be "called," or retired, by the issuer.

For most investors, we recommend high-quality corporate issues (rated AA or better by Moody's credit rating service) or securities issued by the U.S. government or its agencies. Most of these include a promise to pay a stated rate of interest semiannually (the coupon rate), based on the par value of the bond, and a promise to pay the face value of the bond at ma-

turity. Many instruments of less than 10-year maturity are called notes. Throughout this article, however, we refer to all of these instruments as bonds.

After they are issued, bonds trade in a very active secondary market. Because their interest payments are fixed, bond prices are inversely related to prevailing market interest rates. For example, suppose you purchase a bond when it is first issued that promises to pay six percent per year for the next 30 years. If prevailing long-term market interest rates subsequently fall to four percent, your bond will be more valuable than new issues with a similar maturity, so the market price of your bond will rise.

Yield-to-maturity is another very important concept. This is simply the total annualized rate of return you could expect if you were to purchase a bond today and hold it until maturity. In the example above, the outstanding six-percent coupon bond would rise in price until its yield-to-maturity reflected the four percent yield available on comparable new issues of the same maturity.

Yield-to-maturity is a function of the bond's current price, its promised coupon payments, its par value at maturity, and the time remaining until maturity. The yield-to-maturity assumes that all coupon payments are reinvested at the bond's yield-to-maturity.

Investors should also be familiar with the notion of *duration,* which provides a measure of the effect of yield changes on prices and rates of return for different bonds. Maturity is an inadequate measure of the economic life of a bond because it only considers the return of principal at the maturity date. Two 15-year bonds, one with a six-percent coupon and one

with a 12-percent coupon, have different economic lifetimes since an investor will recover his investment much earlier with the 12-percent bond. Duration provides an *effective maturity* for a bond by accounting for both the size and timing of the cash flow of a bond. The calculation of duration is beyond the scope of this article, but the most important features of duration can be summarized as follows:

- Duration is equal to the years required to recover the purchase price of a bond, based on the present value of its future cash flows. Duration will therefore always be less than maturity for coupon paying bonds.

- Duration is superior to time to maturity when comparing the effective lives of different bonds.

- Duration is a measure of bond-price sensitivity to interest rate movements and is therefore a critical feature in assessing risk and return. Bond-price changes are positively related to duration, so an investor can increase (or decrease) the interest rate sensitivity of his bond portfolio by adding a bond with duration that is longer (or shorter) than that of his current portfolio.

Mistakes to Avoid

With these fundamental concepts in place, we can address the issue on the

Hypothetical Yield Curve
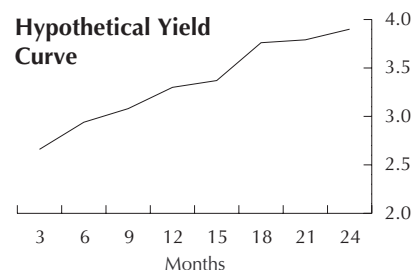
minds of most investors: What bond, or bond funds, might be appropriate for your portfolio? If the primary goal is to maximize expected return while minimizing volatility, we can eliminate a number of alternatives and narrow the options considerably.

Maturity is one parameter that investors must consider when purchasing bonds. Our parent, AIER, has studied interest rates and price inflation for decades. We have come to the conclusion that extending maturities, that is, holding fixed-income investments with maturities of five years or more, simply does not pay, especially if you are concerned with both volatility and return.

The chart above is a hypothetical yield curve, which depicts the yield-to-maturity available for bonds of various maturities. We show an upward sloping yield curve because at most times long-term rates exceed short-term rates.

At first glance, based on the curve depicted here, one might expect that an investor with a long-term investment horizon would do better by favoring longer-term instruments, but this is not the situation. The major reason is volatility. Table 1 shows both the annualized returns and standard deviation (a statistical measure of volatility) attributable to government debt issues of varying maturities. Again, bondholders are locked into a fixed coupon and redemption value, so their bonds' values are vulnerable to interest-rate fluctuations. Long-term bonds are locked in for a longer period, resulting in greater volatility. Since maximizing the risk-adjusted returns is an overarching goal of portfolio management, long-term bonds should not be considered.

Because bond prices, and therefore their returns, are inversely tied to interest rates, an investor could do quite well, for example, by selling short-term bonds and buying longer-term bonds when short-term rates were about to rise and long-term rates were about to fall. All that is needed is a reliable method of forecasting interest rates.

Unfortunately, there is no such method; worse yet, there are countless money managers whose livelihoods depend on convincing investors that they possess such a crystal ball. Bond mutual funds provide strong evidence that "actively managed" bond portfolios, when properly categorized, underperform their relevant indexes. Moreover, our own clients have often come to us with bond funds that have strayed significantly from their stated objective (e.g., heavily weighting long-term

Table 1: Average Returns on Treasury Securities					
	1-month T-Bills	6-month rolling T-Bills	1-year rolling T-Bills	5-year T-Notes	Long-term T-Bonds
Annualized Total Return	6.03%	6.82%	7.05%	7.70%	7.56%
Annualized Standard Deviation	1.31%	1.71%	2.35%	6.31%	11.06%
Based on quarterly data: January 1964-December 2003. Source: DFA Advisors.					

bonds instead of concentrating on the short-term end of the yield curve).

Bonds: How Best to Invest

If investors should avoid long-term bonds and also money managers who claim to know the future, what avenue *should* they pursue? There are five basic alternatives available to investors who wish to pursue a "passive" strategy (they make no attempt to forecast interest rates), while concentrating on short-term securities. These include a "buy and hold", indexing, laddering, portfolio immunization, and finally a "variable maturity" strategy.

The first option is simplest; it entails direct investment in a bond and holding it until maturity. Because an investor's capital is not "pooled," as in the case of a mutual fund, one can precisely target a duration appropriate to his investment horizon. This strategy is "passive" only in the sense that the investor is not buying and selling securities in anticipation of changes in the yield curve. However, he is still in a sense gambling on future interest rates; by opting to hold a given bond, he is in effect hoping that his security, over the remaining time frame, will continue to consistently provide the highest risk-adjusted returns among all other alternatives available. This approach is therefore passive in its implementation but arguably active in its strategy. Perhaps more important, most investors' portfolios are not large enough to justify purchasing enough bonds to be adequately diversified against credit risk.

Indexing is a passive alternative that provides better diversification than a direct buy-and-hold strategy, but it still comes up short for most investors. Index funds are typically of very low cost and seek to replicate the holdings, and thus the performance, of an index. Index funds therefore avoid bonds rated below BBB. In doing so they adopt a static maturity approach that typically will target an average maturity or duration that fluctuates over a very narrow range. Several bond index mutual funds are available for this purpose.

Unfortunately, indexing methodology fails to exploit opportunities that can reduce risk and boost return. These oppor-

tunities are presented by the changing nature of the yield curve. Suppose an index fund holds a Treasury bond with four years remaining until maturity. In order to replicate the index, the fund will continue to hold that security, *regardless of the present interest rate environment*. Even if the yield curve changes so that a less volatile one-year bond provides a higher return, the fund will not sell the four-year bond and buy the one-year bond.

Laddering is another popular technique for passively investing in bonds. This technique involves buying a variety of bonds with maturities that are spread over the investor's investment horizon. An investor with a five-year time horizon might initially invest equal amounts in bonds that mature in 1, 2 ,3, 4, and 5 years. In one year, the one-year position will have matured, and the investor will invest the proceeds in another issue with a five-year maturity. He will simply repeat this procedure each year, thus maintaining a portfolio equally distributed across the first five years of the yield curve.

A laddered portfolio provides a compromise. By spreading his bets, the investor is admitting that rates are unpredictable. Short-term positions potentially provide stability since they are generally less vulnerable to interest-rate swings, but in an upward sloping yield-curve environment, they typically provide a lower yield. The longer-term positions are more interest-rate sensitive but usually offer higher potential yields. Spreading out the maturity of the portfolio simply offers some protection against interest-rate changes. If rates fall "across the board" before the next reinvestment date, a laddered portfolio would be forced to add a bond with a lower yield, but the remainder of the portfolio would have appreciated. When rates are rising, the converse would be true.

While laddering might add protection from interest-rate risk relative to a simple buy-and-hold strategy, like indexing it also fails to take advantage of a changing yield-curve environment. A changing yield curve frequently offers the investor a chance to enhance returns with lower volatility, but a mechanical, laddered approach turns a blind eye to these opportunities.

Table 2	*Maturity (Months) at Time of Purchase*							
Maturity (Months) At Time of Sale	24	21	18	15	12	9	6	3
21	4.65							
18	4.32	3.98						
15	4.79	4.85	**5.73**					
12	4.50	4.45	4.68	3.64				
9	4.39	4.32	4.44	3.80	3.95			
6	4.22	4.13	4.17	3.65	3.65	3.35		
3	4.07	3.98	3.98	3.51	3.51	3.29	3.22	
0	3.90	3.79	3.76	3.30	3.30	3.08	2.94	2.66

Passive-Active Approaches

We recommend that investors consider *portfolio immunization* and *variable maturity* strategies when considering fixed-income investments. Both are relatively sophisticated approaches to fixed-income investing; they are passive in their strategy in that they make no attempt to predict interest rates, but they are active in their implementation because they can require frequent buying and selling.

Portfolio immunization is a technique that uses the principle of duration to allow an investor to protect his fixed-income investments from interest-rate risk. Interest-rate risk has two components, price risk and reinvestment risk, which work in opposite directions. If interest rates rise, an investor would see the market value of his bond fall, but he would be able to reinvest his coupon payments at a higher rate, so investment income would rise. Conversely, if interest rates fall, the bond's price will rise, but reinvestment rates, and therefore investment income, will fall. Immunization allows an investor to quantify these offsetting effects in order to neutralize interest-rate risk through a carefully constructed portfolio.

Suppose an investor earmarks funds for a five-year investment horizon, when his child will begin college. If he purchases a bond with five-year *time until maturity* with an expected yield-to-maturity of six percent, there is no guarantee that he will realize this six-percent yield-to-maturity, even if he holds the bond to maturity. This is because reinvestment rates in the meantime could fall below the expected yield-to-maturity. However, if instead he purchases a bond with a *duration* equal to five years, he can neutralize this interest-rate risk. Keep in mind that the duration of a coupon-paying bond will always be less than its time to maturity, so a bond with a five-year duration would have more than five years remaining until maturity. Therefore, if interest rates should fall throughout year five, reducing reinvestment income for that fifth year, the bond's price will have risen by the end of his in-vestment horizon (the end of year five) since it would have time remaining until maturity. He would sell it, with the higher proceeds offsetting the reduced income. *By purchasing a bond, or a portfolio of bonds with a duration equal to his investment horizon, an investor can immunize his holdings against interest-rate risk.*

Constructing an immunized portfolio for a specific investment horizon can be overwhelming for many investors because in practice immunization requires periodic rebalancing since duration should be equal to the investment horizon, which grows shorter as time passes.

Table 3: Recommended Bond Fund Statistics				
Fund Name	*Ticker*	Average *Maturity*	Avg. Effective *Duration*	Expense *Ratio*
iShares Lehman 1-3 Treasury	SHY	1.90	1.80	0.15
USAA Short-Term Bond	USSBX	2.00	1.70	0.55
Vanguard Sht-Tm Corp	VFSTX	2.50	2.00	0.23

Most mutual funds, moreover, are inappropriate for this task because they are designed to satisfy myriad investors with numerous investment horizons.

Many individual investors will find that the best way to invest in fixed-income securities is via a "variable maturity" approach, pioneered by Eugene Fama of the University of Chicago and put into practice through the fixed-income mutual funds of Dimensional Fund Advisors (DFA)*. Unlike laddering and indexing, the variable maturity approach seeks to take advantage of the higher expected-return, lower-risk outcomes. However, no attempt is made to predict interest rates. Instead the strategy seeks to obtain risk-adjusted returns present in the existing yield curve. It is predicated on the notion that bond markets are efficient. Current bond prices, and therefore current interest rates, reflect all publicly available information. Today's interest rates (manifested in the current yield curve), therefore provide the best estimate of future interest rates.

The variable maturity strategy begins

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* DFA's low-cost, passively managed mutual funds are available through investment advisors only. Contact AIS for more information at (413) 528-1216.

with the current yield curve. Consider again the hypothetical yield curve above. From this yield curve, a matrix of expected returns can be generated for any bond for any combination of its 1) maturity at time of purchase, and 2) maturity at time of sale. Table 2 is such a matrix. For example, a bond with 18 months remaining until maturity that is purchased today and sold in three months (when 15 months remain until maturity) would have the highest expected return available (5.73 percent) of all such possible combinations. In order to calculate these expected returns, three pieces of information are required. The first is the current bond price, which is easily ascertained in today's market. The second data point is the income generated by the bond over the three months that the bond will be held; this too is currently available. The final element is the bond's sale price three months hence. While this is unknown, the efficiency of the bond market suggests that our best estimate can be derived from today's yield curve. Specifically, the expected price/yield of current 15-month bonds is used to estimate the price/yield of 15-month bonds three months from now.

Note that the optimal expected return corresponds to the steepest part of the yield curve in an upwardly sloping yield-curve environment. If the yield curve remains the same over the following three months, the investor will gain the greatest "bang for the buck" in terms of return. Recall that bond prices are inversely related to interest rates, and rates fall most sharply over this portion of the yield curve. On the other hand, if the yield curve shifts (as is most often the case), the strategy will simply sell the position and reinvest in whatever combination of maturity and holding period provides the highest expected return, based on a revised matrix of expected outcomes.

There are no bond funds we know of, except those offered by DFA, that follow a strictly passive approach. However, those investors who prefer mutual funds should consider our recommended bond funds (see Table 3); although they are actively managed these funds take a highly disciplined approach that generally meet the objectives we have discussed.

BEHAVIORAL FINANCE

Behavioral finance has recently gained a great deal of attention in the world of financial economics. Many in the "behavioralist" camp question the notion that investors act rationally in their own self-interest, the central assumption of modern portfolio theory. Instead, the behavioralists argue that investors are prone to act on their emotions; a trend that they argue can result in "mispriced" securities. In the article that follows, Jim Davis, PhD—who has written an important historical study with Eugene F. Fama and Kenneth R. French, "Characteristics, Covariances, and Average Returns: 1929 to 1997," Journal of Finance *(2000)—points to flaws in this argument. While he concedes that investors make errors in judgment, it is another thing altogether to assert that active managers can somehow exploit this tendency. In light of the overwhelming body of empirical support for modern portfolio theory, there is an enormous burden of proof that must be overcome in order to reject a passive, asset allocation strategy approach to portfolio management.*

Behavioral Finance Is Fun

When I was a graduate student at the University of Illinois I audited a course in behavioral finance. The professor, Jay Ritter, was an outstanding teacher who made the material very interesting. It was fascinating to study concepts such as *subcertainty, mental accounting,* and *overconfidence bias*—concepts that lie at the intersection of psychology and economics. As I learned about these common mistakes that other people make, I found that I was enjoying myself a lot more than I had expected to. It's fun to study the mistakes of others.

Then, in one of those rare instances when I took an honest look at myself, I realized that I too am subject to some of these common judgmental errors. These are not just other people's mistakes—they are also mine. This took away some of the fun.

There is now ample evidence that people make errors in judgment. Sometimes they learn from their mistakes (e.g., the car I bought in 1980), but sometimes people just keep making the same mistakes year after year (e.g., what some celebrities wear to the Oscars). The great leap of logic that some behavioral economists make is as follows: People make the same mistakes over and over again. *Therefore, I can use this knowledge to make*

money in the financial markets.

Does this conclusion follow from the premise? For judgmental errors to affect asset prices, there have to be enough people making the same mistake at the same time so that the mistaken traders force prices to differ from intrinsic (underlying) values. Suppose for now that this occasionally happens, and an active manager wants to exploit these situations for profit. The manager must diligently watch the markets for evidence that such a situation has occurred. When such an opportunity is discovered, the manager must check to see whether anything can be done about it. If the situation is exploitable, the manager will execute the appropriate trades as soon as possible.* In an active manager's perfect world, the price would then quickly revert to intrinsic value, giving the manager an immediate and handsome return.

In this scenario, timing is crucial for behaviorally motivated portfolio managers. They must trade as soon as an apparent opportunity is identified, or else it may vanish. Patient trading is usually not an option, so price impact is just a part of the game. Then, in order for the manager to realize a profit, other investors must also notice and act on the mispricing, resulting in security prices going back to their true underlying values. Since a portfolio manager's performance is frequently judged based on short time periods, a price that reverts to intrinsic value three years from now doesn't help much. And of course, there is always the chance that the manager is wrong and the asset is fairly priced. In this case, the manager pays the price impact for urgent trading and gets nothing in return.

Furthermore, unless misvalued securities appear frequently, the manager will either have a very concentrated portfolio or one that is populated with securities that the manager believes to be fairly valued. On top of everything, the manager incurs expenses by gathering the information necessary to search for incorrectly valued securities.

In spite of all these complications, are

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* There are some situations where there's nothing a manager can do about a perceived misvaluation. In the May 1991 *American Economic Review*, Patel, Zeckhauser and Hendricks refer to this as the *poachability* of the opportunity. For example, an overvalued security is not poachable if a short position in the security cannot be established.

there managers who can generate abnormal returns by identifying incorrectly valued assets? I do not know, but I am convinced that there are not a lot of them. If there were, the results of the various mutual fund performance studies would have turned out much differently. Since these studies indicate that most active managers are unable to cover their costs with their security selection ability, and since there is scant evidence of persistence in mutual fund performance, how are investors supposed to pick active managers? The fees charged by these managers can be quite high, so investors need to be able to pick a good one. Many people seem to be confident in their ability to do so. Is this confidence well founded, or is it just another manifestation of overconfidence bias? The fact that so much money has flowed into poorly performing funds supports the latter explanation.

How can we benefit from the study of behavioral finance, if not by earning abnormal returns? We can guard against the tendency to make these judgmental errors ourselves. For example, since we now know that people tend to be too confident in their own abilities, we can guard against this flaw. We can also warn those in our spheres of influence about these harmful tendencies. Realistic attitudes about the ability to earn abnormal returns might help investors to focus on more important issues, like asset allocation, diversification, and expenses. These issues are likely to have a greater impact on performance than would a search for improperly valued securities.

To all the celebrities who were offended by my remark about fashions at the Oscars, I apologize. Actually, having someone like me comment on fashion is probably the ultimate proof of overconfidence bias. But you can't profit from my overconfidence unless you sell me a suit.

I take a 40 regular.

THE HIGH-YIELD DOW INVESTMENT STRATEGY

We are convinced that long-term, common-stock investors will receive superior returns on the "large-capitalization-value stock" component of their holdings when they consistently hold the highest-yielding Dow stocks. The fact that a given company's stock is included in the Dow Jones Industrial Average is evidence that the company is a mature and well-established going concern. When a Dow stock comes on the list of the highest-yielding issues in the Average, it will be because the company is out of favor with the investing public for one reason or another (disappointing earnings, unfavorable news developments, etc.) and its stock price is depressed. A High-Yield Dow (HYD) strategy derives much of its effectiveness because it forces the investor to purchase sound companies when they are out of favor and to sell them when they return to relative popularity.

Selecting from the list will not be cut and dried if the timing of purchases and sales reflects individual prejudices or other *ad hoc* considerations. These usually come down to "I'm not going to buy *that*" or "goody, this fine company has finally come on the list and I'm going to load up." Our experience with investing in the highest-yielding Dow stocks has shown that attempts to "pick and choose" usually do not work as well as a disciplined approach.

Our parent has exhaustively researched many possible High-Yield Dow approaches, backtesting various possible selections from the DJIA ranked by yield for various holding periods. For the 35 years ended in December 1998, they found that the best combination of total return and low risk (volatility) was obtained by purchasing the four highest-yielding issues and holding them for 18 months. (For a thorough discussion of the strategy for investing in the highest-yielding stocks in the DJIA, please read AIER's booklet, "How to Invest Wisely", $12.)

The model portfolio of HYD holdings set forth in the accompanying table reflects the systematic and gradual accumulation of the four highest-yielding Dow issues, excluding General Motors and Altria (formerly Philip Morris). We exclude GM because its erratic dividend history has usually rendered its relative yield ineffective as a means of signaling timely purchases, especially when it has ranked no. 4 or higher on the list. We exclude Altria because, in present circumstances, it seems unlikely that there will be sufficient "good news" for it to be sold out of the portfolio. For more than eight years, Altria has never ranked lower than fourth on the list, whatever its ups and downs, and, given the circumstances, using Altria in the strategy amounts to a buy-and-hold approach. The HYD strategy, to repeat, derives much of its superior performance from buying cheap and selling dear.

In the construction of the model, shares purchased 18 months earlier that are no longer eligible for purchase are sold. The hypothetical trades used to compute the composition of the model (as well as the returns on the model and on the full list of 30 Dow stocks) are based on mid-month closing prices, plus or minus $0.125 per share. Of the four stocks eligible for purchase this month, only **Citigroup** and **Verizon**, which was not then a Dow component, were not eligible for purchase 18 months earlier (in December 2002). Investors following the model should find that the indicated purchases of **Verizon** and **Citigroup** and sales of **Eastman Kodak** are sufficiently large to warrant trading. In larger accounts, rebalancing positions in **JP Morgan Chase, SBC** and **Dupont** may be warranted as the model calls for adding to positions that have lagged the entire portfolio and selling positions that have done better. Investors with sizable holdings may be able to track the exact percentages month to month, but smaller accounts should trade less often to avoid excessive transactions costs, only adjusting their holdings toward the percentages in the table if prospective commissions will be less than, say, one percent of the

As of June 15, 2004

	Rank	Yield	Price	Status	——Percent of Portfolio*—— Value	No. Shares[1]
Altria Group	1	5.72%	47.55	*		
SBC Comm.	2	5.11%	24.47	Holding**	25.54	28.46
Verizon	3	4.28%	35.94	Buying	4.51	3.42
General Motors	4	4.20%	47.64	*		
JP Morgan Chase	5	3.65%	37.25	Holding**	28.27	20.70
CitiGroup	6	3.40%	47.02	Buying	6.07	3.52
DuPont	7	3.21%	43.57	Holding	6.02	3.77
Merck	8	3.09%	47.95	Holding	3.24	1.84
General Electric	9	2.51%	31.81			
Exxon Mobil	10	2.45%	44.08			
AT&T	NA	5.87%	16.18	Holding	16.41	27.65
Eastman Kodak	NA	1.96%	25.42	Selling	9.92	10.64
					100.0	100.0

Change in Portfolio Value[2]

	1 mo.	1 yr.	5 yrs.	10 yrs.	15 yrs.	From 12/63	Std. Dev.
HYD Strategy	1.42%	-1.45%	1.28%	12.44%	14.58%	15.26%	19.33%
Dow	3.86%	15.91%	1.47%	12.56%	12.46%	10.54%	16.93%

* The strategy excludes Altria and General Motors. ** Currently indicated purchases approximately equal to indicated purchases 18 months ago. [1] Because the percentage of each issue in the portfolio by value reflects the prices shown in the table, we are also showing the number of *shares* of each stock as a percentage of the total number of shares in the entire portfolio. [2] Assuming all purchases and sales at mid-month prices (+/–$0.125 per share commissions), reinvestment of all dividends and interest, and no taxes. The 5-, 10- and 15-year total returns are annualized as are the total returns and the standard deviations of those returns since December 1963.

Note: These calculations are based on hypothetical trades following a very exacting stock-selection strategy, and are gross of any management fees. They do not reflect returns on actual investments or previous recommendations of AIS. Past performance may differ from future results.

value of a trade. By making such adjustments from time to time, investors should achieve results roughly equal to the future performance of the model.

The process of *starting* to use the strategy is not as straightforward. The two most extreme approaches are: 1) buy all the indicated positions at once or 2) spread purchases out over 18 months. Either choice could be said to represent an attempt at market timing, i.e., buying all at once could be construed as a prediction that (and will look good in retrospect only if) the prices of the shares go up after the purchases are made. On the other hand, if purchases are stretched out and stock prices increase, the value of the investor's holdings will lag behind the strategy's performance. We believe that most attempts to time the market are futile, and the best course lies somewhere in between the extremes.

Some portion of the shares now held in the strategy will be sold within a few months. The shares most likely to be sold are those whose indicated yields are too low to make them currently eligible for purchase. This usually means that their prices have risen (and their yields have fallen), in relative if not absolute terms, since they were purchased. If such stocks are purchased now and are sold within a few months, the investor will receive only a portion of the profit, or sustain a greater loss, than the strategy. On the other hand, if the stocks not currently eligible for purchase are bought and the strategy does not call for selling them soon, it will usually be because their prices have decreased so that their indicated yields render them again eligible for purchase. In other words, buying a stock that is not currently among the top four means that it will very likely be sold during the months ahead (perhaps at a gain, perhaps not, but with payment of two commissions either way). Alternatively, if the price decreases so that the issue again becomes eligible for purchase, then the investor's initial purchase would be likely to be held in the portfolio at a loss for some period of time. In the latter situation, the investor would have been better off waiting.

Accordingly, for new HYD clients, we usually purchase the complement of the currently eligible stocks without delay. (This month, the four eligible issues— SBC Communications, Verizon, J.P. Morgan Chase, and Citigroup — account for roughly 65 percent of the total portfolio value). Any remaining cash will be held in a money-market fund pending subsequent purchases, which will be made whenever the client's holdings of each month's eligible stocks are below the percentages indicated by the strategy by an amount sufficient to warrant a trade.

Our **HYD Investment Management Program** provides professional and disciplined application of this strategy for individual accounts. For accounts of $100,000 or more, the fees and expenses of AIS's discretionary portfolio management programs are comparable to those of many index mutual funds. Contact us for information on this and our other discretionary investment management services.

THE DOW JONES INDUSTRIALS RANKED BY YIELD

	Ticker Symbol	Market Prices 6/15/04	5/14/04	6/13/03	12-Month High	Low	Latest Dividend Amount	Record Date	Paid	Indicated Annual Dividend	Yield† (%)
Altria Group	MO	**$47.55**	49.88	42.18	58.96	38.72	0.680	6/15/04	7/09/04	2.720	5.72
★ SBC Comm.	SBC	**$24.47**	24.50	25.32	27.73	21.16	0.313	4/10/04	5/03/04	1.250	5.11
★ Verizon	VZ	**$35.94**	36.36	39.45	41.35	31.10	0.385	7/09/04	8/02/04	1.540	4.28
General Motors	GM	**$47.64**	44.35	36.20	55.55	35.00	0.500	5/14/04	6/10/04	2.000	4.20
★ J. P. Morgan Chase	JPM	**$37.25**	35.66	34.70	43.84	32.40	0.340	7/06/04	7/31/04	1.360	3.65
★ Citigroup	C	**$47.02**	45.65	44.10	52.88	42.24	0.400	5/03/04	5/28/04	1.600	3.40
☆ DuPont	DD	**$43.57**	41.69	43.58	46.25	38.60	0.350	5/14/04	6/12/04	1.400	3.21
☆ Merck	MRK	**$47.95**	46.45	59.23	63.50	40.57	0.370	6/04/04	7/01/04	1.480	3.09
General Electric	GE	**$31.81**	30.16	30.65	34.57	26.90	0.200	6/28/04	7/26/04	0.800	2.51
Exxon Mobil	XOM	**$44.08**	43.27	37.93	44.44 *H*	34.90	0.270	5/13/04	6/10/04	1.080	2.45
Caterpillar	CAT	**$75.39**	75.69	56.05	85.70	53.10	0.410	7/20/04	8/20/04	1.640	2.18
Honeywell Intl.	HON	**$35.97**	33.48	27.86	37.65	25.94	0.188	5/20/04	6/10/04	0.750	2.09
Johnson & Johnson	JNJ	**$56.21**	54.52	52.56	57.28 *H*	48.05	0.285	5/18/04	6/08/04	1.140	2.03
Coca-Cola	KO	**$51.23**	50.00	47.35	53.50	42.28	0.250	6/15/04	7/01/04	1.000	1.95
Pfizer	PFE	**$35.09**	35.60	33.08	38.89	29.43	0.170	5/15/04	6/04/04	0.680	1.94
Alcoa	AA	**$31.14**	29.78	25.58	39.44	24.00	0.150	5/10/04	5/25/04	0.600	1.93
Procter & Gamble	PG	**$111.04**	106.41	91.17	111.59 *H*	86.51	0.500	4/23/04	5/14/04	2.000	1.80
3M Company (s)	MMM	**$85.55**	83.81	63.90	88.70	63.40	0.360	5/21/04	6/12/04	1.440	1.68
Boeing	BA	**$49.25**	43.44	35.34	49.90 *H*	31.00	0.200	5/21/04	6/11/04	0.800	1.62
United Tech.	UTX	**$89.28**	83.25	72.11	97.84	69.31	0.350	8/20/04	9/10/04	1.400	1.57
McDonald's	MCD	**$26.68**	26.17	21.46	29.98	20.40	0.400	11/14/03	12/01/03	0.400	1.50
Hewlett-Packard	HPQ	**$21.70**	19.61	20.99	26.28	19.10	0.080	6/16/04	7/07/04	0.320	1.47
Home Depot, Inc.	HD	**$35.77**	33.80	33.56	37.89	30.10	0.070	3/11/04	3/22/04	0.340	0.95
Wal-Mart Stores	WMT	**$56.71**	55.06	54.08	61.31	50.50	0.130	8/20/04	9/07/04	0.520	0.92
Walt Disney	DIS	**$24.70**	23.24	20.35	28.41	18.85	0.210	12/12/03	1/06/04	0.210	0.85
IBM	IBM	**$90.54**	86.41	82.75	100.43	78.73	0.180	5/10/04	6/10/04	0.720	0.80
American Express	AXP	**$51.22**	48.86	43.43	53.98	41.04	0.100	7/02/04	8/10/04	0.400	0.78
Microsoft Corp.	MSFT	**$27.41**	25.86	24.65	30.00	24.01	0.160	10/15/03	11/07/03	0.160	0.58
Intel Corp.	INTC	**$28.43**	27.04	21.36	34.60	19.99	0.040	5/07/04	6/01/04	0.160	0.56
AIG	AIG	**$72.15**	70.80	58.20	77.36	54.20	0.750	9/03/04	9/17/04	0.300	0.42
☆ AT&T	T	**$16.18**	16.72	20.86	23.18	15.86	0.238	3/03/04	5/03/04	0.950	5.87
☆ Eastman Kodak	EK	**$25.42**	25.13	30.83	32.10	20.39	0.250	6/01/04	7/15/04	0.500	1.96

† Based on indicated dividends and market price as of 6/15/04. *H* New 52-week high. *L* New 52-week low. (s) All data adjusted for splits. (r) All data adjusted for reverse splits. * SBC paid an extra dividend of .10 on 11/3/03 that is not included in the annual yield.

Note: The issues indicated for purchase (★) are the 4 highest-yielding issues (other than Altria Group and General Motors) qualifying for purchase in the top 4-for-18 months model portfolio. The issues indicated for retention (☆) have similarly qualified for purchase during one or more of the preceding 17 months, but do not qualify for purchase this month.

RECENT MARKET STATISTICS

Precious Metals & Commodity Prices

	6/15/04	Mo. Earlier	Yr. Earlier
Gold, London p.m. fixing	386.50	376.50	353.05
Silver, London Spot Price	5.63	5.56	4.51
Copper, COMEX Spot Price	1.20	1.18	0.76
Crude Oil, W. Texas Int. Spot	37.19	41.38	30.65
Dow Jones Spot Index	182.86	191.60	148.16
Dow Jones-AIG Futures Index	144.14	149.08	116.98
CRB-Bridge Futures Index	266.62	269.19	234.11

Interest Rates (%)

		6/15/04	Mo. Earlier	Yr. Earlier
U.S. Treasury bills -	91 day	1.33	0.98	0.84
	182 day	1.67	1.33	0.83
	52 week	2.10	1.77	0.89
U.S. Treasury bonds -	15 year	8.13	5.32	3.71
Corporates:				
High Quality -	10+ year	6.06	6.21	4.79
Medium Quality -	10+ year	6.52	6.70	5.36
Federal Reserve Discount Rate		2.00	2.00	2.25
New York Prime Rate		4.00	4.00	4.25
Euro Rates	3 month	2.10	2.08	2.12
Government bonds -	10 year	4.33	4.27	3.48
Swiss Rates -	3 month	0.34	0.27	0.27
Government bonds -	10 year	2.92	2.76	2.08

Exchange Rates

	6/15/04	Mo. Earlier	Yr. Earlier
British Pound	$1.828100	$1.767400	1.685000
Canadian Dollar	$0.728100	$0.722300	0.749600
Euro	$1.205700	$1.200700	1.187300
Japanese Yen	$0.908000	$0.008794	0.008503
South African Rand	$0.152900	$0.147500	0.128400
Swiss Franc	$0.791200	$0.782300	0.769000

Securities Markets

	6/15/04	Mo. Earlier	Yr. Earlier
S & P 500 Stock Composite	1,132.01	1,095.70	988.61
Dow Jones Industrial Average	10,380.43	10,012.87	9,117.12
Dow Jones Transportation Average	3,039.84	2,848.89	2,455.56
Dow Jones Utilities Average	272.27	265.02	249.01
Dow Jones Bond Average	173.29	171.13	178.44
Nasdaq Composite	1,995.60	1,904.25	1,626.49
Financial Times Gold Mines Index	1,387.71	1,361.45	1,298.88
FT African Gold Mines	1,801.15	1,870.71	2,069.20
FT Australasian Gold Mines	2,967.13	2,655.47	2,181.79
FT North American Gold Mines	1,167.30	1,132.14	1,036.13

Coin Prices

	6/15/04	Mo. Earlier	Yr. Earlier	Premium
American Eagle (1.00)	$403.35	$396.55	370.85	4.36
Austrian 100-Corona (0.9803)	$384.13	$377.63	353.23	1.38
British Sovereign (0.2354)	$96.35	$94.75	88.75	5.90
Canadian Maple Leaf (1.00)	$403.60	$396.80	371.10	4.42
Mexican 50-Peso (1.2057)	$473.90	$465.90	435.80	1.69
Mexican Ounce (1.00)	$392.90	$386.30	361.30	1.66
S. African Krugerrand (1.00)	$398.95	$392.25	367.05	3.22
U.S. Double Eagle-$20 (0.9675)				
St. Gaudens (MS-60)	$470.00	$475.00	415.00	25.69
Liberty (Type I-AU)	$675.00	$675.00	675.00	80.51
Liberty (Type II-AU)	$487.50	$487.50	440.00	30.37
Liberty (Type III-AU)	$425.00	$440.00	395.00	13.65
U.S. Silver Coins ($1,000 face value, Circulated, year earlier uncirculated)				
90% Silver (715 oz.)	$4,182.50	$4,302.50	4,500.00	3.90
40% Silver (292 oz.)	$1,725.00	$1,730.00	1,587.50	4.93
Silver Dollars	$6,500.00	$6,500.00	6,137.50	49.24

Note: Premium reflects percentage difference between coin price and value of metal in a coin, with gold at $386.50 per ounce and silver at $5.63 per ounce. The weight in troy ounces of the precious metal in coins is indicated in parentheses.

Recommended Mutual Funds

	Ticker Symbol	6/15/04	Month Earlier	Year Earlier	— 52-Week — High	Low	Distributions Latest 12 Months Income	Capital Gains	Yield (%)
Short-Term Bond Funds									
★ iShares Lehman 1-3 Yr Treasury	SHY	$81.45	$81.64	82.95	83.08	81.14	1.3107	0.0000	1.61
★ USAA Short Term Bond	USSBX	$8.97	$8.99	9.23	9.23	8.96	0.3058	0.0000	3.41
★ Vanguard Short-term Corporate	VFSTX	$10.62	$10.64	10.96	10.96	10.61	0.3937	0.0000	3.71
Income Equity Funds									
★ DNP Select Income[1,2]	DNP	$10.75	$10.07	10.95	11.42	9.60	0.7800	0.0000	7.26
★ Vanguard REIT Index	VGSIX	$15.36	$14.18	13.22	16.98	12.79	0.7900	0.0000	5.14
Large Cap. Value Equity Funds									
★ iShares S&P 500 Value Index[3]	IVE	$56.86	$54.83	49.14	58.88	47.11	0.9246	0.0000	1.63
★ Vanguard Value Index	VIVAX	$19.24	$18.62	16.85	19.91	16.26	0.4020	0.0000	2.09
Small Cap. Value Equity Funds									
★ iShares Sm. Cap. 600 Value Index[3]	IJS	$105.19	$99.76	81.49	109.15	45.57	0.8487	0.0000	0.81
★ Vanguard Sm. Cap Value Index	VISVX	$11.91	$11.30	9.39	12.48	9.24	0.1980	0.0000	1.66
Growth Equity Funds									
★ iShares S&P 500 Growth Index[3]	IVW	$56.83	$54.80	50.09	58.01	48.66	0.6160	0.0000	1.08
★ Vanguard Growth Index	VIGRX	$25.55	$24.66	22.15	26.09	21.86	0.1460	0.0000	0.57
Foreign Equity Funds									
★ iShares S&P Europe 350 Index[3]	IEV	$65.73	$62.18	54.70	69.20	51.50	2.5127	0.0000	3.82
T Rowe Price European Stock	PRESX	$17.53	$16.67	14.78	18.68	13.97	0.2200	0.0200	1.25
★ Vanguard European Stock Index	VEURX	$22.42	$21.37	18.57	23.57	17.73	0.4600	0.0000	2.05

Recommended Gold-Mining Companies

	Ticker Symbol	6/15/04	Month Earlier	Year Earlier	— 52-Week — High	Low	Distributions Latest 12 Months	Frequency	Yield (%)
Anglo American PLC, ADR	AAUK	$20.52	$19.21	15.84	26.69	15.18	0.510	Semiannual	2.49
★ Anglogold Ashanti Ltd., ADR	AU	$31.79	$31.75	31.34	49.95	29.89	1.006	Semiannual	3.16
ASA Ltd.[1]	ASA	$34.95	$35.27	37.60	48.00	33.47	0.600	Quarterly	1.72
★ Barrick Gold Corp.†	ABX	$19.26	$18.79	18.19	24.16	16.67	0.187	Semiannual	0.97
★ Gold Fields Ltd.	GFI	$10.27	$10.42	12.44	15.52	9.75	0.118	Semiannual	1.15
★ Newmont Mining	NEM	$37.97	$36.95	32.07	50.28	31.01	0.300	Quarterly	0.79
★ Placer Dome†	PDG	$15.31	$14.12	11.97	19.23	11.37	0.085	Semiannual	0.56
★ Rio Tinto PLC‡	RTP	$94.95	$86.42	81.65	116.33	75.31	2.560	Semiannual	2.70

★ Buy. ☆ Hold. (s) All data adjusted for splits. † Dividend shown is after 15% Canadian tax withholding. ‡ Not subject to U.K. withholding tax. na Not applicable.
[1] Closed-end fund, traded on the NYSE. [2] Dividends paid monthly. [3] Exchange traded fund, traded on ASE.

June 30, 2004