AIS INVESTMENT GUIDE

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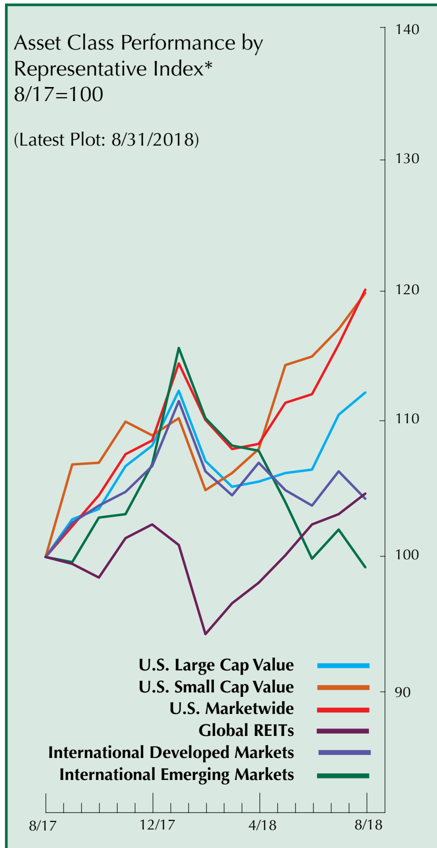


* See box, page 70, for representative indexes.

Rates of Interest
As of September 20, 2018

Government Obligations[1]	
Fed Funds Rate	1.92%
3-Month Treas. Bill	2.13%
10-Yr. Treas. Note	3.05%
30-Yr. Treas. Bond	3.20%
10-Yr. TIPS	0.92%
Muni Bonds - Nat'l 10-Yr.	2.50%
Mortgage Rates[2]	
15-Yr Fixed	4.11%
30-Yr Fixed	4.65%
Banking[3]	
Savings	0.08%
Money Market	0.14%
12-month CD	0.45%

[1] Federal Reserve, fmsbonds.com. Annualized Rates. Notes, bonds, TIPS reflect yield to maturity.
[2] Freddie Mac. Average (National average mortgages with 0.5 points).
[3] FDIC. Average national rates, non-jumbo deposits (<$100k).

Keeping Your Finances Sound[1]

A key element to avoiding financial tangles is keeping your finances on an even keel through sound planning strategies. Sound finances are not necessarily achieved through an extraordinarily high income, or making a killing in the stock market or real estate. Many people have attained those goals, yet still find money slipping through their fingers at an alarming rate. Rather, a solid financial footing and the peace of mind that comes with it are the rewards of sensible, sound financial planning.

In most cases the road to sound finances and preserving wealth is paved with common sense, not extraordinary risk and mountains of debt. Managing debt wisely, crafting a simple yet effective investment strategy that stresses the importance of diversification and low costs, and staying alert for the growing threats of identity theft and fraud are simple yet effective ways to help keep finances sound.

Managing Debt

Some people have a very low tolerance for debt. They pay their credit card bills in full every month, have fixed-rate mortgages with predictable monthly payments that they can comfortably afford, or even no mortgage at all, and would never think of taking out a car loan.

At the other end of the spectrum are those who use exotic, risky mortgages to buy houses they could otherwise not afford, borrow over five years to buy a high-end luxury car but do not have any savings, and make only the minimum monthly payments on five or six credit cards. Many people fall somewhere in between.

Of course, not all debt is bad, if used in moderation. Taking out loans to buy a house or fund a college education, for example, can be considered an investment in one's future. But unless money is no object, whipping out credit cards for impulse or luxury items on a regular basis is an almost certain path to getting in over your head.

There is no magical point at which people suddenly realize they are sinking into debt. Given the liberal terms under which many lenders are willing to extend credit, compulsive borrowers who should be tightening their belts can instead go on multi-year buying sprees without much consequence. But eventually it catches up

1. This article is an excerpt from AIER's publication *How to Avoid Financial Tangles*, Feb. 2009 p. 125-127.

(continued next page)

with them and by the time collection agencies start calling it is often too late to save a credit rating or avoid bankruptcy.

If you are unable to accumulate longer-term savings to achieve financial goals such as college funding or retirement, you are probably spending too much. Warning signs that you may be getting overextended include making only the minimum payment on a card each month, using one credit card to pay off another, "maxing out" more than one card, and using credit cards to pay for necessities such as groceries because you do not have cash available.

If you find you are having trouble paying your debts, it is imperative to develop a budget. Start by listing your income. Then, list your fixed monthly expenses, such as mortgage payments or rent, car payments, and insurance premiums. Next, list the expenses that vary, such as entertainment, recreation, and clothing. Write down all your expenses to track your spending patterns, identify necessary expenses, and prioritize the rest. Contact creditors to see if they would be willing to work out a modified payment plan. If you wait until they hand over your account to a collection agency, you may find this option unavailable.

If you are not disciplined enough to create a workable budget and stick to it, cannot work out a repayment plan with your creditors, or cannot keep track of mounting bills, consider contacting a credit counseling organization. Many credit counseling organizations are nonprofit and work with you to solve your financial problems. However, the Federal Trade Commission warns that even if an organization says it is "nonprofit," there is no guarantee that its services are free, affordable, or even legitimate. In fact, some credit counseling organizations charge high fees, which may be hidden, or urge consumers to make "voluntary" contributions that can cause more debt. Some nonprofit agencies are funded largely by credit issuers and their advice may be designed to benefit lenders rather than borrowers.

If possible, find an organization that offers in-person counseling. Many universities, military bases, credit unions, housing authorities, and branches of the U.S. Cooperative Extension Service operate nonprofit credit counseling programs. Your financial institution, local consumer protection agency, and friends and family also may be good sources of information and referrals.

Be very wary advertisements in newspapers or telephone directories that promise debt relief. This "relief" may actually be bankruptcy. Commonly used catch phrases include "Consolidate your bills into one monthly payment without borrowing," "Use the protection and assistance provided by federal law," and "Stop harassment, repossessions, and garnishments."

Personal bankruptcy generally is considered the debt management option of last resort and should be avoided whenever possible. People who follow the bankruptcy rules receive a discharge, which is a court order that says they do not have to repay certain debts. However, bankruptcy information stays on your credit report for ten years, and can make it difficult to obtain credit, buy a home, get life insurance, or even get a job.

DEFENDING AGAINST FINANCIAL EXPLOITATION OF THE ELDERLY

In 2016, AARP's Public Policy Institute reported that each year one in five older Americans falls victim to financial exploitation, with total costs estimated at $3 billion per year. America has an aging population, so the potential number of victims and the resultant costs are set to rise exponentially.

Easy Targets

Many factors make members of the aging population ideal targets for abuse, not the least of which is their collective assets estimated at $18 trillion (which, according to AARP, represents an amount equal to 67 percent of all U.S. bank deposits). Add to that the daunting realities of growing older: declining general health, visual and auditory impairment, reduced cognitive ability, greater social isolation and in many cases an inability or unwillingness to embrace technology.

Sadly, exploitation is often committed by family members or others the victim knows well, such as caretakers, neighbors or friends. The National Center on Elder Abuse (NCEA) estimates[1] that these perpetrators are responsible for 90 percent of the financial exploitation of the elderly. Due to the close nature of these relationships it is quite possible that even this statistic underreports the scope of the abuse.

This by no means discounts the threat from "outsiders." Regulation and law enforcement struggle to keep pace with the volume of scams launched electronically let alone the elusive creativity of fraudsters. Among the more common ploys are email messages or phone calls demanding an immediate transfer of funds to a designated account in order to help a relative in serious trouble or to stave off threatened litigation or loss of essential services.

The opportunity for financial fraud perpetrated against the elderly has perhaps never been greater.

Congress Steps Up

This past May, in a bipartisan effort, Congress passed and the President signed into law a measure[2] designed to curtail the rising threat of financial fraud and protect senior citizens from financial exploitation.

Lawmakers recognized that financial institutions can serve as a first line of defense against financial abuse of the elderly. Previously, financial institutions were discouraged from reporting suspected elder abuse due to fear of litigation over false claims. These institutions were and remain restricted by a range of privacy regulations governing their ability to disclose clients' personally identifiable information. The new law formalizes the ability of investment advisers and other financial institutions to report suspected fraud to law enforcement without fear of being sued.

Financial institutions have quickly responded. Investors who have opened or updated a financial account in recent months may have been asked to provide the name and contact information for a "trusted contact person" who the firm may contact in the event of possible financial abuse or fraud.

What Can We Do?

Regardless of the age, current physical and/or mental circumstances, there are fundamental safeguards that investors should consider.

1. *Identify Trusted Contacts*: Investors should carefully consider identifying one or more trustworthy individuals as Trusted Contacts.
    - Like many other financial institutions, we ask our clients to provide the name(s) and contact information for individuals they have identified as a Trusted Contact along with authorization to contact the Trusted Contact should we suspect possible elder abuse. Naturally, we will not communicate with any Trusted Contact we suspect to be involved in predatory activities.
2. *Review Legal Documentation:* Investors should ensure legal documents are in place and up-to-date. Wills, advanced health care directives, powers of attorney for financial matters, and health care proxies are among the more important documents to consider.
3. *Adopt additional Safeguards*: Investors should implement direct deposit of checks, establish automatic alerts of large transactions be sent, both self-notification as well as notices delivered to the investor's trusted contact.
4. *Ensure your financial service providers are engaged:* In addition to staff training, your providers should deliver or otherwise make available periodic communications regarding cybersecurity and exploitation of senior citizens.

Feel free to contact us for further information, including links to additional resources and materials.

1. John Rosengren, 7 Ways to Prevent Financial Elder Abuse, September 2018 AARP Bulletin
2. The Senior Safe Act provides immunity to covered financial institutions (including registered investment advisers, broker-dealers and banks, among others) and individuals who disclose suspected financial exploitation to a covered agency such as the Securities and Exchange Commission, law enforcement agencies, state financial regulatory agencies, or State or local agencies responsible for administering adult protective services laws.

TOWARD AN OPTIMAL REBALANCING STRATEGY

Our recommend portfolios include a range of asset classes that are expected to act differently under different conditions. During periods when stocks struggle, for instance, bonds or gold may buoy overall returns. Even within stocks, we diversify internationally so as not to be completely exposed to the returns of a single country. The desired effect of this diversification is to smooth an investor's overall portfolio returns over time.

The total return of a diversified portfolio might have lower expected returns compared with a more concentrated portfolio, such as investing 100 percent in U.S. stocks. But the "smoother" pattern of returns of the diversified portfolio can be invaluable because it helps investors maintain long-term focus and not fixate on short-term fluctuations. Empirical evidence suggests that investors who are able to maintain their positions for the long term, through peaks and troughs, outperform those that are inclined to trade in and out of positions.

Investors should focus on finding the proper balance of assets such that the expected return is maximized for a tolerable level of volatility, or risk. Once this allocation plan has been determined, future changes in asset allocation should be driven by changes in the investor's circumstances, and not by guessing at changes in the market. This minimizes trading and transaction costs.

However, over long periods of time, certain asset classes will inevitably outperform others, resulting in portfolios that deviate from the original strategy. To correct this, investors must regularly "rebalance" their portfolios to match the targets.

In this article we look at whether rebalancing can be expected to produce higher returns and/or lower volatility. We then outline a framework for determining an optimal rebalancing strategy. We end with a discussion of how rebalancing is implemented in practice.

A Drifting Allocation

Consider an investor who bought a simple portfolio consisting of 60 percent stocks and 40 percent bonds 10 years ago in July 2008. If the investor did not add or withdraw funds and never rebalanced his portfolio, at the end of June 2018, stocks would have comprised about 75.5 percent of his holdings (see Chart 1).

This is the result of the high return of stocks relative to bonds during this period. During the first nine months of this example, bonds outperformed stocks during the financial crisis. However, the "stock heavy" portfolio emerged over the long term, as would be expected based on the higher expected returns associated with stocks versus bonds.

This result may not be bad from a return perspective, but it could lead to risk that is outside of the investor's comfort zone. The volatility[1] of a 75/25 portfolio since 1926 has been about 2.6 percentage points higher than the volatility of a 60/40 portfolio – a meaningful difference. If an investor is comfortable with the ups and downs of a 60/40 portfolio, the higher turbulence of the 75/25 portfolio might prove to be intolerable.

High volatility over market cycles can lead to unwarranted exuberance or panic that all too often triggers poor investment decisions. For example, when investors are exposed to more risk than they're comfortable with, they may act on an urge to sell after the market has dropped sharply.

This simple example of a drifting allocation highlights the need for a rebalancing framework. Rebalancing has two potential benefits: increasing returns and reducing volatility.

Impact on Returns

Whether or not rebalancing can increase returns over the long term is debatable. The example above is a single 10-year time frame. A more comprehensive 2008 study in the Journal of Financial Planning suggests that an optimal rebalancing strategy can in fact boost returns.[2] This may be intuitively appealing since rebalancing entails selling assets that have performed relatively well and using the proceeds to buy those that have performed relatively poorly that is, "buying low and selling high."

However, a follow-up paper by Marlena Lee found that the results of the paper referenced above were heavily dependent on the time frame used for analysis.[3] Lee found instead that the potential increase in returns is not statistically different from zero,

and is dependent on the data used in the analysis. This stands to reason, since rebalancing typically entails selling assets with higher expected returns (stocks) and buying assets with lower expected returns (bonds). If these expectations come to fruition, a portfolio allowed to drift will eventually become overwhelming concentrated in stocks, and should therefore have higher returns.

One can certainly identify periods when rebalancing would have increased returns. For instance, coming out of the financial crisis, rebalanced portfolios outperformed because during the decline they tended to sell bonds in order to buy more stocks, which subsequently soared from the lows reached in March 2009.

Our own previous research (with data ending December 2014) looked at 60/40 portfolios during rolling 10-year periods. We found a small negative impact of rebalancing on returns. The magnitude and direction of impact, however, was dependent on the rebalance frequency and threshold. We have now updated our findings to include an additional four and a half years of data (through June 2018). This extension encompasses the financial crisis and subsequent rebound. As a result, the data on average now show a small positive impact of rebalancing on returns since 1980, though a small negative impact remains using data beginning in 1926.

This only serves to highlight the conclusion that results are heavily data dependent. As Lee concludes in her research, "While it is true that the details of a rebalancing strategy will affect portfolio returns, trying to predict which strategy will have the highest returns going forward will likely lead one down a path of unproductive data mining."

Finally, we should point out that our research is limited to a simple portfolio of stocks and bonds. To the extent that we include more narrowly defined asset classes, such as small cap stocks, large cap stocks, and international stocks, results will vary.

Risk Management

While the impact of rebalancing on returns is unclear, researchers and practitioners agree that rebalancing improves risk management because it has the potential to reduce portfolio volatility. In this respect, rebalancing can serve to better investment outcomes.

The end result of rebalancing is a superior portfolio in the sense that it may improve an investor's returns by encouraging more disciplined investor behavior. That is, by maintaining a systematic rebalancing strategy, we can reduce the urge to buy and sell at the wrong times.

The lesson is that while rebalancing may not increase returns per se, most investors should nevertheless adopt a disciplined rebalancing process. This provides protection against our impulses, which all too often are the primary reason investors fail to meet their goals.

This requires a rule or a process with clear parameters that will signal when rebalancing is warranted, and above all must be independent from human emotion.

Our Framework

Selecting an "optimal" rebalance frequency is as much art as science, but we have put together a quantitative framework for establishing a systematic strategy. The first two decisions are:

1. How often should an investor look at his portfolio to consider whether rebalancing is warranted?
2. What "threshold" should trigger a call for rebalancing? In other words, how far from the target should the allocation be before it is worth trading?

In order to assess these questions, we evaluated a hypothetical portfolio comprised of 60 percent U.S. stocks and 40 percent U.S. bonds. We then simulated historical performance based on various rebalancing strategies. Once again we have extended our initial analysis by including monthly returns since 2014.

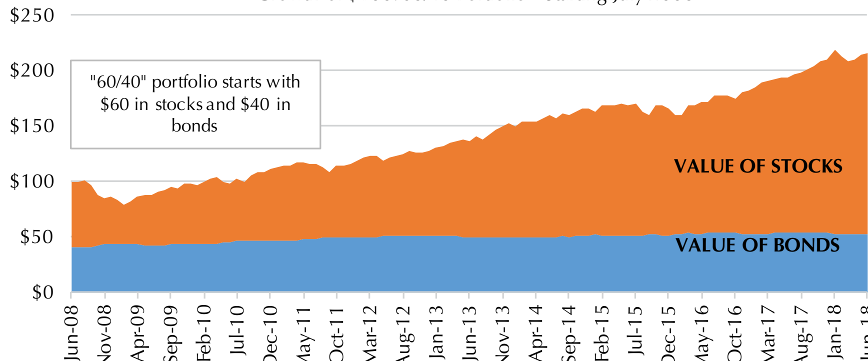
We tested monthly, quarterly, and annual frequencies to determine how often an investor should look at his portfolio to consider whether rebalancing is warranted (theoretically, an investor could choose to look every day, but we determined this to be unrealistic and potentially costly). We also tested different thresholds for rebalancing. For example, a threshold of 10 percent triggered a rebalance whenever any asset class in the portfolio strayed from its assigned target by more than 10 percent. For the 40 percent bond portion of the portfolio, a 10 percent threshold would trigger a rebalance if the bond allocation fell below 36 percent or rose above 44 percent.

We employed a "utility" function to help identify an optimal strategy.[4] This simply provides a mathematical measure that allows us to rank an investor's hypothetical satisfaction with various outcomes, assuming that the goal is to minimize risk (volatility) for a given level of return.

Our initial assessment using data through 2014 found that investors with a medium level of risk tolerance could optimize the utility function by looking to rebalance on a *quarterly basis* and when asset allocations are *outside of a 15 percent threshold*.[5] Our update through June 2018 confirms the 15 percent threshold, but shows that quarterly and annual frequency provide similar utility.

We believe this is a practical starting point for many investors. For investors with a higher tolerance for risk, it makes sense to potentially widen the rebalance threshold, to perhaps 25 percent. For investors with a lower tolerance for

Chart 1: The Fate of a Hypothetical, Unrebalanced Portfolio
Growth of $100: 60/40 Portfolio - Starting July 2008



Notes: Stock returns represented by CRSP Deciles 1-10 (market) index. Bond returns represented by Five-Year US Treasury Notes.
Source: DFA Returns 2.0 program.

risk, it can make sense to narrow the threshold to 10 percent or less. Though it may seem counterintuitive, this would prompt risk-averse investors to trade more frequently than risk tolerant investors.

Our Data

The second chart shows the impact of this rebalancing mechanism on returns and volatility for rolling 10-year periods since 1980. The rebalanced 60/40 portfolio is *considered* for rebalancing only at three month intervals, and *actually* rebalanced only when the allocation to stocks or to bonds breaches a threshold of plus or minus 15 percent of its target. Superior outcomes occur during intervals when the strategy both increases returns and reduces volatility. On the chart these periods are evident when both the blue line is above the x-axis and the orange line is below the x-axis.

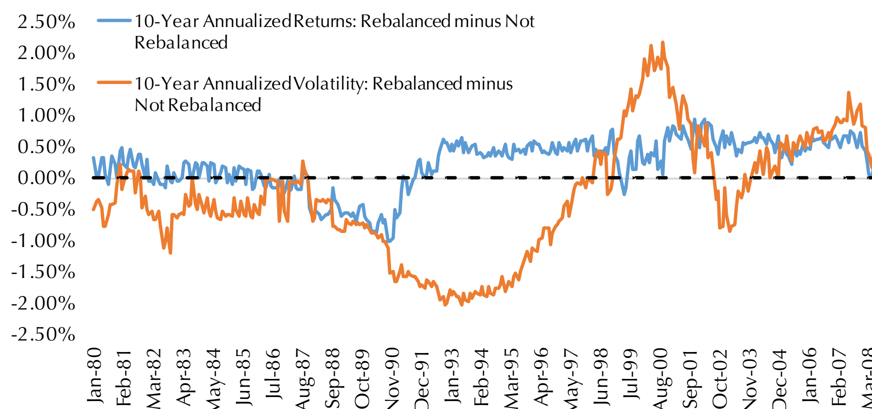
In summary:

- Superior outcomes for rebalancing occurred during most 10-year periods, and showed up consistently for 10-year periods starting in the mid-1990s.
- The rebalanced portfolio at times increased portfolio volatility, but this typically accompanied higher returns (such as 10-year windows starting between June 1999 and August 2002).
- Conversely, the rebalanced portfolio at times reduced returns, but these episodes were generally accompanied by reduced volatility (such as the 10-year periods starting between April 1986 and September 1991).
- Over this entire period, there were only three starting months when the rebalanced portfolio reduced 10-year subsequent returns while also increasing volatility.

Rebalancing In Practice

We believe this framework provides a reasonable rule of thumb for investors. It is also the default rebalancing algorithm employed in our Professional Asset Management service.

Chart 2: Rebalancing Affects Returns and Volatility



In practice, rebalancing trades are often triggered by an inflow or outflow of cash from the portfolio. For example, retirees drawing on their portfolios need to trade in order to free up cash for withdrawal. In those cases we look to sell positions with current allocations that exceed their targets. This tends to continually rebalance the portfolio without triggering the mechanism we have described.

Likewise, workers adding to 401(k) plans make regular contributions to their accounts. The investor must establish initial target allocations, but after that investing is relatively "hands free" because during each payday thereafter a portion of the worker's earnings is automatically allocated pro rata according to those targets. These regular cash infusions serve to keep the portfolio in line with the targets, reducing the need to rebalance the portfolio deliberately.

Many 401(k) platforms also offer automated, periodic rebalancing with no transaction costs and, since these plans are tax-deferred, rebalancing trades generate no realized taxable gains. With no trading or tax costs it makes sense to reduce the threshold to 0 percent. This will result in rebalancing trades that occur at every time interval selected by the investor (often monthly, quarterly, or annually). The investor need only decide how frequently to rebalance, but again, the optimal frequency is particular to each investor. In general, for investors who can withstand larger swings in their portfolio value – those with a proclivity to "let it ride" – annual rebalancing might be adequate. Investors unnerved by wide fluctuations in their retirement savings might find a monthly interval to be more suitable.

There are other factors to take into account when rebalancing. Investors with taxable accounts should consider the tax ramifications of trading. There may be less incentive for these investors to rebalance when unrealized capital gains are present. For investors with both taxable and tax-deferred accounts, rebalancing can be more complicated, because, while an investor's target allocation plan should apply to the combined value of all his accounts, asset classes should be held within accounts based on their relative tax-efficiency (for example, many investors concentrate their REIT allocations in IRAs or 401(k) accounts).

In general, we find that systematic rebalancing is appropriate for typical investors because it acts to reduce long-term volatility and makes it easier for investors to maintain a portfolio consistent with their risk tolerance. For investors who are more sensitive to risk or who incur low transaction costs, it may make sense to rebalance more frequently and adopt a relatively narrow threshold. For investors with a higher tolerance for risk or with higher transaction costs, it can make sense to allow the portfolio to drift more, by looking at it less frequently and by adopting a wider rebalancing threshold. For many, a quarterly frequency with a 15 percent threshold is a reasonable starting point.

1. Annualized standard deviation of 60/40 and 75/25 portfolios: 11.2 percent, 13.8 percent, respectively.
2. Daryanani, Gobind. 2008. "Opportunistic Rebalancing: A New Paradigm for Wealth Managers." Journal of Financial Planning 21 (1):48-61.
3. Lee, Marlena I. 2008. "Rebalancing and Returns." Dimensional Fund Advisors. https://us.dimensional.com/media/50842/rebalancing_and_returns.pdf.
4. Utility = (Percent Return) – [(.005) x (Risk Aversion Coefficient) x (Percent Volatility^2)]
5. Based on data since 1980. Model assumes transaction costs of 0.10 percent per trade and risk aversion coefficient of 5.

THE HIGH-YIELD DOW INVESTMENT STRATEGY

Recommended HYD Portfolio

As of September 15, 2018

	Rank	*Yield (%)*	*Price ($)*	*Status*	*—Percent of Portfolio— Value (%)*	*No. Shares (%)*[1]
Verizon	1	4.42	54.55	Holding**	26.49	33.90
IBM	2	4.23	148.33	Buying	22.35	10.52
Exxon Mobil	3	3.96	82.92	Holding**	20.93	17.62
Chevron	4	3.82	117.38	Holding**	14.71	8.74
Proctor & Gamble	5	3.43	83.61	Holding	1.63	1.36
Pfizer	7	3.17	42.96	Selling	12.51	20.33
General Electric	N/A	3.84	12.68	Holding	1.37	7.53
Cash (6-mo. T-Bill)	N/A	N/A			0.01	N/A
Totals					100.00	100.00

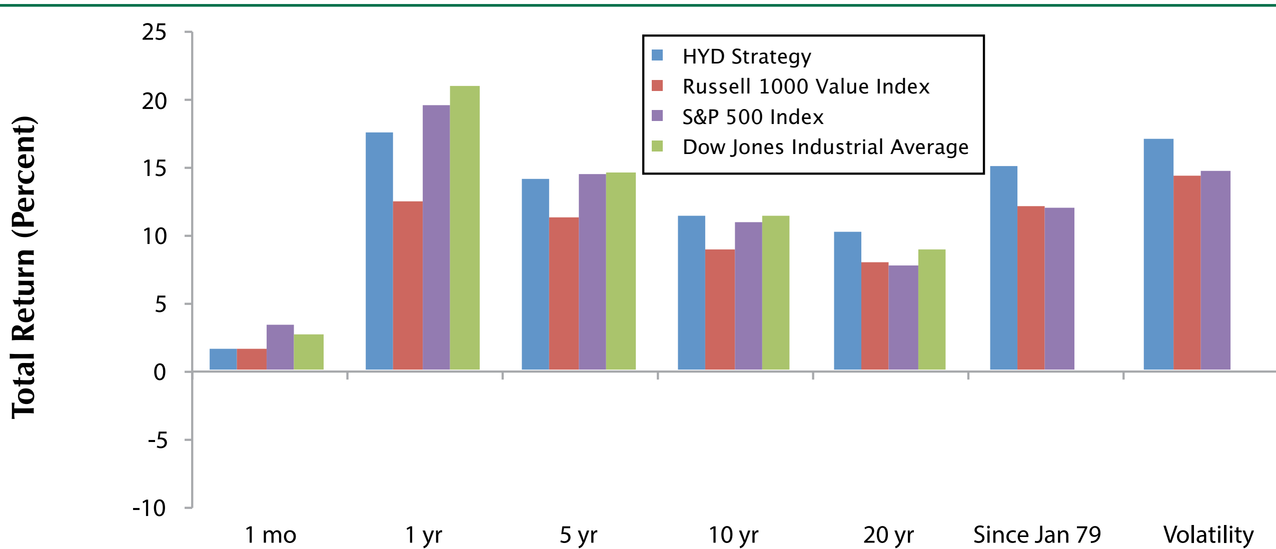
**Currently indicated purchases approximately equal to indicated purchases 18 months ago. 1 Because the percentage of each issue in the portfolio by value reflects the prices shown in the table, we are also showing the number of shares of each stock as a percentage of the total number of shares in the entire portfolio.

Subscribers can find a full description of the strategy and methodology in the "Subscribers Only" (Log in required) section of our website: www.americaninvestment.com.

Comparative Hypothetical Total Returns (%) and Volatility

The data presented in the table and chart below represent total returns generated by a hypothetical HYD portfolio and by benchmark indexes for periods ending August 31, 2018*. Returns for the 5-,10- and 20-year periods are annualized, as is the volatility (standard deviation) of returns. (January 1979 is the earliest date for which data was available for both the HYD model and relevant benchmark indexes).

	1 mo.	1 yr.	5 yrs.	10 yrs.	20 yrs.	Since Jan 79	Volatility (Std. Dev.) since 1979
HYD Strategy	1.47	17.57	14.12	11.35	10.16	15.15	17.05
Russell 1000 Value Index	1.48	12.47	11.22	8.93	7.93	12.12	14.32
S&P 500 Index	3.26	19.66	14.52	10.86	7.72	12.02	14.72
Dow Jones Industrial Average	2.56	21.00	14.64	11.34	8.90	N/A	N/A



*Data assume all purchases and sales at mid-month prices (+/–$0.125 per share commissions), reinvestment of all dividends and interest, and no taxes. Model HYD calculations are based on hypothetical trades following a very exacting stock-selection strategy. They do not reflect returns on actual investments or previous recommendations of AIS. Past performance may differ from future results. Historical performance results for the Russell 1000 Value Index, the Dow Jones Industrial Average and the S&P 500 Index do not reflect the deduction of transaction and/or custodial charges, or the deduction of an investment-management fee, the incurrence of which would have the effect of decreasing historical performance results. HYD Strategy results reflect the deduction of 0.725% management fee, the annual rate assessed to a $500,000 account managed through our Professional Asset Management service.

Representative asset class indexes: U.S. large cap value - Russell 1000 Value Index; U.S. small cap value - Russell 2000 Value Index; U.S. Marketwide - Russell 3000 Index; Global REITs - S&P Global REIT Index (net div.); Foreign developed markets - MSCI World ex-U.S.(net div.) Index; Emerging markets - MSCI Emerging Markets Index (net div.); U.S. bonds – Bloomberg Barclays U.S. Aggregate Bond Index; Foreign Bonds - FTSE Non-USD World Government Bond Index 1-5 Years (hedged to USD) Gold - London PM Fix. Past performance may not be indicative of future results. Therefore, no current or prospective investor should assume that the future performance of any specific investment, investment strategy (including the investments and/or investment strategies recommended by AIS), or product made reference to directly or indirectly, will be profitable or equal to past performance levels. Historical performance results for individual investment indexes and/or categories generally do not reflect the deduction of transaction and/or custodial charges, the deduction of mutual fund fees, or the deduction of advisory fees, the incurrence of which would have the effect of decreasing historical performance. The results portrayed above reflect the reinvestment of dividends and capital gains.

RECENT MARKET STATISTICS

Precious Metals & Commodity Prices ($)

	9/14/18	Mo. Earlier	Yr. Earlier	Prem. (%)
Gold, London p.m. fixing	**1,201.95**	1,182.00	1,322.85	
Silver, London Spot Price	**14.21**	14.83	17.70	
Crude Oil, W. Texas Int. Spot	**68.98**	65.07	49.90	
Coin Prices ($)[1]				
American Eagle (1.00)	**1,226.95**	1,207.00	1,347.85	2.08
Austrian 100-Corona (0.98)	**1,171.91**	1,152.36	1,290.79	-0.51
British Sovereign (0.2354)	**282.94**	278.24	311.40	0.00
Canadian Maple Leaf (1.00)	**1,211.95**	1,192.00	1,332.85	0.83
Mexican 50-Peso (1.2056)	**1,441.07**	1,417.02	1,586.83	-0.55
Mexican Ounce (1.00)	**1,219.95**	1,200.00	1,340.85	1.50
S. African Krugerrand (1.00)	**1,208.95**	1,189.00	1,329.85	0.58
U.S. Double Eagle-$20 (0.9675)				
St. Gaudens (MS-60)	**1,230.00**	1,250.00	1,320.00	5.77
Liberty (Type I-AU50)	**1,750.00**	2,000.00	2,000.00	50.49
Liberty (Type II-AU50)	**1,325.00**	1,325.00	1,325.00	13.94
Liberty (Type III-AU50)	**1,182.00**	1,230.00	1,305.00	1.64
U.S. Silver Coins ($1,000 face value, circulated)				
90% Silver Circ. (715 oz.)	**11,843.50**	11,843.50	13,172.00	16.53
40% Silver Circ. (292 oz.)	**4,821.00**	4,821.00	5,180.50	16.15
Silver Dollars Circ.	**23,250.00**	23,250.00	22,875.00	111.47

[1]Premium reflects percentage difference between coin price and value of metal in a coin. The weight in troy ounces of the precious metal in coins is indicated in parentheses.

Recent Market Returns[2]

Data through August 31, 2018

	U.S. Stocks (Mktwd)	Foreign Dev. Stocks	Foreign Emerg. Stocks	Global REITs	U.S. Bonds	Foreign Bonds (hedged)	Gold
1-month	3.51% ↑	-1.89% ↓	-2.70% ↓	1.55% ↑	0.64% ↑	-0.02% ↓	-1.52% ↓
3-month	7.65% ↑	-0.58% ↓	-4.70% ↓	4.75% ↑	0.54% ↑	0.51% ↑	-7.88% ↓
1 year	20.25% ↑	4.51% ↑	-0.68% ↓	4.92% ↑	-1.05% ↓	1.43% ↑	-7.92% ↓
5 year (annualized)	14.25% ↑	5.51% ↑	5.04% ↑	7.93% ↑	2.49% ↑	1.72% ↑	-2.84% ↓
15 year (annualized)	9.77% ↑	7.01% ↑	9.74% ↑	7.78% ↑	4.00% ↑	2.75% ↑	8.10% ↑
Best and worst one-year returns, Jan. 2001 - August 2018							
Best	**56.0%**	**57.2%**	**91.6%**	**85.7%**	**13.8%**	**7.1%**	**57.6%**
During:	03/2009-02/2010	04/2003-03/2004	03/2009-02/2010	04/2009-03/2010	11/2008-10/2009	07/2008-06/2009	06/2005-05/2006
Worst	**-43.5%**	**-50.3%**	**-56.6%**	**-59.5%**	**-2.5%**	**0.1%**	**-27.4%**
During:	03/2008-02/2009	03/2008-02/2009	12/2007-11/2008	03/2008-02/2009	09/2012-08/2013	04/2010-03/2011	12/2012-11/2013

[2]For representative asset class indexes see box on page 70.

THE DOW JONES INDUSTRIALS RANKED BY YIELD*

	Ticker Symbol	Market Prices ($) 9/14/18	8/15/18	9/15/17	12-Month ($) High	Low	Latest Dividend Amount ($)	Record Date	Payable Date	Indicated Annual Dividend ($)	Yield† (%)
Verizon	VZ	54.55	53.24	47.86	55.42	43.97	0.603	10/10/18	11/1/18	2.412	4.42
IBM	IBM	148.33	143.91	144.82	171.13	137.45	1.570	8/10/18	9/10/18	6.280	4.23
Exxon Mobil	XOM	82.92	76.94	80.07	89.30	72.16	0.820	8/13/18	9/10/18	3.280	3.96
Chevron	CVX	117.38	117.94	114.63	133.88	108.02	1.120	8/17/18	9/10/18	4.480	3.82
Procter and Gamble	PG	83.61	82.30	93.27	94.67	70.73	0.717	7/20/18	8/15/18	2.869	3.43
Coca-Cola	KO	45.99	46.08	46.18	48.62	41.45	0.390	9/14/18	10/1/18	1.560	3.39
Pfizer	PFE	42.96	41.16	35.36	43.18	33.20	0.340	8/3/18	9/4/18	1.360	3.17
Cisco	CSCO	47.40	43.86	32.44	48.06	32.26	0.330	7/6/18	7/25/18	1.320	2.78
Merck	MRK	69.98	67.37	66.16	70.94	52.83	0.480	9/17/18	10/5/18	1.920	2.74
Intel Corp	INTC	45.54	47.46	37.00	57.60	36.66	0.300	11/7/18	12/1/18	1.200	2.64
3M Company	MMM	207.88	201.39	213.35	259.77	190.57	1.360	8/24/18	9/12/18	5.440	2.62
Johnson & Johnson	JNJ	139.49	130.43	134.45	148.32	118.62	0.900	8/28/18	9/11/18	3.600	2.58
McDonald's	MCD	160.84	159.88	156.92	178.70	146.84	1.010	9/4/18	9/18/18	4.040	2.51
Walgreen's	WBA	70.28	68.73	82.50	83.62	59.07	0.440	8/20/18	9/12/18	1.760	2.50
Caterpillar	CAT	144.90	132.02	121.37	173.24	122.85	0.860	7/20/18	8/20/18	3.440	2.37
Travelers	TRV	130.01	128.77	120.70	150.55	119.90	0.770	9/10/18	9/28/18	3.080	2.37
DowDupont	DWDP	68.58	66.46	69.86	77.08	61.27	0.380	8/31/18	9/14/18	1.520	2.22
Wal-Mart Stores	WMT	94.59	90.22	80.38	109.98	77.50	0.520	12/7/18	1/2/19	2.080	2.20
United Tech.	UTX	137.80	131.75	113.08	139.24	112.65	0.700	8/17/18	9/10/18	2.800	2.03
J P Morgan	JPM	113.50	113.70	91.62	119.33	91.85	0.560	7/6/18	7/31/18	2.240	1.97
Home Depot, Inc.	HD	209.07	193.99	158.40	215.43	157.16	1.030	8/30/18	9/13/18	4.120	1.97
Boeing	BA	359.80	331.76	249.00	374.48	248.91	1.710	8/10/18	9/7/18	6.840	1.90
Walt Disney	DIS	109.26	112.85	98.52	117.90	96.80	0.840	7/9/18	7/26/18	1.680	1.54
Microsoft Corp.	MSFT	113.37	107.66	75.31	113.73	72.92	0.420	8/16/18	9/13/18	1.680	1.48
Goldman Sachs	GS	229.24	229.25	225.22	275.31	218.89	0.800	8/30/18	9/27/18	3.200	1.40
Unitedhealth Group	UNH	265.31	260.61	198.18	271.16	186.00	0.900	9/7/18	9/18/18	3.600	1.36
Apple	AAPL	223.84	210.24	159.88	229.67	149.16	0.730	8/13/18	8/16/18	2.920	1.30
American Express	AXP	109.56	101.51	86.99	110.24	86.95	0.350	7/6/18	8/10/18	1.400	1.28
Nike	NKE	83.49	79.57	53.87	83.93	50.35	0.200	9/4/18	10/1/18	0.800	0.96
Visa Inc.	V	147.84	139.92	105.30	148.37	102.75	0.210	8/17/18	9/4/18	0.840	0.57

* See the Recommended HYD Portfolio table on page 70 for current recommendations. † Based on indicated dividends and market price as of 9/15/18. Extra dividends are not included in annual yields. All data adjusted for splits and spin-offs. 12-month data begins 9/15/17.

ASSET CLASS INVESTMENT VEHICLES

Data as of August 31, 2018		Security Symbol(s) (1)		Avg. Market Cap / Avg. Maturity	Number of Holdings	Expense Ratio (%)	Turnover (%)	Price-to-Book Ratio	Trailing 12-Mo. Yield (%)	Annualized Returns (%)			Tax Cost Ratio - 3 Years (%) (3)
		Mutual Fund	ETF							1-Year	3-Year	5-Year	
Fixed Income													
Short-Term Bonds	Vanguard Short-Term Bond	VBISX	BSV	2.80 yrs	2512	0.15	50		1.79	-0.53	0.80	1.05	0.66
Short-Term Bonds	SPDR Portfolio Short Term Corp Bd ETF		SPSB	2.01 yrs	1080	0.07	67		2.11	0.64	1.53	1.42	0.77
Short-Term Bonds	iShares 1-3 Year Treasury Bond ETF		SHY	1.97 yrs	65	0.15	85		1.39	-0.19	0.36	0.50	0.40
Interm-Term	Vanguard Total Bond Market	VBMFX	BND	8.40 yrs	17404	0.15	0		2.59	-1.31	1.62	2.29	1.05
Interm-Term	iShares Core US Aggregate Bond ETF		AGG	8.20 yrs	6866	0.05	252		2.48	-1.04	1.59	2.52	1.05
Tax-Exempt	Vanguard Ltd-Term Tax-Exempt	VMLTX		3.00 yrs	5047	0.19	19		1.70	-0.04	1.14	1.37	0.00
Tax-Exempt	SPDR Nuveen Blmbg Barclays ST MunBd ETF		SHM	3.14 yrs	1390	0.20	32		1.13	-0.65	0.55	1.04	0.00
Tax-Exempt	Vanguard Interm-Term Tx-Ex Inv	VWITX		5.50 yrs	7784	0.19	15		2.78	-0.08	2.22	3.42	0.00
Inflation-Protected	iShares TIPS Bond ETF		TIP	8.36 yrs	41	0.20	32		2.86	0.84	2.23	1.89	0.80
Inflation-Protected	Vanguard Inflation-Protected Securities	VIPSX		8.40 yrs	40	0.20	22		3.05	0.43	1.97	1.72	0.86
International	Vanguard Total International Bond	VTIBX	BNDX	9.40 yrs	5065	0.13	19		2.20	1.94	3.11	3.83	0.78
Real Estate (REITs)													
U.S. REITs	Vanguard REIT	VGSIX	VNQ	12.31 B	188	0.26	6	2.32	3.36	4.40	8.88	9.82	1.34
U.S. REITs	SPDR Dow Jones REIT		RWR	11.81 B	101	0.25	9	2.24	2.90	7.11	9.01	10.37	1.54
Int'l REITs	Vanguard Global ex-US Real Estate (2)	VGXRX	VNQI	6.57 B	622	0.34	6	0.99	4.75	2.17	8.16	5.90	1.54
Int'l REITs	iShares International Developed Property		WPS	6.82 B	379	0.48	11	0.97	4.65	2.73	7.72	5.68	1.60
Global (incl. U.S.)	SPDR Dow Jones Global Real Estate ETF		RWO	9.73 B	228	0.50	13	1.54	3.41	5.13	7.15	7.57	1.45
U.S. Stocks													
Large Cap (blend)	Vanguard S&P 500	VFINX	VOO	103.59 B	515	0.14	3	3.06	1.63	19.51	15.95	14.36	0.57
Large Cap (blend)	iShares Core S&P 500		IVV	105.97 B	509	0.04	4	3.09	1.73	19.44	16.49	14.38	0.54
Large Cap (blend)	iShares Russell 1000 ETF		IWB	80.38 B	989	0.15	4	3.04	1.58	19.35	16.09	14.13	0.50
Large Cap Value	Vanguard Value	VIVAX	VTV	95.57 B	343	0.17	9	2.24	2.19	16.18	14.52	12.63	0.72
Large Cap Value	iShares Russell 1000 Value		IWD	59.85 B	733	0.20	15	1.99	2.12	11.81	12.60	10.94	0.62
Small Cap (blend)	iShares Core S&P Small-Cap ETF		IJR	1.80 B	606	0.07	12	2.21	1.08	31.47	19.75	15.29	0.40
Small Cap (blend)	Schwab US Small-Cap ETF		SCHA	2.85 B	1727	0.05	11	2.20	1.11	23.00	15.51	12.83	0.44
Small Cap Value	Vanguard Small Cap Value	VISVX	VBR	3.70 B	856	0.19	19	1.88	1.69	18.61	14.24	12.86	0.67
Small Cap Value	iShares Russell 2000 Value		IWN	1.73 B	1353	0.24	23	1.45	1.62	19.12	16.18	11.54	0.61
Small Cap Value	iShares Micro-Cap		IWC	0.52 B	1434	0.60	22	1.86	0.93	26.25	15.87	12.45	0.38
Marketwide	Vanguard Total Stock Market	VTSMX	VTI	58.55 B	3658	0.14	3	2.91	1.50	20.19	15.73	14.10	0.63
Marketwide	Fidelity Total Market Index	FSTMX		58.83 B	3400	0.09	2	2.91	1.50	20.20	15.77	14.15	0.91
Foreign Stocks													
Developed Markets	Vanguard FTSE Developed Markets ETF	VDVIX	VEA	23.66 B	3899	0.17	3	1.54	2.94	4.41	7.90	n/a	0.78
Developed Markets	iShares Core MSCI EAFE ETF		IEFA	23.78 B	2527	0.08	2	1.59	2.95	4.45	8.47	6.08	0.73
Emerging Markets	Vanguard Emerging Markets Stock	VEIEX	VWO	20.14 B	4095	0.32	6	1.63	2.41	-2.76	9.16	4.50	0.81
Emerging Markets	Schwab Emerging Markets Equity ETF		SCHE	31.15 B	969	0.13	7	1.59	2.50	-2.66	10.79	5.13	0.68
Gold-Related Funds													
Gold ETFs	SPDR Gold Minishares		GLDM			0.18			0.00	n/a	n/a	n/a	0.00
Gold ETFs	GraniteShares Gold Trust		BAR			0.20			0.00	-9.77	n/a	n/a	0.00

Data provided by the funds and Morningstar. (1) Some funds are available as mutual funds and ETFs, in which case both symbols are shown. In these cases, data represent the mutual fund. The ETF may offer a lower expense ratio and returns may deviate. For Vanguard funds, the Investor share class is shown. The Admiral share class, which has a higher minimum investment, may offer lower expenses. (2) VGXRX includes a 0.25% fee on purchases and redemptions, which are paid directly to the fund. (3) This represents the percentage-point reduction in an annualized return that results from income taxes. This calculation (source: Morningstar) assumes investors pay the maximum federal rate on capital gains and ordinary income.

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