



* See page 62 for representative indexes.

The *Investment Guide* is intended to provide useful information to investors who manage their own financial assets. **We also provide low cost discretionary asset management services** for individuals and institutions seeking professional advice and assistance in implementing an investment strategy.

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Investment Trivia

Suppose that on July 1st 1992 an investor purchased 100 shares of Starbucks stock at its closing price of \$23 per share. What percentage of this initial \$2,300 investment in Starbucks does the investor now receive annually in dividends?

- A. 5% (\$115)
- B. 25% (\$575)
- C. 100% (\$2,300)
- D. 220% (\$5,120)

Answer: D

This example illustrates a key principal of a free market economy – entrepreneurs come to capital markets with business ventures that need funding, and investors supply equity capital to those ventures with an expectation of receiving a future share of the profits. Prices reflect the level of confidence around eventual profits and cash payouts.

The Starbucks investor had to wait 18 years before receiving any cash return from the Starbucks enterprise (Starbucks paid its first cash dividend in 2010). Today the \$0.20 per quarter dividend on Starbucks shares pays the same investor roughly \$5,120 annually, or 220 percent of his original investment of \$2,300. As financial theory would suggest, Starbucks stock price has factored in this potential dividend generation ability over the years, which explains why the original 100 shares (now 6,400 shares after six stock splits) have a current market value \$363,520.

This example is not meant to suggest that we should spend our time trying to identify the next Starbucks. That's probably not a worthwhile endeavor. It would have been nearly impossible to predict the future success of Starbucks. Instead this is a good illustration of why we invest. We provide an enterprise with capital today in anticipation of getting a share of profits in the future.

But there is another lesson here.

(continued next page)

If we only focus on the dividend payers of today we may miss out on the biggest dividend payers of tomorrow

(remember Starbucks went 18 years without paying a dividend). A broadly diversified strategy, including both

dividend payers and non-dividend payers, will help ensure we capture the potential rewards of both.

SOCIAL SECURITY BENEFITS IN A LOW-YIELD WORLD

Social Security benefits are a critical component of overall wealth for many retirees. It is not uncommon for a married middle-income couple to take in more than \$1 million in benefits over their lifetimes. Prudent investors will carefully consider the age at which they claim this large and crucially important source of retirement income.

While the “correct” claiming age depends on your particular circumstances, many financial planners and retirement researchers advise people to delay benefits up to age 70 in order to lock in a larger benefit for the remainder of your retirement. The general argument is that delaying Social Security creates a higher floor of guaranteed income. This allows for other savings to last longer while protecting against the risks of living longer than expected, market volatility, and price inflation.

Rather than rely on a rule of thumb, however, investors should acknowledge that waiting for a higher payout in the future comes at a cost. The current full retirement age is 66, but reduced benefits can be collected as early as age 62. Those who choose to maximize

“delayed retirement credits” and wait to claim until age 70 give up eight years of potential benefits that could be used to improve quality of life immediately or invested to create a wealthier future.

For retirees who live only until age 75, for instance, it could end up making a lot of sense to collect benefits earlier. A retiree that collects at 62 and lives until 75 will receive 13 years of (reduced) benefits. That same retiree, who instead delays collection until 70, would receive only five years of (increased) benefits. The higher benefit from delaying will not be enough to make up for the eight years of foregone benefits.

On the other hand, for retirees who live a long time, until age 95 for instance, it makes a lot of sense to delay benefits. That retiree would receive 33 years of reduced benefits if she collected at 62, but 25 years of increased benefits if she delayed until age 70. The higher benefit realized by delaying more than makes up for the eight years of benefits foregone between ages 62 through 69.

The Social Security benefit calculation is “actuarially fair,” meaning that on average the U.S. Treasury expects

to pay out a total amount that does not depend on the age at which you actually claim. There is no way to truly “game” the system unless you have perfect knowledge of how long you will live.

The Breakeven Age

The issue for retirees of course is that nobody knows how long they will live. Rather than guess, wise investors will seek to measure this trade-off. One way to do so is to consider the “breakeven age.” This is the future age at which the benefits of each option become equal, assuming benefits are invested. It is the point at which the value of the higher (but delayed) income stream effectively “catches up” with the value of benefits if one begins early. This is demonstrated in the table nearby.

Suppose an individual can choose between collecting \$20,000 per year at her full retirement age of 66, or waiting until age 70, when she can collect \$26,400 (a 32 percent benefit increase). The first two columns in the table allow her to evaluate this trade off. Each row shows the total future value of these

	“Risk-free” rate of 4%		“Risk-free” rate of 1.5%		No “risk-free” rate (0%)	
	Collect at 66	Collect at 70	Collect at 66	Collect at 70	Collect at 66	Collect at 70
Age 80	\$400,472	\$356,040	\$333,643	\$313,190	\$300,000	\$290,400
Age 81	\$436,491	\$396,681	\$358,647	\$344,288	\$320,000	\$316,800
Age 82	\$473,950	\$438,949	\$384,027	\$375,852	\$340,000	\$343,200
Age 83	\$512,908	\$482,906	\$409,788	\$407,890	\$360,000	\$369,600
Age 84	\$553,425	\$528,623	\$435,934	\$440,408	\$380,000	\$396,000
Age 85	\$595,562	\$576,168	\$462,473	\$473,415	\$400,000	\$422,400
Age 86	\$639,384	\$625,614	\$489,410	\$506,916	\$420,000	\$448,800
Age 87	\$684,959	\$677,039	\$516,752	\$540,920	\$440,000	\$475,200
Age 88	\$732,358	\$730,520	\$544,503	\$575,433	\$460,000	\$501,600
Age 89	\$781,652	\$786,141	\$572,670	\$610,465	\$480,000	\$528,000
Age 90	\$832,918	\$843,987	\$601,260	\$646,022	\$500,000	\$554,400

Based on author’s calculations.

benefits at a particular age, assuming that all future Social Security benefits received were continually invested and earned a compound annualized rate of return of 4 percent.¹

In this case, if she takes benefits early she could accumulate \$400,472 by age 80, assuming she continually invests 100 percent of her benefits in bonds earning 4 percent every year. If instead she delays in order to take higher benefits at age 70 she would have accumulated only \$356,040 by age 80. This disparity emerges because the “early” option in effect provides a four-year “head start” that more than offsets the higher payouts garnered by delaying.

The breakeven age simply tells us the age at which the future value of the “delay” option eventually catches up with, and then surpasses, the early option. In this contrived example the breakeven age emerges in 23 years, at age 89. With a current interest rate of 4 percent, a retiree may decide whether or not to delay based on whether she thinks she will live at least until age 89. If she is healthy and thinks she may live past age 90, it makes sense to delay. On the other hand there may be important considerations unique to the individual. For example, if there is a history of family health complications, she may decide to collect earlier.

This framework allows the investor to consider the 23 years required to realize the benefits of delaying in light

of her life expectancy as well as other important considerations, including her desired lifestyle and legacy intentions. According to current mortality tables, an average 65-year old woman has a slightly better than one in three chance of living to age 89.

The Interest Rate Wrinkle

The level of Social Security benefits you receive, whether you start early or delay, are (unlike a commercial annuity) unaffected by current interest rates.² However, prevailing interest rates can still have a big impact when deciding whether to start early or to delay.

As we move to columns 3 and 4 in the table, we assume a lower interest rate of 1.5 percent. This drops the breakeven age by 5 years, to 84. *Other factors held constant, as interest rates fall, the benefits of delaying increase. This is because the “head start” garnered by starting earlier has less impact in a low interest rate environment. Conversely, higher rates favor starting early.* Going back to the mortality tables, an average 65-year old woman has about a 58 percent chance that she will at least “break even”, by living until age 84.

Today’s Interest Rates

There is no perfect interest rate to assume when calculating a breakeven age, but practitioners often use the yield

on 10-year U.S. Treasury securities. Treasuries, like Social Security payments themselves, are guaranteed by the full faith and credit of the U.S. Treasury and therefore reflect minimal risk of default.

While no one knows the course of future interest rates, we assume that markets reflect current information and that today’s interest rates provide the best estimate of future interest rates. The 1.5 percent rate employed in our example is the 10-year Treasury yield as of July 2016, which is the lowest on record (monthly data since April 1953: average monthly 10-year yield 5.95 percent, high of 15.32 percent).³

Current interest rates are at historic lows. Other factors held constant, this strengthens the case for delaying Social Security benefits for investors approaching full retirement age. “Other factors”, however, are in fact subject to change and depend largely on individual circumstances. We can provide guidance regarding your Social Security options, as well as other financial planning matters.

Please direct inquiries to Luke Delorme, Director of Financial Planning, AIS. LukeD@americaninvestment.com (413) 528-1216 ext. 3127.

1. For simplicity in this demonstration we ignore taxes and adjustments for inflation.
2. For example, prices for single premium immediate annuities depend in part on current interest rates. Social Security benefits are adjusted annually to reflect price inflation, but are unaffected by current or future interest rates.
3. 10-Year Treasury Constant Maturity Rate Source: Federal Reserve Bank of St. Louis.

A READER INQUIRES

Q - “The front page article on the HYD Strategy in the May 31st issue of the AIS monthly newsletter was very interesting. It ends with an italicized paragraph stating that future HYD Strategy returns are quite likely to underperform those of the overall stock market. I assume this has to do with the narrow asset allocation character of the HYD Strategy, but it would be useful to newsletter readers and AIS clients to see a follow-up article in the next 1 or 2 months elaborating somewhat more on the basis of this prediction.”

AIS - It appears that you were referring to the following paragraph:

“Investors drawn to the model’s recent performance should take note: in the future the HYD approach will almost certainly generate multiple-year returns that lag those of the overall U.S. stock market, sometimes by a wide margin.”

This statement was not intended as a prediction of HYD performance in the near future or any other period. In fact we had hoped to convey the futility of such forecasts.

We expect that over the long term the HYD model returns will exceed those of the overall market. There is no free lunch, however. The model’s returns are extremely volatile and have historically entailed multi-year periods of both underperformance and outperformance.

So HYD investors hoping to capture higher returns should also be prepared for sustained periods of relatively poor returns. *History makes clear that there is no way to predict the timing or magnitude of these periods.*

In retrospect we should have been more explicit: while we expect HYD to generate a positive premium above the market’s returns, these premiums are not guaranteed and in fact they can only be realized by those investors willing to endure periods of sustained underperformance that are inherently unpredictable.

INDEX RECONSTITUTION: THE PRICE OF TRACKING¹

For many investors, index-based funds (such as our recommended funds on page 64) are the best investment vehicles available for forming and maintaining low-cost, well-diversified portfolios. Index funds, however, are not without flaws. Fund reconstitution, which affects trading costs and returns, is an area of particular importance.

Index funds are an innovative solution for investors that provide diversified investments at low fees. On any given day, an investor can observe the performance of indices from providers such as MSCI, S&P², or Russell³ — and that means it’s easy to monitor whether or not an index fund manager replicated the index’s performance (gross of fees and expenses). However, an index fund manager’s strict adherence to an index comes at a cost in the form of reduced discretion around trading.

Most indices revise their list of index constituents periodically (e.g., annually or quarterly), at which time securities may be added or deleted from the index. This process is commonly referred to as index reconstitution. For example, the most recent annual reconstitution of the widely tracked Russell indices occurred

on June 24, 2016. Russell index fund managers bought additions and sold deletions in the indices they track in order to minimize tracking error⁴ relative to the index. Any deviation of the fund from the index, over days or even hours, could result in different returns from the index.

The effect on volume from index rebalance trades is apparent in a huge volume spike on trade reconstitution day. Exhibit 1 illustrates average trade volume for additions and deletions in four major indices during the 80-day period surrounding reconstitution. Each of the charts shows a marked increase in trade volume on the effective date of reconstitution relative to the surrounding days. The effect is pervasive across the market capitalization spectrum as well as geographic region.

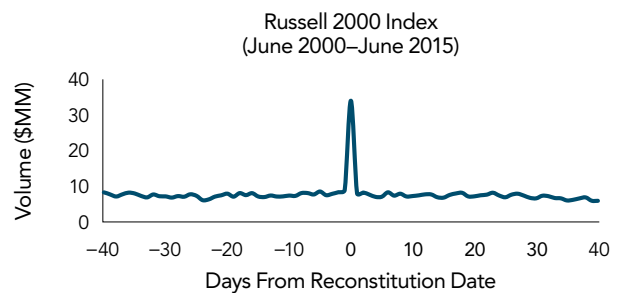
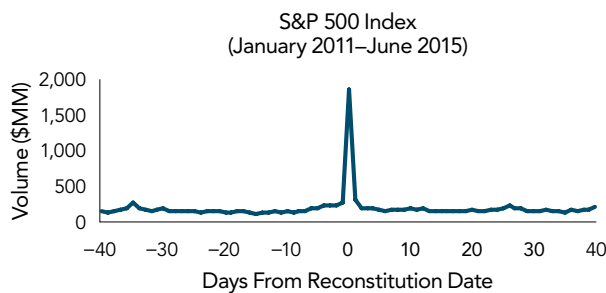
For each index, this large liquidity demand tends to drive up the prices of securities with greater purchase demand (generally additions to the index) relative to the other securities in the index. It also tends to push down prices of securities with greater sell demand (generally deletions from the index) relative to the other securities in the index. Thus, for an

index being tracked by a large amount of assets, the index has generally added securities at higher prices and deleted securities at lower prices than it would have if no assets had been tracking it. This phenomenon is the result of index managers’ demanding liquidity on or around the index reconstitution date.

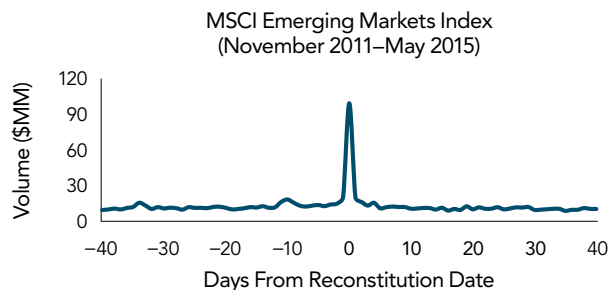
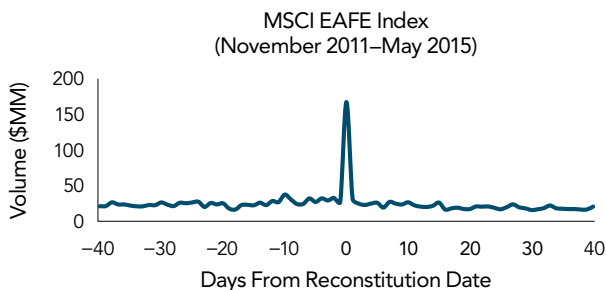
After the reconstitution of an index, as the liquidity demands of index managers decline, research shows this price effect tends to reverse. That is, additions tend to underperform the index while deletions tend to outperform. As a result, index managers’ implicit trading costs can result in a performance drag on the index and, consequently, funds tracking the index.

A simple experiment in delaying reconstitution allows us to estimate how much this price pressure has impacted index performance. Exhibit 2 compares average monthly returns for two sets of Russell indices; one set is rebalanced on the June-end reconstitution date and the other three months later. As shown in the final three columns, delaying rebalancing improved average returns between 0.15 percent and 0.73 percent per month from July through September—the

Exhibit 1: Equal-Weighted Average Trade Volume for Index Additions and Deletions



S&P data provided by Standard & Poor’s Index Services Group. Russell data © Russell Investment Group 1995-2016, all rights reserved.



MSCI data © MSCI 2016, all rights reserved.

Exhibit 2: Effect of Delaying Reconstitution Month⁵

	Rebalanced in June			Rebalanced in September			Difference Between Delayed and Actual		
	Russell 1000 Value Index	Russell 2000 Index	Russell Value Index	Delayed R1V	Delayed R2	Delayed R2V	R1V: Delayed - Actual	R2: Delayed - Actual	R2V: Delayed - Actual
Average Monthly Returns, January 1990-July 2015									
All Months	1.02%	0.99%	1.16%	1.06%	1.15%	1.35%	0.04%	0.15%	0.18%
October-June	1.43%	1.55%	1.70%	1.43%	1.55%	1.70%	0.00%	0.00%	0.00%
July-September	-0.17%	-0.65%	-0.42%	-0.02%	-0.05%	0.31%	0.15%	0.60%	0.73%
Russell data © Russell Investment Group 1995–2016, all rights reserved. Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.									

three months between the rebalance date of the standard indices and their delayed counterparts. For all calendar months, including October through June when holdings are identical for both rebalancing methods, this amounts to a performance benefit ranging from 0.04 percent to 0.18 percent per month, or approximately 0.45 percent to 2.21 percent per year.

SUMMARY

Index funds may be a good option for investors seeking investments with low fees. However, in an attempt to match the returns of an index, an index fund manager sacrifices trading flexibility. Because of high liquidity demands around index reconstitution dates, index funds may incur high trading

costs that do not appear in expense ratios but do affect net returns. The funds' goal of minimizing tracking error may come at the expense of returns. Investors should consider the total costs, both in terms of expense ratio and trading costs, when evaluating investment options.

1. Source: Dimensional Fund Advisors LP. All expressions of opinion are subject to change. This information is intended for educational purposes, and it is not to be construed as an offer, solicitation, recommendation, or endorsement of any particular security, products, or services. There is no guarantee an investing strategy will be successful.
2. Standard & Poor's Index Services Group.
3. FTSE Russell is wholly owned by London Stock Exchange Group.
4. Tracking error is the standard deviation of the return differences between a fund and its benchmark.
5. 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. Indexes are not available for direct investment. Historical performance results for investment indexes and/or categories generally 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. The results portrayed in this portfolio reflect the reinvestment of dividends and capital gains. Returns depicted are hypothetical and do not reflect historical recommendations of AIS.

INSIDER TRADING: WHAT IT IS AND WHY INVESTORS SHOULD CARE

Insider trading is the buying or selling of a security by individuals who have access to nonpublic information concerning that security. Such actions are deemed unfair to other investors who do not have access to the same information, and are illegal.

Some economists, however, argue that prohibiting insider trading has a downside because it prevents free flow of information. They point out that efficient price discovery, the means by which a security is priced through supply and demand, is impeded if information is less than complete.

While we understand the logic of the price discovery argument, we do not accept it. There are sound arguments that justify legal restrictions against insider trading that center on the potential for conflict of interest between managers, who are obligated to maximize shareholder value, and the shareholders themselves. While it is hard work for managers to actually create shareholder

value, it is much easier to profit by selling shares short based on negative inside information; but this devalues the firm -- at the expense of shareholders. Conversely a manager can buy stock based on positive inside information -- but this comes at the expense of the sellers -- that is, existing shareholders.

Regulation, however, is far from perfect. Regulators do their best to protect the public by investigating alleged insider trading and by vigorously prosecuting cases when warranted. But even well publicized convictions have failed to deter the practice. New cases seem to arise regularly. Our review of *Wall Street Journal* articles turned up three stories involving separate instances of insider trading -- in August alone.

Individual investors should take responsibility for defending their own interests rather than rely on the government for protection. Picking stocks based on publicly available information is ill advised. For most investors it is

better to always assume that the person on the other side of the trade has more information regarding that security.

Diversification is the best means of taking control. Investors can minimize the risk of loss due to insider trading by investing in recognized asset classes, and holding every security in each asset class on a market capitalization-weighted basis; in other words it is best to purchase an index-type mutual fund.

A single purchase of such a fund at any point in time is the best means of "neutralizing" any exposure to insider-trading risk. For every possible stock purchased from a seller with inside information, there is an equal possibility of another stock being purchased just when insiders are also buying. This will maximize the prospect of capturing the expected return commensurate with the risk the investor bears, based on all information.

THE HIGH-YIELD DOW INVESTMENT STRATEGY

Recommended HYD Portfolio

As of August 15, 2016

	Rank	Yield (%)	Price (\$)	Status	—Percent of Portfolio—	
					Value (%)	No. Shares (%) ¹
Verizon	1	4.22	53.6	Holding**	24.36	32.24
Chevron	2	4.16	102.77	Holding**	24.13	16.66
Caterpillar	3	3.66	84.15	Buying	21.65	18.25
IBM	4	3.46	161.88	Buying	10.57	4.63
Pfizer	5	3.42	35.11	Holding	1.59	3.21
Exxon Mobil	6	3.42	87.81	Holding	5.01	4.05
Cisco	7	3.33	31.19	Holding	3.18	7.22
McDonald's	11	3.00	118.52	Holding	4.18	2.50
General Electric	13	2.94	31.24	Selling	3.92	8.91
AT&T	N/A	4.44	43.02	Selling	1.41	2.33
Cash (6-mo. T-Bill)	N/A	N/A			0.00	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.

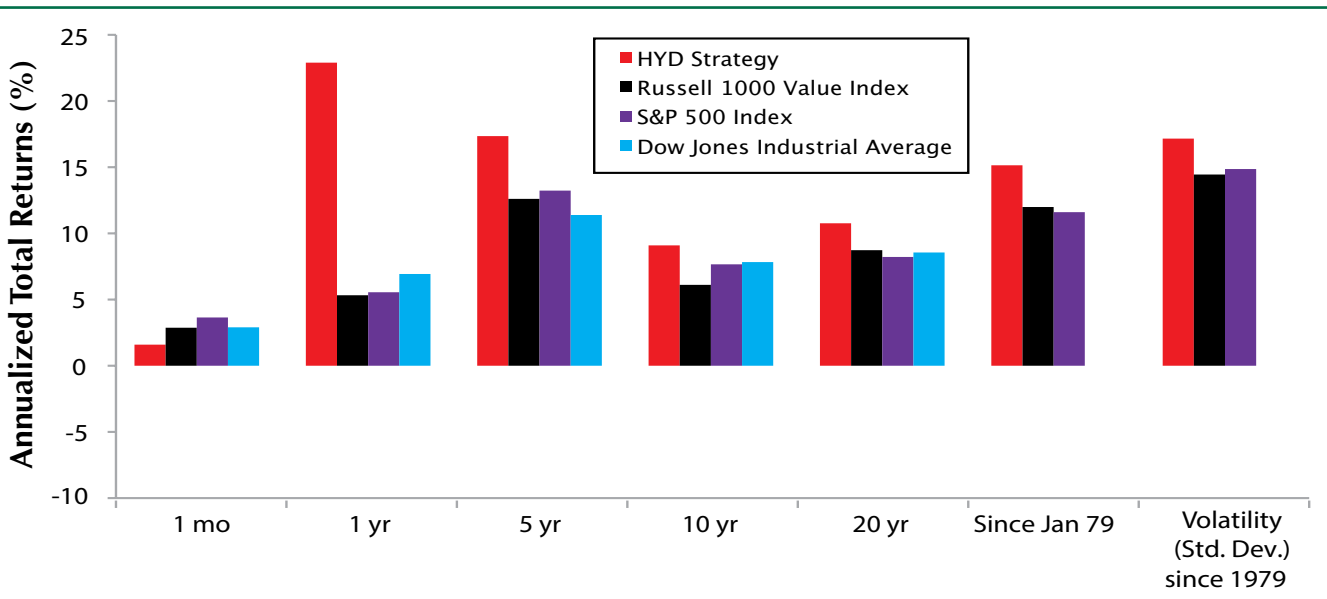
Performance was achieved by means of retroactive application of a model designed with the benefit of hindsight.

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 July 31, 2016*. 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).

	<u>1 mo.</u>	<u>1 yr.</u>	<u>5 yrs.</u>	<u>10 yrs.</u>	<u>20 yrs.</u>	<u>Since Jan 79</u>	<u>Volatility (Std. Dev.) since 1979</u>
HYD Strategy	1.61	23.16	17.54	9.20	10.88	15.31	17.35
Russell 1000 Value Index	2.90	5.38	12.75	6.18	8.83	12.13	14.61
S&P 500 Index	3.69	5.61	13.38	7.75	8.31	11.73	15.03
Dow Jones Industrial Average	2.94	7.01	11.52	7.92	8.65	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. **Performance was achieved by means of retroactive application of a model designed with the benefit of hindsight.** 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 Index 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 0.73% management fee, the annual rate assessed to a \$500,000 account managed through our High Yield Dow investment service.

Asset classes and representative index chart on page 57: large cap value, Russell 1000 Value Index; small cap value, Russell 2000 Value Index; large cap growth, Russell 1000 Growth Index; Global REITs, S&P Global REIT Index; foreign developed markets, MSCI EAFE Index; emerging markets, MSCI Emerging Markets Index

RECENT MARKET STATISTICS

Precious Metals & Commodity Prices (\$)

	8/15/16	Mo. Earlier	Yr. Earlier
Gold, London p.m. fixing	1,339.40	1,327.00	1,118.25
Silver, London Spot Price	19.90	20.14	15.55
Copper, COMEX Spot Price	215.15	223.35	237.30
Crude Oil, W. Texas Int. Spot	45.74	45.95	42.50
Dow Jones Spot Index	315.63	316.59	299.38
Dow Jones-UBS Commodity Index	85.24	86.70	90.36
Reuters-Jefferies CRB Index	185.14	188.86	197.97

Interest Rates (%)

U.S. Treasury bills - 91 day	0.29	0.30	0.08
182 day	0.43	0.41	0.24
52 week	0.54	0.49	0.38
U.S. Treasury bonds - 10 year	1.56	1.55	2.20
Corporates:			
High Quality - 10+ year	3.33	3.33	4.03
Medium Quality - 10+ year	4.25	4.26	5.17
Federal Reserve Discount Rate	1.00	1.00	0.75
New York Prime Rate	3.50	3.50	3.25
Euro Rates			
3 month	-0.30	-0.30	-0.03
Government bonds - 10 year	-0.06	-0.01	0.62
Swiss Rates - 3 month	-0.74	-0.76	-0.73
Government bonds - 10 year	-0.48	-0.55	-0.19

Exchange Rates (\$)**

British Pound	1.288000	1.319200	1.564200
Canadian Dollar	0.773700	0.770900	0.763500
Euro	1.118400	1.103500	1.110900
Japanese Yen	0.009876	0.009538	0.008044
South African Rand	0.075175	0.068593	0.077970
Swiss Franc	1.027900	1.017900	1.024200

**Note: As of 4/15/2016, the source for the exchange rates has changed to Bloomberg.

Securities Markets

	8/15/16	Mo. Earlier	Yr. Earlier
S & P 500 Stock Composite	2,190.15	2,161.74	2,091.54
Dow Jones Industrial Average	18,636.05	18,516.55	17,477.40
Barclays US Agg Credit Index	2,776.56	2,761.20	2,562.04
Nasdaq Composite	5,262.02	5,029.59	5,048.24
Financial Times Gold Mines Index	2,026.34	1,989.36	895.99
FT EMEA (African) Gold Mines	2,425.55	2,362.07	989.16
FT Asia Pacific Gold Mines	10,000.61	10,125.21	4,291.23
FT Americas Gold Mines	1,557.49	1,523.19	715.44

Coin Prices (\$)

	8/15/16	Mo. Earlier	Yr. Earlier	Prem (%)
American Eagle (1.00)	1,373.70	1,395.40	1,192.05	2.56
Austrian 100-Corona (0.9803)	1,312.95	1,334.21	1,118.05	0.00
British Sovereign (0.2354)	325.89	331.00	280.12	3.36
Canadian Maple Leaf (1.00)	1,357.20	1,379.40	1,174.15	1.33
Mexican 50-Peso (1.2057)	1,604.73	1,630.89	1,377.80	-0.63
Mexican Ounce (1.00)	1,387.70	1,409.40	1,163.05	3.61
S. African Krugerrand (1.00)	1,358.70	1,380.40	1,176.50	1.44
U.S. Double Eagle-\$20 (0.9675)				
St. Gaudens (MS-60)	1,335.00	1,345.00	1,285.00	3.02
Liberty (Type I-AU50)	2,150.00	2,150.00	2,225.00	65.91
Liberty (Type II-AU50)	1,375.00	1,375.00	1,425.00	6.11
Liberty (Type III-AU50)	1,330.00	1,330.00	1,265.00	2.63
U.S. Silver Coins (\$1,000 face value, circulated)				
90% Silver Circ. (715 oz.)	15,058.50	15,567.00	12,890.00	5.83
40% Silver Circ. (292 oz.)	5,809.00	5,824.00	4,335.00	-0.03
Silver Dollars Circ.	21,750.00	21,750.00	15,920.00	41.28

Note: Premium reflects percentage difference between coin price and value of metal in a coin, with gold at \$1,339.40 per ounce and silver at \$19.90 per ounce. The weight in troy ounces of the precious metal in coins is indicated in parentheses. Note: The Bloomberg Commodity Spot Index and the Bloomberg Commodity Index were previously the Dow Jones Spot Index and the Dow Jones-UBS Commodity Index, respectively, as of 7/1/14. Data that was being retrieved from Dow Jones is now being retrieved from Bloomberg.

THE DOW JONES INDUSTRIALS RANKED BY YIELD*

Ticker Symbol	Market Prices (\$)			12-Month (\$)		Latest Dividend Amount (\$)	Record Date	Indicated Payable Date	Annual Dividend (\$)	Yield† (%)	
	8/15/16	7/15/16	8/14/15	High	Low						
Verizon	VZ	53.61	55.84	47.49	56.95	38.06	0.565	7/8/2016	8/1/2016	2.260	4.22
Chevron	CVX	102.77	107.03	85.99	107.58	69.58	1.070	8/19/2016	9/12/2016	4.280	4.16
Caterpillar	CAT	84.15	80.70	78.49	84.36	56.36	0.770	7/20/2016	8/20/2016	3.080	3.66
IBM	IBM	161.88	159.78	155.75	164.95	116.90	1.400	8/10/2016	9/10/2016	5.600	3.46
Pfizer	PFE	35.11	36.77	35.32	37.39	28.25	0.300	8/5/2016	9/1/2016	1.200	3.42
Exxon Mobil	XOM	87.81	95.12	78.36	95.55	66.55	0.750	8/12/2016	9/9/2016	3.000	3.42
Cisco	CSCO	31.19	29.82	29.03	31.25	22.46	0.260	7/7/2016	7/27/2016	1.040	3.33
Boeing	BA	134.66	132.39	145.09	150.59	102.10	1.090	8/12/2016	9/2/2016	4.360	3.24
Coca-Cola	KO	44.24	45.63	41.25	47.13	36.56	0.350	9/15/2016	10/3/2016	1.400	3.16
Procter and Gamble	PG	87.02	86.01	75.62	87.57	65.02	0.670	7/22/2016	8/15/2016	2.678	3.08
McDonald's	MCD	118.52	123.61	99.27	131.96	87.50	0.890	9/1/2016	9/16/2016	3.560	3.00
Intel Corp	INTC	34.91	35.07	29.02	35.93	24.87	0.260	8/7/2016	9/1/2016	1.040	2.98
General Electric	GE	31.24	32.88	26.08	33.00	19.37	0.230	6/20/2016	7/25/2016	0.920	2.94
J P Morgan	JPM	65.72	64.18	67.89	69.03	50.07	0.480	7/6/2016	7/31/2016	1.920	2.92
Merck	MRK	63.32	59.63	59.18	64.00	45.69	0.460	9/15/2016	10/7/2016	1.840	2.91
Wal-Mart Stores	WMT	73.32	73.67	72.38	74.80	56.30	0.500	12/9/2016	1/3/2017	2.000	2.73
Johnson & Johnson	JNJ	122.31	123.00	98.81	126.07	81.79	0.800	8/23/2016	9/6/2016	3.200	2.62
Microsoft Corp.	MSFT	58.12	53.70	47.00	58.50	39.72	0.360	8/18/2016	9/8/2016	1.440	2.48
3M Company	MMM	180.56	181.40	148.28	182.27	134.00	1.110	8/19/2016	9/12/2016	4.440	2.46
United Tech.	UTX	109.69	105.50	98.70	109.83	83.39	0.660	8/19/2016	9/10/2016	2.640	2.41
Travelers	TRV	118.35	118.64	107.71	119.30	95.21	0.670	9/9/2016	9/30/2016	2.680	2.26
Dupont	DD	68.64	67.16	53.86	75.72	47.11	0.380	8/15/2016	9/12/2016	1.520	2.21
Apple	AAPL	109.48	98.78	115.96	123.82	89.47	0.570	8/8/2016	8/11/2016	2.280	2.08
Home Depot, Inc.	HD	137.06	134.78	119.75	139.00	92.17	0.690	6/2/2016	6/16/2016	2.760	2.01
American Express	AXP	65.63	63.78	80.91	81.66	50.27	0.290	7/1/2016	8/10/2016	1.160	1.77
Unitedhealth Group	UNH	141.62	141.33	121.02	144.48	95.00	0.625	9/9/2016	9/20/2016	2.500	1.77
Goldman Sachs	GS	165.55	161.64	202.02	203.10	138.20	0.650	9/1/2016	9/29/2016	2.600	1.57
Walt Disney	DIS	97.10	99.80	107.16	120.65	86.25	0.710	7/11/2016	7/28/2016	1.420	1.46
Nike	NKE	56.77	57.87	57.18	68.20	47.25	0.160	9/6/2016	10/3/2016	0.640	1.13
Visa Inc.	V	80.91	78.30	74.22	81.73	60.00	0.140	8/19/2016	9/6/2016	0.560	0.69

* See the Recommended HYD Portfolio table on page 62 for current recommendations. † Based on indicated dividends and market price as of 8/15/16.

Extra dividends are not included in annual yields. H New 52-week high. L New 52-week low. All data adjusted for splits and spin-offs. 12-month data begins 8/16/15.

I Dividend increased since 7/15/16 D Dividend decreased since 7/15/16

RECOMMENDED INVESTMENT VEHICLES

Descriptive Quarterly Statistics, as of 6/30/16

Annualized Returns⁴ (%), as of 7/31/16

Security Symbol	Avg. Market Cap./ Avg. Maturity	No. of Holdings	Expense ³ (%)	Sharpe Ratio	Turnover (%)	P/B	12 Mo. Yield (%)	Annualized Returns ⁴ (%)					
								1 yr.	3 yr.	5 yr.	1 yr.	3 yr.	5 yr.
Short-/Intermediate Fixed Income													
Vanguard Short-Term Bond Index	2.8 Yrs.	2366	0.16	0.89	52	-	1.41	2.43	1.76	1.52	1.80	1.16	0.91
iShares Barclays 1-3 Yr. Credit Bond	2.03 Yrs.	1040	0.20	1.38	17	-	1.31	2.10	1.41	1.48	1.50	0.92	0.95
iShares Barclays 1-3 Yr. Treasury Bond	1.89 Yrs.	109	0.15	0.59	122	-	0.61	1.05	0.78	0.62	0.77	0.58	0.43
Vanguard Limited-Term Tax-Exempt SPDR N.B. Short-Term Municipal Bond	3.2 Yrs.	3546	0.20	0.94	16	-	1.48	2.51	1.87	1.66	2.51	1.87	1.66
	2.97 Yrs.	792	0.20	0.52	20	-	0.93	2.02	1.57	1.36	2.02	1.57	1.34
Inflation-Protected Fixed Income													
iShares Barclays TIPS Bond	8.71 Yrs.	41	0.20	0.02	41	-	0.35	4.89	2.23	1.89	4.52	1.81	1.34
Vanguard Inflation-Protected Securities	8.8 Yrs.	40	0.20	0.02	43	-	0.73	4.72	2.19	1.91	4.38	1.54	1.12
International Fixed Income													
Vanguard Total International Bond Index	9.4 Yrs.	4060	0.17	-	13	-	1.52	7.58	5.75	-	6.87	5.07	--
Real Estate													
Vanguard REIT Index	17.01 B	153	0.26	0.70	11	2.52	4.14	22.09	14.49	12.86	20.48	13.00	11.58
SPDR Dow Jones REIT	19.73 B	100	0.25	0.70	6	2.66	3.68	20.69	14.58	12.56	18.69	12.89	11.04
Vanguard Global ex-US Real Estate	9.58 B	656	0.36	0.24	12	1.06	2.96	5.85	5.29	5.88	4.60	3.71	4.32
iShares International Property ETF	10.03 B	408	0.48	0.39	8	1.09	3.23	6.23	6.45	6.56	4.91	4.98	5.03
SPDR Dow Jones Global Real Estate ETF	16.11 B	235	0.50	0.61	6	1.80	3.12	13.68	10.70	9.58	12.14	9.24	8.08
U.S. Large Cap Value													
Vanguard Value Index	133.30 B	317	0.22	0.89	8	2.07	2.52	6.61	9.72	12.94	5.95	8.83	12.18
iShares Russell 1000 Value Index	113.53 B	684	0.20	0.80	13	1.83	2.45	5.19	8.79	12.53	4.33	8.01	11.86
U.S. Mid Cap													
Vanguard Mid-Cap ETF	0.53 B	1406	0.60	0.45	26	1.78	1.45	2.43	10.41	12.36	1.88	9.83	11.90
iShares Russell Mid-Cap Index	3.52 B	855	0.20	0.73	16	1.79	2.44	4.20	10.18	12.54	3.56	9.60	12.04
U.S. Small Cap Value													
iShares Russell Microcap Index	131.76 B	633	0.20	1.02	13	5.54	1.40	-4.18	5.19	9.89	-4.71	4.71	9.44
Vanguard Small-Cap Value Index	131.77 B	336	0.22	0.94	9	4.83	1.31	5.95	9.49	12.69	5.18	8.66	11.96
U.S. Marketwide													
Vanguard Total Stock Market Index	114.46 B	3641	0.16	0.90	3	2.73	1.91	4.46	10.54	12.97	3.96	9.83	12.37
Fidelity Spartan Total Market Index	110.77 B	-	0.10	0.90	3	2.70	2.57	4.34	10.43	12.87	3.30	9.56	12.04
Foreign- Developed Markets													
iShares MSCI EAFE Growth Index	57.62 B	554	0.40	0.31	25	2.73	1.92	-2.78	3.92	4.08	-3.51	3.27	3.52
iShares MSCI EAFE Value Index	53.18 B	519	0.40	0.06	25	1.08	3.47	-12.59	-0.51	1.39	-13.70	-1.64	0.41
Vanguard FTSE Developed Market	45.97 B	3746	0.09	0.24	3	1.50	2.80	-5.67	2.45	3.35	-6.40	1.39	2.42
SPDR S&P International Small Cap	1.26 B	2285	0.40	0.51	51	1.27	2.49	5.60	6.62	4.43	4.69	4.58	2.80
Foreign- Emerging Markets													
Vanguard FTSE Emerging Market Stock	40.13 B	3636	0.33	-0.17	7	1.42	2.56	-1.33	0.44	-2.48	-2.25	-0.59	-3.38
Gold-Related Funds													
iShares Gold Trust	8.21 B	-	0.25	-0.19	-	-	-	21.96	0.44	-4.04	21.96	0.44	-4.04
SPDR Gold Shares	37.09 B	-	0.40	-0.20	-	-	-	21.70	0.29	-4.18	21.70	0.29	-4.18

Data provided by the funds and Morningstar. ¹Exchange Traded Fund, traded on NYSE. ²0.5% fee for redemption in 90 days. ³For Vanguard funds, expense ratios shown are for mutual funds, ETFs have lower expenses. ⁴For Vanguard Funds, returns shown are for mutual funds; ETFs' returns may deviate. ⁵VGXRX includes a 0.25% fee on purchases and redemptions, which are paid directly into the fund. ⁶These are admiral shares and have a \$10,000 required minimum initial investment. *Pre-liquidation. Calculated using the highest individual federal income tax rates in effect at the time of each distribution and do not reflect the impact of state and local taxes or individual tax situations.

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