

* See box, page 93, for representative indexes.

Rates of Interest	
As of December 21, 2017	
Government Obligations¹	
Fed Funds Rate	1.42%
3-Month Treas. Bill	1.35%
10-Yr. Treas. Note	2.46%
30-Yr. Treas. Bond	2.82%
10-Yr. TIPS	0.55%
Muni Bonds - Nat'l 10-Yr.	2.00%
Mortgage Rates²	
15-Yr Fixed	3.38%
30-Yr Fixed	3.94%
Banking³	
Savings	0.06%
Money Market	0.09%
12-month CD	0.28%

[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).

Highlights from the Tax Overhaul

Congress has passed the much anticipated overhaul of the federal income tax code.¹ Here we highlight the changes most relevant to individual investors. We will assess additional implications in coming months.

- Seven income tax brackets remain but rates are reduced. The new rates, with associated thresholds, are as follows:

Rate	Taxable Income	
	Individuals	Married Filing Jointly
10%	up to \$9,525	up to \$19,050
12%	\$9,525 to \$38,700	\$19,050 to \$77,400
22%	\$38,700 to \$82,500	\$77,400 to \$165,000
24%	\$82,500 to \$157,500	\$165,000 to \$315,000
32%	\$157,500 to \$200,000	\$315,000 to \$400,000
35%	\$200,000 to \$500,000	\$400,000 to \$600,000
37%	over \$500,000	over \$600,000

- The standard deduction is almost doubled, to \$12,000 for single filers and to \$24,000 for married couples filing jointly.
- The personal exemption has been eliminated.
- The combined deduction for state and local property, income and sales taxes is capped at \$10,000. This write-off was previously unlimited.
- The child tax credit is doubled, to \$2,000, for children under 17 and the income threshold for claiming the full credit is increased to \$400,000 for married couples (up from \$110,000 today) and \$200,000 for single parents (up from \$75,000).

1. These changes expire at the end of 2025 unless they are extended.

(continued next page)

- For taxpayers taking new mortgages on a first or second home, interest will be deductible on debt up to \$750,000, down from \$1 million today.
- The Alternative Minimum Tax (AMT) survived, but fewer filers will be ensnared: the income exemption levels rise to \$70,300 for singles and to \$109,400 for married couples.
- The estate tax exemption has been doubled, to \$11.2 million for individuals and to \$22.4 million per couple for 2018, and will be indexed to inflation. The “step up” in cost basis for inherited assets has been preserved.
- The “chained CPI” will be used to measure inflation when adjusting future deductions, credits and exemptions.
- Several provisions that would have had significant impact on investors were dropped:
 - Investors will not be required to use “first in, first out” accounting when calculating gains on shares sold; the flexibility to designate specific shares will be retained.
 - Lower limits on deductible contributions to defined contribution retirement plans were not adopted.
 - Home sellers can continue to exclude from taxes \$250,000 of profit on a primary home (\$500,000 for married couples) if the seller has lived there for two of the previous five years.
 - The deduction for charitable contributions has been retained for those who continue to itemize deductions.

CATCHPHRASE INVESTING

The financial media is drawn to catchphrases, acronyms, and buzzwords that can be sold as the new thing. FAANG (Facebook, Apple, Amazon, Netflix, and Google) is the latest of these. But does this constitute an investment strategy?

For journalists, commentators, and marketers, acronyms like FAANG are useful. They fit easily into headlines and they appeal to a feeling among some investors that their portfolios should match the “zeitgeist” or spirit of the age.

But as we’ll see, investment trends tend to come and go. This is not to downplay the transformative nature of new technologies and the possibilities they present. But as an investor, it is wise to recall that all those hopes and expectations are already built into prices.

The FAANG acronym has become particularly popular in 2017 as returns from the five members of the unofficial club have far outpaced the wider market. Exhibit 1 shows the total year-to-date returns of the FAANG members compared to the S&P 500.

Such is the public interest in the

tech giants that the parent company of the New York Stock Exchange recently launched the NYSE FANG+™ Index that includes the quarterly futures contracts of the FAANG members apart from Apple (hence only one “A”), plus another five actively traded technology growth stocks.

So, does this mean, as some media gurus suggest, that you should reweight your portfolio around these tech names? After all, these companies have fundamentally reshaped traditional sectors like newspapers, television, advertising, music, and retailing.

For investors, there are a few ways of answering that question, none of which involve denying the significant influence Facebook, Amazon, Apple, Netflix, Google, and other technology names are having on our lives.

Firstly, market leadership is constantly changing based on a myriad of influences, including shifts in the structure of the global economy, commodities, technology, demographics, consumer tastes, and supply factors.

Trying to build an investment strategy by anticipating these forces is like trying to catch lightning in a bottle.

In the 1960s, the then often-quoted Nifty Fifty of solid, buy-and-hold blue-chips included such names as Xerox, Eastman Kodak, IBM, and Polaroid, all of which were disrupted in one way or another by newer, more nimble

competitors in the following decades.

By the late 1990s, the media was full of stories about the dot-coms, companies that were building new businesses using the transformative power of the internet. A handful of those companies (Amazon, for instance) fulfilled their promise. Many others (retailer Boo.com, prototype social network TheGlobe.com, and pet supplies firm Pets.com were just three examples) crashed and burned.

In the mid-2000s, the focus turned to companies with a large exposure to the so-called BRIC economies, an acronym based on the fast-growing emerging economies of Brazil, Russia, India, and China.

Several financial services companies even set up BRIC products, with mixed degrees of success. One investment bank, having argued that the superior growth for emerging economies justified a bias to stocks exposed to these markets, ending up closing its BRIC fund in late 2015 after years of poor returns.¹

So, while individual sectors each can have their time in the sun, it is not clear that weighting your portfolio toward an industry currently in favor is a sustainable long-term strategy.

A second way of looking at this issue is that accepting it is difficult to pick winning sectors does not mean you should exclude these zeitgeist stocks in a diversified marketwide portfolio. You can still own them, but you do so by casting a much wider net.

The more concentrated the portfolio, the more you are exposed to idiosyncratic forces related to individual stocks or sectors. Being highly diversified means you can still benefit from the

**Exhibit 1: Total Returns
Year to date as of October 31, 2017**

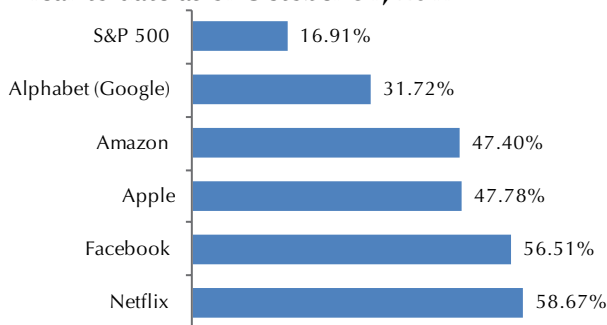


Exhibit 2: Diversification May Prevent You From Missing Opportunity²*Compound average annual returns: 1994-2016*

All Stocks	7.3%
Excluding the top 25% of performers each year	2.9%
Excluding the top 10% of performers each year	-5.2%

broad trends driving technology or whatever is leading the market at any one time, but you are doing so in a more prudent manner.

Put another way, by diversifying you are not only *reducing* the risk of placing too much of a bet on one sector, you

performers in a global portfolio from 1994–2016.

We've seen that even professional investors can find it tough to pick which sector will lead the market from year to year.

are *improving* the odds of holding the best performers. Look at Exhibit 2, which shows what would have happened if you had excluded the top 10% and top 25% of market

It's true that technology companies like Amazon and Facebook have performed well recently. But it is worth recalling that current prices already contain future expectations about those companies. We don't know what future prices will be because these will reflect information we haven't received yet.

Because no one has a reliable crystal ball, a better approach is to diversify. That way we increase the odds of being positioned in the next big winning sector without chasing hot trends or latching on to cute-sounding acronyms.

1. "Goldman Closes BRIC Fund," The Wall Street Journal, November 9, 2015.

2. The "All stocks" portfolio consists of all eligible stocks in all eligible developed and emerging markets. The portfolio for January to December of year t includes stocks whose free float market capitalization as of December t-1 is greater than \$10MM in developed markets and \$50MM in emerging markets and with non-missing price returns for December of year t-1. Annual portfolio returns are value-weighted averages of the annual returns on the included securities. The portfolios "Excluding the top 10%" and "Excluding the top 25%" are constructed similarly. Individual security data are obtained from Bloomberg, London Share Price Database, and Centre for Research in Finance. The eligible countries are: Australia, Austria, Belgium, Brazil, Canada, Chile, China, Colombia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Republic of Korea, Malaysia, Mexico, Netherlands, New Zealand, Norway, Peru, Philippines, Poland, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom, and the United States. Diversification does not eliminate the risk of market loss. Past performance is no guarantee of future results.

SHOULD I BUY BITCOIN?

While our parent, AIER, has written extensively¹ about the emergence of Bitcoin and blockchain technology, we have not previously addressed the subject. But many in the financial media are appealing to investors' speculative tendencies by focusing on Bitcoin's meteoric price rise. This month we attempt to provide useful perspective.

We won't argue with success; to those who "caught the wave" and benefited from the near twentyfold rise this year, we say congratulations. However, we do not recommend Bitcoin or similar cryptocurrencies for inclusion in a well-structured portfolio. There is little intrinsic value that will buoy Bitcoin if the price starts to tumble. No one knows what the price will be tomorrow or next year. While its price may continue to rise, Bitcoin bears the hallmarks of a classic speculative bet. However, one need not make a direct financial commitment in Bitcoin (or similar cryptocurrencies) in order to prosper from the substantial, perhaps revolutionary, economic benefits this technology could bring.

Blockchain

Blockchain is a technology that stands to disrupt and perhaps displace the traditional means of conducting and

validating transactions and transferring funds (*Bitcoin* is the unit of exchange used in transactions). Whereas third parties such as banks or Paypal currently fulfill these functions, blockchain relies instead on multiple parties in the on-line community, using powerful computers that in aggregate maintain a public ledger -- essentially a database of transactions. The integrity of this process is maintained by competition among these independent participants as they vie to verify transactions.²

The supply of Bitcoins grows as transactions are validated and added, incrementally, to this virtual ledger. By design the number of Bitcoins in circulation will reach a ceiling beyond which no more can be created. So, similar to gold and other precious metals, their supply is limited.

Bitcoin is touted as a mechanism that could improve upon conventional money. Because it is limited in supply it is argued that unlike government-sponsored fiat currencies, its value cannot be "inflated away." This has fostered extraordinary demand. The price of Bitcoin has been bid up spectacularly, rising from less than \$1,000 in January to almost \$20,000 at mid-December. Let's take a closer look at whether Bitcoin qualifies either as a legitimate investment or as a form of sound money.

Not a Bit of Income

Financial assets are valued by discounting their future cash flows to an estimated present value. Stocks and bonds can be expected to generate dividends and interest, and their current price reflects the market's valuation of those future income streams. Bitcoin provides no income at all so it bears no intrinsic value comparable to that of an asset with positive expected returns. Even if in time Bitcoin demonstrates other properties of a legitimate asset class, such as low correlation with other assets, liquidity and accessibility, it cannot be considered an investment because it has no expected return.

Show Me the Money

What about money? Bitcoin proponents describe it as a form of money that will compete with, if not displace, government-issued currencies. But any sound form of money must serve as both a medium of exchange and a store of value.

Money facilitates trade because it serves as a commonly recognized medium for transactions. Without money, society would rely on barter transactions. Without it no trade takes place unless there is a coincidence of wants -- in a

barter economy the shoemaker cannot buy wheat absent a costly search for a farmer in need of shoes.

Dollars eliminate the inefficiency of barter trade, but what about Bitcoin? The fact is, despite its meteoric price rise and media attention, few are actually using Bitcoin to transact for goods and services! Thus far there is no evidence that it serves as a viable medium of exchange on any significant scale.

Any media said to serve as money must also serve as a store of value. As AIER has pointed out, in order to meet this test, it must be widely valued and demanded, be capable of being delivered and measured in a uniform measure or purity, and be easily divisible. It should not rot, spoil, or lose value over time.³ In theory Bitcoin could meet these criteria.

However, to serve effectively as a store of value, a purchasing media must also demonstrate stable purchasing power. By this standard Bitcoin fails miserably. During 77 of the last 365 trading days, the dollar price of Bitcoin has changed by at least 5 percent! To put its price volatility in perspective, consider that on January 4, 2017, 50

Bitcoin would have easily paid for a Mercedes-Benz C-Class sedan. Only a week later, January 11, that same 50 Bitcoin would only have been enough to pay for a Buick Regal.

Portfolio Insurance?

Bitcoin is sometimes compared to gold. Given the properties we have discussed, one might ask why we recommend gold as part of a well-structured portfolio. Gold after all, like Bitcoin, has no expected value (it generates no income), and while has been recognized as a medium of exchange for hundreds of years it is impractical to use gold to purchase goods directly. Though in terms of purchasing power it has held up far better than fiat currencies over the long term, gold's price in the short term is extremely volatile.

But gold has something Bitcoin lacks: a track record of prices spanning hundreds of years. This data reveals an asset that throughout history has proven its worth as a form of insurance against financial crises, including episodes of hyperinflation. From an empirical

perspective, there is no other commodity or financial asset that can fulfill this role as well as gold. Bitcoin certainly cannot, as there exists just over seven years of price history.

How to Benefit from Bitcoin

Investors need not invest directly in Bitcoin to prosper from it, or from substitute cryptocurrencies that have emerged. This technology is yet the latest manifestation of "creative destruction" that will propel businesses forward and improve everyone's life. Investors need only maintain exposure to common stocks. As the cost of transacting falls, businesses will become more efficient and shareholders will share in the wealth. This is made clear in the accompanying article *Blockchain: Changes Coming to Wall Street?*

No one knows which industries or firms will prosper most, so once again diversification is the rational approach. Prudent investors will maintain steady exposure to global equities using the funds recommended on the back page of this newsletter or the DFA funds we use in client portfolios.

1. For a compendium of AIER's numerous articles on this topic, see <https://www.aier.org/Bitcoin-and-blockchain>

2. A technical explanation of this process is well beyond the scope of this article. For an excellent video explanation, we recommend https://worldview.stratfor.com/article/how-blockchain-works-and-why-it-matters?utm_campaign=B2C_LL_Push

3. Stephen Cunningham, Ph.D. The Five Pillars of Money, Economic Bulletin American Institute for Economic Research www.aier.org Vol. LI, March 2011.

BLOCKCHAIN: CHANGES COMING TO WALL STREET?¹

New technology can both disrupt and entrench existing large and powerful players in a market. In a previous article², I explained the importance of blockchain technology. A blockchain is a type of database that is distributed to all users without a centrally managed hub and that stores unalterable digital records. It is most commonly known today as the technology underlying bitcoin, keeping records of the cryptocurrency's ownership and allowing ownership to be transferred.

There are many other possible applications for the technology. Some observers³ predict that blockchain will be as important an advance for transactions and record keeping as the internet has been for communication and information.

Blockchain technology can empower financial transactions without governments or large corporations acting as intermediaries. However, large financial

corporations are developing and deploying their own versions of blockchain technology. As blockchain is adopted, we may see both significantly less use of intermediaries, even as current financial intermediaries become more efficient and more profitable.

The retail industry's experience with the internet helps illustrate how new technology can lead to an array of seemingly disparate impacts occurring at once. It was fashionable 20 years ago to predict that the internet would democratize the retail business, enabling a myriad of small firms to exist without brick-and-mortar locations and with consumers reaping the benefits of heightened competition. This prediction was not entirely false: A small seller today can reach customers around the world, creating markets that were not previously possible for niche products. But existing retail giants like Walmart used the new information and communication tech-

nology to become even more efficient, placing new pressure on small competitors, especially brick-and-mortar stores. Finally, the internet enabled new retail giants like Amazon, which contributed to the failure of both small and large brick-and-mortar retailers. Trends resulting from major technological changes can cut both ways, disrupting markets but also strengthening existing players.

Public vs. Private Blockchains

Bitcoin, the best-known current application of blockchain technology, uses a public, or "permissionless" blockchain, meaning anyone can choose to participate in the market, and all participants receive full and equal access to the (encrypted) data. But most of the applications being developed by financial firms discussed here use private, or "permissioned" blockchains, meaning one or more parties get to restrict access. While

this makes sense in certain environments — for example, when participants in a market only want to interact with a select few parties — it might also reduce the technology's ability to enhance and protect the economic rights of all people equally.

As observers like Chris Horlacher, CEO of Equibit Development Corp., point out, attempts to build blockchains that are not open and decentralized make the technology little more than a more efficient version of the databases and trade ledgers currently in use. However, even changes in efficiency have the potential to dramatically affect the financial industry and economy as a whole. In the examples that follow, we will discuss the implications of private blockchains, which generally enhance the efficiency of a market while leaving the current structure intact; and open, decentralized blockchains, which could radically alter the structure of markets.

Blockchain and Big Banks

Blythe Masters, former J.P. Morgan executive and current CEO of Digital Asset Holdings, notes the great disparity between the near-instantaneous execution and settlement of trades and the archaic “back end” in which reconciling records and transferring ownership can take anywhere from three to 20 days. With blockchain technology, a digital representation of an actual asset can be transferred (rather than a copy), so the time it takes to settle trades can be reduced from days to minutes. This alleviates a great deal of counterparty or settlement risk, which was shown to be a huge problem during the 2008 financial crisis, when many already-executed trades by Bear Stearns & Co. and Lehman Brothers could not be settled after the collapse of those firms. In addition, transactions using a blockchain can vastly ease the time and effort needed to meet regulatory requirements such as reporting and transparency. Digital Asset Holdings is creating blockchains to take advantage of these efficiency gains, beginning with assets such as syndicated loans and U.S. Treasury repurchase agreements.

A Digital Asset white paper⁴ describes its product, the DA Platform,

which has the security features found in a blockchain but eliminates the openness: “Participants in the Platform share a single source of truth which provides continuous data integrity, and desired or mandated degree of transparency and the opportunity for rapid innovation.” DA believes that an open blockchain is not workable in markets for more complex assets due to the high dollar amount and volume being traded, and it has regulatory concerns. The DA Platform has an “operator,” which will typically be a “centralized market infrastructure provider that is responsible for processing transactions.” Sound familiar?

The implications of DA's product are still important. For example, banks currently set aside billions of dollars for settlement risk; blockchain technology could free that money in the economy. The technology could greatly enhance the transparency of banks' books and operations. Banks work with large customers and need voluminous knowledge of institutional details and current market developments, suggesting a continued role for large financial intermediaries. But the type of product being developed by Digital Asset enhances the efficiency of a market while leaving its centralized structure intact. It will be interesting to see, if this technology takes hold, who will gravitate toward open-blockchain trading platforms and who will still be willing to pay intermediaries large fees.

Blockchain and Exchanges

The Nasdaq stock exchange has made significant and highly publicized investments in blockchain technology. Most notably, it uses Linq, a blockchain-based private trading platform for companies not listed on a stock exchange. In addition, Nasdaq has launched a pilot program in Estonia to use blockchain for shareholder-proxy voting.

Linq is another example of using a private blockchain to provide efficiency benefits without decentralization. In fact, Nasdaq says that you don't need the revolutionary aspects of blockchain that establish trust between peer-to-peer users, because you can always trust Nasdaq: “Since the inception of bitcoin's

blockchain, the notable underpinning of this technology has been trust, since it is not controlled by any single user. However, with Linq being a private distributed ledger (as opposed to bitcoin's open, public blockchain), Nasdaq is expecting efficiency and transparency to be the foremost virtues of its blockchain technology. According to Voss (Fredrik Voss, Nasdaq vice president of blockchain innovation), “When you have a trusted party, and, of course, Nasdaq is a trusted party, then you don't really need the concept of mining.” (Mining refers to the decentralized process with which cryptocurrencies like Bitcoin are created.)

It is tempting to dismiss Nasdaq's proclamations of its own trustworthiness and see its investments in blockchain as an attempt to stay relevant in a world where stock exchanges will no longer be necessary. But exchanges serve purposes beyond being a source of trust in transactions. For example, by enforcing financial and transparency requirements before a company can be listed on its exchange, Nasdaq plays a curatorial role for smaller investors who don't have the time to research companies. However, if transactions could be decentralized on an open blockchain, this curatorial role could be separated from the exchange itself and could be provided instead by investment advisers or even decentralized communities of investors. If blockchain is widely adopted, intermediaries like stock exchanges may be on shakier ground than big banks.

A Guessing Game

It is often easy to identify markets ripe for either efficiency gains or restructuring resulting from new technologies like blockchain. But as experience with the internet in the past two decades has shown, actual outcomes are the result of a complex web of entrenched interests, institutional details, technology adoption, management decisions, and many other factors. Furthermore, if blockchain succeeds, there will likely be major applications we have not yet thought of. Predictions help us think through a technology's applications, but it is critical to remain open to changing ideas as a technology evolves.

1. Max Gulker PhD, Senior Fellow, AIER. Blockchain: Changes Coming to Wall Street? March 2017 <https://www.aier.org/research/blockchain-changes-coming-wall-street>
 2. <https://www.aier.org/research/blockchain-innovating-our-way-economic-freedom>
 3. <https://www.bloomberg.com/news/features/2015-09-01/blythe-masters-tells-banks-the-blockchain-changes-everything>
 4. The Digital Asset Platform. December 2016. Digital Asset Holdings, LLC. <http://hub.digitalasset.com/hubfs/Documents/Digital%20Asset%20Platform%20-%20Non-technical%20White%20Paper.pdf?submissionGuid=19b3704a-4934-4661-9920-2270d03db39c>

THE HIGH-YIELD DOW INVESTMENT STRATEGY

Recommended HYD Portfolio

As of December 15, 2017

	Rank	Yield (%)	Price (\$)	Status	—Percent of Portfolio—	
					Value (%)	No. Shares (%) ¹
Verizon	1	4.48	52.67	Holding**	24.34	32.30
IBM	2	3.93	152.50	Holding**	16.49	7.56
Exxon Mobil	3	3.71	83.03	Buying	11.08	9.33
Chevron	4	3.61	119.73	Holding**	21.76	12.70
Pfizer	5	3.44	37.20	Holding	13.74	25.82
General Electric	10	2.69	17.82	Holding	2.15	8.42
Boeing	13	2.33	293.94	Holding	4.62	1.10
Caterpillar	18	2.13	146.69	Selling	5.80	2.77
Cash (6-mo. T-Bill)	N/A	N/A			0.01	N/A
Totals					100.00	100.00

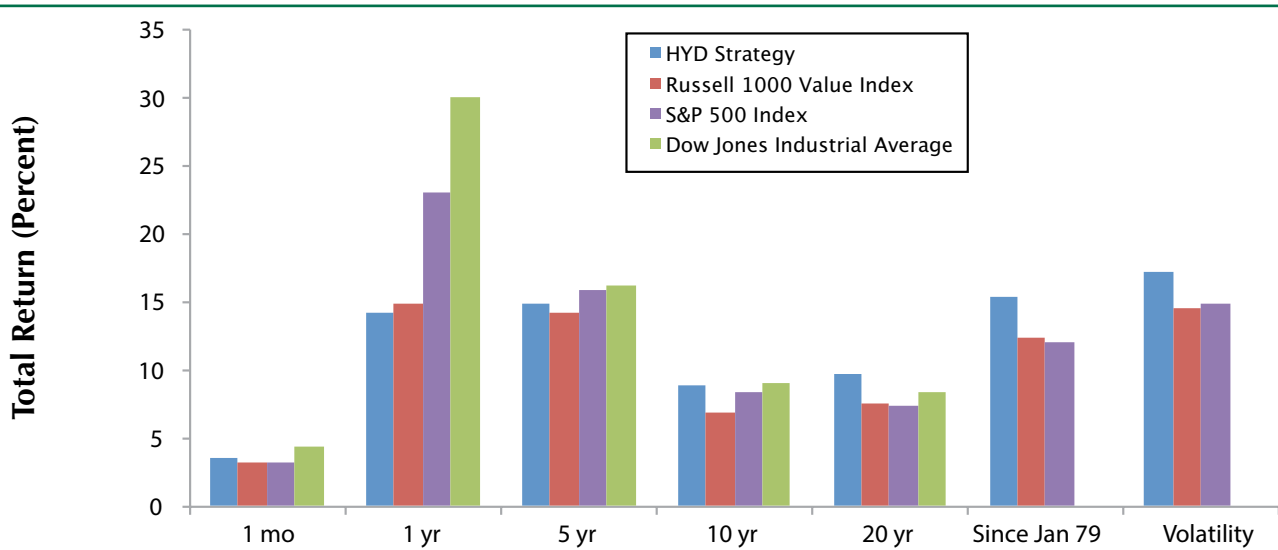
**Currently indicated purchases approximately equal to indicated purchases 18 months ago. 1 Because the percentage of each issue in the portfolio by value reflects the prices shown in the table, we are also showing the number of shares of each stock as a percentage of the total number of shares in the 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 November 30, 2017*. 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	3.51	14.14	14.78	8.75	9.66	15.25	17.16
Russell 1000 Value Index	3.06	14.83	14.17	6.85	7.47	12.22	14.41
S&P 500 Index	3.07	22.87	15.74	8.30	7.23	11.96	14.80
Dow Jones Industrial Average	4.24	30.02	16.11	9.00	8.31	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 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.

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; foreign developed markets - MSCI world ex-U.S.(net div.)Index; emerging markets - MSCI Emerging Markets Index(net div.); U.S. Bonds - Barclays U.S. Aggregate Bond Index; Global Bonds - Citi World Government Bond Index; 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 (\$)

	12/15/17	Mo. Earlier	Yr. Earlier	Prem. (%)
Gold, London p.m. fixing	1,254.60	1,282.20	1,126.95	
Silver, London Spot Price	15.99	17.12	16.14	
Crude Oil, W. Texas Int. Spot	57.29	56.77	50.90	
Coin Prices (\$)¹				
American Eagle (1.00)	1,279.60	1,307.20	1,208.60	1.99
Austrian 100-Corona (0.98)	1,223.51	1,250.56	1,143.15	-0.49
British Sovereign (0.2354)	295.33	301.83	279.03	0.00
Canadian Maple Leaf (1.00)	1,264.60	1,292.20	1,193.60	0.80
Mexican 50-Peso (1.2056)	1,504.55	1,537.82	1,405.69	-0.53
Mexican Ounce (1.00)	1,272.60	1,300.20	1,197.60	1.43
S. African Krugerrand (1.00)	1,261.60	1,289.20	1,182.60	0.56
U.S. Double Eagle-\$20 (0.9675)				
St. Gaudens (MS-60)	1,230.00	1,250.00	1,220.00	1.33
Liberty (Type I-AU50)	2,000.00	2,000.00	3,000.00	64.77
Liberty (Type II-AU50)	1,325.00	1,325.00	1,325.00	9.16
Liberty (Type III-AU50)	1,220.00	1,240.00	1,205.00	0.51
U.S. Silver Coins (\$1,000 face value, circulated)				
90% Silver Circ. (715 oz.)	11,363.00	12,410.00	12,591.00	-0.58
40% Silver Circ. (292 oz.)	4,461.50	4,881.00	4,941.00	-4.42
Silver Dollars Circ.	22,875.00	22,875.00	21,750.00	85.02

¹Note: 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 Returns²

Data through November 30, 2017

	U.S. Stocks (Mktwd)	Foreign Dev. Stocks	Foreign Emerg. Stocks	Global REITs	U.S. Bonds	Foreign Bonds (hedged)	Gold
1-month	3.04%	1.01%	0.20%	3.01%	-0.13%	0.13%	0.79%
	↑	↑	↑	↑	↓	↑	↑
3-month	7.85%	5.05%	3.30%	1.51%	-0.55%	0.42%	-2.41%
	↑	↑	↑	↑	↓	↑	↓
1 year	22.27%	26.00%	32.82%	10.50%	3.21%	1.89%	8.67%
	↑	↑	↑	↑	↑	↑	↑
5 year (annualized)	15.63%	7.72%	4.61%	7.32%	1.98%	1.63%	-5.80%
	↑	↑	↑	↑	↑	↑	↓
15 year (annualized)	9.75%	7.85%	11.80%	8.87%	4.26%	2.80%	9.71%
	↑	↑	↑	↑	↑	↑	↑

Best and worst one-year returns, Jan. 2001 - Nov. 2017

	Best						
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

²For representative asset class indexes see box on page 93.

THE DOW JONES INDUSTRIALS RANKED BY YIELD*

Ticker Symbol	Market Prices (\$)			12-Month (\$)		Latest Dividend Amount (\$)	Record Date	Payable Date	Indicated Annual Yield†		
	12/15/17	11/15/17	12/14/16	High	Low				Dividend (\$)	(%)	
Verizon	VZ	52.67	44.11	51.63	54.83	42.80	0.590	1/10/18	2/1/18	2.360	4.48
IBM	IBM	152.50	147.10	168.51	182.79	139.13	1.500	11/10/17	12/9/17	6.000	3.93
Exxon Mobil	XOM	83.03	81.21	90.58	91.54	76.05	0.770	11/13/17	12/11/17	3.080	3.71
Chevron	CVX	119.73	116.45	115.96	122.30	102.55	1.080	11/17/17	12/11/17	4.320	3.61
Pfizer	PFE	37.20	35.36	32.82	37.23	30.90	0.320	11/10/17	12/1/17	1.280	3.44
Merck	MRK	56.24	54.80	61.80	66.80	53.63	0.480	12/15/17	1/8/18	1.920	3.41
Coca-Cola	KO	46.19	46.81	41.21	47.48	40.22	0.370	12/1/17	12/15/17	1.480	3.20
Cisco	CSCO	38.19	34.11	30.46	38.37	29.80	0.290	1/5/18	1/24/18	1.160	3.04
Procter and Gamble	PG	91.89	88.23	84.37	94.67	83.24	0.690	10/20/17	11/15/17	2.758	3.00
General Electric	GE	17.82	18.26	31.50	32.38	17.46	0.120	12/27/17	1/25/18	0.480	2.69
Intel Corp	INTC	44.56	45.46	36.55	47.30	33.23	0.2725	11/7/17	12/1/17	1.090	2.45
Johnson & Johnson	JNJ	142.46	139.10	114.99	144.35	110.76	0.840	11/28/17	12/12/17	3.360	2.36
Boeing	BA	293.94	262.86	154.47	297.37	154.96	1.710	2/9/18	3/2/18	6.840	2.33
McDonald's	MCD	174.06	167.32	122.84	175.09	118.18	1.010	12/1/17	12/15/17	4.040	2.32
United Tech.	UTX	126.17	117.57	109.27	126.44	106.85	0.700	11/17/17	12/10/17	2.800	2.22
DowDupont	DWDP	70.00	68.97	73.71	73.85	56.52	0.380	11/15/17	12/15/17	1.520	2.17
Travelers	TRV	134.89	133.71	120.37	137.95	113.76	0.720	12/11/17	12/29/17	2.880	2.14
Caterpillar	CAT	146.69	134.10	93.74	149.05	90.34	0.780	1/22/18	2/20/18	3.120	2.13
J P Morgan	JPM	106.14	98.19	84.73	108.40	81.64	0.560	1/5/18	1/31/18	2.240	2.11
Wal-Mart Stores	WMT	97.11	89.83	71.34	100.13	65.28	0.510	12/8/17	1/2/18	2.040	2.10
3M Company	MMM	238.00	227.40	176.60	244.23	173.55	1.175	11/24/17	12/12/17	4.700	1.97
Home Depot, Inc.	HD	182.58	165.47	135.98	186.31	133.05	0.890	11/30/17	12/14/17	3.560	1.95
Microsoft Corp.	MSFT	86.85	82.98	62.68	87.09	61.95	0.420	2/15/18	3/8/18	1.680	1.93
Walt Disney	DIS	111.27	103.69	104.05	116.10	96.20	0.840	12/11/17	1/11/18	1.680	1.51
Apple	AAPL	173.97	169.08	115.19	176.24	114.76	0.630	11/13/17	11/16/17	2.520	1.45
American Express	AXP	98.52	93.26	74.07	99.75	73.50	0.350	1/5/18	2/9/18	1.400	1.42
Unitedhealth Group	UNH	221.82	209.86	159.86	231.77	156.09	0.750	12/1/17	12/12/17	3.000	1.35
Nike	NKE	64.79	56.63	51.79	65.07	50.35	0.200	12/4/17	1/2/18	0.800	1.23
Goldman Sachs	GS	257.17	237.61	239.93	260.50	209.62	0.750	11/30/17	12/28/17	3.000	1.17
Visa Inc.	V	113.82	110.25	79.13	114.37	77.19	0.195	11/17/17	12/5/17	0.780	0.69

* See the Recommended HYD Portfolio table on page 93 for current recommendations. † Based on indicated dividends and market price as of 12/15/17. Extra dividends are not included in annual yields. All data adjusted for splits and spin-offs. 12-month data begins 12/15/16.

ASSET CLASS INVESTMENT VEHICLES

Data as of November 30, 2017

Fixed Income

	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)
								1-Year	3-Year	5-Year	
Short-Term Bonds	Vanguard Short-Term Bond	2.90 yrs	2497	0.15	51	1.43	1.10	0.99	0.91	0.62	
Short-Term Bonds	SPDR Portfolio Short Term Corp Bd ETF	1.99 yrs	1035	0.07	67	1.80	1.71	1.39	1.33	0.70	
Short-Term Bonds	iShares 1-3 Year Treasury Bond ETF	1.94 yrs	67	0.15	66	0.90	0.35	0.41	0.44	0.30	
Interm-Term	Vanguard Total Bond Market	8.30 yrs	17412	0.15	0	2.22	3.26	1.96	1.78	1.06	
Interm-Term	iShares Core US Aggregate Bond ETF	7.88 yrs	6506	0.05	242	2.50	3.33	2.03	1.91	1.07	
Tax-Exempt	Vanguard Ltd-Term Tax-Exempt	2.90 yrs	4480	0.19	13	1.41	2.01	0.90	0.96	0.00	
Tax-Exempt	SPDR Nuveen Blimbg Barclays ST MunBd ETF	3.16 yrs	1169	0.20	32	1.04	1.38	0.38	0.64	0.00	
Tax-Exempt	Vanguard Interm-Term Tx-Ex Inv	5.40 yrs	7001	0.19	9	2.52	4.63	2.36	2.16	0.00	
Inflation-Protected	iShares TIPS Bond ETF	8.45 yrs	37	0.20	24	1.72	1.93	1.24	-0.28	0.48	
Inflation-Protected	Vanguard Inflation-Protected Securities	8.50 yrs	40	0.20	27	2.86	1.77	1.20	-0.33	0.72	
International	Vanguard Total International Bond	9.20 yrs	4596	0.15	20	1.65	2.80	2.95	0.00	0.66	

Real Estate (REITs)

U.S. REITs	Vanguard REIT	10.23 B	156	0.26	7	3.70	9.95	5.85	9.94	1.34
U.S. REITs	SPDR Dow Jones REIT	11.34 B	101	0.25	9	3.92	8.31	5.30	9.60	1.57
Int'l REITs	Vanguard Global ex-US Real Estate (2)	6.41 B	660	0.35	7	3.31	22.48	6.09	6.35	1.42
Int'l REITs	iShares International Developed Property	6.50 B	381	0.48	8	4.78	19.21	5.77	6.50	1.51
Global (incl. U.S.)	SPDR Dow Jones Global Real Estate ETF	9.18 B	229	0.50	9	3.45	10.20	3.76	7.05	1.36

U.S. Stocks

Large Cap (blend)	Vanguard S&P 500	94.14 B	515	0.14	4	1.76	22.70	10.76	15.58	0.62
Large Cap (blend)	iShares Core S&P 500	93.44 B	509	0.04	5	1.78	22.88	10.87	15.70	0.59
Large Cap (blend)	iShares Russell 1000 ETF	71.65 B	982	0.15	4	1.68	22.29	10.56	15.54	0.58
Large Cap Value	Vanguard Value	89.77 B	333	0.18	7	2.25	18.31	10.14	15.31	0.77
Large Cap Value	iShares Russell 1000 Value	58.92 B	717	0.20	13	2.22	14.62	8.14	13.96	0.71
Small Cap (blend)	iShares Core S&P Small-Cap ETF	1.67 B	605	0.07	13	2.12	17.60	13.21	16.82	0.44
Small Cap (blend)	Schwab US Small-Cap ETF	2.48 B	1738	0.05	11	2.04	17.50	10.33	15.14	0.48
Small Cap Value	Vanguard Small Cap Value	3.56 B	850	0.19	18	1.86	14.25	10.28	15.46	0.77
Small Cap Value	iShares Russell 2000 Value	1.58 B	1385	0.24	24	1.42	13.31	10.77	14.06	0.69
Small Cap Value	iShares Micro-Cap	0.47 B	1390	0.60	21	1.74	18.75	10.92	15.10	0.44
Marketwide	Vanguard Total Stock Market	53.51 B	3600	0.15	4	2.89	22.16	10.59	15.47	0.59
Marketwide	Fidelity Total Market Index	51.30 B	3384	0.09	4	2.82	22.21	10.65	15.51	0.86

Foreign Stocks

Developed Markets	Vanguard FTSE Developed Markets ETF	24.02 B	3840	0.17	11	1.70	27.30	6.88	0.00	0.77
Developed Markets	iShares Core MSCI EAFE ETF	24.67 B	2535	0.08	2	1.73	27.92	7.08	8.80	0.75
Emerging Markets	Vanguard Emerging Markets Stock	17.44 B	4123	0.32	13	1.77	26.49	4.30	3.77	0.85
Emerging Markets	Schwab Emerging Markets Equity ETF	27.86 B	897	0.13	7	1.77	27.43	4.95	4.30	0.83

Gold-Related Funds

Gold ETFs	iShares Gold Trust	IAU		0.25		0.00	8.50	2.76	-5.99	0.00
Gold ETFs	SPDR Gold Shares	GLD		0.40		0.00	8.37	2.60	-6.12	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) VIGRX 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.

The information herein is derived from generally reliable sources, but cannot be guaranteed. American Investment Services, the American Institute for Economic Research, and the officers, employees, or other persons affiliated with either organization may have positions in the investments referred to herein.