# AIS INVESTMENT GUIDE

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* See box, page 63, for representative indexes.

## Rates of Interest

As of August 22, 2018

| | |
|---|---|
| **Government Obligations**[1] | |
| Fed Funds Rate | 1.92% |
| 3-Month Treas. Bill | 2.03% |
| 10-Yr. Treas. Note | 2.82% |
| 30-Yr. Treas. Bond | 2.99% |
| 10-Yr. TIPS | 0.75% |
| Muni Bonds - Nat'l 10-Yr. | 2.50% |
| **Mortgage Rates**[2] | |
| 15-Yr Fixed | 4.01% |
| 30-Yr Fixed | 4.50% |
| **Banking**[3] | |
| Savings | 0.08% |
| Money Market | 0.13% |
| 12-month CD | 0.44% |

[1] Federal Reserve, fmsbonds.com. Annualized Rates. Notes, bonds, TIPS reflect yield to maturity.
[2] Freddie Mac. Average (National average, 15-year mortgages with 0.4 points, 30-year mortgages with 0.5 points).
[3] FDIC. Average national rates, non-jumbo deposits (<$100k).

## The Roth Conversion: Is Now the Time?

Short term changes in stock prices are neither predictable nor within your control, so there is little point in spending time trying to pick stocks or forecast the market. Tax planning, however, is well within your control. Investors who have significant IRA or 401(k) account balances as they approach or enter retirement should review the potential costs and benefits of a Roth IRA conversion.

We described Roth conversions in detail in the January 2018 Investment Guide. Withdrawals from a traditional IRA or 401(k) are fully taxable as current income. Withdrawals from Roth IRAs in retirement, however, are entirely tax-free. For many, a conversion from a traditional IRA to a Roth IRA may offer a significant opportunity to boost after-tax income and long-term wealth, and improve legacy planning.

A Roth conversion requires investors to pay income taxes today in exchange for tax-free withdrawals in retirement (or for one's heirs). Beginning this year, federal income tax brackets were reduced. All else equal, this makes Roth conversions more appealing. But the new tax brackets include two significant "jumps", one from 12 percent to 22 percent and another from 24 percent to 32 percent, that can alter the calculus involved in this decision.

As an example, early retirees who are not yet collecting Social Security or taking required minimum distributions (which start at age 70 ½) may have only modest taxable income. Married couples with income below $77,400 are in the 12 percent tax bracket, which "jumps" to 22 percent at for income above this threshold. If a married couple has $20,000 taxable income during those early retirement years, there is a strong case to be made for them to convert $57,400 per year from traditional to Roth IRAs in order to "fill up" the 12 percent tax bracket. Once they reach age 70 and receive RMDs and Social Security, they may well be facing the 22 percent levy.

The conversion decision should consider other investor-specific factors, which include:

*Age* – generally, the younger you are the more attractive a Roth conversion becomes.

*Objectives* - Roth conversions can be especially attractive to investors who emphasize a legacy for their heirs.

(continued next page)

*Tax Risk* - the direction and magnitude of future tax rates changes are unknown. The best defense is to diversify, by holding both traditional and Roth accounts, but the optimal funding level of each is highly investor-specific.

*Tax Funding* - Conversions are more costly for investors who must fund conversion taxes due from the IRA itself rather than from cash on hand.

*These are just a few factors to consider when contemplating a Roth conversion. We routinely help investors to narrow down the factors relevant to their particular situation and help them form a rational decision framework. For a no obligation discussion of your situation, contact us at 413-645-3327.*

## BAD NEWS ON THE DOORSTEP: NOW WHAT?

*I*n recent weeks and months, many investors have grown increasingly wary of the stock market in light of negative news and worrisome developments. Indeed there is plenty of cause for concern. Trade wars, immigration, Syria, higher price inflation, ballooning federal debt, school shootings, political tribalism...the list goes on. Many are asking: How is it all going to end, what are the implications for my portfolio, and above all *what should I do*?

Investors worry that with things as bad as they are, surely the economy is doomed to falter in the not-so-distant future, and that just can't be good for the stock market. And of course there are plenty of pundits fueling the fires of fear, regaling anyone willing to listen with their tale of doom; they might even include a compelling narrative describing the sequence of events that will lead to the collapse.

If such an alarmist turns out to be "right", that is if the market enters "bear" territory following publication of his claim, he will likely be hailed as a genius and probably cash in on the acclaim, despite the absence of any statistical evidence suggesting this outcome was a result of anything but chance. On the other hand, if the market enters a "bull" phase or merely chugs along, no one will really notice or call him out for being wrong among the many other forecasts gone awry (besides forecasters are elusive and rarely make specific predictions regarding timing or magnitude). So he'll try again (why not?). And so the game continues.

Not a bad racket if you are handy with a pen and can turn an eloquent phrase or two.

### Take a Deep Breath

While terrible things have happened throughout history, economic progress has prevailed over the long run. Economist Deirdre McCloskey estimates that over the last 250 years, the "well-being" of humankind has increased by 100 times. Adjusting for inflation, income is about 30 times higher than it was two centuries ago. If you then look at what you can buy for that income, the quality of life has improved by 100 times. That is exponential growth as compared with the previous 10,000 years of human existence.

In order for investors to take advantage of long-term economic growth, they must endure the short-term risk that is evident at any time. That means holding a portfolio of stocks – ownership in companies – with a bit of blind faith (supported by historical evidence) that companies will grow over the long term. Rational investors will seek to put the odds in their favor, and the odds are that the global economy grows and investors come out ahead.


Twenty years ago, few could have imagined the subsequent increase in wealth that has been driven by the advance of technology. Technology stocks now represent more than a quarter of the S&P 500 Index, an index that is designed to represent the overall U.S. economy. That means that if you're a typical investor with broad market exposure, a lot of your investment gains have come from companies that either didn't exist or were mostly unknown 20 years ago – Google, Apple, and Amazon to name a few. The computing power of your handheld smartphone would have cost an estimated $1 billion in 1970. The computing power of the iPhone 5 – now a few years old – is roughly equivalent to that of the most advanced supercomputer in 1985 (the Cray-2). This all occurred during a period that included the horror of 9/11, the greatest financial crisis in 80 years, wars in Iraq and Afghanistan, and countless other turbulent events.

The ultimate benefit of human capital and technology accrue not just to investors but to everyone. Amidst doom and gloom forecasts it is easy to forget that the remarkable increase in human prosperity that began rough 300 years ago shows no signs of slowing. Worldwide life expectancy has increased by 20 years in the last half century alone. Official poverty rates and violent crimes in the United States have fallen by almost half. There have been unforeseen advancements in clean energy, more democratic participation in elections throughout the world, eradication of polio and other diseases, a drastic reduction in worldwide hunger and poverty, more women in the workforce, a higher percentage of people completing high school and college, and so on.

This is not to say that bad things

aren't happening in the economy and the world – they certainly are. But as an investor with a long-term plan, it has always been more valuable to look past horrific events and instead focus on long-term progress. There is plenty of bad news out there, and we should all work to make things better, but you know that already. We are casting a vote for optimism over the long-term because the odds are in favor of it.

If we published newspapers only once every 20 years, headlines might be quite different. Human progress soars. Diseases eradicated. Technology experiences mind-boggling growth. We don't know what will drive economic growth over the next 20 years, but the odds are in favor of it. It might be useful to think about investing in view of these 20 years chunks…it can make it easier to be realistic (that is, optimistic) about what is to come.

## Bad News - and Good!

Those still inclined to listen to the doomsayers argue that "this time it's different." After all, the entire global economy is under threat of a trade war, while the U.S. economy, which has spearheaded global growth for decades, operates under a lengthening shadow of runaway federal spending with no serious proposals for reform. Other seemingly intractable problems include underfunded public pensions, and the need for education and immigration reform. Meanwhile the U.S. stock market is near its all-time high. It strains credulity to think this can continue.

Our response is that these challenges indeed pose a serious threat to prosperity; in fact AIER has written extensively about all of these concerns as well as others. *But there is no reason to believe the stock market is for some reason ignoring these threats. Instead it is rational to assume that current market valuations fully reflect these dangers but would be even higher if these perils didn't exist.* The market after all is also reflecting many positive countervailing developments that will continue to enhance productivity and engender growth.

AIER for example has written[1] and spoken extensively about the enormous potential impact for block chain technology to boost productivity and how it is rapidly being adopted across industries. The possibility that cryptocurrencies could disrupt the monetary status quo and even displace or bring discipline to fiat currencies cannot be dismissed.

Other advances eclipsed by bad news can be found among the energy and biotechnology sectors; meanwhile headlines regarding artificial intelligence (AI) are frequently negative despite the enormous gains in productivity AI might bring. More broadly, AIER's Michael Munger has recently written about the power of individual interest and "emergence" -- its remarkable capacity to raise the human condition, and its triumph over central planning.

The scary headlines of late have obscured not only these very positive long term considerations. In our estimation the media has also largely under-reported very good news over the shorter term concerning the current business cycle[2]. AIER has not. It's economic indicators suggest continued expansion and annual GDP growth now exceeds 4.0 percent. Other good news abounds -- unemployment is low while retail sales and small business confidence are booming. Market valuations surely reflect these developments as well.

We don't know where capital markets are headed over the short term, nor does anyone else. Over the long term we believe they will reflect continuing prosperity and thereby provide the best alternative for investors seeking to capture a positive real rate of return. We submit that the stock market itself provides the best estimate of the "intrinsic value" of publicly traded firms rather than the endless parade of "experts" who claim superior knowledge.

Within the realm of financial economics, we do our best, through our deference to markets, to rise to Friedrich von Hayek's challenge: "The curious task of economics is to demonstrate to men how little they really know about what they imagine they can design."

Finally, as we have demonstrated previously[3], even if we knew with certainty where the economy was headed in the short-term, it would be of no use in predicting where the stock market might be headed. Security prices are forward looking. That is to say the impact of news pertaining to the economy, good and bad, is quickly evaluated by millions of investors and reflected in stock prices. For that reason stock market changes typically precede changes in the economy, not the other way around.

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## Practical Application

We are not simply suggesting that all investors embrace the broad stock market in identical fashion. Individuals vary widely as to how seriously they regard the many perils and promises the world offers. But these differences are easily accommodated. Other things equal, those who hold a long term aversion to risk should structure a portfolio with allocations that include a "tilt" toward cash, bonds, and perhaps gold. Investors more willing to embrace risk can favor stocks more heavily.

There are two important caveats, however. First, one's level of "risk aversion" is only one consideration among many when forming an allocation plan. Factors such as one's age, occupation, marital status, income, and goals are at least as important.

Second, once an allocation plan is chosen it must be adhered to. A frequently changing allocation plan is a recipe for failure. "Risk aversion" does not refer to how fearful you are regarding

*(continued next page)*

1. AIER has written extensively about the promise of bitcoin and block chain technology https://www.aier.org/bitcoin-and-blockchain
2. See https://www.aier.org/research/business-cycle-conditions
3. For a detailed review of this relationship, see the June 2016 Investment Guide "E.C. Harwood and AIS" https://www.americaninvestment.com/component/edocman/?task=document.viewdoc&id=208&Itemid=

a matter or matters that currently dominate the news. It refers to your inherent ability to withstand "swings" in the value of your holdings without abandoning your plan, as news changes. For example, an investor with a moderate portfolio who is deeply concerned about a global trade war should not attempt to avoid a trade-induced market downturn by reducing his exposure to stocks, and hope to later get back in when the issue appears settled.

However, it may make sense to scale back risk if your *circumstances* have changed. If you have an aggressive allocation and you've grown older and reached a point where you don't need to take on substantial portfolio risk to meet your financial objectives, a second look at your overall allocation is warranted.

We are in the business of helping individuals design and maintain investment portfolios constructed in this manner and providing general financial planning advice. For more information contact us at 413-645-3327 or aisinfo@americaninvestment.com.

## MILLENNIALS AND THE POWER OF COMPOUND INTEREST

**Roth Account, Hypothetical Growth of a $7,000 Investment**

| Age | Annual Contribution (after tax) | Future Value (year-end), at various annual rates of return 6% | 8% | 10% |
|---|---|---|---|---|
| 18 | $1,000 | $1,060 | $1,080 | $1,100 |
| 19 | $1,000 | $2,184 | $2,246 | $2,310 |
| 20 | $1,000 | $3,375 | $3,506 | $3,641 |
| 21 | $1,000 | $4,637 | $4,867 | $5,105 |
| 22 | $1,000 | $5,975 | $6,336 | $6,716 |
| 23 | $1,000 | $7,394 | $7,923 | $8,487 |
| 24 | $1,000 | $8,897 | $9,637 | $10,436 |
| 65 | | **$97,008** | **$226,099** | **$519,553** |

*The following article was written by Bryce Schuler a senior attending Trinity College, who served as an intern at AIS this summer.*

The financial strategy among college students is fairly standard: work all summer and spend all semester. By December, savings run dry and we turn to an odd job over winter break and hope Santa received our request for "cash" this year. The age-old cliché of the broke college student actually rings true. However, a new stereotype has taken hold and it is significantly more worrisome: the broke college *graduate*.

Earlier this year, a Bank of America Survey found that nearly half (46 percent) of individuals between the ages of 18 and 24 have $0 in savings.[1] Are we doing something wrong?

This Millennial "savings dilemma" is commonly attributed to changing attitudes toward work, money, and the definition of success. Millennials pursue ideals of mobility and personal fulfillment over traditional goals such as stability.[2] Our "work to live" mentality means we might be inclined to spend more freely than our parent's generation did. For some, insecurity surrounding student-loan debt and stagnant wages only exacerbates this tendency. If tomorrow looks bleak, why not enjoy today?

Money allows people to do what they enjoy – and this applies to everyone. But we (Millennials) tend to weigh differently the trade-off between our future objectives and our current desires. The decision of whether to save for the long-term or pursue enjoyment in the short-term is usually an easy one for me. After all, I really wanted to go to that Red Sox game in July and I didn't even mind spending $9.50 on a mediocre beer while I was there. I do not track my finances as carefully as I should, but I try to maintain loose savings targets for each semester. Unfortunately, this type of interim savings strategy never suffices.

During my internship with AIS, I learned about the powerful impact of small but consistent contributions to savings, especially to a Roth IRA. Young people are waiting too long to start contributing, often until their first job offers a 401(k) plan[3], and sometimes even longer. The one thing that young people have on their side regarding the potential for investment growth is *time*. I think most people my age fail to recognize just how powerful time is, and the significant financial advantage they hold over older generations.

The table nearby demonstrates how small investments can produce significant returns. If you can convince a child or grandchild to contribute $1,000 per year to a Roth IRA from ages 18 through 24, for a total of only $7,000 in contributions, he or she could accumulate several hundred thousand dollars in *after-tax* savings by age 65. To repeat: this assumes that the individual stops saving entirely at age 24!

If instead you wait until age 35 to begin contributing to a conventional (pre-tax) 401(k), you'd have to invest $2,500 per year for 30 years to get the same after-tax value at age 65. That's a total contribution of about $74,000.[4]

To put that $1,000 annual Roth contribution in perspective, it comes down to saving about $3.80 per workday. So, my fellow Millennials, I hope this exercise puts the value of that daily trip to Starbucks in perspective.

1. Andrew Pepler, "2018 Better Money Habits Millennial Report," January 2018.
2. Melissa H. Sandfort and Jennifer G. Haworth, "Whassup? A Glimpse Into the Attitudes and Beliefs of the Millennial Generation," Journal of College and Character 3, no. 3 (2002).
3. Roth IRAs are funded with after-tax contributions and grow tax-deferred, and distributions may be taken tax-free in retirement. Conventional 401(k) plans on the other hand are funded with pre-tax earnings and also grow tax-deferred but taxes are due upon withdrawal.
4. Future value calculation at 8 percent annual investment return, 30 years; a pre-tax contribution of $2,464 per year at the beginning of the year results in a future ending value of $301,466. If we assume a 25 percent all-in tax rate, that leaves $226,099 in after-tax value, which is equal to the value in the table assuming an 8 percent return.

# POLICY TRAJECTORY AND INVESTOR EXPECTATIONS

*The following article, reproduced in its entirety, was written by James L. Caton, who serves as a Fellow with AIER's Sound Money Project.*

Market structure is not only determined by present conditions. It is formed in light of expectations of future conditions. These expectations drive present investment decisions. Thus, volatility in expectations can drive volatility in markets. For this reason, Milton Friedman suggested that the best monetary policy is a predictable monetary policy. A predictable policy can anchor expectations. In another post, I showed how this argument leads many theorists to support rules-based policy. Likewise, monetary authorities and other policy makers strive to anchor expectations by suggesting or conveying commitment to future policy.

Alan Greenspan was a master of leading market expectations, typically ensuring investors that the Federal Reserve would support demand for liquidity through purchases of short-term bonds during a crisis. Regarding Y2K, which had to do with changing date formats from representing the year in two digits to representing it in four, many investors were concerned that records of financial accounts would be disrupted.

To alleviate that concern, Alan Greenspan temporarily deviated from what had been a relatively steady growth path for the monetary base (see chart). The Fed also increased the quantity of physical currency to satisfy worried investors' desired increases in cash holdings. By showing a willingness to accommodate market demand for liquidity due to a potential technological crisis, the Greenspan Fed assuaged most investors. The year 2000 rang in without a crisis, though some do blame Greenspan's accommodation for the NASDAQ bubble that followed. Soon after, the Federal Reserve allowed the growth path of the base money stock to return to the norm of the Greenspan era.

"Open mouth operations" is a term that has been used to describe part of the monetary authority's role in leading investor expectations. When the Federal Reserve announces a change in its federal funds rate target, the market often moves the rate before the Federal Reserve attempts to implement the target. The logic is easy to understand if you imagine the position of an investor at the time that officials announce a change in the target.

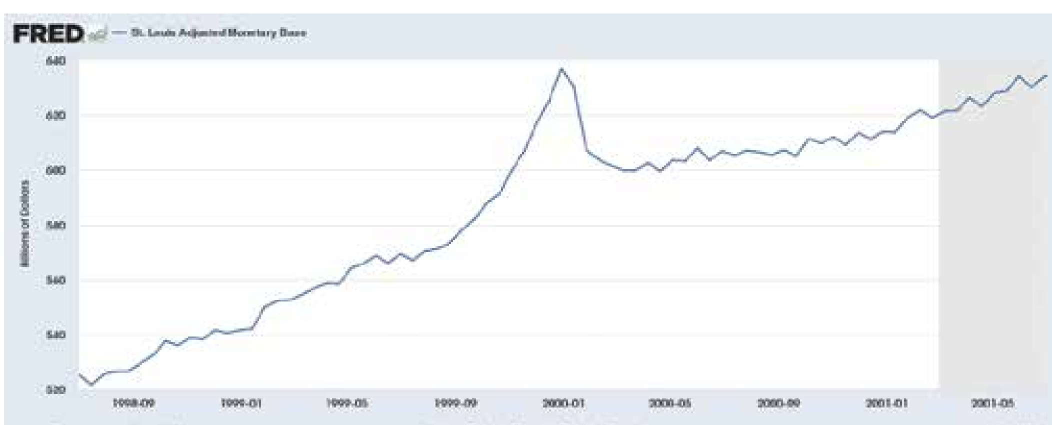
Suppose Jerome Powell announces that the new federal funds rate target will increase by 100 basis points. If the current target is 2 percent, the new target will be 3 percent. Before the Federal Reserve began to pay interest on excess reserves, this would necessarily have implied that it would reduce the rate of growth of the money stock by buying less or selling more existing government bonds. This would then impact rates in the overnight lending market, which is the object of the federal funds rate target. If investors expect that this will be the course of events, they will immediately adjust the prices of assets to reflect the future change. Banks will begin to charge more for loans and investors will be unwilling to purchase securities that do not reflect the expected increase in interest rates. It is by this process that markets play a predictive function.

Monetary authorities are not the only policy makers that impact investment decisions. Any policy change expected to affect returns on investment will have this impact. Recent comments from President Donald Trump have strongly impacted markets. A title of an article written at the start of the Trump presidency makes this clear: "Trump's 'Open-Mouth Operations' Make Twitter Key for Currency Traders." Immediately after Trump tweeted that the strong dollar was hurting the ability of the United States to compete with foreign producers, the dollar took a sharp, if brief, fall.

Unlike an announcement by Federal Reserve officials, the president's tweets do not provide a clear forecast of future policy, but rather convey a disposition. More recently, Trump tweeted that he had "authorized a doubling of Tariffs on Steel and Aluminum with respect to Turkey as their currency, the Turkish Lira, slides rapidly downward," adding, "Our relations with Turkey are not good at this time!" The tweet has been followed by further weakening of the lira against the dollar. The tweet clarified a change in policy, but the comment concerning "relations with Turkey" is open to interpretation as it is unclear in what manner the comment is intended to influence future relations with Turkey.

Whether it is the chair of the Federal Reserve or the president, policy makers have powerful influence over investors' expectations and, therefore, decisions. Concerning monetary authorities, Milton Friedman observed that "by setting itself a steady course and keeping to it, the monetary authority could make a major contribution to promoting economic stability."

Monetary authorities tend to do a good job of maintaining stable expectations, at least during periods of calm. Other policy makers would do well to apply Friedman's advice to their own actions. Weaponizing one's influence over expectations can certainly shake up a political scene, but it also serves to shake markets, the source of material prosperity. Political maneuvering has real effects on prosperity. A calming of the political climate and political rhetoric will tend to be a positive influence on economic growth at home and abroad.



## THE HIGH-YIELD DOW INVESTMENT STRATEGY

### Recommended HYD Portfolio

*As of August 15, 2018*

| | Rank | Yield (%) | Price ($) | Status | Percent of Portfolio: Value (%) | Percent of Portfolio: No. Shares (%)[1] |
|---|---|---|---|---|---|---|
| Verizon | 1 | 4.43 | 53.24 | Holding** | 26.66 | 33.30 |
| IBM | 2 | 4.36 | 143.91 | Buying | 21.07 | 9.73 |
| Exxon Mobil | 3 | 4.26 | 76.94 | Holding** | 19.88 | 17.18 |
| Chevron | 4 | 3.80 | 117.94 | Holding** | 15.44 | 8.50 |
| Proctor & Gamble | 5 | 3.49 | 82.30 | Holding | 1.67 | 1.35 |
| Pfizer | 7 | 3.30 | 41.16 | Selling | 13.90 | 22.45 |
| General Electric | NA | 3.68 | 12.22 | Holding | 1.38 | 7.48 |
| Cash (6-mo. T-Bill) | N/A | N/A | | | 0.36 | N/A |
| Totals | | | | | 100.00 | 100.00 |

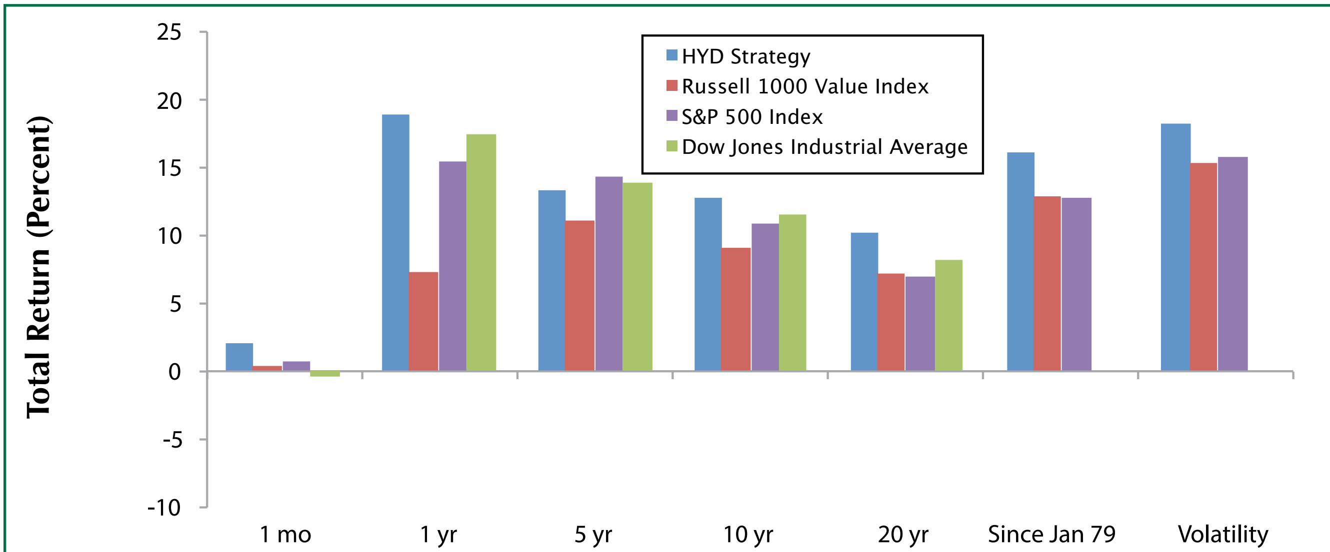
**Currently indicated purchases approximately equal to indicated purchases 18 months ago. 1 Because the percentage of each issue in the portfolio by value reflects the prices shown in the table, we are also showing the number of shares of each stock as a percentage of the total number of shares in the 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 July 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 | 1.80 | 17.64 | 12.48 | 11.93 | 9.52 | 15.09 | 17.09 |
| Russell 1000 Value Index | 0.25 | 6.77 | 10.34 | 8.49 | 6.69 | 12.02 | 14.35 |
| S&P 500 Index | 0.62 | 14.37 | 13.42 | 10.17 | 6.46 | 11.87 | 14.74 |
| Dow Jones Industrial Average | -0.49 | 16.31 | 12.96 | 10.78 | 7.60 | 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 ($)

| | *8/15/18* | *Mo. Earlier* | *Yr. Earlier* | *Prem. (%)* |
|---|---|---|---|---|
| Gold, London P.M. fixing | **1,182.00** | 1,241.70 | 1,270.30 | |
| Silver, London Spot Price | **14.83** | 15.81 | 16.89 | |
| Crude Oil, W. Texas Int. Spot | **65.07** | 71.03 | 47.55 | |
| **Coin Prices ($)[1]** | | | | |
| American Eagle (1.00) | **1,207.00** | 1,266.70 | 1,304.00 | 2.12 |
| Austrian 100-Corona (0.98) | **1,152.36** | 1,210.87 | 1,247.42 | -0.52 |
| British Sovereign (0.2354) | **278.24** | 292.30 | 301.08 | 0.00 |
| Canadian Maple Leaf (1.00) | **1,192.00** | 1,251.70 | 1,289.00 | 0.85 |
| Mexican 50-Peso (1.2056) | **1,417.02** | 1,488.99 | 1,533.96 | -0.56 |
| Mexican Ounce (1.00) | **1,200.00** | 1,259.70 | 1,297.00 | 1.52 |
| S. African Krugerrand (1.00) | **1,189.00** | 1,248.70 | 1,286.00 | 0.59 |
| U.S. Double Eagle-$20 (0.9675) | | | | |
| St. Gaudens (MS-60) | **1,250.00** | 1,280.00 | 1,250.00 | 9.31 |
| Liberty (Type I-AU50) | **2,000.00** | 2,000.00 | 3,000.00 | 74.89 |
| Liberty (Type II-AU50) | **1,325.00** | 1,325.00 | 1,325.00 | 15.86 |
| Liberty (Type III-AU50) | **1,230.00** | 1,270.00 | 1,235.00 | 7.56 |
| U.S. Silver Coins ($1,000 face value, circulated) | | | | |
| 90% Silver Circ. (715 oz.) | **11,843.50** | 12,240.50 | 12,410.00 | 11.73 |
| 40% Silver Circ. (292 oz.) | **4,821.00** | 4,821.00 | 4,866.00 | 11.37 |
| Silver Dollars Circ. | **23,250.00** | 23,250.00 | 21,750.00 | 102.77 |

[1]Note: 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 July 31, 2018

| | U.S. Stocks (Mktwd) | Foreign Dev. Stocks | Foreign Emerg. Stocks | Global REITs | U.S. Bonds | Foreign Bonds (hedged) | Gold |
|---|---|---|---|---|---|---|---|
| 1-month | 3.32% | 2.46% | 2.20% | 0.84% | 0.02% | 0.08% | -2.36% |
| | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↓ |
| 3-month | 6.93% | -0.59% | -5.52% | 5.35% | 0.61% | 0.30% | -7.03% |
| | ↑ | ↓ | ↓ | ↑ | ↑ | ↑ | ↓ |
| 1 year | 16.39% | 6.50% | 4.36% | 3.06% | -0.80% | 1.79% | -3.24% |
| | ↑ | ↑ | ↑ | ↑ | ↓ | ↑ | ↓ |
| 5 year | 12.83% | 5.64% | 5.25% | 6.34% | 2.25% | 1.71% | -1.38% |
| (annualized) | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↓ |
| 15 year | 9.68% | 7.33% | 10.42% | 7.68% | 4.00% | 2.73% | 8.62% |
| (annualized) | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| **Best and worst one-year returns, Jan. 2001 - July 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 62.

## THE DOW JONES INDUSTRIALS RANKED BY YIELD*

| | *Ticker Symbol* | *Market Prices ($) 8/15/18* | *7/13/18* | *8/15/17* | *12-Month ($) High* | *Low* | *Latest Dividend Amount ($)* | *Record Date* | *Payable Date* | *Indicated Annual Dividend ($)* | *Yield† (%)* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Verizon | VZ | 53.24 | 51.41 | 48.48 | 55.21 | 43.97 | 0.590 | 7/10/18 | 8/1/18 | 2.360 | 4.43 |
| IBM | IBM | 143.91 | 145.90 | 142.07 | 171.13 | 137.45 | 1.570 | 8/10/18 | 9/10/18 | 6.280 | 4.36 |
| Exxon Mobil | XOM | 76.94 | 83.31 | 78.04 | 89.30 | 72.16 | 0.820 | 8/13/18 | 9/10/18 | 3.280 | 4.26 |
| Chevron | CVX | 117.94 | 124.04 | 107.49 | 133.88 | 106.11 | 1.120 | 8/17/18 | 9/10/18 | 4.480 | 3.80 |
| Procter and Gamble | PG | 82.30 | 79.31 | 92.20 | 94.67 | 70.73 | 0.717 | 7/20/18 | 8/15/18 | 2.869 | 3.49 |
| Coca-Cola | KO | 46.08 | 44.74 | 46.19 | 48.62 | 41.45 | 0.390 | 9/14/18 | 10/1/18 | 1.560 | 3.39 |
| Pfizer | PFE | 41.16 | 37.53 | 33.38 | 42.77 | 33.07 | 0.340 | 8/3/18 | 9/4/18 | 1.360 | 3.30 |
| Cisco | CSCO | 43.86 | 41.78 | 32.09 | 46.43 | 30.90 | 0.330 | 7/6/18 | 7/25/18 | 1.320 | 3.01 |
| Merck | MRK | 67.37 | 62.89 | 62.50 | 70.25 | 52.83 | 0.480 | 9/17/18 | 10/5/18 | 1.920 | 2.85 |
| Johnson & Johnson | JNJ | 130.43 | 125.93 | 133.38 | 148.32 | 118.62 | 0.900 | 8/28/18 | 9/11/18 | 3.600 | 2.76 |
| 3M Company | MMM | 201.39 | 201.18 | 207.18 | 259.77 | 190.57 | 1.360 | 8/24/18 | 9/12/18 | 5.440 | 2.70 |
| Caterpillar | CAT | 132.02 | 140.75 | 113.65 | 173.24 | 114.30 | 0.860 | 7/20/18 | 8/20/18 | 3.440 | 2.61 |
| Walgreen's | WBA | 68.73 | 65.17 | 81.13 | 83.89 | 59.07 | 0.440 | 8/20/18 | 9/12/18 | 1.760 | 2.56 |
| Intel Corp | INTC | 47.46 | 52.22 | 36.00 | 57.60 | 34.38 | 0.300 | 8/7/18 | 9/1/18 | 1.200 | 2.53 |
| McDonald's | MCD | 159.88 | 158.51 | 157.62 | 178.70 | 146.84 | 1.010 | 9/4/18 | 9/18/18 | 4.040 | 2.53 |
| Travelers | TRV | 128.77 | 126.63 | 129.05 | 150.55 | 113.76 | 0.770 | 9/10/18 | 9/28/18 | 3.080 | 2.39 |
| Wal-Mart Stores | WMT | 90.22 | 87.70 | 80.77 | 109.98 | 77.50 | 0.520 | 12/7/18 | 1/2/19 | 2.080 | 2.31 |
| DowDupont | DWDP | 66.46 | 66.36 | 81.58 | 77.08 | 61.27 | 0.380 | 8/31/18 | 9/14/18 | 1.520 | 2.29 |
| United Tech. | UTX | 131.75 | 129.51 | 115.26 | 139.24 | 109.10 | 0.700 | 8/17/18 | 9/10/18 | 2.800 | 2.13 |
| Home Depot, Inc. | HD | 193.99 | 198.69 | 150.17 | 207.61 | 147.43 | 1.030 | 8/30/18 | 9/13/18 | 4.120 | 2.12 |
| Boeing | BA | 331.76 | 350.79 | 239.17 | 374.48 | 234.29 | 1.710 | 8/10/18 | 9/7/18 | 6.840 | 2.06 |
| J P Morgan | JPM | 113.70 | 106.36 | 92.73 | 119.33 | 88.08 | 0.560 | 7/6/18 | 7/31/18 | 2.240 | 1.97 |
| Microsoft Corp. | MSFT | 107.66 | 105.43 | 73.22 | 111.15 | 72.05 | 0.420 | 8/16/18 | 9/13/18 | 1.680 | 1.56 |
| Walt Disney | DIS | 112.85 | 110.00 | 101.51 | 117.90 | 96.20 | 0.840 | 7/9/18 | 7/26/18 | 1.680 | 1.49 |
| Goldman Sachs | GS | 229.25 | 226.41 | 227.59 | 275.31 | 214.64 | 0.800 | 8/30/18 | 9/27/18 | 3.200 | 1.40 |
| Apple | AAPL | 210.24 | 191.33 | 161.60 | 219.18 | 149.16 | 0.730 | 8/13/18 | 8/16/18 | 2.920 | 1.39 |
| Unitedhealth Group | UNH | 260.61 | 258.70 | 194.50 | 264.30 | 186.00 | 0.900 | 9/7/18 | 9/18/18 | 3.600 | 1.38 |
| American Express | AXP | 101.51 | 100.50 | 86.79 | 106.06 | 84.02 | 0.350 | 7/6/18 | 8/10/18 | 1.400 | 1.38 |
| Nike | NKE | 79.57 | 77.38 | 58.56 | 83.67 | 50.35 | 0.200 | 9/4/18 | 10/1/18 | 0.800 | 1.01 |
| Visa Inc. | V | 139.92 | 139.42 | 102.47 | 143.14 | 102.26 | 0.210 | 8/7/18 | 9/4/18 | 0.840 | 0.60 |

* See the Recommended HYD Portfolio table on page 62 for current recommendations. † Based on indicated dividends and market price as of 8/15/18. Extra dividends are not included in annual yields. All data adjusted for splits and spin-offs. 12-month data begins 8/15/17.

## ASSET CLASS INVESTMENT VEHICLES

| Data as of July 31, 2018 | | Security Symbol(s) (1) Mutual Fund | Security Symbol(s) (1) ETF | Avg. Market Cap / Avg. Maturity | Number of Holdings | Expense Ratio (%) | Turnover (%) | Price-to-Book Ratio | Trailing 12-Mo. Yield (%) | Annualized Returns (%) 1-Year | Annualized Returns (%) 3-Year | Annualized Returns (%) 5-Year | Tax Cost Ratio - 3 Years (%) (3) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fixed Income** | | | | | | | | | | | | | |
| Short-Term Bonds | Vanguard Short-Term Bond | VBISX | BSV | 2.80 yrs | 2531 | 0.15 | 50 | | 1.76 | -0.67 | 0.62 | 0.90 | 0.68 |
| Short-Term Bonds | SPDR Portfolio Short Term Corp Bd ETF | | SPSB | 2.03 yrs | 1086 | 0.07 | 67 | | 2.07 | 0.38 | 1.34 | 1.30 | 0.76 |
| Short-Term Bonds | iShares 1-3 Year Treasury Bond ETF | | SHY | 2.01 yrs | 71 | 0.15 | 85 | | 1.31 | -0.35 | 0.25 | 0.41 | 0.39 |
| Interm-Term | Vanguard Total Bond Market | VBMFX | BND | 8.40 yrs | 17471 | 0.15 | 55 | | 2.58 | -0.97 | 1.33 | 2.06 | 1.09 |
| Interm-Term | iShares Core US Aggregate Bond ETF | | AGG | 8.22 yrs | 6842 | 0.05 | 252 | | 2.47 | -0.90 | 1.39 | 2.18 | 1.04 |
| Tax-Exempt | Vanguard Ltd-Term Tax-Exempt | VMLTX | | 2.90 yrs | 4932 | 0.19 | 19 | | 1.67 | 0.39 | 1.13 | 1.30 | 0.05 |
| Tax-Exempt | SPDR Nuveen Blmbg Barclays ST MunBd ETF | | SHM | 3.04 yrs | 1421 | 0.20 | 32 | | 1.12 | -0.37 | 0.61 | 0.88 | 0.00 |
| Tax-Exempt | Vanguard Interm-Term Tx-Ex Inv | VWITX | | 5.50 yrs | 7665 | 0.19 | 15 | | 2.77 | 0.54 | 2.25 | 3.17 | 0.07 |
| Inflation-Protected | iShares TIPS Bond ETF | | TIP | 8.31 yrs | 40 | 0.20 | 32 | | 2.64 | 1.00 | 1.52 | 1.28 | 0.74 |
| Inflation-Protected | Vanguard Inflation-Protected Securities | VIPSX | | 8.40 yrs | 40 | 0.20 | 22 | | 3.07 | 0.72 | 1.45 | 1.25 | 0.86 |
| International | Vanguard Total International Bond | VTIBX | BNDX | 9.40 yrs | 4932 | 0.13 | 19 | | 2.20 | 2.88 | 2.98 | 3.72 | 0.78 |
| **Real Estate (REITs)** | | | | | | | | | | | | | |
| U.S. REITs | Vanguard REIT | VGSIX | VNQ | 12.04 B | 189 | 0.26 | 6 | 2.31 | 3.44 | 1.64 | 5.70 | 7.74 | 1.34 |
| U.S. REITs | SPDR Dow Jones REIT | | RWR | 11.92 B | 102 | 0.25 | 9 | 2.29 | 2.99 | 3.62 | 5.55 | 7.94 | 1.54 |
| Int'l REITs | Vanguard Global ex-US Real Estate (2) | VGXRX | VNQI | 6.19 B | 627 | 0.34 | 6 | 0.98 | 4.66 | 5.37 | 6.39 | 5.78 | 1.54 |
| Int'l REITs | iShares International Developed Property | | WPS | 6.77 B | 376 | 0.48 | 11 | 0.96 | 4.56 | 6.00 | 5.81 | 6.00 | 1.60 |
| Global (incl. U.S.) | SPDR Dow Jones Global Real Estate ETF | | RWO | 9.52 B | 231 | 0.50 | 13 | 1.53 | 3.46 | 3.48 | 4.16 | 6.08 | 1.45 |
| **U.S. Stocks** | | | | | | | | | | | | | |
| Large Cap (blend) | Vanguard S&P 500 | VFINX | VOO | 100.40 B | 515 | 0.14 | 3 | 2.94 | 1.68 | 16.09 | 12.37 | 12.96 | 0.57 |
| Large Cap (blend) | iShares Core S&P 500 | | IVV | 101.28 B | 509 | 0.04 | 4 | 2.95 | 1.79 | 16.21 | 12.46 | 13.07 | 0.54 |
| Large Cap (blend) | iShares Russell 1000 ETF | | IWB | 77.25 B | 990 | 0.15 | 4 | 2.91 | 1.63 | 16.08 | 12.05 | 12.83 | 0.50 |
| Large Cap Value | Vanguard Value | VIVAX | VTV | 91.20 B | 342 | 0.17 | 9 | 2.16 | 2.23 | 13.47 | 11.54 | 11.38 | 0.72 |
| Large Cap Value | iShares Russell 1000 Value | | IWD | 57.93 B | 732 | 0.20 | 15 | 1.90 | 2.15 | 9.34 | 9.30 | 9.83 | 0.62 |
| Small Cap (blend) | iShares Core S&P Small-Cap ETF | | IJR | 1.76 B | 604 | 0.07 | 12 | 2.18 | 1.13 | 23.22 | 15.34 | 13.77 | 0.40 |
| Small Cap (blend) | Schwab US Small-Cap ETF | | SCHA | 2.80 B | 1736 | 0.05 | 11 | 2.16 | 1.16 | 17.11 | 10.96 | 11.21 | 0.44 |
| Small Cap Value | Vanguard Small Cap Value | VISVX | VBR | 3.63 B | 872 | 0.19 | 19 | 1.85 | 1.73 | 14.15 | 11.49 | 11.36 | 0.67 |
| Small Cap Value | iShares Russell 2000 Value | | IWN | 1.70 B | 1363 | 0.24 | 23 | 1.44 | 1.66 | 14.21 | 12.84 | 10.08 | 0.61 |
| Small Cap Value | iShares Micro-Cap | | IWC | 0.51 B | 1442 | 0.60 | 22 | 1.86 | 0.97 | 20.78 | 11.75 | 11.08 | 0.38 |
| Marketwide | Vanguard Total Stock Market | VTSMX | VTI | 56.38 B | 3658 | 0.14 | 3 | 2.82 | 1.55 | 16.36 | 12.08 | 12.68 | 0.63 |
| Marketwide | Fidelity Total Market Index | FSTMX | | 56.66 B | 3402 | 0.09 | 2 | 2.81 | 1.56 | 16.36 | 12.12 | 12.71 | 0.91 |
| **Foreign Stocks** | | | | | | | | | | | | | |
| Developed Markets | Vanguard FTSE Developed Markets ETF | VDVIX | VEA | 22.69 B | 3896 | 0.17 | 3 | 1.52 | 2.88 | 6.55 | 5.93 | n/a | 0.78 |
| Developed Markets | iShares Core MSCI EAFE ETF | | IEFA | 23.48 B | 2529 | 0.08 | 2 | 1.56 | 2.90 | 6.75 | 5.96 | 6.49 | 0.73 |
| Emerging Markets | Vanguard Emerging Markets Stock | VEIEX | VWO | 19.88 B | 4094 | 0.32 | 6 | 1.59 | 2.33 | 3.90 | 6.93 | 4.58 | 0.81 |
| Emerging Markets | Schwab Emerging Markets Equity ETF | | SCHE | 30.55 B | 962 | 0.13 | 7 | 1.56 | 2.41 | 5.06 | 8.02 | 5.22 | 0.68 |
| **Gold-Related Funds** | | | | | | | | | | | | | |
| Gold ETFs | iShares Gold Trust | | IAU | | | 0.18 | | | 0.00 | n/a | n/a | n/a | 0.00 |
| Gold ETFs | SPDR Gold Shares | | GLD | | | 0.20 | | | 0.00 | n/a | 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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