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* See page 94 for representative indexes.

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## Interest Rates and the Fed -- An Update

On December 16, the Federal Open Market Committee (FOMC) announced its decision to increase the federal funds target rate from its targeted range of $0.25 \%-0.50 \%$, to $0.50 \%$ $0.75 \%$.

The move marked the first increase since the previous December. Analysts at the time had predicted that the Fed would follow up with multiple increases throughout the year and that interest rates in general would rise. But these forecasts proved to be wrong. Rates have varied considerably over the past 12 months, and yields on intermediate and longer term bonds actually fell through the first six months.

Rates across the yield curve began increasing at the beginning of the fourth quarter. The rise may have been in anticipation of the Fed's recent announcement, based on previous signals from its members. On the other hand, the FOMC is influenced by capital market changes, so the direction of cause and effect is difficult to assess.

We are skeptical of any particular analysis that claims to unravel the mystery of interest rate fluctuations. We assert only that lenders and borrowers estimate the likelihood of outcomes based on publicly available information, and that their collective expectations are reflected in current interest rates.

Where does this leave the household investor? Investors in need of income should take care when extending the maturity of their fixed income holdings, or when assuming greater credit risk. The asset classes we recommend include intermediate-term and investment-grade bonds as well as income-generating equities. We hasten to remind our readers that cash flow need not be derived from interest payments or dividends. Equities are purchased in anticipation of capital appreciation, so it is entirely appropriate to liquidate stocks or equity mutual funds in order to cover expenses.

At the end of May 2016, the S\&P 500 sat at an all-time high (all data in this article use the S\&P 500 total return index inclusive of reinvested dividends at month end). The Index touched a new all-time high in June, and again in July. We heard repeatedly from investors who wanted to know whether they should invest at these all-time highs, or wait for a market pullback. As always, we responded that we could not predict the future, but that the present was as good a time as any for long-term investors to get started. New stock market highs are nothing new, and there's little gain to be had by "waiting on the sidelines", especially with cash in a bank account earning one percent or less.

Several months later, stock markets, especially U.S. stocks, continue to grind higher as the Index hit new highs in November and again in December, defying experts who had asserted that a reversal was imminent. Just prior to the presidential election, Citigroup's chief economist wrote: "A Trump victory in particular could prolong and perhaps exacerbate policy uncertainty and deliver a shock (though perhaps short-lived) to financial markets."

Questions about whether this growth can be sustained are percolating more rapidly than ever. Investors want to know, "Will there be a correction?"

## Falling Valuations: Nothing New

In our view, terms such as "correction", "bull market", "bear market", "bubble", etc. are confusing because they are not defined in specific, measurable terms. We generally avoid loose Wall Street nomenclature in favor of naming conventions well-defined by economists. The term "correction" is particularly inappropriate as it asserts that free markets have failed to price assets correctly to begin with.

More importantly, however, the timing of the next significant stock market decline is unknown. We are confident that there will be another significant decline but it is impossible to predict when it will take place.

For purposes of this analysis we will assess market declines of 10 percent or more. ${ }^{1}$ The last decline greater than 10 percent was in 2011, when the market dropped by 16.3 percent between April

| Recent Notable Stock Market Declines <br> Start Date |  |  |
| :--- | :--- | :---: |
| End Date | Total Correction |  |
| August 2000 | September 2001 | $-30.5 \%$ |
| March 2002 | September 2002 | $-28.4 \%$ |
| October 2007 | March 2008 | $-13.8 \%$ |
| May 2008 | February 2009 | $-46.4 \%$ |
| April 2010 | June 2010 | $-12.8 \%$ |
| April 2011 | September 2011 | $-16.3 \%$ |
| July 2015 | September 2015 | $-8.4 \%$ |
| Sor |  |  |

Source: Data are S\&P 500 total return index data, inclusive of reinvested dividends, at month end. Data are from DFA Returns 2.0 program.
and September. Although it did not meet these criteria, there was also a recent decline of 8.4 percent between July 2015 and September 2015.

There have been six double digit market declines since the end of 1999, including two severe reversals of 30.5 percent and 46.4 percent (see table nearby). If you were the worst investor in the world and you managed to be invested only during those six episodes, your $\$ 100$ would be worth just under \$17 today.

However, if you were the "simplest" investor in the world and you had simply invested \$100 in the S\&P 500 at the beginning of January 2000, and maintained that position through the end of November 2016, your savings would have grown to about $\$ 228$ (reinvesting all dividends and absent any fees). You'd have more than doubled your investment in spite of all of those unsettling periods. You could have pursued this with simple funds such as the Vanguard S\&P 500 ETF (VOO) or the SPDR S\&P 500 ETF (SPY). The low-cost equity ETFs and mutual funds provided in our recommended investment vehicles on page 96 provide the building blocks for even betterdiversified strategies.

Investors frequently ponder whether they should "wait for the correction" to get into the market. In a perfect world, we would know when the decline was coming. But in the real world, there is no way to predict it. The problem with waiting is that the "bottom" becomes apparent only after the market is on its way to recovery.

We know of investors who have been waiting for a big market decline since 2011, who were convinced that
stocks at the time were "overvalued."
They've been sitting with cash in their bank accounts earning next to nothing for five years while the stock market has doubled. Such investors should not be discouraged. As long as their time horizon is sufficiently long, there is still opportunity to get invested now with confidence that the power of capital markets will ultimately vanquish any regrets.

## What Can Anxious Investors Do?

Investor's fearful of a market pullback need not, and very often should not, simply wait out the storm; there are prudent actions that can be taken. First, investors may choose to "re-balance" their portfolios to target allocations more frequently. Rebalancing is a necessary technique for controlling volatility. But the act itself, selling asset classes that have appreciated while buying those that have underperformed, can also create the feeling of "locking in" some of those gains. Currently, it's likely that investors looking to re-balance would be selling U.S. equities, while buying bonds, international equities, and gold. For many, these small adjustments provide an important, and warranted, sense of control. Many people are just satisfied to know that they've done something.

If re-balancing to target allocations does not relieve your concerns, it may be time to consider a more conservative portfolio. Although disciplined selection and maintenance of a portfolio over the long term is the most critical component of investment success, life circumstances change. Investors who have reached a point at which where they cannot
tolerate a market correction, possibly because they have recently retired or are more reliant on their savings for income, may consider something more conservative. Note that this course of action should not be taken lightly empirical evidence shows that investors who move in and out of markets are likely to underperform those that stay put. However, for investors who find themselves unable to sleep at night or
who nervously check their portfolios every day, a more conservative allocation may remove some behavioral obstacles to successful investing.

This may mean a modest decrease in allocation to stocks and a modest increase in allocation to bonds. To repeat, we are not advocating a portfolio alteration based some anticipated change in the market - that would be a mistake. But your portfolio should reflect
your current life circumstances. Investors who realize they have grown more sensitive to market volatility, perhaps because they've entered a later stage in life, may consider making a modest onetime adjustment to allay their concerns. As always, please feel free to call our advisors at 413-528-1216 if you think now is a good time to discuss your financial situation.

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## THE ART OF THE SOUNDBITE

In the article on page 93 we have reprinted a quote all too typical of "forecasts" that emanate from Wall Street and money managers in general:
"A Trump victory in particular could prolong and perhaps exacerbate policy uncertainty and deliver a shock (though perhaps short-lived) to financial markets."

We have no quarrel with those who seek to forecast markets; there are many sincere researchers who never seem to tire from the attempt (despite Einstein's famous admonition ${ }^{1}$ ). But we do not endorse the practice; as empiricists we submit that it is simply not possible to distinguish luck from skill in this regard.

More troubling, and a little humorous, is the "qualified" nature of the statements of self-proclaimed experts that captivate journalists in need of a quick, seemingly erudite prediction from an "expert."

Let us dissect the words in bold-face type in the quote above:

Could: Synonym of "may", but definitely not "will."

Prolong: An indefinite measure telling us nothing practical (How long? From when? Until when?)

Perhaps: Just to further qualify the "could" above, definitely not definite and certainly not certain.

Exacerbate policy uncertainty: The narrative asserts that markets are waiting for certainty before moving, even though there is never certainty in markets.

Shock: We'll assume that it's a negative shock, as opposed to a positive one.

Perhaps short-lived: In case the above qualifiers weren't enough, he wants you to know that even if everything we think might happen actually does, it might not
last long.
With this quote, Mr. Citigroup seeks to establish himself as a winner, regardless of the outcome. As it happens there was indeed a "shock" as markets took a hit that lasted not even as long as the next morning. He's therefore not wrong. However, investors who didn't pay much attention to markets during the period found themselves better off in the days and weeks that followed.

We are puzzled as to why journalists aggressively pursue politicians who fail to fulfill their promises, but never seem to follow up on the failed forecasts made by financial analysts, even ones they quote.

Individual investors are increasingly being won over by factor-based investing, while rejecting market timers and stock pickers. Perhaps one day the financial media will follow suit.

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## THE BACK PAGE EXPLAINED

From time to time we provide readers with a summary description of our "back page", which provides data pertaining to the specific investment vehicles we recommend for each of our recommended asset classes. Please note: Investment Guide subscribers have access to a "subscriber only" section of our website, www.americaninvestment. com, where interested readers can find a more comprehensive list of funds and additional selection criteria. Much of this information is not listed on the back page
due to space constraints.
We review investment vehicles to ensure that we are recommending, within each asset class, the best funds available. Our process is completely independent - we select from the universe of over 7,000 mutual funds and exchange-traded funds. From our perspective, this is an ongoing "horse race" in which we have no favorites. Our valuation is completely objective and based solely on strict, measurable criteria.

For each asset class we have recommended at least one open-end mutual fund and one exchange-traded fund (ETF). ETFs may be preferred by readers who hold their assets through a broker, while the open-end funds might be more suitable for readers who prefer to invest directly with a mutual fund family. Investors should consider the relative costs of ETFs versus mutual funds (commissions, spreads, and expense ratios).
(Continued Next Page)

## Our Criteria

> The Average Market Cap statistic
provides the average market capitalization of the underlying stocks held in each fund.

This statistic is important among equities because small cap stocks have historically tended to provide higher long-term returns than large cap stocks, though their returns are more volatile. For example, the average holding in the iShares Russell Microcap Index has a market cap of only $\$ 0.4$ billion while the average holding in the Vanguard Value Index is $\$ 137.9$ billion - a clear difference between the funds.

Size is also important with respect to the total dollar value of assets managed by a fund. Funds with more assets may provide economies of scale in their operations. Greater efficiency in management and trading is passed on to investors in the form of higher net returns. Additionally, many funds liquidate or are merged because they fail to generate sufficient investor interest. "Start-up" funds deserve especially close scrutiny. We avoid recommending funds until we are convinced they have reached a threshold that suggests they can be run cost-effectively and that they have "staying power."
> Fixed income funds are recommended as a means of offsetting the volatility inherent in equities. The average maturity of a fund is important because, other things equal, long-term bonds and bond funds are more interest rate sensitive (i.e. less volatile) than short-term bonds and bond funds. The Average Maturity statistic provides the average maturity of each fixed income fund we recommend.
> Most of the funds we recommend attempt to replicate the performance of a particular commercial index. Any index used should be capital-ization-weighted and include an adequate number of securities to ensure that it will capture the risk profile of the targeted asset class, and eliminate company-specific
and industry-specific risk (for which investors are not compensated with higher returns). The Number of
Holdings is therefore provided for each of our recommended funds.
> In order to meet one's financial objectives, investment related costs must be monitored closely. The Expense Ratio column provides each fund's annual operating expenses divided by the average dollar value of the assets invested in the fund. For index funds, these expenses typically include recordkeeping, custodial services, taxes, and legal, accounting and auditing fees.
> The Turnover Ratio is the percentage of each fund's holdings that have been replaced (or "turned over") with other holdings within the preceding 12 months. Turnover is a gauge of trading activity. It provides some insight regarding trading costs; these implicit costs are not included in the fund's expense ratio. High turnover can also indicate high capital gains taxes which are directly related to frequency of trading. Investors in taxable accounts should consider turnover and after-tax returns in their fund selection.
> The Price/Book Ratio is calculated by dividing a stock's closing market price per share by the company's most recent book value per share. We have listed the average price/ book ratio of the stocks held by each of our recommended funds. The market assigns lower prices to distressed (value) stocks compared to growth stocks; this results in lower price/book ratios for these relatively risky stocks.
> Financial assets provide returns through capital appreciation as well as through investment income (interest and dividends). 12 Month Yield provides a measure of income return for each fund. It is calculated by dividing the sum of the trailing twelve months' income distributions by the sum of the last month's ending Net Asset Value and any capital gains distributed over the trailing
twelve months.
> The Rate of Return of a fund includes interest, capital gains, dividends and distributions realized over each time period listed. Return is calculated by subtracting investment value at the beginning of period from the sum of the fund's end of period value and its income and capital gain distributions. This return is expressed as a percentage gain or loss over the initial investment.
> The After Tax Rate of Return is calculated using the tax liability of each fund's declared distribution, assuming that the investor does not sell the fund shares at the time specified and assuming the highest tax brackets at each time of distribution.

The criteria described here and those presented on our website are only a few of the criteria we consider when recommending funds for our readers and clients. Other factors, such as a fund's inception date and the extent to which a fund engages in securities lending are weighed carefully. Other, more intangible considerations include factors such as the reputation of a fund family with respect to investor services and web site access.

Finally, we would like to apologize for publishing the wrong security symbols for several funds last month, and thank those readers that brought it to our attention. We have corrected the table this month.

## AIS PREDICTIONS FOR THE YEAR

As 2016 comes to a close we seize the opportunity to dispel the myth that AIS does not make predictions. In fact we offer six prognoses for our readers' consideration:

1. Stocks will go up...and down. Markets go up and down daily. For every buyer, there is a seller. Even during periods of stock market strength, there are negative stretches. Likewise, amidst downturns there are upswings. Since 1979, the longest consecutive streak of positive monthly returns was ten, running from December 1994 through September 1995. There is not likely to be a year with uninterrupted growth in the stock market.

Historically, stock markets look more universally favorable when viewed over longer periods-think ten years or more-but we should certainly expect that markets will go up and down in the short term. Long-term investors should consider buying stocks and riding out the turbulence. Those who need to access their money in the next few years should consider something more predictable.
2. January's returns will not predict the rest of the year. There is an adage that never quite seems to die: "As goes January, so goes the year." Yet the old saw appears quite dull. In January 2016 the stock market fell 5 percent, but the market appears poised to finish the full year with a gain of more than 10 percent (all returns data include the reinvestment of dividends and assume no fees). It was the third year in a row that January saw a market pullback, only to be reversed during the rest of the year. Going back to January 2009, the market fell more than 8 percent during the first month only to finish up 26 percent for the full year. Don't let one month dictate how you invest for the long term.
3. Specific predictions by "experts" will be more hazardous than helpful. According to a recent New York Times article, Wall Street strategists' predictions are themselves, well,
predictable. Since 2000, the average annual prediction for stock market growth has been positive every year with forecasts calling for growth between 7 and 12 percent. Yet the market actually declined in five of those years and was flat in a sixth. According to statistician Salil Mehta, if you simply took the average historical return and added a randomly generated number to it, you would be better at predicting the stock market than the consensus of experts. In other words, monkeys with darts would be about as accurate.
4. International markets will provide returns that differ from U.S. market returns and foreign emerging markets results will vary from those in foreign developed markets. Similarly, returns from small caps will differ from those of large caps and value stock returns will diverge from growth. You get the idea. Some experts will guess that emerging markets will outperform, or Europe will underperform, or that U.S. stocks are the place to be. Some will be right and some will be wrong. Different markets and asset classes deliver divergent performance, but all offer positive expected returns over time. It's the central idea of diversification.
5. Come year-end, statistically challenged journalists will hail those who guessed correctly (see \#4, above) as skilled prognosticators.
6. Oil prices will change, labor market results will fluctuate, geopolitical events will arise, global economies will do better and worse than expected, the Fed will have meetings and perhaps raise interest rates. All will serve as fodder for the financial media to explain why the market fell or rose throughout the year.

Markets fluctuate, and people buy and sell for any number of reasons. People sell stock to remodel their kitchen, send their kids to college, pay medical bills, or just because they don't feel like investing anymore. There is an entire industry dedicated to analyzing the broad market movements every
day. It's easy to ascribe a narrative to price fluctuations after the fact, but it's impossible to truly assess the impact of millions of market participants on a daily basis.

The narrative at the end of the 2017 will look well-reasoned, but it won't tell the whole story. Stick to your plan and, except perhaps for entertainment value, ignore those who seek to foretell the market's inevitable fluctuations.

We wish you a happy and prosperous New Year!

"But sir, many analysts consider this only a long-overdue correctional movement, following which the market will resume its upward course, with a rally expected to penetrate previous Dow-Jones highs by the year's end."

## THE HIGH-YIELD DOW INVESTMENT STRATEGY

## Recommended HYD Portfolio



|  | Rank |
| :--- | :---: |
| Verizon | 1 |
| Pfizer | 2 |
| Boeing | 3 |
| Chevron | 4 |
| Cisco | 5 |
| IBM | 7 |
| Exxon Mobil | 8 |
| Caterpillar | 9 |
| McDonald's | 11 |
| Cash (6-mo. T-Bill) | N/A |

Totals
Yield (\%)
4.46
3.91
3.69
3.69
3.40
3.33
3.30
3.26
3.07
N/A
${ }^{* *}$ 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, 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).

|  | 1 mo . | 1 yr . | 5 yrs . | 10 yrs . | $\underline{20 \mathrm{yrs}}$ | Since Jan 79 | Volatility (Std. Dev.) since 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HYD Strategy | 7.47 | 24.29 | 16.80 | 8.68 | 10.47 | 15.28 | 17.31 |
| Russell 1000 Value Index | 5.71 | 12.02 | 14.69 | 5.70 | 8.12 | 12.15 | 14.57 |
| S\&P 500 Index | 3.70 | 8.06 | 14.45 | 6.89 | 7.47 | 11.68 | 14.98 |
| Dow Jones Industrial Average | 5.88 | 10.91 | 12.51 | 7.38 | 7.97 | 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.

[^3]RECENT MARKET STATISTICS

| Precious Metals \& Commodity |  |  |  |
| :--- | ---: | ---: | ---: |
|  | Prices (\$) |  |  |
|  | $\mathbf{1 2 / 1 5 / 1 6}$ | 11/15/16 | 12/15/15 |
| Gold, London p.m. fixing | $\mathbf{1 , 1 2 6 . 9 5}$ | $1,226.95$ | $1,061.50$ |
| Silver, London Spot Price | $\mathbf{1 6 . 1 4}$ | 17.00 | 13.74 |
| Copper, COMEX Spot Price | $\mathbf{2 6 0 . 0 5}$ | 251.45 | 205.10 |
| Crude Oil, W. Texas Int. Spot | $\mathbf{5 0 . 9 0}$ | 45.81 | 37.35 |
| Bloomberg Commodity Spot Index | $\mathbf{3 3 1 . 5 4}$ | 316.37 | 267.95 |
| Bloombers Commodity Index | $\mathbf{8 6 . 8 4}$ | 83.28 | 77.58 |
| Reuters-Jefferies CRB Index | $\mathbf{1 9 0 . 4 8}$ | 183.08 | 174.23 |


| Securities Markets |  |  |  |
| :--- | ---: | ---: | ---: |
|  | $\mathbf{1 2 / 1 5 / 1 6}$ | $11 / 15 / 16$ | $12 / 15 / 15$ |
| S \& P 500 Stock Composite | $\mathbf{2 , 2 6 2 . 0 3}$ | $2,180.39$ | $2,043.41$ |
| Dow Jones Industrial Average | $\mathbf{1 9 , 8 5 2 . 2 4}$ | $18,923.06$ | $17,524.91$ |
| Barclays US Agg Credit Index | $\mathbf{2 , 6 6 2 . 6 3}$ | $2,693.26$ | $2,550.17$ |
| Nasdaq Composite | $\mathbf{5 , 4 5 6 . 8 5}$ | $5,275.62$ | $4,995.36$ |
| Financial Times Gold Mines Index | $\mathbf{1 , 2 4 6 . 8 5}$ | $1,438.60$ | 866.59 |
| FT EMEA (African) Gold Mines | $\mathbf{1 , 2 5 5 5 . 4 2}$ | $1,486.77$ | $1,019.47$ |
| FT Asia Pacific Gold Mines | $\mathbf{6 , 8 7 5 . 0 0}$ | $8,185.59$ | $4,812.12$ |
| FT Americas Gold Mines | $\mathbf{9 9 0 . 4 4}$ | $1,124.90$ | 655.63 |

## Coin Prices (\$)

|  | 12/15/16 | Mo. Earlier | Yr. Earlier | Prem (\%) |
| :--- | ---: | :---: | ---: | :---: |
| American Eagle (1.00) | $\mathbf{1 , 2 0 8 . 6 0}$ | $1,304.10$ | $1,111.90$ | 7.25 |
| Austrian 100-Corona (0.9803) | $\mathbf{1 , 1 4 3 . 1 5}$ | $1,236.74$ | $1,056.38$ | 3.48 |
| British Sovereign (0.2354) | $\mathbf{2 7 9 . 0 3}$ | 301.51 | 264.27 | 5.18 |
| Canadian Maple Leaf (1.00) | $\mathbf{1 , 1 9 3 . 6 0}$ | $1,283.10$ | $1,095.90$ | 5.91 |
| Mexican 50-Peso (1.2057) | $\mathbf{1 , 4 0 5 . 6 9}$ | $1,520.82$ | $1,289.11$ | 3.45 |
| Mexican Ounce (1.00) | $\mathbf{1 , 1 9 7 . 6 0}$ | $1,293.10$ | $1,095.90$ | 6.27 |
| S. African Krugerrand (1.00) | $\mathbf{1 , 1 8 2 . 6 0}$ | $1,278.10$ | $1,096.90$ | 4.94 |
| U.S. Double Eagle-\$20 (0.9675) |  |  |  |  |
| St. Gaudens (MS-60) | $\mathbf{1 , 2 2 0 . 0 0}$ | $1,295.00$ | $1,145.00$ | 11.89 |
| Liberty (Type I-AU50) | $\mathbf{3 , 0 0 0 . 0 0}$ | $2,000.00$ | $2,150.00$ | 175.15 |
| Liberty (Type II-AU50) | $\mathbf{1 , 3 2 5 . 0 0}$ | $1,325.00$ | $1,375.00$ | 21.52 |
| Liberty (Type III-AU50) | $\mathbf{1 , 2 0 5 . 0 0}$ | $1,280.00$ | $1,135.00$ | 10.52 |
| U.S. Silver Coins (\$1,000 face value, circulated) |  |  |  |  |
| 90\% Silver Circ. (715 oz.) | $\mathbf{1 2 , 5 9 1 . 0 0}$ | $13,731.00$ | $11,365.00$ | 9.11 |
| 40\% Silver Circ. (292 oz.) | $\mathbf{4 , 9 4 1 . 0 0}$ | $5,411.00$ | $4,045.00$ | 4.84 |
| Silver Dollars Circ. | $\mathbf{2 1 , 7 5 0 . 0 0}$ | $21,750.00$ | $20,250.00$ | 74.20 |

Note: Premium reflects percentage difference between coin price and value of metal in a coin, with gold at $\$ 1,126.95$ per ounce and silver at $\$ 16.14$ per ounce. The weight in troy ounces of the precious metal in coins is indicated in parentheses.
**Note: As of $4 / 15 / 2016$, the source for the exchange rates has changed to Bloomberg.

## THE DOW JONES INDUSTRIALS RANKED BY YIELD*

|  | Ticker |  | Market Prices (\$) |  |  |  |  | Latest Dividend |  |  | Indicated |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 12-Month (\$) |  | Amount | Record | Payable | Annual | Yield $\dagger$ |
|  | Symbol |  | 12/15/16 | 11/15/16 | 12/15/15 | High | Low | (\$) | Date | Date Did | Dividend | \$) (\%) |
| Verizon | VZ |  | 51.81 | 47.37 | 45.55 | 56.95 | 43.79 | 0.578 | 1/10/2017 | 2/1/2017 | 2.310 | 4.46 |
| Pfizer | PFE | I | 32.75 | 32.23 | 32.26 | 37.39 | 28.25 | 0.320 | 2/3/2017 | 3/1/2017 | 1.280 | 3.91 |
| Boeing | BA | I | 153.77 | 148.11 | 146.53 | 160.07 H | 102.10 | 1.420 | 2/10/2017 | 3/3/2017 | 5.680 | 3.69 |
| Chevron | CVX |  | 117.05 | 108.96 | 92.76 | 118.99 H | 75.33 | 1.080 | 11/18/2016 | 12/12/2016 | 64.320 | 3.69 |
| Cisco | CSCO |  | 30.63 | 31.70 | 26.85 | 31.95 | 22.46 | 0.260 | 1/6/2017 | 1/25/2017 | 1.040 | 3.40 |
| Coca-Cola | KO |  | 41.55 | 41.44 | 43.07 | 47.13 | 39.88 L | 0.350 | 12/1/2016 | 12/15/2016 | 61.400 | 3.37 |
| IBM | IBM |  | 168.02 | 158.67 | 137.79 | 169.95 H | 116.90 | 1.400 | 11/10/2016 | 12/10/2016 | 65.600 | 3.33 |
| Exxon Mobil | XOM |  | 90.89 | 86.82 | 79.43 | 95.55 | 71.55 | 0.750 | 11/10/2016 | 12/9/2016 | 3.000 | 3.30 |
| Caterpillar | CAT |  | 94.53 | 94.44 | 66.75 | 97.40 H | 56.36 | 0.770 | 1/20/2017 | 2/18/2017 | 3.080 | 3.26 |
| Procter and Gamble | P PG |  | 84.68 | 83.62 | 79.68 | 90.33 | 74.46 | 0.670 | 10/21/2016 | 11/15/2016 | 62.678 | 3.16 |
| McDonald's | MCD |  | 122.36 | 118.32 | 116.93 | 131.96 | 110.33 | 0.940 | 12/1/2016 | 12/15/2016 | 63.760 | 3.07 |
| General Electric | GE | I | 31.26 | 30.75 | 30.32 | 33.00 | 27.10 | 0.240 | 12/27/2016 | 1/25/2017 | 0.960 | 3.07 |
| Merck | MRK | I | 62.37 | 63.65 | 52.90 | 65.46 | 47.97 | 0.470 | 12/15/2016 | 1/9/2017 | 1.880 | 3.01 |
| Intel Corp | INTC |  | 36.79 | 34.91 | 35.18 | 38.36 | 27.68 | 0.260 | 11/7/2016 | 12/1/2016 | 1.040 | 2.83 |
| Wal-Mart Stores | WMT |  | 71.08 | 71.42 | 59.64 | 75.19 | 58.67 | 0.500 | 12/9/2016 | 1/3/2017 | 2.000 | 2.81 |
| Johnson \& Johnson | JNJ |  | 115.89 | 116.32 | 104.13 | 126.07 | 94.28 | 0.800 | 11/22/2016 | 12/6/2016 | 3.200 | 2.76 |
| 3M Company | MMM |  | 176.02 | 174.24 | 148.13 | 182.27 | 134.64 | 1.110 | 11/18/2016 | 12/12/2016 | 64.440 | 2.52 |
| Microsoft Corp. | MSFT |  | 62.58 | 58.87 | 55.20 | 63.45 H | 48.04 | 0.390 | 2/16/2017 | 3/9/2017 | 1.560 | 2.49 |
| United Tech. | UTX |  | 108.13 | 107.68 | 93.26 | 111.69 H | 83.39 | 0.660 | 11/18/2016 | 12/10/2016 | 62.640 | 2.44 |
| J P Morgan | JPM |  | 86.00 | 79.36 | 66.10 | 86.49 H | 52.50 | 0.480 | 1/6/2017 | 1/31/2017 | 1.920 | 2.23 |
| Travelers | TRV |  | 120.40 | 111.85 | 113.18 | 122.47 H | 101.23 | 0.670 | 12/9/2016 | 12/30/2016 | 62.680 | 2.23 |
| Home Depot, Inc. | HD |  | 135.84 | 124.40 | 131.29 | 139.00 | 109.62 | 0.690 | 12/1/2016 | 12/15/2016 | 62.760 | 2.03 |
| Dupont | DD |  | 74.89 | 68.64 | 66.50 | 75.67 H | 50.71 | 0.380 | 11/15/2016 | 12/14/2016 | 61.520 | 2.03 |
| Apple | AAPL |  | 115.82 | 107.11 | 110.49 | 118.69 | 89.47 | 0.570 | 11/7/2016 | 11/10/2016 | 62.280 | 1.97 |
| American Express | AXP |  | 74.94 | 72.47 | 70.15 | 75.74 H | 50.27 | 0.320 | 1/6/2017 | 2/10/2017 | 1.280 | 1.71 |
| Unitedhealth Group | UNH |  | 160.62 | 152.23 | 117.61 | 164.00 | 107.51 | 0.625 | 12/2/2016 | 12/13/2016 | 62.500 | 1.56 |
| Walt Disney | DIS | I | 104.39 | 97.70 | 112.16 | 114.75 | 86.25 | 0.780 | 12/12/2016 | 1/11/2017 | 1.560 | 1.49 |
| Nike | NKE | I | 51.29 | 50.13 | 64.31 | 68.20 | 49.01 | 0.180 | 12/5/2016 | 1/3/2017 | 0.720 | 1.40 |
| Goldman Sachs | GS |  | 243.00 | 211.19 | 182.01 | 245.57 H | 138.20 | 0.650 | 12/1/2016 | 12/29/2016 | 62.600 | 1.07 |
| Visa Inc. | V |  | 79.50 | 78.57 | 78.62 | 83.96 | 66.12 | 0.165 | 11/18/2016 | 12/6/2016 | 0.660 | 0.83 |

[^4]|  | Descriptive Quarterly Statistics, as of 9/30/16 |  |  |  |  |  |  | Annualized Returns ${ }^{4}$ (\%), as of 11/30/16 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Avg. Market Cap. / Avg. Maturity | No. of |  | Ratios |  | 12 Mo. Yield (\%) | Total |  |  | After Tax* |  |  |
|  | Symbol |  | Holdings | Expense ${ }^{3}$ (\%) | Turnover (\%) | $P / B$ |  | 1 yr . | 3 yr . | 5 yr . | 1 yr . | 3 yr . | 5 yr . |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Short-Term Bond Index | BSV ${ }^{1}$ / VBIRX | 2.90 Yrs. | 2400 | 0.16 | 52 | - | 1.48 | 1.06 | 1.01 | 1.14 | 0.45 | 0.43 | 0.56 |
| iShares Barclays 1-3 Yr. Credit Bond | CSJ ${ }^{1}$ | 2.00 Yrs. | 1079 | 0.20 | 17 | - | 1.41 | 1.45 | 0.99 | 1.51 | 0.83 | 0.49 | 0.99 |
| iShares Barclays 1-3 Yr. Treasury Bond | SHY ${ }^{1}$ | 1.94 Yrs. | 73 | 0.15 | 122 | - | 0.67 | 0.61 | 0.49 | 0.44 | 0.32 | 0.27 | 0.26 |
| Vanguard Limited-Term Tax-Exempt | VMLTX | 2.90 Yrs. | 3201 | 0.20 | 16 | - | 1.48 | -0.35 | 0.86 | 1.12 | -0.35 | 0.86 | 1.12 |
| SPDR N.B. Short-Term Municipal Bond | SHM ${ }^{1}$ | 3.10 Yrs . | 930 | 0.20 | 20 | - | 0.95 | -0.84 | 0.38 | 0.80 | -1.18 | 0.27 | 0.67 |
| Inflation-Protected Fixed Income |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Barclays TIPS Bond | TIP ${ }^{1}$ | 8.45 Yrs. | 41 | 0.20 | 41 | - | 1.29 | 3.82 | 1.66 | 0.80 | 3.28 | 1.18 | 0.26 |
| Vanguard Inflation-Protected Securities | VIPSX | 8.80 Yrs. | 36 | 0.20 | 43 | - | 0.72 | 3.70 | 1.64 | 0.79 | 3.35 | 1.09 | 0.05 |
| International Fixed Income |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Total International Bond Index | BNDX ${ }^{1}$ /VTIBX | 9.50 Yrs. | 4079 | 0.17 | 13 | - | 1.48 | 3.85 | 4.41 | -- | 3.24 | 3.75 | -- |
| Real Estate |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard REIT Index | VNQ ${ }^{1}$ / VGSIX | 17.70 B | 150 | 0.26 | 11 | 2.63 | 4.11 | 5.37 | 11.35 | 11.61 | 3.78 | 9.96 | 10.37 |
| SPDR Dow Jones REIT | RWR ${ }^{1}$ | 18.46 B | 100 | 0.25 | 6 | 2.53 | 3.81 | 3.84 | 11.90 | 11.46 | 2.12 | 10.26 | 9.94 |
| Vanguard Global ex-US Real Estate | VNQI ${ }^{\text {/ }}$ VGXRX ${ }^{5}$ | 9.99 B | 657 | 0.36 | 12 | 1.09 | 3.23 | 1.91 | 0.61 | 7.65 | 0.24 | -0.90 | 6.11 |
| iShares International Property ETF | WPS ${ }^{1}$ | 10.30 B | 403 | 0.48 | 8 | 1.03 | 3.54 | 1.39 | 1.10 | 8.32 | 0.27 | -0.06 | 6.97 |
| SPDR Dow Jones Global Real Estate ETF | RWO ${ }^{1}$ | 15.08 B | 231 | 0.50 | 6 | 1.68 | 3.33 | 0.95 | 6.34 | 9.42 | -0.48 | 4.93 | 7.92 |
| U.S. Large Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Value Index | VTV ${ }^{1}$ / VIVAX | 137.91 B | 322 | 0.22 | 8 | 2.12 | 2.50 | 12.60 | 9.11 | 14.77 | 11.94 | 8.50 | 14.18 |
| iShares Russell 1000 Value Index | $\mathrm{IWD}^{1}$ | 111.54 B | 692 | 0.20 | 13 | 1.86 | 2.29 | 11.75 | 8.39 | 14.44 | 11.16 | 7.81 | 13.90 |
| U.S. Mid Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Mid-Cap ETF | VO | 11.93 B | 353 | 0.08 | 15 | 2.46 | 1.37 | 7.55 | 8.49 | 14.15 | 7.13 | 8.03 | 13.76 |
| iShares Russell Mid-Cap Index | IWR | 10.90 B | 799 | 0.20 | 11 | 2.35 | 1.91 | 9.29 | 8.39 | 14.24 | 8.77 | 7.94 | 13.81 |
| U.S. Small Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Russell Microcap Index | $\mathrm{IWC}^{1}$ | 0.43 B | 1370 | 0.60 | 25 | 1.49 | 1.41 | 9.24 | 4.99 | 14.81 | 8.76 | 4.60 | 14.40 |
| Vanguard Small-Cap Value Index | VBR ${ }^{1}$ / VISVX | 3.18 B | 862 | 0.20 | 16 | 1.71 | 1.28 | 15.29 | 9.38 | 15.79 | 14.67 | 8.71 | 15.15 |
| U.S. Marketwide |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Total Stock Market Index | VTI' / VTSMX | 119.03 B | 3598 | 0.16 | 3 | 2.78 | 1.87 | 8.17 | 8.51 | 14.24 | 7.68 | 8.04 | 13.78 |
| Fidelity Spartan Total Market Index | FSTMX ${ }^{2}$ | 119.21 B | 3400 | 0.10 | 3 | 2.78 | 2.46 | 8.17 | 8.55 | 14.26 | n/a | $\mathrm{n} / \mathrm{a}$ | n/a |
| Foreign- Developed Markets |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares MSCI EAFE Growth Index | EFG ${ }^{1}$ | 57.99 B | 540 | 0.40 | 25 | 2.77 | 1.89 | -6.12 | -1.65 | 5.62 | -6.54 | -2.02 | 5.28 |
| iShares MSCI EAFE Value Index | EFV ${ }^{1}$ | 55.48 B | 510 | 0.40 | 25 | 1.10 | 3.37 | -1.63 | -3.35 | 4.98 | -2.37 | -4.08 | 4.33 |
| Vanguard FTSE Developed Market | VEA ${ }^{1 / \mathrm{VTMGX}}{ }^{6}$ | 47.64 B | 3759 | 0.09 | 3 | 1.52 | 2.80 | -1.80 | -1.47 | 5.88 | -2.58 | -2.22 | 5.16 |
| SPDR S\&P International Small Cap | GWX ${ }^{1}$ | 1.11 B | 2335 | 0.40 | 51 | 1.20 | 2.39 | 5.05 | 2.06 | 7.58 | 4.19 | 0.32 | 6.25 |
| Foreign- Emerging Markets |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard FTSE Emerging Market Stock | VWO ${ }^{1}$ / VEIEX | 43.58 B | 3643 | 0.33 | 7 | 1.59 | 2.34 | 9.19 | -1.90 | 0.80 | 8.24 | -2.74 | 0.02 |
| Gold-Related Funds |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Gold Trust | $I A U 1^{1}$ | 9.15 B | - | 0.25 | - | - | - | 10.73 | -2.27 | -7.79 | 10.73 | -2.27 | -7.79 |
| SPDR Gold Shares | GLD ${ }^{1}$ | 38.15 B | - | 0.40 | - | - | - | 10.51 | -2.42 | -7.93 | 10.50 | -2.42 | -7.93 |


[^0]:    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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[^1]:    1. We calculate these declines using month-end total return S\&P 500 data. We start by identifying month-end closing prices that are at least $10 \%$ below all-time highs. If there are several such months in a row, the "end date" of the correction is the lowest such point. We then look back month by month to find a local "peak," the point at which markets started to decline. The local peak signifies the "start date."
[^2]:    1. Insanity: Doing the same thing over and over again and expecting different results. -Albert Einstein
[^3]:    Asset classes and representative index chart on page 89: 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

[^4]:    * See the Recommended HYD Portfolio table on page 94 for current recommendations. $\dagger$ Based on indicated dividends and market price as of $12 / 14 / 16$.

    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 $12 / 15 / 15$.
    I Dividend increased since 11/15/16 $\quad D$ Dividend decreased since 11/15/16

