

* HYD is a hypothetical model based on backtested results. See p. 78 for full explanation.
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## Interest Rate Risk: Is Your Portfolio Vulnerable?

In recent weeks the financial media has focused on the question of a "bond bubble." This is the notion that bond prices have ascended to a level beyond reason and that the trend must soon be reversed. A common refrain is that interest rates will rise as inflation expectations mount; bond prices, which move inversely with interest rates, will fall and investors will suffer.

We avoid using metaphors such as "bubbles" to describe the results of our research. There is a long history of extreme and seemingly irrational cycles in capital markets, but these episodes are obvious only in retrospect.

Instead of speculating about such occurrences, wise investors will construct portfolios under the assumption that security prices reflect a consensus view of millions of market participants acting rationally in their own self interest. Through their transactions security prices rapidly reflect the implications of emerging, random information (news). Prices therefore change randomly as well.

This notion is stated formally in the Efficient Market Hypothesis (EMH). EMH is often misinterpreted; it does not assert that prices are always and everywhere correct. We submit that current security prices are the simply the best approximation of intrinsic value, and while "mispricings" surely occur, they are not identifiable or predictable. Therefore no investor will consistently beat the market on a risk adjusted basis except by chance. Empirical evidence demonstrates clearly that the majority of active bond managers fail to beat their market benchmarks (see chart, page 78).

Investors should not reduce their exposure to fixed income securities in anticipation of higher interest rates. Rather, they should assume that current bond prices reflect this potential outcome.

The purpose of bonds is to provide portfolio stability. Investors' fixed income holdings should be concentrated in high credit quality bonds of relatively short duration ${ }^{1}$, which will limit price volatility.

| AIS Recommended Bond Funds: Maturity and Duration |  |  |  |
| :--- | :---: | :---: | :---: |
| Fund Name | Symbol | Average <br> Maturity <br> (years) | Average <br> Duration <br> (years) |
| Vanguard Short-Term Bond Index | BSV | 2.7 | 2.5 |
| Vanguard Short-Term Bond Index | VBISX | 2.7 | 2.5 |
| iShares Barclays 1-3 Yr. Credit Bond | CSJ | 2.0 | 1.9 |
| iShares Barclays 1-3 Year Treasury | SHY | 1.9 | 1.9 |
| Vanguard Limited-Term Tax-Exempt | VMLTX | 2.8 | 2.5 |
| iShares Barclays TIPS Bond | TIP | 9.3 | 4.0 |
| Vanguard Inflation-Protected Securities | VIPSX | 9.1 | 3.9 |
| Source: Morningstar, September 2010 |  |  |  |

${ }^{1}$ For a detailed explanation of bond duration and interest rate risk see "Assessing Bonds: Duration versus Maturity" Investment Guide September 2009.

The third quarter brought strong returns among all of our recommended asset classes. Bond prices increased as interest rates fell across the yield curve, defying the projections of many pundits. Foreign equities, both developed and emerging markets, provided the highest returns, while in the U.S. large cap growth and small cap stocks fared best. Concerns over housing and employment data suggesting tepid U.S. economic growth were outweighed by good news regarding corporate earnings, credit availability and growth among developing economies. Euro-zone sovereign debt concerns subsided after rattling the markets severely during the second quarter.

The Fed hinted it would extend quantitative easing if necessary to stimulate growth. While this news appeared to support equity markets, confidence in the dollar fell, boosting
returns in foreign stocks and gold. Gold returned just over five percent during the quarter for a 12 month return of over 31 percent. Since the quarter ended the gold price has climbed further, surpassing \$1,340 per ounce, an all-time high.

## Cash and Equivalent Assets ${ }^{1}$

Interest rates fell yet again during the quarter, as the entire yield curve inched downward. The Federal Reserve Open Market Committee took no action to affect short term rates, leaving the fed funds target rate at 0.25 percent, while the three month Treasury bill ended the quarter where it began, yielding 0.17 percent.

Price inflation held steady during the quarter, as the CPI rose 1.14 percent on a year over-year basis through September 30. The core rate, excluding food and energy, rose 0.79 percent. Expected annual price inflation over the next
five years, measured by the "breakeven rate" between U.S. Treasury bonds and Treasury Inflation-Protected Securities (TIPS), stood at 1.57 percent as of midOctober. Over ten years the markets were anticipating annual inflation of 2.04 percent.

## Fixed Income

During the quarter it became more certain that the Fed's substantial purchases of bonds would continue. As the bond market participants became convinced that further quantitative easing was likely, intermediate and long term interest rates fell. By the end of the quarter the 30 year bond yield had fallen to 3.69 percent, though as of mid-October that rate had rebounded to nearly 4.0 percent. Intermediate term bonds followed suit, as the ten year Treasury bond yield fell by 0.40 percent, to close the quarter at 2.53 percent
${ }^{1}$ Sources for cash and equivalent and fixed income statistics: U.S. Treasury, Fidelity Management and Research Company, The Vanguard Group. Investment Grade bonds: Barclays Capital (BC) Credit Bond Index; High Yield bonds: Bank of America Merrill Lynch U.S. High Yield Master II Index; Municipal bonds: BC Municipal Bond Index; TIPS: BC U.S. TIPS Index.


[^0]before rising slightly by the middle of October. TIPS returned +2.5 percent return for the three months.

Faced with negative or meager real yields on conventional Treasuries, investors in search of income proved willing to assume the greater credit risk posed by investment grade and highyield (lower quality) corporate bonds. Stronger corporate balance sheets and rising earnings may also have bolstered investors' resolve. As a group investment grade bonds returned +4.7 percent, while high-yield issues registered a +6.7 percent return. Yield spreads (the difference in yield above Treasury bonds of similar maturities) fell from 0.71 percent to 0.63 percent for high yield bonds, while the spread for investment grade bonds fell from 0.193 percent to 0.175 percent.

Municipal bonds provided a positive return of 3.4 percent for the three months. In September the muni market was jolted by news that Harrisburg, Pennsylvania would be unable to make a bond payment. Though it was virtually certain that the payment would have been covered by insurance, the state of Pennsylvania nevertheless stepped in with grant money to cover the obligation. Though municipalities continue to face a difficult fiscal climate, munis remain a viable option for managing tax risk, especially for investors in higher tax brackets.

The bond funds and ETFs we recommend on page 80 are well suited to meet the needs of most individual investors.

## Chart 1: U.S. Treasury Yield Curve (\%)



## Real Estate ${ }^{2}$

Real Estate Investment Trusts (REITs) are valuable to investors as a component of a well balanced portfolio. Like bonds they provide a steady income stream (90 percent of REIT taxable income is distributed to investors), but like common stocks they are in fact equities and therefore provide ownership in various types of commercial real estate. REITs' historical returns have outpaced price inflation by wide margin and have not been strongly correlated with the returns of either stocks or bonds. At the end of September equity REITs were yielding 3.8 percent.

Equity REITs provided a +12.8 percent total return for the quarter. Year-to-date returns were +19.1 percent with the residential, retail, and diversified subsectors providing the strongest returns. REITs have benefited from strong credit conditions and gradually improving occupancy rates.

## U.S. Equities

U.S equities provided strong returns across all asset classes as markets responded positively to positive corporate earnings and economic data suggesting a second recession was less likely. The returns on the overall market (+11.6 percent) erased a substantial second quarter decline. Small cap growth stocks provided the highest returns ( +13.5 percent) followed by large cap growth shares (+13.4 percent). Among value stocks, small cap stocks (+10.7 percent) outperformed large caps (+9.8 percent). ${ }^{3}$ Returns were positive in all industries; telecoms led (+21.0 percent), while financials ( +4.3 percent) were the lowest returning sector.

The quarterly return on our hypothetical 4-for-18 High Yield Dow model (+20.8 percent) was more than double that of its large cap value benchmark. The model benefitted from a heavy weighting toward telecoms. The
${ }^{2}$ RIET data provided by National Association of Real Estate Trusts (NAREIT).
${ }^{3}$ U.S.Market: MSCI U.S. Investable Market 2500 Index. Small caps: MSCI US Small Cap 1750 Growth/Value Indexes, Large caps: MSCI US Prime Market 750 Growth/Value Indexes.
${ }^{4}$ Non-U.S. stocks: MSCI All Country World ex USA Index. Emerging markets: MSCI Emerging Markets Index. Developed markets MSCI EAFE Index. Currency data: Oanda.com

| Total Return (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2008 |  |  |  | 2009 |  |  |  | 2010 |  |  | 1Q 2008- |
|  | $1 Q$ | 2Q | $3 Q$ | $4 Q$ | $1 Q$ | 2Q | $3 Q$ | $4 Q$ | 1Q | 2Q | $3 Q$ | 3Q 2010 |
| Barclay Capital 1-5 Yr. Govt./Credit | t 2.91 | -1.09 | -0.31 | 3.60 | 0.53 | 1.46 | 2.14 | 0.42 | 1.20 | 1.78 | 1.66 | 15.16 |
| Vanguard REIT Index | 2.13 | -5.39 | 5.35 | -38.16 | -32.09 | 30.03 | 34.54 | 9.05 | 10.02 | -4.01 | 13.10 | -2.57 |
| Vanguard Value Index | -9.02 | -6.18 | -5.72 | -20.44 | -16.41 | 16.71 | 17.38 | 4.41 | 6.16 | -10.93 | 9.71 | -20.57 |
| High-Yield Dow 4/18 - | -11.12 | -11.39 | 8.77 | -22.71 | -23.83 | 15.66 | 16.55 | 8.13 | 1.81 | -8.97 | 20.83 | -17.67 |
| Vanguard Small Cap Value Index | -6.52 | -3.80 | 1.51 | -25.57 | -18.14 | 23.83 | 23.89 | 3.79 | 10.15 | -10.15 | 10.68 | -2.99 |
| Vanguard Growth Index | -9.99 | 2.34 | -12.04 | -23.88 | -4.24 | 15.59 | 14.13 | 7.88 | 4.85 | -12.16 | 13.37 | -12.23 |
| Vanguard Developed Markets Index | x -8.47 | -2.42 | -18.89 | -19.41 | -15.82 | 25.59 | 19.25 | 1.67 | 1.26 | -14.61 | 17.60 | -23.91 |
| Vanguard Emerging Markets Index - | -10.48 | -1.35 | -25.98 | -27.82 | 0.07 | 34.14 | 21.15 | 8.26 | 2.47 | -9.12 | 18.74 | -8.14 |
| Gold (London PM Fix) | 11.96 | -0.35 | -4.92 | -1.67 | 5.38 | 1.96 | 6.55 | 9.21 | 2.57 | 11.52 | 5.06 | 56.74 |

portfolio typically holds between six and nine stocks, which results in greater volatility compared with more diversified large cap value indexing strategies.

The normalized price-to-earnings ratio (PE) on the S\&P 500 stood at 20.5 at the end of September. This is higher than the long term average of 17.4 and is also slightly higher than the second quarter, when it ended at 19.7.

## Foreign Equities ${ }^{4}$

The declining dollar was the big story in international markets during the third quarter. A weaker dollar translates to higher dollar returns for investors who own foreign stocks. As a group, nonU.S. stocks provided a +16.6 percent total return in U.S. dollars, versus +8.6 percent in local currencies. Emerging markets (+18.0 percent, USD) outpaced developed markets ( +16.5 percent, USD). During the quarter exchange rates were highly volatile. The dollar price of the euro began the quarter at 1.22 and rose 10 percent to close the quarter at 1.36, while averaging 1.29. The dollar price of the Japanese Yen rose 6.2 percent from 0.0113 to 0.0120 during the three months.

Returns in emerging markets were led by Latin America (+21.0 percent) and Eastern Europe (+17.8 percent), with help from rising commodity prices as well as the falling dollar. Meanwhile in developed markets European stocks rebounded as the sovereign debt crisis
eased. Markets generally reacted positively to bank stress tests. Several large European banks including Credit Agricole (+48 percent) and Société Générale (+37 percent) pulled stock indexes higher.

## Gold Related Assets

The gold price returned +5.1 percent during the quarter to close at an all time (nominal) high of \$1,307 per ounce. By late October the price stood at $\$ 1,340$. The gold price measured in other major currencies revealed a weakening dollar relative to these other fiat currencies; the price fell against the Euro ( -0.8 percent), UK pound ( -0.2 percent), Japanese Yen (-5.7 percent) and the Swiss Franc (-4.8
percent).
In recent years gold has demonstrated its worth as a form of portfolio insurance against financial crisis and potential price inflation. Its price however, is extremely volatile. Investors should maintain consistent and limited exposure to this asset class.

Gold is very much in the news and various dealers of gold or gold related assets are heavily advertising their services. Investors would be wise to ignore these overtures and instead maintain a targeted allocation to gold, using the accompanying AIS Model Portfolios table as a guide, and the recommended investment vehicles found on page 80 .


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## HOW TO SPEND WISELY IN RETIREMENT

## Last month we explained why

 investors in need of income in retirement should spend from capital as needed. The article below ${ }^{1}$ provides a summary of how an investor can formulate a rational withdrawal strategy. A framework is provided that will help investors weigh the tradeoff between the need for both a stable cash flow and a portfolio value that will endure.The need for retirement planning doesn't end with the onset of retirement. A new retiree's focus shifts from building wealth to managing and preserving
it. One major challenge is to make the investment portfolio supply cash flow for the duration of life-and through different economic and market conditions.

Experts have studied portfolio longevity or endurance to help retired investors reduce the odds of depleting their wealth too soon. The studies evaluate how a portfolio might endure under the stress of changing markets and spending levels. The resulting models estimate portfolio survival in terms of statistical probabilities. ${ }^{2}$ While the

[^1]technical details are beyond the scope of this article, the general conclusions are more intuitive.

Three main factors drive portfolio endurance: asset mix, spending level, and investment time frame. Certain aspects of these factors are within an investor's control while others are not. Let's briefly consider them.

## Asset Mix

Asset mix describes the ratio of stocks to bonds in a portfolio. This determines risk exposure and expected performance, and is one of the most important decisions investors of all ages can make. Historically, stocks have outperformed bonds and outpaced inflation over time. This return premium reflects the higher risk of owning stocks. ${ }^{3}$ Consequently, the larger the equity allocation, the greater a
portfolio's expected return-and risk.
Keep in mind that risk and return go together. A higher allocation to equities increases the risk of experiencing periods of poor returns during retirement. But if you can handle the risk, having more equity exposure in a portfolio enhances its return potential. Growth can bring higher cash flow, inflation protection, and portfolio endurance over time. This is why most advisors believe that most investors should have an equity component in their portfolios, with actual weighting depending on one's time frame, risk tolerance, and spending flexibility.

## Spending Level

Portfolio withdrawal is typically described in terms of a specified dollar amount (e.g., \$50,000 per year) or a percent of annual portfolio value (e.g., $5 \%$ of assets each year). Neither method is ideal, however-and for different reasons. Briefly consider each one:

Specified dollar amount: withdrawing a fixed amount each year and adjusting it for inflation can provide a stable income stream and preserve your living standard over time. But the portfolio may survive only if future withdrawals represent a small proportion of the portfolio's value. One academic study quantified this amount. It found that a retiree with at least a $60 \%$ stock allocation can withdraw up to $4 \%$ of initial portfolio value (adjusted for inflation each year), and enjoy a high probability of never running out of wealth. ${ }^{4}$ Choosing a higher withdrawal amount is not likely to be sustainable, especially if the portfolio faces an extended period of negative returns.

Percent of annual portfolio value: withdrawing a fixed percentage of assets based on annual asset value makes it unlikely that you will deplete retirement assets because a sudden drop in market value would be accompanied by a proportional decline in spending. But this method can produce wide swings in your living standard when investment returns are volatile.

Retirees who need relatively consistent cash flow may want to combine these two methods. One way is to withdraw cash flow according to a rule that combines past spending (e.g.,
an average of the past thirty-six months of cash flow) with a payout rate applied to current portfolio value. You can weight these factors to favor your preference for either more stable cash flow or a greater chance of portfolio survival. In effect, you are customizing your withdrawals to smooth out consumption while responding to actual investment performance.

## Investment Time Frame

Investment time horizon may be the hardest to estimate, especially if it is the same as your lifespan. In this case, you can only guess how long your portfolio must support spending. If you plan to bequeath assets, your investment time frame may extend beyond your lifetime. This may influence your risk and spending decisions as well.

Time frame forces a tradeoff between the short and long term. Retirees with a longer investment time horizon might choose a higher exposure to equities. But they may have to offset this risk by being more flexible about spending over time. Elderly retirees and others with a short time horizon may choose a less risky allocation or a higher payout rate, although they can experience rising spending levels, too. In any case, retirees should think carefully about equity exposure and avoid taking more risk than they can afford.

## Considerations

Planning involves assumptions about the future-assumptions that may not pan out. Although you cannot avoid making assumptions, you can ask
whether they are realistic and consider how your lifestyle might change if future economic and financial conditions are much different than projected. For instance, you may assume an average return based on historical performance. But there is no certainty that future portfolio returns will resemble the past, regardless of time frame. Moreover, short-term results may vary drastically, which could force hard financial choices. Investors should think in terms of probability, not history.

Managing asset mix, payout, and time horizon inevitably involves tradeoffs. Exhibit 1 below illustrates the dynamics. For example, a bond-dominated portfolio with a lower expected return may suit investors with a shorter time horizon, or require them to accept a lower payout rate to increase the odds of portfolio survival. A portfolio with a higher allocation to equities may be appropriate for someone with a long time horizon or a strong desire for a high payout rate, but a higher assumption of risk also results in greater uncertainty about future wealth. Retirees who take this route must be able to handle the risk emotionally, and they should be ready to adjust their lifestyle in response to market downturns. In fact, investor flexibility plays a role in all of the tradeoffs.

Finally, although you cannot fully control these and other factors involved in portfolio endurance in retirement, having more wealth can improve the odds of having a less stressful financial life. A more substantial nest egg might enable you to take fewer risks, enjoy a higher sustainable spending rate, or extend the productive life of your portfolio.

## Exhibit 1: Basic Tradeoffs in Portfolio Survival



## THE HIGH-YIELD DOW INVESTMENT STRATEGY

## Recommended HYD Portfolio

As of October 15, 2010

|  | Rank |
| :--- | :---: |
| Verizon | 1 |
| AT\&T | 2 |
| Merck | 3 |
| Pfizer | 4 |
| Kraft | 5 |
| DuPont | 6 |
| Frontier Communications | N/A |
| Cash (6-mo. T-Bill) | -- |
| Totals | -- |


| Yield | Price |
| :---: | :---: |
| 6.01 | 32.43 |
| 5.93 | 28.33 |
| 4.11 | 36.95 |
| 4.06 | 17.75 |
| 3.67 | 31.65 |
| 3.51 | 46.67 |
| N/A | 8.54 |
| -- | -- |
| -- | -- |

Status
Holding**
Holding**
Holding**
Buying
Holding
Selling
Selling

| --Percent of Portfolio- |  |
| :---: | :---: |
| Value | No. Shares ${ }^{1}$ |
| 23.21 | 21.59 |
| 23.33 | 24.85 |
| 17.24 | 14.08 |
| 11.50 | 19.55 |
| 2.73 | 2.60 |
| 20.87 | 13.49 |
| 1.09 | 3.83 |
| .03 | -- |
| 100.00 | $\underline{100.00}$ |

${ }^{* *}$ 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.

## Hypothetical Total Returns: HYD and Relevant Indices (percent)

The total returns presented in the table below represent changes in the value of a hypothetical HYD portfolio with a beginning date of January 1979 (the longest period for which data was available for the HYD model and relevant indexes) through September 30, 2010*.

|  | 1 mo . | 1 yr . | 5 yrs . | 10 yrs . | 20 yrs . | Since 1/79 | Std. Dev. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HYD Strategy | 7.80 | 21.09 | 4.77 | 7.07 | 13.57 | 15.78 | 18.18 |
| Russell 1000 Value Index | 7.76 | 8.91 | -0.48 | 2.59 | 9.97 | 11.93 | 15.02 |
| Dow | 7.85 | 14.13 | 3.13 | 2.51 | 10.27 | NA | NA |

*Data assume all purchases and sales at mid-month prices (+/-\$0.125 per share commissions), reinvestment of all dividends and interest, and no taxes. The 5-, 10- and 20-year total returns are annualized, as is the standard deviation of those returns since January 1979, where available. Model HYD calculations are based on hypothetical trades following a very exacting stock-selection strategy, and are gross of any management fees. They do not reflect returns on actual investments or previous recommendations of AIS. Past performance may differ from future results. Historical performance results for investment indexes and/or categories generally do not reflect the deduction of transaction and/or custodial charges or the deduction of an investment-management fee, the incurrence of which would have the effect of decreasing historical performance results.

## FAILURE OF ACTIVE MANAGEMENT

Percentage of Active Fixed Income Funds That Failed to Beat the Index January 2005-June 2010


Source: Standard \& Poor's Indices Versus Active Funds Scorecard, mid-year. Index used for comparison: Government Long-Barclays Capital US Long Government Index; Government Intermediate-Barclays Capital US Intermediate Government Index; Government Short-Barclays Capital US 1-3 Year Government Index; Investment Grade Long-Barclays Capital US Long Government/Credit; Investment Grade Intermediate-Barclays Capital US Intermediate Government/Credit; Investment Grade ShortBarclays Capital US 1-3 Year Government/Credit; National Muni-S\&P National Municipal Bond Index; CA Muni-S\&P California Municipal Bond Index. Data for the SPIVA study is from the CRSP Survivor-Bias-Free US Mutual Fund Database. Barclays Capital data, formerly Lehman Brothers, provided by Barclays Bank PLC.

| Precious Metals \& Commodity Prices (\$) |  |  |  |
| :--- | ---: | ---: | ---: |
|  | $\mathbf{1 0 / 1 5 / 1 0 1 0}$ | Mo. Earlier |  |
|  | Yr. Earlier |  |  |
| Gold, London p.m. fixing | $\mathbf{1 , 3 6 7 . 5 0}$ | $1,267.00$ | $1,053.50$ |
| Silver, London Spot Price | $\mathbf{2 4 . 4 2}$ | 20.44 | 17.54 |
| Copper, COMEX Spot Price | $\mathbf{3 . 8 3}$ | 3.46 | 2.85 |
| Crude Oil, W. Texas Int. Spot | $\mathbf{8 1 . 2 4}$ | 76.01 | 77.57 |
| Dow Jones Spot Index | $\mathbf{4 0 8 . 5 9}$ | 379.64 | 341.35 |
| Dow Jones-UBS Futures Index | $\mathbf{1 4 5 . 6 7}$ | 137.61 | 133.32 |
| Reuters-Jefferies CRB Index | $\mathbf{2 9 6 . 0 6}$ | 279.05 | 273.72 |

## Interest Rates (\%)

| U.S. Treasury bills - 91 day | 0.14 | 0.15 | 0.07 |
| :---: | :---: | :---: | :---: |
| 182 day | 0.17 | 0.20 | 0.15 |
| 52 week | 0.21 | 0.24 | 0.32 |
| U.S. Treasury bonds -10 year | 2.59 | 2.74 | 3.49 |
| Corporates: |  |  |  |
| High Quality - 10+ year | 4.81 | 4.59 | 5.28 |
| Medium Quality - 10+ year | 5.85 | 5.74 | 6.45 |
| Federal Reserve Discount Rate | 0.75 | 0.75 | 0.50 |
| New York Prime Rate | 3.25 | 3.25 | 3.25 |
| Euro Rates 3 month | 0.99 | 0.88 | 0.74 |
| Government bonds - 10 year | 2.28 | 2.40 | 3.22 |
| Swiss Rates - 3 month | 0.17 | 0.18 | 0.27 |
| Government bonds - 10 year | 35 | 1.45 | 3.22 |

## Exchange Rates (\$)

British Pound
Canadian Dollar
Euro
Japanese Yen
South African Rand
Swiss Franc
1.602700 0.989315
1.399800
0.012297
0.146789
1.045806
1.5641001 .624900 0.9726680 .970497 1.3008001 .494500 0.0116780 .011063 0.1411830 .137504 0.9968100 .986583

## THE DOW IONES INDUSTRIALS RANKED BY YIELD*

|  | Ticker <br> Symbol | Market Prices (\$) |  |  | 12-Month (\$) |  | Latest Dividend Record |  |  | Indicated |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 10/15/10 | 9/15/10 | 10/15/09 | High | Low | Amount (\$) | Date | Paid | Dividend | (\%) |
| Verizon | VZ | 32.43 | 31.19 | 29.11 | 34.13 | 25.99 | 0.488 | 10/08/10 | 11/1/10 | 1.950 | 6.01 |
| AT\&T | T | 28.33 | 28.01 | 25.91 | 29.43 H | 23.78 | 0.420 | 10/08/10 | 11/1/10 | 1.680 | 5.93 |
| Merck | MRK | 36.95 | 36.51 | 33.30 | 41.56 | 30.29 | 0.380 | 9/15/10 | 10/7/10 | 1.520 | 4.11 |
| Pfizer | PFE | 17.75 | 17.27 | 17.66 | 20.36 | 14.00 | 0.180 | 8/06/10 | 9/1/10 | 0.720 | 4.06 |
| Kraft | KFT | 31.65 | 31.59 | 26.63 | 32.00 H | 26.06 | 0.290 | 9/30/10 | 10/14/10 | 1.160 | 3.67 |
| Dupont | DD | 46.67 | 42.93 | 34.57 | 47.01 H | 31.02 | 0.410 | 8/13/10 | 9/10/10 | 1.640 | 3.51 |
| Chevron | CVX | 83.61 | 79.21 | 76.69 | 84.54 H | 66.83 | 0.720 | 8/19/10 | 9/10/10 | 2.880 | 3.44 |
| Johnson \& Johnson | JNJ | 63.57 | 61.05 | 60.94 | 66.20 | 56.86 | 0.540 | 8/31/10 | 9/14/10 | 2.160 | 3.40 |
| Intel Corp | INTC | 19.32 | 18.72 | 20.67 | 24.37 | 17.60 | 0.158 | 11/07/10 | 12/1/10 | 0.630 | 3.26 |
| Home Depot, Inc. | HD | 30.70 | 29.94 | 27.30 | 37.03 | 24.47 | 0.236 | 9/02/10 | 9/16/10 | 0.945 | 3.08 |
| Procter and Gamble | PG | 62.76 | 61.11 | 57.24 | 64.58 | 39.37 | 0.482 | 10/22/10 | 11/15/10 | 1.927 | 3.07 |
| General Electric | GE | 16.30 | 16.34 | 16.79 | 19.70 | 13.75 | 0.120 | 9/20/10 | 10/25/10 | 0.480 | 2.94 |
| Coca-Cola | KO | 59.94 | 57.42 | 54.92 | 59.98 H | 49.47 | 0.440 | 9/15/10 | 10/1/10 | 1.760 | 2.94 |
| McDonald's | MCD | 77.48 | 74.71 | 58.20 | 77.77 H | 58.00 | 0.550 | 9/01/10 | 9/16/10 | 2.200 | 2.84 |
| Exxon Mobil | XOM | 65.19 | 61.00 | 72.94 | 76.54 | 55.94 | 0.440 | 8/13/10 | 9/10/10 | 1.760 | 2.70 |
| Travellers | TRV | 53.63 | 52.49 | 48.55 | 54.83 | 46.55 | 0.360 | 9/10/10 | 9/30/10 | 1.440 | 2.69 |
| Microsoft Corp. | MSFT | 25.54 | 25.12 | 26.71 | 31.58 | 22.73 | 0.160 | 11/18/10 | 12/9/10 | 0.640 | 2.51 |
| Boeing | BA | 70.11 | 62.73 | 51.76 | 76.00 | 47.18 | 0.420 | 8/06/10 | 9/3/10 | 1.680 | 2.40 |
| 3M Company | MMM | 89.14 | 84.58 | 76.77 | 90.52 | 67.98 | 0.525 | 8/20/10 | 9/12/10 | 2.100 | 2.36 |
| United Tech. | UTX | 74.10 | 68.27 | 64.40 | 77.09 | 61.42 | 0.425 | 11/19/10 | 12/10/10 | 1.700 | 2.29 |
| Wal-Mart Stores | WMT | 53.35 | 52.86 | 50.95 | 56.27 | 47.77 | 0.303 | 12/10/10 | 1/3/11 | 1.210 | 2.27 |
| Caterpillar | CAT | 79.75 | 72.13 | 54.77 | 81.19 H | 50.50 | 0.440 | 10/25/10 | 11/20/10 | 1.760 | 2.21 |
| IBM | IBM | 141.06 | 129.43 | 127.98 | 142.10 H | 116.00 | 0.650 | 8/10/10 | 9/10/10 | 2.600 | 1.84 |
| American Express | AXP | 39.09 | 40.85 | 35.54 | 49.19 | 34.26 | 0.180 | 10/08/10 | 11/10/10 | 0.720 | 1.84 |
| Walt Disney | DIS | 34.88 | 34.21 | 29.23 | 37.98 | 27.01 | 0.350 | 12/14/09 | 1/19/10 | 0.350 | 1.00 |
| Alcoa | AA | 13.13 | 11.43 | 14.36 | 17.60 | 9.81 | 0.030 | 11/05/10 | 11/25/10 | 0.120 | 0.91 |
| Hewlett-Packard | HPQ | 42.82 | 39.62 | 48.00 | 54.75 | 37.32 | 0.080 | 9/15/10 | 10/6/10 | 0.320 | 0.75 |
| J P Morgan | JPM | 37.06 | 40.98 | 47.16 | 48.20 | 35.16 | 0.050 | 10/06/10 | 10/31/10 | 0.200 | 0.54 |
| Bank of America | BAC | 11.98 | 13.71 | 18.10 | 19.86 | 11.74 L | 0.010 | 9/03/10 | 9/24/10 | 0.040 | 0.33 |
| Cisco | CSCO | 23.36 | 21.59 | 24.37 | 27.74 | 19.82 | 0.000 |  |  | 0.000 | 0.00 |

* See the Recommended HYD Portfolio table on page 78 for current recommendations. $\dagger$ Based on indicated dividends and market price as of 10/15/10.

Extra dividends are not included in annual yields. H New 52-week high. L New 52-week low. (s) All data adjusted for splits and spin-offs. 12-month data begins 10/16/09.

|  | Security Symbol | Descriptive Quarterly Statistics, as of 9/30/10 |  |  |  |  |  |  |  | Annualized Returns ${ }^{8}$ (\%), as of 9/30/10 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Avg. Market Cap. / | No. of Holdings |  | Ratios |  |  |  | 12 Mo. Yield (\%) | 1 yr . | $\begin{aligned} & \text { Total } \\ & 3 \mathrm{yr} . \end{aligned}$ | 5 yr . | After Tax* |  |  |
|  |  | Avg. Maturity |  |  | Expense ${ }^{7}$ (\%) | Sharpe | Turnover (\%) | $P / B$ |  |  |  |  | 1 yr . | 3 yr . | 5 yr . |
| Short/Intermediate Fixed Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Short-Term Bond Index | BSV1/VBISX | 2.7 Yrs. | 1271 |  | 0.22 | 1.80 | 77 | -- | 2.24 | 4.82 | 5.64 | 5.23 | 3.97 | 4.48 | 3.90 |
| iShares Barclays 1-3 Yr. Credit Bond | CSJ ${ }^{1}$ | 2.0 Yrs. | 674 |  | 0.20 | 0.99 | 23 | -- | 2.79 | 4.86 | 5.26 | -- | 3.83 | 3.89 | -- |
| iShares Barclays 1-3 Year Treasury | SHY ${ }^{1}$ | 1.9 Yrs. | 43 |  | 0.15 | 1.64 | 62 | -- | 1.13 | 2.39 | 3.98 | 4.24 | 1.87 | 3.06 | 3.10 |
| Vanguard Limited-Term Tax-Exempt | Vmltx | 2.8 Yrs . | 1397 |  | 0.20 | 1.29 | 11 | -- | 2.34 | 3.31 | 4.27 | 3.87 | 3.31 | 4.27 | 3.87 |
| SPDR Short-Term Municipal Bond | SHM ${ }^{1}$ | 3.2 Yrs. | 334 |  | 0.20 |  | 14 | -- | 1.72 | 3.02 | -- | -- | 2.62 | -- | -- |
| Inflation-Protected Fixed Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Barclays TIPS Bond | TIP ${ }^{1}$ | 9.3 Yrs. | 31 |  | 0.20 | 0.69 | 15 | -- | 2.48 | 8.67 | 6.79 | 5.34 | 7.80 | 5.22 | 3.75 |
| Vanguard Inflation-Protected Securities | VIPSX | 9.1 Yrs. | 29 |  | 0.25 | 0.66 | 14 | -- | 2.68 | 9.00 | 6.54 | 5.23 | 7.94 | 5.48 | 3.84 |
| Real Estate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard REIT Index | VNQ ${ }^{1 / V G S I X}{ }^{2}$ | $\mathrm{X}^{2} \quad 4.6 \mathrm{~B}$. | 100 |  | 0.26 | 0.05 | 16 | 1.8 | 3.21 | 30.26 | -5.32 | 2.26 | 28.71 | -6.61 | 0.94 |
| SPDR Dow Jones REIT | RWR ${ }^{1}$ | 5.8 B | 83 |  | 0.25 | 0.02 | 10 | 2.0 | 3.05 | 29.91 | -6.83 | 1.34 | 28.42 | -8.21 | -0.01 |
| U.S. Large Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Value Index | VTV'/VIVAX | 34.9 B. | 423 |  | 0.26 | -0.36 | 31 | 1.4 | 2.56 | 8.31 | -9.32 | -0.27 | 7.90 | -9.72 | -0.68 |
| iShares Russell 1000 Value Index | ${ }_{\text {IWD }}{ }^{1}$ | 29.2 B | 670 |  | 0.20 | -0.35 | 24 | 1.4 | 2.16 | 8.73 | -9.42 | -0.59 | 8.01 | -9.89 | -1.02 |
| U.S. Small Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Russell Microcap Index | $I^{\prime}{ }^{1}$ | 0.2 B. | 1360 |  | 0.60 | -0.21 | 35 | 1.2 | 0.80 | 7.41 | -9.16 | -2.95 | 7.16 | -9.33 | -3.09 |
| Vanguard Small-Cap Value Index | VBR ${ }^{1}$ VISVX | 1.1 B. | 997 |  | 0.28 | 0.00 | 33 | 1.2 | 1.71 | 13.69 | -3.31 | 1.50 | 13.28 | -3.77 | 1.06 |
| U.S. Large Cap Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Russell 1000 Growth Index | IWF' | 31.9 B . | 629 |  | 0.20 | -0.14 | 19 | 3.1 | 1.40 | 12.45 | -4.50 | 1.90 | 11.98 | -4.76 | 1.67 |
| Vanguard Growth Index | VUG ${ }^{1 /}$ VIGRX | 31.4 B . | 429 |  | 0.28 | -0.12 | 29 | 3.0 | 1.10 | 12.64 | -4.27 | 2.10 | 12.45 | -4.43 | 1.94 |
| U.S. Marketwide |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Total Stock Market Index | VTIIVTSMX | 21.9 B . | 3423 |  | 0.18 | -0.22 | 5 | 1.9 | 1.88 | 11.01 | -6.34 | 1.13 | 10.69 | -6.62 | 0.85 |
| Fidelity Spartan Total Market Index | FSTMX ${ }^{3}$ | 22.8 B. | 3116 |  | 0.10 | -0.22 | 7 | 1.9 | 1.71 | 11.25 | -6.38 | 1.15 | 10.89 | -6.72 | 0.84 |
| Foreign- Developed Markets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares MSCI Growth Index | EFG ${ }^{1}$ | 23.6 B. | 590 |  | 0.40 | -0.24 | 28 | 1.9 | 1.86 | 8.20 | -8.38 | 2.65 | 7.66 | -8.63 | 2.44 |
| iShares MSCI Value Index | EFV' | 29.9 B. | 501 |  | 0.40 | -0.27 | 30 | 1.1 | 3.18 | -1.64 | -10.71 | 0.98 | -2.48 | -11.25 | 0.57 |
| Vanguard Europe Pacific Index | VEA $1 / \mathrm{VTMGX}$ | $\mathrm{X}^{4} \quad 24.9 \mathrm{~B}$. | 943 |  | 0.20 | -0.25 | 9 | 1.3 | 2.29 | 2.24 | -9.48 | 2.20 | 2.03 | -9.70 | 1.97 |
| Vanguard Developed Markets Index | VDMIX ${ }^{5}$ | 24.7 B. | 980 |  | 0.10 | -0.26 | 14 | 1.3 | 1.12 | 3.38 | -9.39 | 2.03 | 3.13 | -9.93 | 1.49 |
| SPDR S\&P International Small Cap | GWX ${ }^{1}$ | 1.0 B | 698 |  | 0.59 | -0.11 | 21 | 1.1 | 1.47 | 11.54 | -6.58 | -- | 11.10 | -7.00 | -- |
| Foreign- Emerging Markets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Emerging Market Index | VWO'/VEIEX ${ }^{6}$ | $\mathrm{K}^{6} \quad 15.6 \mathrm{~B}$. | 827 |  | 0.40 | 0.09 | 12 | 2.0 | 1.10 | 18.77 | -2.10 | 11.90 | 18.55 | -2.49 | 11.54 |
| Gold-Related Funds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares COMEX Gold Trust | $\mathrm{IAU}^{1}$ | -- | 1 |  | 0.25 | 0.92 | 0.00 | -- | 0.00 | 29.27 | 20.28 | 22.29 | 29.27 | 20.28 | 22.29 |
| streetTRACKS Gold Shares | GLD ${ }^{1}$ | -- | 1 |  | 0.40 | 0.92 | 0.00 | -- | 0.00 | 29.40 | 20.28 | 22.33 | 29.40 | 20.28 | 22.33 |
|  | Recommended Gold-Mining Companies (\$) |  |  |  |  |  |  |  |  |  | Data provided by the funds and Morningstar. ${ }^{1}$ Exchange Traded Fund, traded on NYSE. ${ }^{2} 1 \%$ fee for redemption in 1 yr . ${ }^{3} 0.5 \%$ fee for redemption in 90 days. ${ }^{4} 1 \%$ fee for redemption in $5 \mathrm{yrs} .{ }^{5} 2 \%$ fee for redemption |  |  |  |  |
|  | Ticker | Month | Year | --- 52-Week --- |  |  | Distributions |  |  | Yield (\%) |  |  |  |  |  |  |
|  | Symbol | 10/15/10 Earlier | Earlier | High Low |  |  | Last 12 Months Frequency |  |  |  | in 60 days. ${ }^{6} 0.5 \%$ fee for purchase and $0.25 \%$ fee for redemption. '${ }^{7}$ For Vanguard funds, Expense Ratios shown |  |  |  |  |
| Anglogold Ltd., ADR | AU | 47.2944 .50 | 44.77 |  | 8.16 34.11 |  | 0.1850 |  | Semiannual | 0.3912 |  |  |  |  |  |  |
| Barrick Gold Corp. $\dagger$ | ABX | 47.9944 .99 | 38.91 |  | 9.6633 .65 |  | 0.2720 |  | Semiannual | 0.5668 | redemption. ' ${ }^{\prime}$ For Vanguard funds, Expense Ratios shown are for Mutual Funds. ETFs have lower expenses. ${ }^{8}$ For |  |  |  |  |
| Gold Fields Ltd. | GFI | 15.7715 .29 | 14.53 |  | $\begin{array}{ll}6.26 & 10.88\end{array}$ |  | 0.1610 |  | Semiannual | 1.0209 | Vanguard Funds, returns shown are for Mutual Funds; |  |  |  |  |
| Goldcorp, Inc. $\dagger$ | GG | $44.45 \quad 42.76$ | 41.99 |  | $\begin{array}{ll}7.41 & 32.84\end{array}$ |  | 0.1530 |  | Monthly | 0.3442 | ETFs' returns may deviate * Calculated using the highest individual federal income tax rates in effect at the time |  |  |  |  |
| Newmont MiningThe information herein is derived from generally reliable sources, but cannot be guaranteed. American Investment Services, the American Institute for EconomicNEM Research, and the officers, employees, or other persons affiliated with either organization may from time to time have positions in the investments referred to herein. of each distribution and do not and local taxes and individual tax |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


[^0]:    (1) 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 the AIS), or product made reference to directly or indirectly, will be profitable or equal to past performance levels. Historical performance results for investment indexes and/or categories, generally do not reflect the deduction of transaction and/or custodial charges or the deduction of an investment-management fee, the incurrence of which would have the effect of decreasing historical performance results. The results portrayed in this portfolio reflect the reinvestment of dividends and capital gains. Model Portfolio Statistics are hypothetical and do not reflect historical recommendations of AIS. Annual portfolio rebalancing is assumed.
    (2) For our recommended investment vehicles for each asset class, see page 78.
    (3) Investors should maintain cash balances adequate to cover living expenses for up to 6 months in addition to the cash levels indicated.

[^1]:    ${ }^{1}$ This article is reprinted with permission of Dimensional Fund Advisors (DFA).
    ${ }^{2}$ Cooley, Philip L., Carl M. Hubbard, and Daniel T. Walz. 1998. "Retirement Savings: Choosing a Withdrawal Rate That Is Sustainable," AAll Journal 20: 16-21. Also see: Bengen, William P. 1994. "Determining Withdrawal Rates Using Historical Data," Journal of Financial Planning 7: 171.
    ${ }^{3}$ From 1926 to 2009, the S\&P 500 Index returned an average $9.8 \%$ per year compared to $5.4 \%$ for longterm government bonds and 3.0\% inflation. Sources: Standard \& Poor's Index Services Group for S\&P 500 Index; long-term government bonds and inflation provided by Stocks, Bonds, Bill, and Inflation Yearbook ${ }^{\top \mathrm{TM}}$, Ibbotson Associates.
    ${ }^{4}$ Cooley, Hubbard, and Walz, Retirement Savings: Choosing a Withdrawal Rate That Is Sustainable," 16-21.

