

* HYD is a hypothetical model based on backtested results. See www.americaninvestment.com for full explanation.

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## Of Gold and Governments

"Gold should also have modern appeal in a world increasingly suspicious of central planning. The gold standard is an automatic mechanism, operated in a decentralized manner that coordinates the self-interest of all market participants. As such, gold is uniquely equipped to accommodate the greater sophistication and complexity that come with globally integrated markets. In contrast, central banking essentially is a form of central planning, applied to the narrow but ubiquitous precincts of money and banking. ${ }^{1 "}$
-- Gold and Liberty
In the current economic and political climate, suspicion toward central planning is certainly evident. The gold price has risen concurrently. While its price is affected by myriad factors, there is no question that many investors value gold precisely because it is a form of money that cannot be destroyed "at the stroke of a pen."

While others are only now piling into gold, AIS has been recommending that investors hold gold as a portion of their portfolio since our founding in 1978. Similarly, our parent organization, the American Institute for Economic Research, has for over seven decades reminded its readers of gold's unique attributes, which stand in sharp contrast to those of the world's various fiat currencies. Unlike paper money, gold cannot be created and is limited in supply.

Our decades-long endorsement of gold has been uninterrupted, despite wars, business cycles and seemingly count-
 less investment fads. But this continuity arises from observation, not ideology. Economics is a social science so financial economists must be willing to reject long held convictions if empirical findings suggest doing so. Evidence to date continues to reveal that, without exception, the purchasing power of the world's currencies deteriorate over time. Gold, though its price is highly volatile in the short term, provides the best form of insurance against rapid monetary inflating and financial crises.
${ }^{1}$ Richard M. Salsman, Gold and Liberty (American Institute for Economic Research, April 1995), p. 3.
To order call 888 528-1216.

"Whatever happened to G-O-L-D?"

## ASSESSING BONDS: DURATION VERSUS MATURITY

Investors who understand the importance of liquidity have been frustrated of late by money market funds and other cash equivalent assets, which are paying interest rates of nearly zero percent. While the economy appears to be rebounding, there is very little chance that the Fed will increase its fed funds target any time soon. As this dilemma has intensified, investors have rushed into bonds and bond funds (see Chart 1) in search of higher yields.

Bonds can help in addressing this predicament, but we suspect many are rushing into longer term securities carelessly and may come to regret it. The purpose of holding bonds is portfolio stability, yet bonds are hardly risk-free. It is therefore crucial for investors to understand the nature of the risk-return tradeoff as it applies to fixed-income securities. In this article we review bond basics with a particular focus on the concept of bond duration. Duration is an extremely valuable tool because itprovides a means of measuring how vulnerable your bond portfolio is to interest rate risk.

## Bond Returns: Yield to Maturity

Conventional bonds are not complicated. A bond holder can expect to receive regular fixed "coupon" payments (most often these are semi-annual payments) plus a return of the bond's face value at a fixed date in the future (maturity date). A bond with a $\$ 1,000$ face value with a 5 percent annual coupon (paid semiannually) maturing in $61 / 2$ years would make 13 coupon payments of $\$ 25$ every six months and also pay $\$ 1,000$ at

| Chart 2: <br> 12 Evaluating the Maturity Risk/Return Tradeoff* |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\left.\begin{array}{l} 12 \\ 10 \\ 8 \end{array}\right]$ | Annualiz Compo |  |  |  |  |
| $\begin{aligned} & 6 \\ & 4 \end{aligned}$ | Annual Standa | ed Deviation |  |  |  |
|  |  |  |  | *Source: Dime | nsional Fund Advisors. |
|  | One-Month US Treasury Bills | Six-Month US Treasury Bills | One-Year US Treasury Notes | Five-Year US Treasury Notes | Twenty-Year US Govt. Bonds |


maturity.
An investor can calculate the nominal rate of return, known as yield to maturity (YTM) he can expect to receive on a bond, as long as the bond does not default and it is indeed held until maturity. YTM takes into account a bond's purchase price, redemption value, time to maturity, coupon yield, the time between interest payments. YTM recognizes the time value of money (the fact that a dollar received today is worth more than a dollar to be received in the future). It is an internal rate of return because it assumes that all cash flows (i.e. future coupon payments and the face value payment at maturity) are reinvested at the YTM rate rather than prevailing market interest rates. YTM is simply the discount rate at which the present value of all future payments would equal the present price of the bond. For example, if the bond described above could be purchased today for $\$ 900$, its YTM would be 3.50 percent. ${ }^{1}$

[^0]a source of portfolio stability avoid bonds that whose maturities extend beyond five years, as beyond this point the risk-return tradeoff becomes markedly less attractive. This progression is depicted in Chart 2.

## Duration Matters Most

Clearly, the length of a bond's "life" will have a significant impact on the risk and the return an investor will experience. However, it is inadequate to consider only a bond's maturity when assessing its vulnerability to interest rate risk. Consider two 20 year bonds, one with an 8 percent coupon and another with a 12 percent coupon. Though they mature on the same date, an investor will recover his original purchase price sooner with the 12 percent coupon bond, since each semi-annual payment is higher. In order to determine the effective maturity of a bond, a measure is needed that will also account for the entire pattern (both the size and timing) of its cash flows over the remainder of the bond's lifetime. This is reflected in a bond's duration ${ }^{2}$.

Duration measures a bond's economic lifetime. It is the number of years needed to fully recover the purchase price of a bond, given the present value of its cash flows. A bond's duration is derived by calculating the weighted average time to recover all of its remaining interest payments plus principal.

Table 1 provides an example of how duration is calculated. For simplicity, we have assumed that the bond pays a 10 percent coupon annually (rather than semi-annually).

Cash flows from the bond include five coupon payments of $\$ 100$, plus the return of face value (the bond's original purchase price of $\$ 1,000$ ) at the end of year five. Note that the sum of the present value of each year's cash flow is equal to $\$ 1,080$, which is the bond's current market price, based on the prevailing discount rate of 8 percent (e.g. the current yield to maturity for bonds of similar credit risk with the same maturity date). The price reflects a premium of $\$ 80$ above its face value because it is paying a coupon rate of 10 percent, which exceeds the 8 percent total return on comparable bonds.

The bond's duration, on the other hand,
is based on the present value of each year's cash flow weighted by when it will be received. When these weighted cash flows are divided by the bond's price and subsequently totaled, we have the number of years required for an investor to recover the bond's price. Keeping this in mind, several observations come to light:

- For any coupon-paying bond, duration will be less than maturity (in this case duration is 4.2 years while maturity is 5 years).
- Duration is inversely related to coupon rate (assuming maturity and yield to maturity are held constant) because higher coupons result in quicker recovery of a bond's value.
- Duration increases with a bond's time to maturity (assuming coupon rate and yield to maturity are held constant).
- Holding time to maturity and coupon rate constant, duration is inversely related to yield to maturity (the total rate of return on the bond) because a higher rate of return results in a quicker recovery of a bond's value.

Because an investor holding a shortduration bond will have his investment exposed to interest rate risk for a shorter period of time versus an investor holding a similar bond of longer duration, the shorter-duration bond will be less sensitive to changes in interest rates. Perhaps the most useful aspect of duration is that if the calculation is modified slightly, ${ }^{3}$ investors

| Table 1: Calculating Duration <br> \$1,000 Face Value 10\% Annual Coupon (Paid Annually) <br> 5 Year Maturity Yield to Maturity $=8 \%$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Year | Cash Flow <br> (\$) | Present Value Factor | (2) X (3) (\$) | (4) / Price | (1) X (5) |
| 1 | 100 | 0.926 | 92.60 | 0.0857 | 0.0857 |
| 2 | 100 | 0.857 | 85.70 | 0.0793 | 0.1587 |
| 3 | 100 | 0.794 | 79.40 | 0.0735 | 0.2205 |
| 4 | 100 | 0.735 | 73.50 | 0.0680 | 0.2721 |
| 5 | 1,100 | 0.681 | 749.10 | 0.6934 | 3.4671 |
| Price $=1,080.30$ |  |  |  | Duration = 4.2041 |  |

can use it to measure the interest rate sensitivity of a bond. Modified duration can be used to calculate the approximate percentage change in a bond's price that results from a given percentage change in prevailing interest rates. For example, the (modified) duration of the bond in Table 1 is $3.89(4.2041 /(1+0.08))$. If interest rates were to rise by 20 basis points ( 0.20 percent), this bond would fall in value by approximately 78 basis points ( 3.89 $x 0.20=0.78$ percent) from $\$ 1,080$ to \$1,072.

Duration can also be used to measure the interest rate sensitivity of a bond mutual fund. The duration for each of our recommended bond funds is presented in Table 2.

## Control Your Interest Rate Risk

Recall that yield to maturity provides a bond's total rate of return (in current dollars) if it is held to maturity. We have also established that an investor will weigh this return against a bond's interest rate risk, as measured by its duration. Duration can also be used to "immunize" portfolios against interest rate risk.

Interest rate risk has two components.

| Table 2: 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 | 2.8 | 2.6 |
| Vanguard Short-Term Bond Index | VBISX | 2.8 | 2.6 |
| iShares Barclays 1-3 Yr. Credit Bond | CSJ | 1.9 | 1.8 |
| iShares Barclays 1-3 Year Treasury | SHY | 1.9 | 1.8 |
| Vanguard Limited-Term Tax-Exempt | VMLTX | 2.7 | 2.5 |
| iShares Barclays TIPS Bond | TIP | 9.1 | 3.0 |
| Vanguard Inflation-Protected Securities | VIPSX | 9.0 | 3.4 |

[^1]Price risk simply describes the inverse relationship between bond prices and interest rates. Reinvestment rate risk results from the uncertainty that arises from the future rate of return at which a bond's cash flows will be reinvested. Recall that yield to maturity assumes, implicitly, that future cash flows will be reinvested at the calculated yield to maturity. In reality interest rates change over time, so the YTM an investor realizes over the life of the bond (i.e. his actual total return) will differ from the calculated YTM at the time he purchased it.

Price risk and reinvestment risk have offsetting wealth effects for bondholders. Rising interest rates will reduce the price of a bond, but increase the reinvestment rate at which the bond's cash flows
can be reinvested. Conversely, falling interest rates will reduce the return from reinvesting a bond's cash flows, but increase its price. These offsetting effects provide an investor with the opportunity to construct a portfolio designed to neutralize the effects of interest rate risk. Duration is the key to this so-called immunization strategy. Specifically, an investor with a given time horizon (e.g. a five year investment horizon to save for a down payment on a new home) can, in theory, neutralize the effects of interest rate risk by holding a portfolio of bonds with a duration equal to the investor's time horizon, in this case five years. The simplest way would be to buy a zero coupon bond that matures in five years; "zeroes" pay no coupon so their maturity
will always be equal to their duration.
Unfortunately, it is very difficult for most investors to maintain an immunized portfolio of coupon paying bonds; an investor would have to trade frequently because the portfolio's target duration would have to match his ever-shortening investment time horizon at all times. An investor can, however, carefully control his portfolio's exposure to interest rate risk by holding mutual funds with durations that are relatively stable. The short-term and structured bond funds we recommend are ideally suited to this objective. In contrast, the durations of actively managed bond funds tend to drift aimlessly along with the rootless prognostications of active fund managers.

## TARGET DATE FUNDS: DON’T BE A TARGET

Often described as a "one-stop shopping" solution for investors approaching retirement, a target date fund is basically a "fund of funds" in which the portfolio's underlying asset allocation mix adopts an increasingly conservative posture over time as an investor's predetermined target retirement date approaches. Also known as lifecycle or age-based funds, target date funds are promoted as a means of allowing investors to place their investment portfolio on "cruise control"; diversification, asset allocation and rebalancing are built in. While they are sound conceptually, it is becoming apparent that these funds have been poorly understood and misused by a large portion of the investors they were meant to serve.

## Background

Target date funds are said to be wellsuited for investors who recognize the tendency to stray from an established allocation plan when left to managing their own portfolios, such as young investors who invest too conservatively and older investors who invest too aggressively. These funds reduce the chance that an investor will inadvertently sabotage a sound investment strategy. They are designed to eliminate the emotionally challenging decision of whether or not to reallocate assets amidst market gyrations. Many such funds offer reduced initial minimum investment levels to encourage participation. This provides even low net worth investors the opportunity to access a simple, one-stop diversification and asset-allocation solution with rebalancing
over time based on a defined retirementdate horizon.

This concept has been marketed aggressively to investors as a simple solution to portfolio management. The funds have proven appealing to investors who do not have the expertise or desire to construct and manage an investment portfolio themselves or who cannot meet the minimum asset thresholds of reputable investment professionals. They have been among the fastest-growing product segments in the retirement industry since 2006, when legislation (the Pension Protection Act of 2006) provided employers with liability protection for losses incurred by target date funds when used as a Qualified Default Investment Alternative (QDIA) option in employeedirected retirement plans.

While these features sound attractive, they must be weighed against the "one size fits all" nature inherent in any mutual fund. Two investors of the same age and similar retirement goals may differ dramatically with regard to their tolerance for fluctuations in the value of assets over time. Target date funds eliminate the possibility of creating a portfolio customized to match an individual's unique risk profile. This is a severe limitation in our estimation, and the bear market has reminded many unwary investors that failing to "look under the hood" can be very costly indeed.

## Crashing on Autopilot

Statistics show that target date fund investors, including those close to retirement age, have incurred staggering
losses since the market meltdown that began in late 2007, catching many people by surprise. A recent analysis of 72 target date funds indicates that shareholders interested in retiring in 2010 suffered a median return of negative 31.90 percent during the period between October 2007 and February 2009. ${ }^{1}$ This poor performance has in turn, prompted heightened scrutiny by the SEC as well as independent investor watchdog organizations.

Target date funds invest in capital market assets, so such large losses during a bear market should not have come as a shock. We suspect many investors misconstrued the nature of risk reduction afforded by these funds. They do not eliminate market risk; they merely reduce the portfolio's exposure to highly volatile assets as time passes. It appears that many investors failed to grasp this distinction.

A recent survey conducted by the Janus Capital Group of 6,000 defined contribution plan sponsors revealed some crucial misuses of target date funds by investors. Many investors are combining target date funds that have differing target dates, or combining target date funds with other mutual funds, in effect negating the primary benefit of these products. It is clear investors are confused. Some do not know the year in which they expect to retire (they chose multiple years). Many select funds based on the year they expect to leave their current employer (rather than a projected retirement date). Some were under the impression that by combining target date funds they would achieve more upside potential or more income.

Many investors mistakenly believe that all target date funds are created equal. But in fact two such funds with the same "target date" but issued by different fund companies can assume dramatically different levels of risk exposure depending on the manager and his perception of risk. The reallocation of assets within a target date fund over time to accommodate an investor's changing tolerance for risk (his so-called "glide path") will also vary by fund manager. In fact, not all funds reach their most conservative allocation (whereby they become essentially "income funds") in the year they target. Some funds, operating under the assumption that investors will require equity-style returns in order to fund living expenses during retirement, will not reach their most conservative stance until 20 years after the target date. These differences make it very difficult to establish a benchmark for comparing risk and return among target funds ${ }^{2}$. Perhaps the most dangerous misperception is that target date funds provide guaranteed returns, or steady payouts similar to those of a pension.

## Costs

Because they are mutual funds, target date funds must calculate and publish an
expense ratio, which is a comprehensive measure of all operating costs, including management fees, expressed as a percentage of the fund's average net assets. Because a target date fund is made up of various funds within a fund family, there can be several layers of expenses that, when compounded over time, can cut severely into returns. In some, there is a fee for the underlying mutual funds and another layer of fees for managing the funds. Target date funds come in both the active and passive varieties; index-type funds are far less costly but in all cases investors should review these expense ratios very carefully.

## The Future

Target date funds have been marketed as a simple solution to retirement planning, but the lure of convenience appears to have lulled investors into neglecting their responsibility to understand what they were buying. There is clear confusion and misunderstanding among investors. In our estimation target date funds may yet prove useful; and to that end greater transparency and education would be constructive, especially for employee participants in retirement plans.

Proposals have been designed to address this problem. The SEC and Labor

Department held joint hearings in June to discuss possible reforms including improved education for investors and greater oversight by regulators. The Investment Company Institute (ICI) (the national association of U.S. investment companies) has also reacted by issuing principles regarding disclosure practices that funds should follow. According to ICI , funds should: 1. State the target (retirement) date in the fund name 2. State whether the fund assumes that investors will make withdrawals gradually or all at once 3. Establish what age group the fund is designed for 4 . Provide an illustration of the asset allocation over time, and 5. Warn that the fund's returns are not guaranteed. ${ }^{3}$

These developments may prove helpful, but wise investors will not rely on regulators or on trade groups to protect them. The importance of doing your own homework, as always, cannot be overstated; there is no substitute for an investor's informed judgment. We will continue to monitor the evolution of these investment vehicles. We continue to recommend that investors construct their own portfolios customized to match their personal circumstances, or to turn to a registered investment advisor if additional guidance is needed.
${ }^{1}$ Got Target Date Funds? July 2009 Mutual Fund Focus (Investment Advisor, July 2009, Vaughan Scully)
${ }^{2}$ Research Notes Comparing Moving Targets: Recent Efforts to Benchmark Target-Date Funds (Vanguard, June 2009, C. William Cole) ${ }^{3}$ Got Target Date Funds? July 2009 Mutual Fund Focus (Investment Advisor, July 2009, Vaughan Scully)

## Lifecycle Fund Assets Billions of dollars, end-of-period, 2001-2009:Q1



Source: Investment Company Institute Research Fundamentals August 2009 Vol. 18 No. 5-Q1

| Recommended HYD Portfolio |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| As of September 15, 2009 |  |  |  |  | --Percent of Portfolio-- |  |
|  | Rank | Yield | Price | Status | Value | No. Shares |
| AT\&T Corp. | 1 | 6.14\% | 26.70 | Buying | 15.57 | 11.33 |
| Verizon | 2 | 6.13\% | 31.00 | Holding** | 17.59 | 11.02 |
| Dupont | 3 | 4.95\% | 33.15 | Buying | 14.37 | 8.42 |
| Merck \& Co. | 4 | 4.65\% | 32.70 | Buying | 9.36 | 5.56 |
| Pfizer | 6 | 3.95\% | 16.21 | Selling | 14.93 | 17.90 |
| General Electric | 18 | 2.50\% | 16.00 | Holding | 7.04 | 8.55 |
| Alcoa | 26 | 0.86\% | 13.99 | Holding | 8.43 | 11.71 |
| Bank of America | 29 | 0.24\% | 16.79 | Selling | 9.65 | 11.17 |
| Citigroup | NA |  | 4.12 | Selling | 3.04 | 14.35 |
| Cash (6-mo. T-Bill) | NA |  |  |  | 0.01 | -- |
| ${ }^{* *}$ 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. |  |  |  |  |  |  |

## 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 August 31, 2009*.

|  | 1 mo . | 1 yr . | 5 yrs . | 10 yrs . | 20 yrs . | Since 1/79 | Std. Dev. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HYD Strategy | 5.41 | -22.32 | 2.70 | 4.64 | 12.47 | 15.62 | 18.19 |
| Russell 1000 Value Index | 5.23 | -20.27 | 0.44 | 1.84 | 8.34 | 11.92 | 14.92 |
| Dow Jones Industrial Index | 3.97 | -14.85 | 1.20 | 0.92 | 9.02 | NA | NA |

*Data assume all purchases and sales at mid-month prices ( $+/-\$ 0.125$ per share commis-sions), 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 follow-ing 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.

## BLACKROCK ACQUIRES BARCLAYS GLOBAL INVESTORS (BGI) AND ISHARES FUNDS

On June 16 BlackRock, Inc. and Barclays Bank PLC announced that BlackRock would acquire Barclays Global Investors (BGI), Barclays U.S. asset management arm. BGI is advisor and distributor for the iShares family of exchange traded funds (ETFs). Barclays Bank shareholders have approved the proposed sale and the transaction is expected to close in the fourth quarter of 2009 following the receipt of client consents and regulatory approvals, and satisfaction of customary closing conditions.

At first blush this seems to be an odd marriage. iShares is the leading provider of low-cost index ETFs. BlackRock (which acquired Merrill Lynch's asset management business and proprietary mutual funds in 2006), is among the largest asset managers in the world and is best known for its actively managed (and relatively expensive) bond funds.

The deal in fact highlights both the strength of the iShares brand and the ascent of passive management. BlackRock has announced that it has no plans to change the fee schedule or the investment approach of the iShares ETFs. We continue to recommend iShares products as an efficient means of capturing the returns of our recommended asset classes.

A new advisory agreement for each fund must be approved by fund shareholders as part of the acquisition process. Investors who have received a proxy package can find more information at www.ishares.com.


## "Beware of small expenses; a small leak will sink a great ship."

- Poor Richard, 1745. An Almanack For the Year By Richard Saunders (a.k.a. Benjamin Franklin)
"Gain may be temporary and uncertain, but ever while you live, expense is constant and certain."
- Poor Richard, 1758


## RECENT MARKET STATISTICS

| Precious Metals \& Commodity |  |  |  |
| :--- | ---: | ---: | ---: |
|  | Prices (\$) |  |  |
|  | $\mathbf{9 / 1 5 / 0 9}$ | Mo. Earlier | Yr. Earlier |
| Gold, London p.m. fixing | $\mathbf{9 9 6 . 0 0}$ | 953.60 | 775.00 |
| Silver, London Spot Price | $\mathbf{1 6 . 5 2}$ | 14.98 | 10.84 |
| Copper, COMEX Spot Price | $\mathbf{2 . 7 9}$ | 2.83 | 3.18 |
| Crude Oil, W. Texas Int. Spot | $\mathbf{7 0 . 9 2}$ | 67.50 | 95.70 |
| Dow Jones Spot Index | $\mathbf{3 1 6 . 1 8}$ | 317.67 | 361.88 |
| Dow Jones-AlG Futures Index | $\mathbf{1 2 6 . 5 8}$ | 127.51 | 172.50 |
| Reuters-Jefferies CRB Index | $\mathbf{2 5 8 . 1 7}$ | 257.75 | 352.09 |

Interest Rates (\%)

| U.S. Treasury bills - $\begin{gathered}91 \text { day } \\ 182 \text { day } \\ 52 \text { week }\end{gathered}$ | 0.13 | 0.18 | 1.03 |
| :---: | :---: | :---: | :---: |
|  | 0.21 | 0.27 | 1.52 |
|  | 0.36 | 0.44 | 1.61 |
| U.S. Treasury bonds - 10 year | 3.47 | 3.67 | 3.47 |
| Corporates: |  |  |  |
| High Quality - 10+ year | 5.17 | 5.34 | 5.46 |
| Medium Quality - 10+ year | 6.40 | 6.62 | 7.13 |
| Federal Reserve Discount Rate | 0.50 | 0.50 | 2.25 |
| New York Prime Rate | 3.25 | 3.25 | 5.00 |
| Euro Rates 3 month | 0.77 | 0.88 | 4.97 |
| Government bonds - 10 year | 3.32 | 3.48 | 4.01 |
| Swiss Rates - 3 month | 0.30 | 0.35 | 2.73 |
| Government bonds - 10 year | 2.12 | 1.99 | 2.73 |
| Exchange Rates (\$) |  |  |  |
| British Pound | 1.643600 | 1.352900 | 1.787700 |
| Canadian Dollar | 0.929368 | 0.911328 | 0.937207 |
| Euro | 1.461700 | 1.421600 | 1.417500 |
| Japanese Yen | 0.010995 | 0.010566 | 0.009463 |
| South African Rand | 0.135318 | 0.124037 | 0.123839 |
| Swiss Franc | 0.963948 | 0.932923 | 0.893336 |


|  | Securities Markets |  |  |
| :---: | ---: | ---: | ---: |
| S \& P 500 Stock Composite | $\mathbf{9 / 1 5 / 0 9}$ | Mo. Earlier | Yr. Earlier |
| Dow Jones Industrial Average | $\mathbf{1 , 0 5 2 . 6 3}$ | $1,004.09$ | $1,192.70$ |
| Dow Jones Bond Average | $\mathbf{9 , 6 8 3 . 4 1}$ | $9,321.40$ | $10,917.51$ |
| Nasdaq Composite | $\mathbf{2 4 1 . 9 6}$ | 238.15 | 206.68 |
| Financial Times Gold Mines Index | $\mathbf{2 , 1 0 2 . 6 4}$ | $1,985.52$ | $2,179.91$ |
| FT EMEA (African) Gold Mines | $\mathbf{2 , 9 9 2 . 3 6}$ | $2,648.94$ | $1,932.41$ |
| FT Asia Pacific Gold Mines | $\mathbf{1 2 , 5 4 2 . 3 3}$ | $2,524.84$ | $1,616.52$ |
| FT Americas Gold Mines | $\mathbf{2 , 6 5 0 . 2 9}$ | $2,274.00$ | $7,305.20$ |
|  |  |  | $1,756.96$ |

## Coin Prices (\$)

|  | $\mathbf{9 / 1 5 / 0 9}$ | Mo. Earlier | Yr. Earlier | Prem (\%) |
| :--- | ---: | ---: | ---: | ---: |
| American Eagle (1.00) | $\mathbf{1 , 0 3 2 . 5 7}$ | 977.58 | 814.83 | 3.67 |
| Austrian 100-Corona (0.9803) | $\mathbf{9 7 1 . 5 3}$ | 918.33 | 761.42 | -0.50 |
| British Sovereign (0.2354) | $\mathbf{2 4 7 . 4 0}$ | 226.65 | 188.35 | 5.52 |
| Canadian Maple Leaf (1.00) | $\mathbf{1 , 0 2 6 . 9 0}$ | 971.90 | 801.10 | 3.10 |
| Mexican 50-Peso (1.2057) | $\mathbf{1 , 1 9 7 . 4 0}$ | $1,131.90$ | 938.60 | -0.29 |
| Mexican Ounce (1.00) | $\mathbf{1 , 0 1 3 . 3 0}$ | 958.90 | 778.60 | 1.74 |
| S. African Krugerrand (1.00) | $\mathbf{1 , 0 2 1 . 8 2}$ | 966.92 | 803.47 | 2.59 |
| U.S. Double Eagle-\$20 (0.9675) |  |  |  |  |
| St. Gaudens (MS-60) | $\mathbf{1 , 3 8 0 . 0 0}$ | $1,265.00$ | 912.50 | 43.21 |
| Liberty (Type I-AU50) | $\mathbf{1 , 3 8 2 . 5 0}$ | $1,277.50$ | $1,050.00$ | 43.47 |
| Liberty (Type II-AU50) | $\mathbf{1 , 3 7 0 . 0 0}$ | $1,225.00$ | 980.00 | 42.17 |
| Liberty (Type III-AU50) | $\mathbf{1 , 3 3 2 . 5 0}$ | $1,197.50$ | 882.50 | 38.28 |
| U.S. Silver Coins (\$1,000 face | value, circulated) |  |  |  |
| 90\% Silver Circ. (715 oz.) | $\mathbf{1 1 , 6 6 2 . 5 0}$ | $10,275.00$ | $8,425.00$ | -1.26 |
| 40\% Silver Circ. (292 oz.) | $\mathbf{4 , 7 3 7 . 5 0}$ | $4,125.00$ | $3,650.00$ | -1.79 |
| Silver Dollars Circ. | $\mathbf{1 3 , 9 1 2 . 5 0}$ | $12,675.00$ | $12,050.00$ | 8.86 |

Note: Premium reflects percentage difference between coin price and value of metal in a coin, with gold at $\$ 996.00$ per ounce and silver at $\$ 16.52$ per ounce. The weight in troy ounces of the precious metal in coins is indicated in parentheses

## THE DOW JONES INDUSTRIALS RANKED BY YIELD*

|  | Ticker <br> Symbol | Market Prices (\$) |  |  | 12-Month (\$) |  | Latest Dividend Record |  |  | Indicated |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Annu | Yieldt |  |  |  |
|  |  | 9/15/09 | 8/14/09 | 9/15/08 |  |  | High | Low | Amount (\$) | Date | Paid | Dividend | (\%) |
| AT\&T (New) | T | 26.70 | 25.45 | 29.96 | 31.18 | 20.90 | 0.410 | 7/10/09 | 8/3/09 | 1.640 | 6.14 |
| Verizon | VZ | 31.00 | 31.08 | 33.24 | 34.90 | 23.07 | 0.475 | 10/09/09 | 11/2/09 | 1.900 | 6.13 |
| Dupont | DD | 33.15 | 32.36 | 44.74 | 48.22 | 16.05 | 0.410 | 8/14/09 | 9/11/09 | 1.640 | 4.95 |
| Merck | MRK | 32.70 | 30.98 | 32.72 | 33.05 | 20.05 | 0.380 | 9/04/09 | 10/1/09 | 1.520 | 4.65 |
| Kraft | KFT | 26.08 | 28.10 | 33.14 | 34.97 | 20.81 | 0.290 | 9/30/09 | 10/14/09 | 1.160 | 4.45 |
| Pfizer | PFE | 16.21 | 15.77 | 18.05 | 19.39 | 11.62 | 0.160 | 8/07/09 | 9/2/09 | 0.640 | 3.95 |
| Chevron | CVX | 71.63 | 68.63 | 80.09 | 89.75 | 55.50 | 0.680 | 8/19/09 | 9/10/09 | 2.720 | 3.80 |
| McDonald's | MCD | 54.98 | 55.27 | 63.72 | 65.47 | 45.79 | 0.500 | 9/01/09 | 9/15/09 | 2.000 | 3.64 |
| Home Depot, Inc. | HD | 27.41 | 27.14 | 28.50 | 29.70 | 17.05 | 0.225 | 9/03/09 | 9/17/09 | 0.900 | 3.28 |
| Johnson \& Johnson | JNJ | 60.15 | 60.08 | 69.61 | 72.69 | 46.25 | 0.490 | 8/25/09 | 9/8/09 | 1.960 | 3.26 |
| Caterpillar | CAT | 51.70 | 46.00 | 63.21 | 74.50 | 21.71 | 0.420 | 7/20/09 | 8/20/09 | 1.680 | 3.25 |
| Boeing | BA | 52.07 | 44.87 | 62.25 | 63.00 | 29.05 | 0.420 | 8/07/09 | 9/4/09 | 1.680 | 3.23 |
| Procter and Gamble | PG | 55.03 | 52.37 | 72.14 | 73.00 | 43.93 | 0.440 | 7/24/09 | 8/17/09 | 1.760 | 3.20 |
| Coca-Cola | KO | 52.45 | 48.47 | 54.75 | 55.03 | 37.44 | 0.410 | 9/15/09 | 10/1/09 | 1.640 | 3.13 |
| Intel Corp | INTC | 19.55 | 18.77 | 19.36 | 20.65 | 12.05 | 0.140 | 11/07/09 | 12/1/09 | 0.560 | 2.86 |
| 3M Company | MMM | 74.68 | 71.32 | 68.88 | 74.88 H | 40.87 | 0.510 | 8/21/09 | 9/12/09 | 2.040 | 2.73 |
| United Tech. | UTX | 61.29 | 57.21 | 63.12 | 68.00 | 37.40 | 0.385 | 8/21/09 | 9/10/09 | 1.540 | 2.51 |
| General Electric | GE | 16.00 | 13.92 | 24.60 | 29.20 | 5.73 | 0.100 | 9/21/09 | 10/26/09 | 0.400 | 2.50 |
| Travellers | TRV | 49.01 | 47.25 | 43.70 | 58.57 | 28.91 | 0.300 | 9/10/09 | 9/30/09 | 1.200 | 2.45 |
| Exxon Mobil | XOM | 69.49 | 68.21 | 73.25 | 83.64 | 56.51 | 0.420 | 8/13/09 | 9/10/09 | 1.680 | 2.42 |
| Wal-Mart Stores | WMT | 49.93 | 51.79 | 61.63 | 63.85 | 46.25 | 0.273 | 12/11/09 | 1/4/10 | 1.090 | 2.18 |
| American Express | AXP | 34.65 | 31.72 | 35.48 | 41.10 | 9.71 | 0.180 | 7/02/09 | 8/10/09 | 0.720 | 2.08 |
| Microsoft Corp. | MSFT | 25.20 | 23.69 | 26.82 | 27.66 | 14.87 | 0.130 | 8/20/09 | 9/10/09 | 0.520 | 2.06 |
| IBM | IBM | 119.35 | 118.57 | 115.19 | 124.00 | 69.50 | 0.550 | 8/10/09 | 9/10/09 | 2.200 | 1.84 |
| Walt Disney | DIS | 28.29 | 25.86 | 32.36 | 34.85 | 15.14 | 0.350 | 12/15/08 | 1/20/09 | 0.350 | 1.24 |
| Alcoa | AA | 13.99 | 13.27 | 26.93 | 27.50 | 4.97 | 0.030 | 8/07/09 | 8/25/09 | 0.120 | 0.86 |
| Hewlett-Packard | HPQ | 45.64 | 44.09 | 45.33 | 49.20 | 25.39 | 0.080 | 9/16/09 | 10/7/09 | 0.320 | 0.70 |
| J P Morgan | JPM | 43.19 | 42.45 | 37.00 | 50.63 | 14.96 | 0.050 | 10/06/09 | 10/31/09 | 0.200 | 0.46 |
| Bank of America | BAC | 16.79 | 17.39 | 26.55 | 39.50 | 2.53 | 0.010 | 9/04/09 | 9/25/09 | 0.040 | 0.24 |
| Cisco | CSCO | 22.98 | 21.31 | 22.38 | 24.30 | 13.61 | 0.000 |  |  | 0.000 | 0.00 |

[^2]| RECOMMENDED INVESTMENT VEHICLES |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Descriptive Quarterly Statistics, as of 6/30/09 |  |  |  |  |  |  |  |  | Annualized Returns (\%), as of 8/31/09 |  |  |  |  |  |
|  | Ticker | Avg. Market Cap. / Avg. Maturity |  | No. ofHoldings | Ratios |  |  |  |  | 12 Mo. Yield (\%) | Total |  |  | After Tax* |  |  |
|  | Symbol |  |  | Expe | se (\%) | Sharpe | Turnove |  | 1 yr . |  | 3 yr . | 5 yr . | 1 yr . | 3 yr . | 5 yr . |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Short-Term Bond Index | BSV ${ }^{2}$ |  |  |  | 1061 |  | . 10 | na | 101 | -- | 3.33 | 6.24 | -- | -- | 5.05 | -- | -- |
| Vanguard Short-Term Bond Index | VBISX |  |  | 1061 |  | . 19 | 1.20 | 101 | -- | 3.31 | 6.08 | 5.90 | 4.29 | 4.91 | 4.45 | 2.89 |
| iShares Barclays 1-3 Yr. Credit Bond | CSJ ${ }^{1}$ |  |  | 290 |  | . 20 | na | 67 | -- | 4.18 | 6.04 | -- | -- | 4.49 | -- | -- |
| iShares Barclays 1-3 Year Treasury | SHY ${ }^{1}$ |  |  | 47 |  | . 15 | 1.26 | 37 | -- | 3.16 | 3.86 | 5.18 | 3.86 | 2.82 | 3.88 | 2.64 |
| Vanguard Limited-Term Tax-Exempt | VMLTX |  |  | 928 |  | . 15 | 0.49 | 23 | -- | 3.05 | 4.03 | 4.21 | 3.24 | 4.03 | 4.21 | 3.24 |
| Inflation-Protected Fixed Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Barclays TIPS Bond | TIP |  |  | 28 |  | . 20 | 0.36 | 10 | -- | 4.68 | -0.53 | 4.82 | 4.23 | -1.75 | 3.14 | 2.58 |
| Vanguard Inflation-Protected Securities | VIPSX |  |  | 26 |  | . 20 | 0.30 | 28 | -- | 1.80 | -1.40 | 4.58 | 4.12 | -2.01 | 3.16 | 2.53 |
| Real Estate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard REIT Index | VNQ ${ }^{2}$ |  |  | 100 |  | 0.11 | -0.41 | 10 | 0.9 | 8.58 | -31.12 | -13.24 | -- | -32.57 | -14.50 | -- |
| Vanguard REIT Index | VGSIX ${ }^{3}$ |  |  | 100 |  | 0.21 | -0.41 | 10 | 0.9 | 6.17 | -31.20 | -13.33 | 0.32 | -32.64 | -14.57 | -1.13 |
| U.S. Large Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Value Index | VTV ${ }^{2}$ |  |  | 415 |  | 0.10 | -0.59 | 27 | 1.3 | 3.88 | -17.88 | -7.79 | 0.71 | -18.33 | -8.21 | 0.28 |
| Vanguard Value Index | VIVAX |  |  | 415 |  | 0.21 | -0.60 | 27 | 1.3 | 3.76 | -17.98 | -7.89 | 0.62 | -18.42 | -8.29 | 0.21 |
| U.S. Small Cap Value |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Russell Microcap Index | IWC ${ }^{1}$ |  |  | 1299 |  | 0.60 | -0.64 | 21 | 1.2 | 1.34 | -21.40 | -10.55 | -- | -21.63 | -10.70 | ${ }^{--}$ |
| Vanguard Small-Cap Value Index | VBR ${ }^{2}$ |  |  | 986 |  | 0.11 | -0.45 | 30 | 0.8 | 3.01 | -16.64 | -6.19 | 2.22 | -17.19 | -6.67 | 1.75 |
| Vanguard Small-Cap Value Index | VISVX |  |  | 986 |  | 0.23 | -0.45 | 30 | 0.8 | 2.83 | -16.78 | -6.30 | 2.12 | -17.29 | -6.76 | 1.67 |
| U.S. Large Cap Growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares Russell 1000 Growth Index | IWF ${ }^{1}$ |  |  | 638 |  | . 20 | -0.36 | 16 | 3.0 | 1.51 | -16.85 | -3.11 | 1.05 | -17.21 | -3.35 | 0.83 |
| Vanguard Growth Index | VIGRX |  |  | 403 |  | 0.23 | -0.36 | 27 | 2.5 | 1.24 | -18.51 | -2.97 | 1.28 | -18.67 | -3.11 | 1.13 |
| U.S. Marketwide |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Total Stock Market Index | VTI ${ }^{2}$ |  |  | 3392 |  | 0.07 | -0.48 | 5 | 1.6 | 2.45 | -18.08 | -5.25 | 1.37 | -18.42 | -5.54 | 1.07 |
| Fidelity Spartan Total Market Index | FSTMX ${ }^{4}$ |  |  | 3169 |  | . 10 | -0.49 | 3 | 1.8 | 2.46 | -18.41 | -5.40 | 1.28 | na | na | na |
| Foreign- Developed Markets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares MSCI Growth Index | EFG ${ }^{1}$ |  | B. | 501 |  | 0.40 | -0.34 | 37 | 1.5 | 2.57 | -18.79 | -4.74 | -- | -19.32 | -5.02 | -- |
| iShares MSCI Value Index | EFV ${ }^{1}$ |  | B. | 572 |  | 0.40 | -0.35 | 28 | 1.0 | 3.09 | -10.72 | -4.98 | -- | -11.44 | -5.52 | -- |
| Vanguard Europe Pacific Index | VEA ${ }^{2}$ |  |  | 971 |  | 0.11 |  | 16 | 1.4 | 3.25 | -13.94 | -- | -- | -14.09 | -- | -- |
| Vanguard Tax-Managed International | VTMGX ${ }^{5}$ |  |  | 971 |  | 0.15 | -0.33 | 16 | 1.4 | 3.14 | -14.65 | -4.73 | 6.07 | -14.93 | -4.96 | 5.83 |
| Vanguard Developed Markets Index | VDMIX ${ }^{6}$ |  |  | 970 |  | . 29 | -0.34 | 13 | 1.5 | 5.01 | -14.31 | -4.69 | 5.84 | -15.15 | -5.33 | 5.22 |
| Foreign- Emerging Markets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vanguard Emerging Market Index | $\mathrm{VWO}^{2}$ |  |  | 778 |  | 0.20 | 0.15 | 20 | 1.6 | 3.72 | -9.94 | 4.94 | ${ }^{--}$ | -10.60 | 4.48 | -- |
| Vanguard Emerging Market Index | VEIEX ${ }^{7}$ |  |  | 778 |  | 0.32 | 0.15 | 20 | 1.6 | 3.50 | -10.48 | 4.64 | 15.77 | -11.11 | 4.21 | 15.38 |
| Gold-Related Funds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iShares COMEX Gold Trust | $1 \mathrm{AU}^{2}$ |  |  | 1 |  | 0.40 | 0.60 | 0.00 | -- | 0.00 | 14.30 | 14.53 | -- | 14.30 | 14.53 | -- |
| streetTRACKS Gold Shares | GLD ${ }^{1}$ |  |  | 1 |  | . 40 | 0.61 | 0.00 | -- | 0.00 | 14.25 | 14.83 | -- | 14.25 | 14.83 | -- |
|  |  | Recommended Gold-Mining Companies (\$) |  |  |  |  |  |  |  |  |  | Data provided by the funds and Morningstar. ${ }^{1}$ Exchange Traded Fund, traded on NYSE. ${ }^{2}$ Exchange Traded Fund, traded on AMEX. ${ }^{3} 1 \%$ fee for redemption in 1 yr . ${ }^{4} 0.5 \%$ fee for redemption in 90 days. ${ }^{5} 1 \%$ fee for redemption |  |  |  |  |
|  | Ticker |  | Month | Year | --- 52-Week --- |  |  | Distributions |  |  | Yield <br> (\%) |  |  |  |  |  |
|  | Symbol | 9/15/09 | Earlier | Earlier | High Low |  |  | Last 12 Months Frequency |  |  |  |  |  |  |  |  |
| Anglogold Ltd., ADR | AU | 44.25 | 37.76 | 23.34 | 44.30 | 13.37 |  |  |  | Semiannual | 0.2868 | in $5 \mathrm{yrs} .{ }^{6} 2 \%$ fee for redemption in 60 days. ${ }^{7} 0.5 \%$ fee for purchase and $0.5 \%$ fee for redemption. * Calculated |  |  |  |  |
| Barrick Gold Corp. $\dagger$ | ABX | 37.95 | 33.92 | 27.94 | $2.10 \quad 17.27$ |  |  | 0.3400 |  | Semiannual | 0.8959 |  |  |  |  |  |
| Gold Fileds Ltd. | GFI | 14.53 | 12.32 | 7.51 | 4.77 | 4.64 |  |  |  | Semiannual | 0.9160 | using the highest individual federal income tax rates in |  |  |  |  |
| Goldcorp, Inc. $\dagger$ | GG | 42.28 | 35.36 | 27.14 | 43.39 | 13.84 |  |  |  | Monthly | 0.3619 | effect at the time of each distribution and do not reflect |  |  |  |  |
| Newmont Mining | NEM | 46.73 | 40.63 | 38.38 | 49.84 | 21.17 |  |  |  | Quarterly | 0.8560 | the impact of state and local taxes and individual tax situations. + Dividend shown is after 15\% Canadian tax |  |  |  |  |
| The information herein is derived from generally reliable sources, but cannot be guaranteed. American Investment Services, the American Institute for Economic withholding. 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. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


[^0]:    ${ }^{1}$ Investors can obtain a bond's YTM from their broker and can easily be verified with most financial calculators.

[^1]:    ${ }^{2}$ The calculation for duration may be formally expressed as:
    $D=\sum_{t=1}^{n} P V\left(C F_{t}\right) \times t / P_{B}$
    Where: $t=$ the time period at which the cash flow is expected, $n=$ number of periods until maturity, $P V\left(\mathrm{CF}_{\mathrm{t}}\right)=$ present value of the cash flow in period t discounted at the yield to maturity, $P_{B}=$ market price of the bond.
    ${ }^{3}$ Modified duration $=D_{m}=D /(1+r)$ where $\mathrm{D}=$ duration, $\mathrm{r}=$ the bond's yield to maturity

[^2]:    * See the Recommended HYD Portfolio table on page 70 for current recommendations. $\dagger$ Based on indicated dividends and market price as of 9/15/09.

    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 9/16/08.

