AIS INVESTMENT GUIDE

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Rates of Interest

As of November 18, 2022

Government Obligations[1]	
Fed Funds Rate	3.83%
3-Month Treas. Bill	4.13%
10-Yr. Treas. Note	3.77%
30-Yr. Treas. Bond	3.89%
10-Yr. TIPS	1.49%
Muni Bonds - Nat'l 10-Yr.	3.00%
Mortgage Rates[2]	
15-Yr Fixed	5.98%
30-Yr Fixed	6.61%
Banking[3]	
Savings	0.24%
Money Market	0.29%
12-month CD	0.90%

[1] Federal Reserve, fmsbonds.com. Annualized Rates. Notes, bonds, TIPS reflect yield to maturity.
[2] Freddie Mac. U.S. Weekly Averages.
[3] FDIC. Average national rates, non-jumbo deposits (<$100k).

Giving Thanks for Prosperity

News around the world has been bleak and global stock markets have fallen 20 percent. In short, the millions of buyers and sellers in capital markets have concluded that the world has become a riskier place in which to save and invest.

Since 2019, the world has endured a debilitating epidemic and ensuing economic shutdown, followed by massive fiscal and monetary expansion; inflation is at its highest in four decades. The Fed has sharply increased short-term interest rates, even at the risk of recession. Federal spending relative to GDP remains at its highest since World War II. Meanwhile Europe is engaged in a land war of magnitude not seen for 75 years while an increasingly assertive China threatens stability in the Pacific.

Such daunting circumstances often blind the media to the steady advance of human progress. The following data points may provide cheer in the holiday season:

- Between 2000 and 2020 child mortality decreased by 55 percent in low-income countries.
- From 2000 to 2019 global life expectance increased by 6.6 years. Low-income countries experienced gains of 11 percent.
- Global trade expanded as a percentage of GDP from 43 percent in 1995 to 52 percent in 2020, signaling greater global integration.
- U.S. energy-related carbon dioxide emissions fell 22 percent from their peak in 2007 through 2021, as natural gas production and renewable energy sources displaced higher-emitting fossil fuels.
- Access to financial services has greatly expanded. Bank account ownership worldwide expanded from 51 percent to 76 percent between 2011 and 2021.

These recent trends extend the Great Enrichment that began with the birth of liberal society some 400 years ago, prior to which mankind was mired in abject poverty. We are optimistic that the human condition will continue to advance, provided individuals remain free to accumulate capital, exchange property freely, and perhaps most importantly, to innovate in a liberal society.

RESEARCH: HOW TO LIVE LONG AND PROSPER

"How Well Do Retirees Assess the Risks They Face in Retirement?"[1] Based on conversations with our clients, as well as research done for this *In Brief* article published by the Boston College Center for Retirement Research (CRR), the answer is – not well enough.

In fact, most retirees primarily worry about the market—the risk that investment portfolios will lose value. They are less concerned with longevity and health considerations– the risk of outliving their assets or the risk of unexpected health care costs in retirement. The CRR study warns, however, that both longevity and health should be of *higher* concern for retirees than market fears.

Investors who are beginning to construct a retirement plan should heed the findings and anchor expectations. We are grateful to the CRR for allowing us to summarize their useful research and analysis of this important topic.

Data and Methodology

The CRR study mainly "uses data from the Health and Retirement Study (HRS), a biennial longitudinal survey of a representative sample of U.S. households over age 50. The survey interviews approximately 20,000 respondents every two years on subjects that include health care, housing, assets, pensions, employment, and disability. It is the most comprehensive survey of older Americans, and the economic measures captured by the survey data are considered very high quality."

The study explores five major risks for retirees:

1. **Longevity**: The possibility of living longer than expected and exhausting one's resources.

2. **Market**: Since most people now save through 401(k) plans or other defined contribution plans, retirees face the risk associated with market volatility; a downturn in the market could certainly upset future spending plans. They also face the possibility of adversity in the housing market because few downsize after retirement.

3. **Health**: Retirees may have unexpected medical expenses and long-term care needs. Out-of-pocket expenses rise quickly with age, and health costs in retirement have increased substantially over the past few decades.

4. **Family**: This factor includes divorce, death of a spouse, and adult children becoming ill or unemployed. Any of these events may be harder to manage than the longevity, market, and health risks because of the potential for long term impact.

5. **Policy**: Social Security is the primary income source for most retirees. But given the program's current financial structure, benefits could be substantially reduced in the future (legislation could address the problem, but for decades reform has been a non-starter politically.)

The study "1) systematically and simultaneously values and ranks the financial impacts of the above risks within a unified framework; and 2) measures risk from both the objective and subjective perspectives."

The analysis uses the HRS data to construct a "lifecycle optimization model to quantify each risk by estimating how much wealth retirees are willing to give up to insure against it."

The Analysis

HRS data was analyzed objectively, to rank the five risks identified above. The values estimated in the rankings represent the percentage of wealth an individual or married couple *should* be willing to give up to eliminate a given risk. The objective results for single men are shown in Table 1 below. Results for a married couple are similar. According to the study: "The result indicates that a person would be willing to give up 27 percent of his initial wealth to eliminate longevity risk."

Of the five areas considered, the top three objective risks that retirees face are longevity risk, health risk, and market risk. According to the author, "It is not surprising that longevity risk tops the list, because it affects the planning horizon for the retirement period…Health risk ranks second, mainly due to the unpredictability of medical expenditures in late life, particularly the cost of long-term care. Market risk is third, thanks to retirees' relatively long – about 20 years – investment horizon."

To complete the analysis, the research then compares these objective measures of risk against a subjective model based on survey participants. The results from this subjective risk ranking are shown in Table 2.

The author states: "it is not surprising that market risk is now at the top of the list. The health risk is not as large as in the objective ranking, because retirees significantly underestimate their medical expenses in old age. Due to the pessimistic and relatively certain subjective life expectancy compared to what the life table implies, the magnitude of the longevity risk is smaller in the subjective analysis – equal to just 15-percent of initial wealth. A shorter expected life span also intensifies the market risk expectation because of a shorter investment horizon and reduces the subjective health risk due to a lower chance of facing the uncertain medical expenses in late life."

The Bottom Line

The study indicates that many retirees do not adequately recognize the *multiple* risks associated with retirement planning. This presents a challenge.

Table 1. Objective Risk Ranking for Single Men

Ranking	Source	Value %
1	Longevity risk	27.2
2	Health risk	14.0
3	Market risk	10.8
4	Family risk	3.2
5	Policy risk	0.1

Source: Author's calculations

Table 2. Subjective Risk Ranking for Single Men

Ranking	Source	Value %
1	Market risk	31.0
2	Longevity risk	14.6
3	Health risk	9.6
4	Family risk	1.1
5	Policy risk	0.3

Source: Author's calculations

We have found this to be the case with our clients as well. Those who are retired or approaching retirement are initially predisposed to focus on investing and market risk. We strive to prioritize healthcare and longevity planning, while still having serious discussions about managing financial asset risk.

The research suggests that, beyond long-term investment planning, retirees should develop a secure health care plan which includes potential long-term care costs. Plans should also be built to allow for an income stream that will support expected living standards into the late 90s plus.

The authors found that retirees are often "pessimistic about their survival probabilities" and as a result "often underestimate health care costs in late life, " This view paired with "exaggerated assessments of market volatility" may lead retirees in the wrong direction. We hope our clients will take a more objective approach and consider all of the five risk areas mentioned above and use these ideas to better inform their strategy. We want our clients to live long and prosper.

1. Hou, Wenliang. "How Well Do Retirees Assess the Risks They Face in Retirement?" Issue Brief #22-10. July 2022.

REVISITING ROTH CONVERSIONS

The opportunity to convert a traditional IRA into a Roth IRA is available throughout one's working career and into retirement. But sometimes people ignore this strategy since it is not a clear-cut decision. Prudent investors with IRA accounts should always keep this technique in mind.

For investors who have been contemplating a full or partial conversion, this year may be a good year to take action. Current account values may have fallen with the market slump, and federal income tax rates remain historically low.

Traditional IRA vs Roth IRA

A traditional IRA allows workers to put aside earnings "pre-tax." This means that you can avoid paying income taxes on earned income (subject to limitations) by contributing such income to an IRA account. Many employer-sponsored retirement plans are similar in principle, including 401(k), 403(b), or SEP IRA plans (upon retirement, many investors choose to convert 401(k) and similar plans to "Rollover" IRAs). When a retiree withdraws funds from a traditional or a rollover IRA, those funds are 100 percent taxable as ordinary income, just like taxable wages. Annual withdrawals are mandatory because Required Minimum Distributions (RMDs) are imposed beginning at age 72. RMDs rise each year thereafter, becuase the RMD rate increases as life expectancy falls.

A Roth IRA, on the other hand, allows only after-tax deposits. This means that contributions are made from earnings that have already been taxed (employer plans with similar features, such as Roth 401(k) accounts, are increasingly available). Contributions to a Roth are not tax deductible. Their advantage is that withdrawals in retirement are taken 100 percent tax-free, regardless of their size. Moreover, Roth IRAs are not subject to the Required Minimum Distributions that apply to traditional IRAs. This makes them ideal for long-term investing. Many investors designate their Roth IRA as the last account to tap for retirement spending and earmark their Roth assets as an eventual bequest for heirs.

Many workers want to know whether it is better to put money in a traditional or a Roth account. The difficulty is that the correct answer depends a great deal on tax rates now and in the future. If your marginal income tax rate is the same during your career as it is in retirement, then there is no difference in "after-tax" value of a traditional vs a Roth account.

Consider an example. Henry, age 45, earned $1,000 from his employer - he wants to save this money for retirement. His marginal tax rate is 25 percent now, and he expects it to be 25 percent in retirement. When he files his tax return this year, he can elect to contribute $1,000 (on a pre-tax basis) to a traditional IRA or contribute $750 after tax to a Roth IRA.

The table on page 84 shows how contributions would grow under both the traditional and Roth options. It is evident that Henry will be equally well off whether he chooses to save in a traditional or a Roth IRA.

The only way that we can know whether one option would be better is if we know Henry's future tax rate. But most investors cannot predict what their taxable income will be in retirement and future tax rates are subject to change. This presents a dilemma.

Tax Diversification

The first step in addressing this problem is to recognize that future taxation is a form of risk. Clearly, future tax rates are a critical unknown when facing the "traditional vs Roth" IRA decision. Diversification is an invaluable tool for managing financial risk, and taxation is no exception. In essence, by contributing to both a traditional and a Roth account, an investor can hedge against the risk that future tax rates will be higher or lower than today's rates.

As a rule of thumb, since we don't know which way tax rates will go in the future, it is sensible to hold both traditional and Roth accounts. But much depends on individual circumstances.

(continued next page)

Hypothetical Growth: Tradition vs Roth IRA	Traditional IRA	Roth IRA
After-tax contribution (25% marginal tax rate)	$1,000	$750
Growth rate	7%	7%
Future value (20 years)	$3,870	$2,902
After-tax future value (25% marginal tax rate)	$2,902	$2,902

Some Considerations

One reason that many people seem to prefer a traditional IRA or 401(k) is that they suspect their personal income tax rate will be lower in retirement. There is some evidence that income on average tends to be lower in retirement, when taxable wages come to an end.

However, retired investors with large IRA balances may nonetheless find their income to be higher than anticipated after age 72, when RMDs begin. One's required distribution at any given age is based on the account balance[1] and the applicable RMD rate. For example, at age 72, the annual RMD rate is 3.65 percent of the IRA balance, so a retiree with $1 million in IRAs would be forced to withdraw roughly $36,500 and pay taxes on that amount. But the RMD rate increases each year. So a 90-year-old retiree who still has a $1 million in his IRA would be required to withdraw and pay taxes on about $82,000.

This "threat" of a potentially larger-than-expected IRA balance in retirement would argue toward hedging this risk by reducing contributions to a traditional IRA or 401(k) early in one's working career, in favor of Roth contributions.

On the other hand, a young worker with very high current taxable income, who is confident that his tax rate in retirement will be lower, might boost tax-deductible contributions to his employer-sponsored traditional 401(k) and forego the Roth alternative.

The good news is that the tax code allows for adaptation; an early decision to decline a Roth account can be modified later, as circumstances change.

Roth Conversions

Once a traditional IRA account is up and running, owners can convert it to a Roth account. Investors can elect to do so by withdrawing money from the traditional IRA, paying income taxes on it, and placing the after-tax balance in a Roth account. Custodians, such as Charles Schwab or TD Ameritrade, have a simple form for Roth conversions that can be used to elect a tax withholding for this purpose. Alternatively, the taxes due can be paid from an "outside" source (other than the IRA), if such funding is available. Conversions are flexible -- an investor can elect to convert all or just a portion of an IRA.

Conversions should be approached with caution. For example, a younger worker who has no outside source for paying taxes due, might not want to convert because the amount converted may be substantially reduced by taxes withheld. The future value of the tax incurred, had it instead grown tax-free in a traditional IRA, can be quite large.

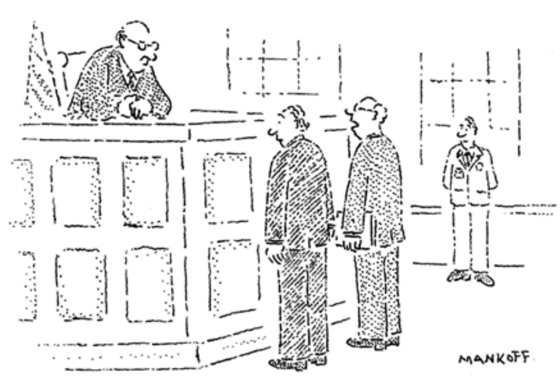
There is also a timing risk associated with conversions. A Roth conversion made right before a market decline can generate a tax liability on value that no longer exists. The tax code previously permitted retroactive "recharacterizations" that effectively nullified the conversion in order to avoid such an outcome. Current tax law prohibits such reclassifications.

When deciding how much to convert one should carefully consider applicable tax brackets. It is often advisable to convert only an amount that would avoid pushing you into a higher tax bracket in the current year. For late-career investors and early retirees with little income, this can still allow for a substantial conversion opportunity.

Consider for example: A married, late-career worker with taxable income of $100,000 and filing taxes jointly. For 2022, tax brackets impose a 22 percent levy on taxable income between $83,550 and $178,150. This couple could convert up to $78,150 of a traditional IRA at the taxpayer's current 22 percent tax rate without going into the 24 percent bracket. Although the tax hit today would be substantial, the funds remaining in the account would grow tax-free in the Roth IRA without the onus of Required Minimum Distributions. This may turn out to be quite an astute decision, especially since the current tax rates are slated to expire in 2025.

Anyone facing a period of lower taxable income may want to take advantage of a Roth conversion. For example, many workers these days are shifting to part-time work in the years leading up to retirement, while also delaying Social Security. This period of earning a lower taxable income and being in a lower tax bracket might be a good opportunity to convert an IRA to a Roth. In fact, any traditional IRA owner who encounters a year of unexpectedly low taxable income, such as a recently laid off worker, may find a silver lining in a Roth conversion.

Given current tax rates, reduced IRA balances due to poor investment returns, and the many factors at play, a partial Roth conversion might be sensible a choice.



"I'd like the Court to remember that my client only got into counterfeiting to counteract what he felt was an overly restrictive monetary policy on the part of the Fed."

CartoonStock.com

1. This payout applies to the combined value of all IRAs and similarly structured retirement plans such as 401(k) accounts owned by the taxpayer.

POST-ELECTION MARKET PERFORMANCE

During an election cycle, it can be easy for investors to get caught up in the moment - in recent years especially. It seems like many aspects of our lives have become politicized, and the two major parties more polarized. Wise investors will acknowledge their own political convictions but keep them independent of investment-related decisions.

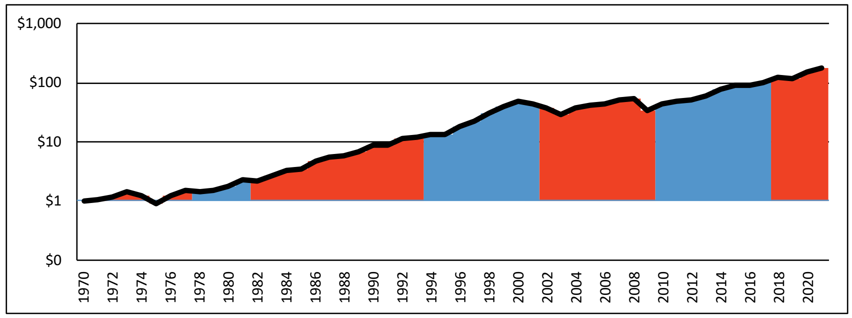
Now is a good time to examine the history of the relationship between major elections and investment outcomes. When we dig into the data, the only trend we discern is that markets tend to rise over time, regardless of which political party prevails in Presidential and Congressional elections.

Presidents and Prosperity

We start by looking at how the U.S. stock market (measured by the S&P 500) has performed under different presidents. Chart 1 depicts the growth of $1 from 1970 through the end of 2021 during presidential cycles.[1] The conclusion we draw may come as a disappointment to partisans: the stock market displays an upward trend over time regardless of the party that holds the presidency. We note a similar outcome going as far back as 1926.

Opinion pieces and “talking heads” in the media often appeal to negative sentiments and warn that Presidential election outcomes portend disaster. But this is rarely the case. During President Trump’s four-year tenure (2017-2020), the index grew by more than 80 percent, and during the eight years under President Obama (2009-2016), the index grew by 194 percent. Despite the shrill voices crying that one or the other would lead to ruin, the stock market flourished under both administrations.

Chart 1. S&P 500 Growth by Presidential Party - 1970-2021



Source: S&P 500 returns. Past performance may not be indicative of future results. Indexes are not available for direct investment. 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. Returns depicted are hypothetical and do not reflect historical recommendations of AIS.

Midterm Elections

The midterms have left Congress divided. But in the past, regardless of whether one party dominated or the electorate delivered a split decision, there has been no apparent connection between the outcome and subsequent stock market returns.

However, the stock market *has* historically outperformed its overall average during the 12 months following the midterms regardless of the party that has prevailed. According to research from Dimensional Fund Advisors (DFA): “For the 96-year period ending in 2021, the S&P 500 Index (with dividends reinvested) posted an average return of 12.33 percent for *all* calendar years and results were negative in roughly one out of four. During that time there were 24 midterm congressional elections. The average return for the 12-month period following the election was significantly higher at 19.58 percent, with only one negative result.”[2]

Still, investors should not assume that this narrative provides a reliable means of timing the market going forward. There are not enough data points to rule out the possibility that this outcome was a result of chance. Nevertheless, the scenario is interesting. Markets have on average performed very well after midterm elections, for whatever reason, regardless of the party in charge.

There is no doubt that government policies affect economic growth. By investing in the broad indexes that we recommend, you are taking ownership in thousands of companies. All these firms are impacted by fiscal, monetary, trade and other policies, implemented through laws, regulations, subsidies, and taxes. Some will benefit while others will suffer. But trying to guess winners and losers ahead of the market is unlikely to succeed.

Vote with Your Ballot

Go ahead and be enthusiastic about elections. But do not let your politics undermine your investment discipline. Instead, as DFA co-founder, David Booth, says – “vote with your ballot, not with your life savings.”

1. For simplicity, we use only annual data. We attribute the annual return for a given year to the new president when there is a transition. For example, 2021 is attributed to Biden even though Trump was president until the transition.
2. Wellington, Weston. “Elect to Leave Your Portfolio Alone.” DFA Perspectives. November 4, 2022.

THE HIGH-YIELD DOW INVESTMENT STRATEGY

HYD Model Portfolio

As of November 15, 2022

	Rank	Yield (%)	Price ($)	Status	Value (%)	No. Shares (%)[1]
					Percent of Portfolio	
Verizon	1	6.92	37.70	Holding**	18.83	31.10
Dow, Inc.	2	5.43	51.60	Holding**	22.05	26.61
Intel	3	4.75	30.71	Buying	3.07	6.23
Walgreen Boots	4	4.72	40.65	Buying	12.03	18.43
IBM	5	4.57	144.34	Selling	23.48	10.13
3M Company	6	4.54	131.22	Holding	1.31	0.62
Chevron	8	3.02	188.05	Selling	19.13	6.34
Kyndryl	NA	NA	10.65	Selling	0.09	0.54
Cash (6-mo. T-Bill)	N/A	N/A			0.01	N/A
Totals					100	100

**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 (closing prices on the date indicated), 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.

Over the long-term large cap value stocks have generated annualized returns above those of the overall stock market. This is explained by the inherent trade-off between risk and return. Value companies are in a distressed state and have a higher cost of capital relative to financially sound growth companies. A firm's cost of capital is also the investor's expected return; in order to invest in these shares, potential investors insist upon a lower stock price.

One way to identify lower priced shares is by ranking stocks based on their dividend yield. High-yielding stocks have higher expected returns versus lower yielding stocks because they bear greater risk. For larger accounts, especially those with an explicit need for investment income (such as certain trust accounts), we can incorporate our High Yield Dow (HYD) "4-for-18" strategy as part of a broader overall allocation strategy.

The HYD model is similar to an index approach because it relies on a "rules-based" selection strategy rather than subjective analysis. We began the strategy by incrementally "investing" a hypothetical sum of $1 million over 18 months. Specifically, one eighteenth of $1 million ($55,000) was invested equally in each of the 4 highest-yielding issues in the Dow Jones Industrial Average each month, beginning in July 1962. Once fully invested (January 1964) the model began a regular monthly process of considering for sale only those shares purchased 18 months earlier and replacing them with the shares of the four highest-yielding shares at that time. The model each month "purchases" shares that are relatively low in price (with a high dividend yield) and sells shares that are relatively high in price (with a low dividend yield), all the while garnering a relatively high level of dividend income.

This approach provides highly volatile returns that warrant only a limited allocation for most investors. In many situations it is prudent to further diversify this large cap value allocation by also investing in a large cap value index fund.

Unless otherwise specified, returns and data cited within this publication are derived from the following sources: U.S. stock benchmarks: U.S. Marketwide - Russell 3000 Index; U.S. Large Cap Stocks - Russell 1000 Index; U.S. Large Cap Value - Russell 1000 Value Index; U.S. Large Cap Growth - Russell 1000 Growth Index; U.S. Midcap Stocks - Russell Midcap Index; U.S. Small Cap Stocks - Russell 2000 Index; U.S. Small Cap Value - Russell 2000 Value Index; U.S. Small Cap Growth - Russell 2000 Growth Index; U.S. Microcaps - Russell Microcap Index. Fixed income benchmarks: Cash & Equivalents - ICE BofAML US 3-Month Treasury Bill Index; U.S. 1-Year Treasury Notes - ICE BofA 1-Year US Treasury Note Index; U.S. Short-Term Investment Grade - Bloomberg US Government/Credit Bonds Index 1-5 Years; U.S. Bonds - Bloomberg US Aggregate Bond Index; U.S. Government Bonds - Bloomberg US Government Bond Index; TIPS - Bloomberg US TIPS Index; Municipal Bonds - Bloomberg Municipal Bond Index 5 Years; Foreign Bonds (hedged) - FTSE Non-USD World Government Bond Index 1-5 Years (hedged to USD). Foreign stock benchmarks: All returns in U.S. dollars. Developed Markets - MSCI World ex USA Index (net div.); Developed Markets Value - MSCI World ex USA Value Index (net div.); Developed Markets Growth - MSCI World ex USA Growth Index (net div.); Developed Markets Small Cap - MSCI World ex USA Small Cap Index (net div.); Developed Markets Small Cap Value - MSCI World ex USA Small Value Index (net div.); Developed Markets Small Cap Growth - MSCI World ex USA Small Growth Index (net div.); Emerging Markets - MSCI Emerging Markets Index (net div.); Emerging Markets Value - MSCI Emerging Markets Value Index (net div.). Real estate benchmarks: Global REITs - S&P Global REIT Index (net div.); U.S. REITs - S&P United States REIT Index (gross div.); International REITs - S&P Global ex US REIT Index (net div.). Gold benchmark: Gold price: LBMA price. All return data from DFA Returns 2.0 program (gold returns based on spot price) and Currency data from St. Louis Federal Reserve. Country performance provided by Dimensional Fund Advisors, based on respective indexes in the MSCI All Country World ex USA IMI Index (for developed markets) and MSCI Emerging Markets IMI Index. Sector returns represented by S&P 500 sectors.

RECENT MARKET STATISTICS

Precious Metals & Commodity Prices ($)

	11/15/22	Mo. Earlier	Yr. Earlier	Prem. (%)
Gold, London p.m. fixing	**1,771.35**	1,649.30	1,859.90	
Silver, London Spot Price	**21.94**	18.77	24.79	
Crude Oil, W. Texas Int. Spot	**85.85**	86.10	80.85	
Coin Prices ($)[1]				
American Eagle (1.00)	**1,847**	1,719	1,939	4.25
Austrian 100-Corona (0.9802)	**1,736**	1,617	1,823	0.00
British Sovereign (0.2354)	**417**	388	438	0.00
Canadian Maple Leaf (1.00)	**1,816**	1,694	1,905	2.54
Mexican 50-Peso (1.2057)	**2,136**	1,989	2,242	0.00
Mexican Ounce (1.00)	**1,789**	1,667	1,878	1.02
S. African Krugerrand (1.00)	**1,816**	1,694	1,905	2.54
U.S. Double Eagle-$20 (0.9675)				
St. Gaudens (MS-60)	**1,750**	1,835	1,768	n/a
Liberty (Type II-AU50)	**1,743**	1,806	1,773	n/a
Liberty (Type III-AU50)	**1,740**	1,825	1,753	n/a
U.S. Silver Coins ($1,000 face value, circulated)				
90% Silver Circ. (715 oz.)	**18,805**	17,339	18,072	n/a
40% Silver Circ. (295 oz.)	**5,450**	5,181	6,184	n/a

[1]Note: Premium reflects percentage difference between coin price and value of metal in a coin. The weight in troy ounces of the precious metal in coins is indicated in parentheses. Premiums will vary; these indicated premiums are provided in The CDN Monthly Greysheet.

Recent Benchmark Returns

Data through October 31, 2022

	U.S. Stocks (Russell 3000 Index)	Developed Markets ex-US (MSCI World ex USA Index, net div.)	Emerging Markets (MSCI EM Index, net div.)	Global REITs (S&P Global REIT Index, net div.)	U.S. Bonds (Bloomberg U.S. Aggregate Bond Index)	Global Bonds ex-US (FTSE Non-USD World Government Bond Index 1-5 Years (hedged to USD))	Gold (Gold Spot Price)
1-month	8.20%	5.51%	-3.10%	4.07%	-1.30%	0.38%	-1.63%
	↑	↑	↓	↑	↓	↑	↓
3-month	-5.50%	-8.73%	-14.11%	-14.66%	-8.23%	-1.93%	-7.50%
	↓	↓	↓	↓	↓	↓	↓
1 year	-16.52%	-22.04%	-31.03%	-22.02%	-15.68%	-3.09%	-8.40%
	↓	↓	↓	↓	↓	↓	↓
5 year	9.87%	0.41%	-3.09%	1.18%	-0.54%	0.85%	5.15%
(annualized)	↑	↑	↓	↑	↓	↑	↑
15 year	8.35%	0.80%	-0.65%	1.94%	2.59%	1.87%	4.87%
(annualized)	↑	↑	↑	↑	↑	↑	↑
Best and worst one-year returns, Jan. 2001 - Oct. 2022							
Best	**62.5%**	**57.2%**	**91.6%**	**85.7%**	**13.8%**	**7.1%**	**54.6%**
During:	04/2020-03/2021	04/2003-03/2004	03/2009-02/2010	04/2009-03/2010	11/2008-10/2009	07/2008-06/2009	06/2005-05/2006
Worst	**-43.5%**	**-50.3%**	**-56.6%**	**-59.5%**	**-15.7%**	**-4.0%**	**-28.0%**
During:	03/2008-02/2009	03/2008-02/2009	12/2007-11/2008	03/2008-02/2009	11/2021-10/2022	10/2021-09/2022	12/2012-11/2013

THE DOW JONES INDUSTRIALS RANKED BY YIELD*

	Ticker Symbol	Market Prices ($) 11/15/22	10/15/22	11/15/21	12-Month ($) High	Low	Latest Dividend Amount ($)	Record Date	Payable Date	Indicated Annual Dividend ($)	Yield† (%)
Verizon	VZ	37.70	36.38	52.40	55.51	34.55	0.652	10/7/22	11/1/22	2.608	6.92
Dow Chemical	DOW	51.60	45.12	59.92	71.86	42.91	0.700	11/30/22	12/9/22	2.800	5.43
Intel Corp	INTC	30.71	25.91	50.32	56.28	24.59	0.365	11/7/22	12/1/22	1.460	4.75
Walgreen's	WBA	40.65	33.24	49.22	55.00	30.39	0.480	11/15/22	12/12/22	1.920	4.72
IBM	IBM	144.34	120.04	118.87	146.16	114.56	1.650	11/10/22	12/10/22	6.600	4.57
3M Company	MMM	131.22	113.63	183.35	184.20	107.07	1.490	11/18/22	12/12/22	5.960	4.54
Cisco	CSCO	44.90	40.20	57.27	64.29	38.60	0.380	10/5/22	10/26/22	1.520	3.39
Chevron	CVX	188.05	160.14	116.82	189.68	110.73	1.420	11/18/22	12/12/22	5.680	3.02
J P Morgan	JPM	132.94	111.19	166.56	169.81	101.28	1.000	10/6/22	10/31/22	4.000	3.01
Coca-Cola	KO	60.63	54.98	56.62	67.20	52.28	0.440	12/1/22	12/15/22	1.760	2.90
Merck	MRK	99.60	92.18	83.73	103.76	71.50	0.690	9/15/22	10/7/22	2.760	2.77
Amgen	AMGN	283.60	251.34	207.40	296.67	198.64	1.940	11/17/22	12/8/22	7.760	2.74
Johnson & Johnson	JNJ	172.39	164.46	163.52	186.69	155.72	1.130	11/22/22	12/6/22	4.520	2.62
Goldman Sachs	GS	382.88	299.99	404.81	412.66	277.84	2.500	12/1/22	12/29/22	10.000	2.61
Proctor and Gamble	PG	140.49	125.08	147.41	165.35	122.18	0.913	10/21/22	11/15/22	3.653	2.60
Home Depot, Inc.	HD	311.93	276.43	371.08	420.61	264.51	1.900	12/1/22	12/15/22	7.600	2.44
Travelers	TRV	179.50	163.30	158.06	187.98	145.40	0.930	12/9/22	12/30/22	3.720	2.07
McDonald's	MCD	267.84	243.16	252.94	281.67	217.68	1.380	12/1/22	12/15/22	5.520	2.06
Caterpillar	CAT	234.59	178.19	207.71	239.85	160.60	1.200	10/24/22	11/18/22	4.800	2.05
Honeywell	HON	215.43	174.16	222.47	223.28	166.63	1.030	11/11/22	12/2/22	4.120	1.91
Wal-Mart Stores	WMT	147.44	130.43	146.91	160.77	117.27	0.560	12/9/22	1/3/23	2.240	1.52
American Express	AXP	153.89	136.81	183.10	199.55	130.65	0.520	10/14/22	11/10/22	2.080	1.35
Unitedhealth Group	UNH	503.01	513.13	450.80	558.10	436.00	1.650	12/5/22	12/13/22	6.600	1.31
Nike	NKE	106.71	87.55	168.85	177.75	82.22	0.305	12/5/22	12/28/22	1.220	1.14
Microsoft Corp.	MSFT	241.97	228.56	336.07	349.67	213.43	0.620	11/17/22	12/8/22	2.480	1.02
Visa Inc.	V	209.99	182.62	212.30	235.85	174.60	0.450	11/11/22	12/1/22	1.800	0.86
Apple	AAPL	150.04	138.38	150.00	182.94	129.04	0.230	11/7/22	11/10/22	0.920	0.61
Walt Disney	DIS	95.51	94.45	158.45	160.32	86.28	0.000	No dividend		0.000	0.00
Salesforce	CRM	162.07	142.22	305.49	309.90	136.04	0.000	No dividend		0.000	0.00
Boeing	BA	175.35	133.15	233.09	232.95	113.02	0.000	No dividend		0.000	0.00

† Based on indicated dividends and market price as of 11/15/22. Extra dividends are not included in annual yields.
All data adjusted for splits and spin-offs. 12-month data begins 11/15/21.

ASSET CLASS INVESTMENT VEHICLES

Data as of November 21, 2022		Security Symbol(s) (1) Mutual Fund	ETF	Avg. Market Cap / Duration	Number of Holdings	Expense Ratio (%)	Turnover (%)	Price-to-Book Ratio	Trailing 12-Mo. Yield (%)	Annualized Returns (%) 1-Year	3-Year	5-Year	10-Year	Tax Cost Ratio - 3 Years (%) (3)
Fixed Income														
Short-Term Bonds	Vanguard Short-Term Bond Adm	VBIRX	BSV	2.62 yrs	2605	0.07	37		1.33	-6.28	-0.88	0.66	0.84	0.62
Short-Term Bonds	SPDR Portfolio Short Term Corp Bd ETF		SPSB	1.89 yrs	1239	0.04	56		1.44	-3.93	-0.03	1.25	1.30	0.68
Short-Term Bonds	iShares 1-3 Year Treasury Bond ETF		SHY	1.85 yrs	78	0.15	148		0.76	-4.61	-0.69	0.50	0.47	0.32
Core Bonds	Vanguard Total Bond Market Adm	VBTLX	BND	6.41 yrs	17324	0.05	69		2.47	-13.77	-2.97	-0.08	0.94	0.92
Core Bonds	iShares Core US Aggregate Bond ETF		AGG	6.30 yrs	9933	0.03	163		2.22	-13.53	-2.97	-0.12	0.95	0.83
Core Bonds	DFA Core Fixed Income	DFAPX	DFCF	0.00 yrs	855	0.20	17		2.54	-13.55	-2.65	0.27	1.20	0.97
Tax-Exempt	Vanguard Ltd-Term Tax-Exempt Inv	VMLTX		2.60 yrs	8898	0.17	37		1.44	-3.63	0.04	1.04	1.05	0.00
Tax-Exempt	Vanguard Interm-Term Tx-Ex Inv	VWITX		5.08 yrs	12703	0.17	18		2.45	-7.70	-0.59	1.18	1.77	0.01
Inflation-Protected	iShares TIPS Bond ETF		TIP	6.71 yrs	48	0.19	34		7.55	-12.65	0.90	1.96	0.93	1.56
Inflation-Protected	Vanguard Inflation-Protected Securities Inv	VIPSX		6.67 yrs	57	0.20	24		8.09	-12.38	1.02	1.95	0.90	1.71
International	Vanguard Total International Bond Adm	VTABX	BNDX	7.47 yrs	6916	0.11	25		3.55	-11.67	-3.17	0.20	n/a	1.03
Real Estate (REITs)														
U.S. REITs	Vanguard REIT Adm	VGSLX	VNQ	19.71 B	170	0.12	7	2.09	3.76	-18.87	1.21	4.05	7.22	1.39
U.S. REITs	SPDR Dow Jones REIT		RWR	17.73 B	115	0.25	10	1.87	3.87	-19.67	-0.41	2.77	6.29	1.46
Int'l REITs	Vanguard Global ex-US Real Estate Adm (2)	VGRLX	VNQI	4.16 B	726	0.12	7	0.70	7.72	-25.12	-8.06	-3.25	1.77	1.64
Int'l REITs	iShares International Developed Property		WPS	4.44 B	422	0.48	12	0.69	5.09	-26.30	-7.80	-2.89	1.87	1.66
Global (incl. U.S.)	SPDR Dow Jones Global Real Estate ETF		RWO	11.71 B	278	0.50	6	1.33	4.36	-21.10	-3.32	0.60	3.95	1.48
U.S. Stocks														
Large Cap (blend)	Vanguard S&P 500 Adm	VFIAX	VOO	170.32 B	506	0.04	2	3.23	1.63	-14.60	10.11	10.64	13.14	0.38
Large Cap (blend)	DFA US Equity ETF	DUSQX	DFUS	108.74 B	651	0.13	7	2.84	1.41	-13.66	10.14	10.35	n/a	0.73
Large Cap Value	Vanguard Value Adm	VVIAX	VTV	103.13 B	343	0.05	9	2.43	2.45	2.43	9.80	9.69	12.39	0.63
Large Cap Value	DFA US Marketwide Value	DFLVX	DFUV	60.28 B	360	0.22	0	1.60	1.89	-1.00	8.25	7.33	11.64	1.03
Small Cap (blend)	iShares Core S&P Small-Cap ETF		IJR	1.97 B	606	0.06	16	1.54	1.70	-13.53	9.26	7.03	11.96	0.51
Small Cap (blend)	DFA US Small Cap	DFSTX	DFAS	2.40 B	1974	0.27	12	1.56	1.04	-11.27	11.10	7.00	11.23	0.97
Small Cap Value	Vanguard Small Cap Value Adm	VSIAX	VBR	4.98 B	880	0.07	16	1.59	2.05	-7.24	9.81	7.05	11.29	0.52
Small Cap Value	iShares Micro-Cap		IWC	0.53 B	1768	0.60	44	1.34	1.27	-24.72	7.66	4.21	9.78	0.40
Small Cap Value	DFA U.S. Small Cap Value	DFSVX	DFSV	2.18 B	984	0.30	22	0.97	1.45	-0.15	14.70	7.94	11.15	1.36
Marketwide	Vanguard Total Stock Market Adm	VTSAX	VTI	100.91 B	4031	0.04	4	2.98	1.59	-16.98	9.48	9.93	12.75	0.38
Marketwide	DFA US Core Equity Market ETF	DFEOX	DFAU	56.90 B	2663	0.14	4	2.42	1.41	-11.69	10.66	9.97	12.82	0.81
Foreign Stocks														
Developed Markets	Vanguard FTSE Developed Markets Adm	VTMGX	VEA	24.65 B	4115	0.07	3	1.32	3.88	-16.90	2.04	1.75	5.44	0.73
Developed Markets	DFA International Core Equity	DFIEX	DFIC	9.40 B	5264	0.24	8	1.07	4.34	-15.51	2.64	1.45	5.75	1.01
Emerging Markets	Vanguard Emerging Markets Stock Adm	VEMAX	VWO	16.77 B	4665	0.14	9	1.41	4.01	-22.07	-0.37	-0.71	2.06	0.92
Emerging Markets	DFA Emerging Markets Core Equity	DFCEX	DFAE	8.48 B	6906	0.39	10	1.04	4.47	-18.75	1.44	-0.23	2.83	1.01
Gold-Related Funds														
Gold ETFs	SPDR Gold Minishares		GLDM			0.10			0.00	-6.02	5.70	n/a	n/a	0.00
Gold ETFs	GraniteShares Gold Trust		BAR			0.17			0.00	-6.05	5.72	6.13	n/a	0.00

Data provided by the funds and Morningstar. (1) Some funds are available as mutual funds and ETFs, in which case both symbols are shown. In these cases, data represent the mutual fund. The ETF may offer a lower expense ratio and returns may deviate. For Vanguard funds, Adm indicates the Admiral share class is shown; Inv indicates the Investor share class is shown. (2) VGRLX includes a 0.25% fee on purchases and redemptions, which are paid directly to the fund. (3) This represents the percentage-point reduction in an annualized return that results from income taxes. The calculation assumes investors pay the maximum federal rate on capital gains and ordinary income. The calculation comes directly from Morningstar.