

# Investing Concepts

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Baird Private Wealth Management

*December 31, 2019*

Wealth Management | Capital Markets – Investment Banking | Private Equity | Asset Management

# Rolling Asset Class Returns (Last 10 Years)

Annual Returns									
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Small Cap 26.9%	Municipal Bonds 10.1%	Int'l 17.9%	Small Cap 38.8%	Large Cap Value 13.5%	Large Cap Growth 5.7%	Small Cap 21.3%	Large Cap Growth 30.2%	Cash 1.9%	Large Cap Growth 36.4%
Mid Cap 25.5%	Taxable Bonds 7.8%	Large Cap Value 17.5%	Mid Cap 34.8%	Mid Cap 13.2%	Municipal Bonds 3.3%	Large Cap Value 17.3%	Int'l 25.0%	Municipal Bonds 1.3%	Mid Cap 30.5%
Satellite 19.5%	Large Cap Growth 2.6%	Mid Cap 17.3%	Large Cap Growth 33.5%	Large Cap Growth 13.1%	Taxable Bonds 1.1%	Mid Cap 13.8%	Mid Cap 18.5%	Taxable Bonds 0.0%	Large Cap Value 26.5%
Large Cap Growth 16.7%	Large Cap Value 0.4%	Small Cap 16.4%	Large Cap Value 32.5%	Equally Weighted 6.1%	Cash 0.1%	Satellite 12.5%	Small Cap 14.6%	Large Cap Growth -1.5%	Small Cap 25.5%
Large Cap Value 15.5%	Cash 0.1%	Large Cap Growth 15.3%	Int'l 22.8%	Municipal Bonds 6.1%	Int'l -0.8%	Equally Weighted 8.4%	Large Cap Value 13.7%	Equally Weighted -5.0%	Int'l 22.0%
Equally Weighted 13.7%	Equally Weighted -0.2%	Satellite 11.9%	Equally Weighted 17.6%	Taxable Bonds 6.0%	Equally Weighted -1.3%	Large Cap Growth 7.1%	Satellite 13.6%	Satellite -7.7%	Equally Weighted 19.5%
Int'l 8.2%	Mid Cap -1.6%	Equally Weighted 11.6%	Cash 0.1%	Small Cap 4.9%	Mid Cap -2.4%	Taxable Bonds 2.7%	Equally Weighted 13.4%	Large Cap Value -8.3%	Satellite 17.5%
Taxable Bonds 6.5%	Small Cap -4.2%	Taxable Bonds 4.2%	Satellite -0.7%	Satellite 2.9%	Large Cap Value 3.8%	Int'l 1.0%	Municipal Bonds 5.4%	Mid Cap -9.1%	Taxable Bonds 8.7%
Municipal Bonds 4.6%	Satellite -5.3%	Municipal Bonds 4.2%	Municipal Bonds -2.6%	Cash 0.0%	Small Cap -4.4%	Cash 0.1%	Taxable Bonds 3.5%	Small Cap -11.0%	Municipal Bonds 7.5%
Cash 0.1%	Int'l -11.7%	Cash 0.1%	Taxable Bonds -2.0%	Int'l -4.9%	Satellite -10.5%	Municipal Bonds 0.3%	Cash 0.8%	Int'l -13.8%	Cash 2.3%

10-Year Statistics		
Annualized Return	Volatility (Std. Dev.)	Risk-Adj. Return
Large Cap Growth 15.2%	Small Cap 17.0%	Large Cap Growth 1.1
Mid Cap 13.2%	Int'l 14.6%	Taxable Bonds 1.1
Small Cap 11.8%	Mid Cap 13.8%	Municipal Bonds 1.1
Large Cap Value 11.8%	Large Cap Growth 13.2%	Mid Cap 0.9
Equally Weighted 8.1%	Large Cap Value 12.7%	Equally Weighted 0.9
Int'l 5.5%	Satellite 10.6%	Large Cap Value 0.9
Satellite 4.9%	Equally Weighted 8.4%	Small Cap 0.7
Municipal Bonds 4.3%	Municipal Bonds 3.4%	Satellite 0.4
Taxable Bonds 3.7%	Taxable Bonds 2.9%	Int'l 0.4
Cash 0.6%	Cash 0.2%	Cash -1.0

Source: Morningstar Direct; Standard & Poor's. As of December 31, 2019. Annualized return, volatility (as measured by standard deviation) and Risk-Adj. Return (as measured by Sharpe ratio) are calculated as of the most recent quarter-end. Large Growth is represented by Russell 1000® Growth Index. Large Value is represented by Russell 1000® Value Index. Mid Cap is represented by Russell Midcap® Index. Small Cap is represented by Russell 2000® Index. Taxable bonds is represented by BBgBarc. Intermediate Govt/Credit Bond Index. Municipal bonds is represented by the BBgBarc Municipal Index. International is represented by The MSCI EAFE Index. Cash is represented by FTSE 3 month T-bills. Satellite is an equally-weighted return of the following indices, rebalanced monthly: ICE BofAML US High Yield (High Yield) DJ US Select REIT (Real Estate), Bloomberg Commodity (Commodities), and MSCI Emerging Markets (Emerging Markets). Indices are unmanaged and are used to measure and report performance of various sectors of the market. **Past performance is no guarantee of future results and diversification does not ensure against loss.** Direct investment in indices is not available. The Russell Indices are a trademark of the Frank Russell Company. Russell® is a trademark of the Frank Russell Company.

# Rolling Asset Class Returns (Last 20 Years)

Annual Returns																			
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Taxable Bonds 11.6%	Taxable Bonds 8.4%	Municipal Bonds 10.4%	Small Cap 47.3%	Int'l 20.7%	Satellite 18.3%	Int'l 26.9%	Large Cap Growth 11.8%	Taxable Bonds 5.1%	Satellite 46.8%	Small Cap 26.9%	Municipal Bonds 10.1%	Int'l 17.9%	Small Cap 38.8%	Large Cap Value 13.5%	Large Cap Growth 5.7%	Small Cap 21.3%	Large Cap Growth 30.2%	Cash 1.9%	Large Cap Growth 36.4%
Municipal Bonds 9.1%	Municipal Bonds 5.2%	Taxable Bonds 10.3%	Mid Cap 40.1%	Satellite 20.1%	Int'l 14.0%	Large Cap Value 22.3%	Int'l 11.6%	Municipal Bonds 4.6%	Mid Cap 40.5%	Mid Cap 25.5%	Taxable Bonds 7.8%	Large Cap Value 17.5%	Mid Cap 34.8%	Mid Cap 13.2%	Municipal Bonds 3.3%	Large Cap Value 17.3%	Int'l 25.0%	Municipal Bonds 1.3%	Mid Cap 30.5%
Mid Cap 8.3%	Cash 3.3%	Satellite 5.4%	Int'l 38.6%	Mid Cap 20.2%	Mid Cap 12.7%	Satellite 20.5%	Satellite 9.0%	Cash 1.8%	Large Cap Growth 37.2%	Satellite 19.5%	Large Cap Growth 2.6%	Mid Cap 17.3%	Large Cap Growth 33.5%	Large Cap Growth 13.1%	Taxable Bonds 1.1%	Mid Cap 13.8%	Mid Cap 18.5%	Taxable Bonds 0.0%	Large Cap Value 26.5%
Large Cap Value 7.0%	Small Cap 2.5%	Cash 1.6%	Satellite 36.5%	Small Cap 18.3%	Equally Weighted 7.6%	Small Cap 18.4%	Taxable Bonds 7.4%	Equally Weighted -24.5%	Int'l 32.5%	Large Cap Growth 16.7%	Large Cap Value 0.4%	Small Cap 16.4%	Large Cap Value 32.5%	Equally Weighted 6.1%	Cash 0.1%	Satellite 12.5%	Small Cap 14.6%	Large Cap Growth -1.5%	Small Cap 25.5%
Cash 6.0%	Satellite -1.0%	Equally Weighted -8.0%	Large Cap Value 30.0%	Large Cap Value 16.5%	Large Cap Value 7.1%	Mid Cap 15.3%	Equally Weighted 5.9%	Small Cap -33.8%	Small Cap 27.2%	Large Cap Value 15.5%	Cash 0.1%	Large Cap Growth 15.3%	Int'l 22.8%	Municipal Bonds 6.1%	Int'l -0.8%	Equally Weighted 8.4%	Large Cap Value 13.7%	Equally Weighted -5.0%	Int'l 22.0%
Satellite 4.1%	Equally Weighted -3.6%	Large Cap Value -15.5%	Large Cap Growth 29.8%	Equally Weighted 12.2%	Large Cap Growth 5.3%	Equally Weighted 13.9%	Mid Cap 5.6%	Large Cap Value -36.9%	Equally Weighted 24.1%	Equally Weighted 13.7%	Equally Weighted -0.2%	Satellite 11.9%	Equally Weighted 17.6%	Taxable Bonds 6.0%	Equally Weighted -1.3%	Large Cap Growth 7.1%	Satellite 13.6%	Satellite -7.7%	Equally Weighted 19.5%
Equally Weighted 0.9%	Large Cap Value -5.6%	Int'l -15.9%	Equally Weighted 25.1%	Large Cap Growth 6.3%	Small Cap 4.6%	Large Cap Growth 9.1%	Municipal Bonds 5.1%	Satellite -38.0%	Large Cap Value 19.7%	Int'l 8.2%	Mid Cap -1.6%	Equally Weighted 11.6%	Cash 0.1%	Small Cap 4.9%	Mid Cap -2.4%	Taxable Bonds 2.7%	Equally Weighted 13.4%	Large Cap Value -8.3%	Satellite 17.5%
Small Cap -3.0%	Mid Cap -5.6%	Mid Cap -16.2%	Municipal Bonds 5.5%	Municipal Bonds 3.2%	Cash 3.0%	Cash 4.8%	Cash 4.7%	Large Cap Growth -38.4%	Municipal Bonds 7.6%	Taxable Bonds 6.5%	Small Cap -4.2%	Taxable Bonds 4.2%	Satellite -0.7%	Satellite 2.9%	Large Cap Value -3.8%	Int'l 1.0%	Municipal Bonds 5.4%	Mid Cap -9.1%	Taxable Bonds 8.7%
Int'l -14.2%	Large Cap Growth -20.4%	Small Cap -20.5%	Taxable Bonds 4.1%	Taxable Bonds 3.0%	Municipal Bonds 1.7%	Taxable Bonds 4.1%	Large Cap Value -0.2%	Mid Cap -41.5%	Taxable Bonds 5.2%	Municipal Bonds 4.6%	Satellite -5.3%	Municipal Bonds 4.2%	Municipal Bonds -2.6%	Cash 0.0%	Small Cap -4.4%	Cash 0.1%	Taxable Bonds 3.5%	Small Cap -11.0%	Municipal Bonds 7.5%
Large Cap Growth -22.4%	Int'l -21.4%	Large Cap Growth -27.9%	Cash 1.0%	Cash 1.2%	Taxable Bonds 1.6%	Municipal Bonds 4.0%	Small Cap -1.6%	Int'l -43.1%	Cash 0.2%	Cash 0.1%	Int'l -11.7%	Cash 0.1%	Taxable Bonds -2.0%	Int'l -4.9%	Satellite -10.5%	Municipal Bonds 0.3%	Cash 0.8%	Int'l -13.8%	Cash 2.3%

Source: Morningstar Direct; Standard & Poor's. As of December 31, 2019. Annualized return, volatility (as measured by standard deviation) and Risk-Adj. Return (as measured by Sharpe ratio) are calculated as of the most recent quarter-end. Large Growth is represented by Russell 1000® Growth Index. Large Value is represented by Russell 1000® Value Index. Mid Cap is represented by Russell Midcap® Index. Small Cap is represented by Russell 2000® Index. Taxable bonds is represented by BBgBarc. Intermediate Govt/Credit Bond Index. Municipal bonds is represented by the BBgBarc Municipal Index. International is represented by The MSCI EAFE Index. Cash is represented by FTSE 3 month T-bills. Satellite is an equally-weighted return of the following indices, rebalanced monthly: ICE BofAML US High Yield (High Yield) DJ US Select REIT (Real Estate), Bloomberg Commodity (Commodities), and MSCI Emerging Markets (Emerging Markets). Indices are unmanaged and are used to measure and report performance of various sectors of the market. **Past performance is no guarantee of future results and diversification does not ensure against loss.** Direct investment in indices is not available. The Russell Indices are a trademark of the Frank Russell Company. Russell® is a trademark of the Frank Russell Company.

# Rolling Stock Sector Returns (Last 10 Years)

Annual Returns									
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real Estate 32.3%	Utilities 19.9%	Financials 28.8%	Consumer Discretionary 43.1%	Real Estate 30.2%	Consumer Discretionary 10.1%	Energy 27.4%	Information Technology 38.8%	Health Care 6.5%	Information Technology 50.3%
Consumer Discretionary 27.7%	Consumer Staples 14.0%	Consumer Discretionary 23.9%	Health Care 41.5%	Utilities 29.0%	Health Care 6.9%	Comm Services 23.5%	Materials 23.8%	Utilities 4.1%	Comm Services 32.7%
Industrials 26.7%	Health Care 12.7%	Real Estate 19.7%	Industrials 40.7%	Health Care 25.3%	Consumer Staples 6.6%	Financials 22.8%	Consumer Discretionary 23.0%	Consumer Discretionary 0.8%	Financials 32.1%
Materials 22.2%	Real Estate 6.3%	Comm Services 18.3%	Financials 35.6%	Information Technology 20.1%	Information Technology 5.9%	Industrials 18.9%	Financials 22.2%	Information Technology -0.3%	S&P 500 31.5%
Energy 20.5%	Comm Services 6.3%	Health Care 17.9%	S&P 500 32.4%	Consumer Staples 16.0%	Real Estate 4.7%	Materials 16.7%	Health Care 22.1%	Real Estate -2.2%	Industrials 29.4%
Comm Services 19.0%	Consumer Discretionary 6.1%	S&P 500 16.0%	Information Technology 28.4%	Financials 15.2%	Comm Services 3.4%	Utilities 16.3%	S&P 500 21.8%	S&P 500 -4.4%	Real Estate 29.0%
S&P 500 15.1%	Energy 4.7%	Industrials 15.3%	Consumer Staples 26.1%	S&P 500 13.7%	S&P 500 1.4%	Information Technology 13.9%	Industrials 21.0%	Consumer Staples -8.4%	Consumer Discretionary 27.9%
Consumer Staples 14.1%	Information Technology 2.4%	Materials 15.0%	Materials 25.6%	Industrials 9.8%	Financials -1.5%	S&P 500 12.0%	Consumer Staples 13.5%	Comm Services -12.5%	Consumer Staples 27.6%
Financials 12.1%	S&P 500 2.1%	Information Technology 14.8%	Energy 25.1%	Consumer Discretionary 9.7%	Industrials -2.5%	Consumer Discretionary 12.0%	Utilities 12.1%	Financials -13.0%	Utilities 26.3%
Information Technology 10.2%	Industrials -0.6%	Consumer Staples 10.8%	Utilities 13.2%	Materials 6.9%	Utilities -4.9%	Consumer Staples 5.4%	Real Estate 10.8%	Industrials -13.3%	Materials 24.6%
Utilities 5.5%	Materials -9.8%	Energy 4.6%	Comm Services 18.3%	Comm Services 3.0%	Materials -8.4%	Real Estate 3.4%	Energy -1.0%	Materials -14.7%	Health Care 20.8%
Health Care 2.9%	Financials -17.1%	Utilities 1.3%	Real Estate 1.6%	Energy -7.8%	Energy -21.1%	Health Care -2.7%	Comm Services -1.3%	Energy -18.1%	Energy 11.8%

10-Year Statistics		
Annualized Return	Volatility (Std. Dev.)	Risk-Adj. Return
Information Technology 17.5%	Energy 19.5%	Health Care 1.1
Consumer Discretionary 17.2%	Materials 17.7%	Consumer Discretionary 1.1
Health Care 14.8%	Financials 16.8%	Consumer Staples 1.1
S&P 500 13.6%	Information Technology 15.8%	Information Technology 1.1
Real Estate 13.5%	Industrials 15.8%	S&P 500 1.0
Industrials 13.4%	Real Estate 14.9%	Utilities 1.0
Financials 12.3%	Consumer Discretionary 14.7%	Real Estate 0.9
Consumer Staples 12.1%	Comm Services 14.4%	Industrials 0.8
Utilities 11.8%	S&P 500 12.5%	Financials 0.7
Comm Services 9.7%	Health Care 12.4%	Comm Services 0.7
Materials 9.1%	Utilities 11.8%	Materials 0.6
Energy 3.3%	Consumer Staples 10.7%	Energy 0.2

Source: Morningstar Direct; Standard & Poor's. As of December 31, 2019. Annualized return, volatility (as measured by standard deviation) and Risk-Adj. Return (as measured by Sharpe ratio) are calculated as of the most recent quarter-end. Global Industry Classification Standard (GICS) consists of 11 sectors aggregated up from 23 Industry Groups, 59 Industries, and 123 Sub-industries covering almost 6,000 companies globally. GICS sector returns in this chart are based on the S&P 500 Index. GICS is the exclusive property of Morgan Stanley Capital International Inc. ("MSCI"). Indices are unmanaged and are used to measure and report performance of various sectors of the market. Past performance is no guarantee of future results and diversification does not ensure against loss. Investments cannot be made directly in an index or sector.

# Rolling Bond Sector Returns (Last 10 Years)

## Annual Returns

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
High Yield 15.2%	Municipal 10.1%	High Yield 15.6%	High Yield 7.4%	Corporate 7.5%	Municipal 3.3%	High Yield 17.5%	International 10.5%	Cash 1.9%	Corporate 14.5%
Bank Loans 10.1%	U.S. Treasury 9.8%	Corporate 9.8%	Bank Loans 5.3%	Municipal 6.1%	Mortgage-Backed 1.5%	Bank Loans 10.2%	High Yield 7.5%	Municipal Bonds 1.3%	High Yield 14.3%
Corporate 9.0%	Corporate 8.2%	Bank Loans 9.7%	Cash 0.1%	Mortgage-Backed 6.1%	U.S. Treasury 0.8%	Corporate 6.1%	Corporate 6.4%	Mortgage-Backed 1.0%	Broad Bond Market 8.7%
Broad Bond Market 6.5%	Broad Bond Market 7.8%	Municipal 4.2%	Municipal -1.0%	Broad Bond Market 6.0%	Broad Bond Market 0.6%	Broad Bond Market 2.7%	Municipal Bonds 5.4%	U.S. Treasury 0.9%	Bank Loans 8.6%
U.S. Treasury 5.9%	Mortgage-Backed 6.2%	Broad Bond Market 4.2%	Mortgage-Backed -1.4%	U.S. Treasury 5.1%	Cash 0.1%	International 2.1%	Bank Loans 4.1%	Bank Loans 0.4%	Municipal Bonds 7.5%
Mortgage-Backed 5.4%	High Yield 4.4%	International 4.1%	Corporate -1.5%	High Yield 2.5%	Corporate -0.7%	Mortgage-Backed 1.7%	Broad Bond Market 3.6%	Broad Bond Market 0.0%	U.S. Treasury 6.9%
International 5.0%	International 4.4%	Mortgage-Backed 2.6%	Broad Bond Market -2.0%	Bank Loans 1.6%	Bank Loans -0.7%	U.S. Treasury 1.0%	Mortgage-Backed 2.5%	High Yield -2.1%	Mortgage-Backed 6.4%
Municipal 4.6%	Bank Loans 1.5%	U.S. Treasury 2.0%	U.S. Treasury -2.8%	Cash 0.0%	International -3.2%	Cash 0.3%	U.S. Treasury 2.3%	International -2.1%	International 5.1%
Cash 0.2%	Cash 0.1%	Cash 0.1%	International -3.1%	International -3.1%	High Yield -4.6%	Municipal -0.5%	Cash 0.8%	Corporate -2.5%	Cash 2.3%

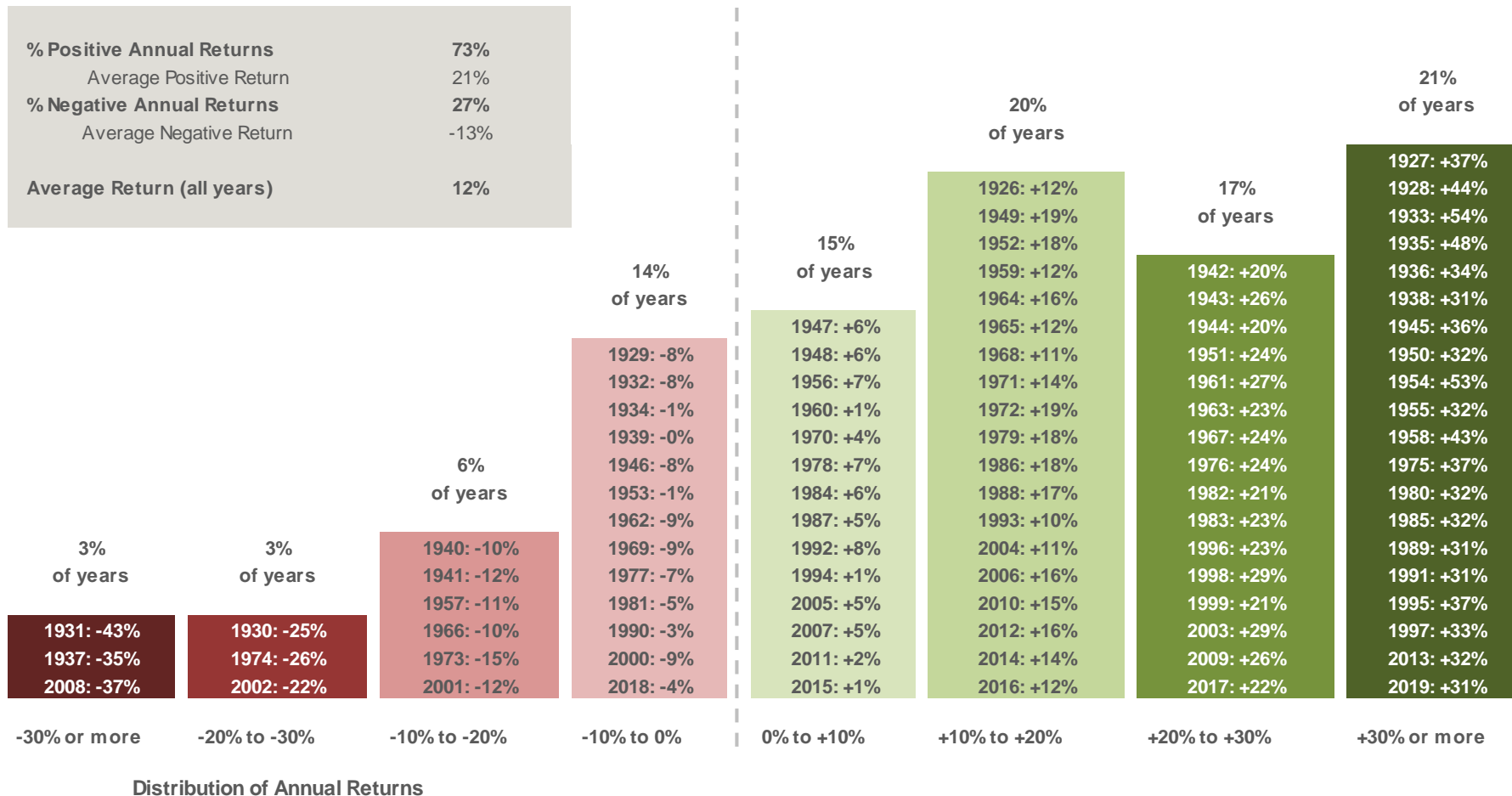
## 10-Year Statistics

Annualized Return	Volatility (Std. Dev.)	Risk-Adj. Return
High Yield 7.6%	International 6.9%	Bank Loans 1.3
Corporate 5.5%	High Yield 5.8%	Corporate 1.2
Bank Loans 5.0%	Corporate 4.1%	Mortgage-Backed 1.2
Municipal Bonds 4.3%	U.S. Treasury 3.5%	High Yield 1.2
Broad Bond Market 3.7%	Municipal Bonds 3.4%	Broad Bond Market 1.1
Mortgage-Backed 3.2%	Bank Loans 3.3%	Municipal Bonds 1.1
U.S. Treasury 3.1%	Broad Bond Market 2.9%	U.S. Treasury 0.7
International 1.5%	Mortgage-Backed 2.1%	International 0.2
Cash 0.6%	Cash 0.2%	Cash -1.0

Source: Morningstar Direct. As of December 31, 2019. Annualized return, volatility (as measured by standard deviation) and Risk-Adj. Return (as measured by Sharpe ratio) are calculated as of the most recent quarter-end. Sectors are represented by the following indices: BBgBarc. US Aggregate Bond (Broad Bond Market), BBgBarc. US MBS (Mortgage-Backed), ICE BofAML US High Yield (High Yield), BBgBarc. IG Corporate (Corporate), BBgBarc. Municipal (Municipal), BBgBarc. US Treasury (U.S. Treasury), BBgBarc. Global Aggregate ex USD (International), S&P/LSTA Leveraged Loan (Bank Loans), and FTSE Treasury 3-Mo T-Bills (Cash). Indices are unmanaged and are used to measure and report performance of various sectors of the market. **Past performance is no guarantee of future results and diversification does not ensure against loss.** Direct investment in indices is not available.

# The Stock Market Rises More Often Than Falls

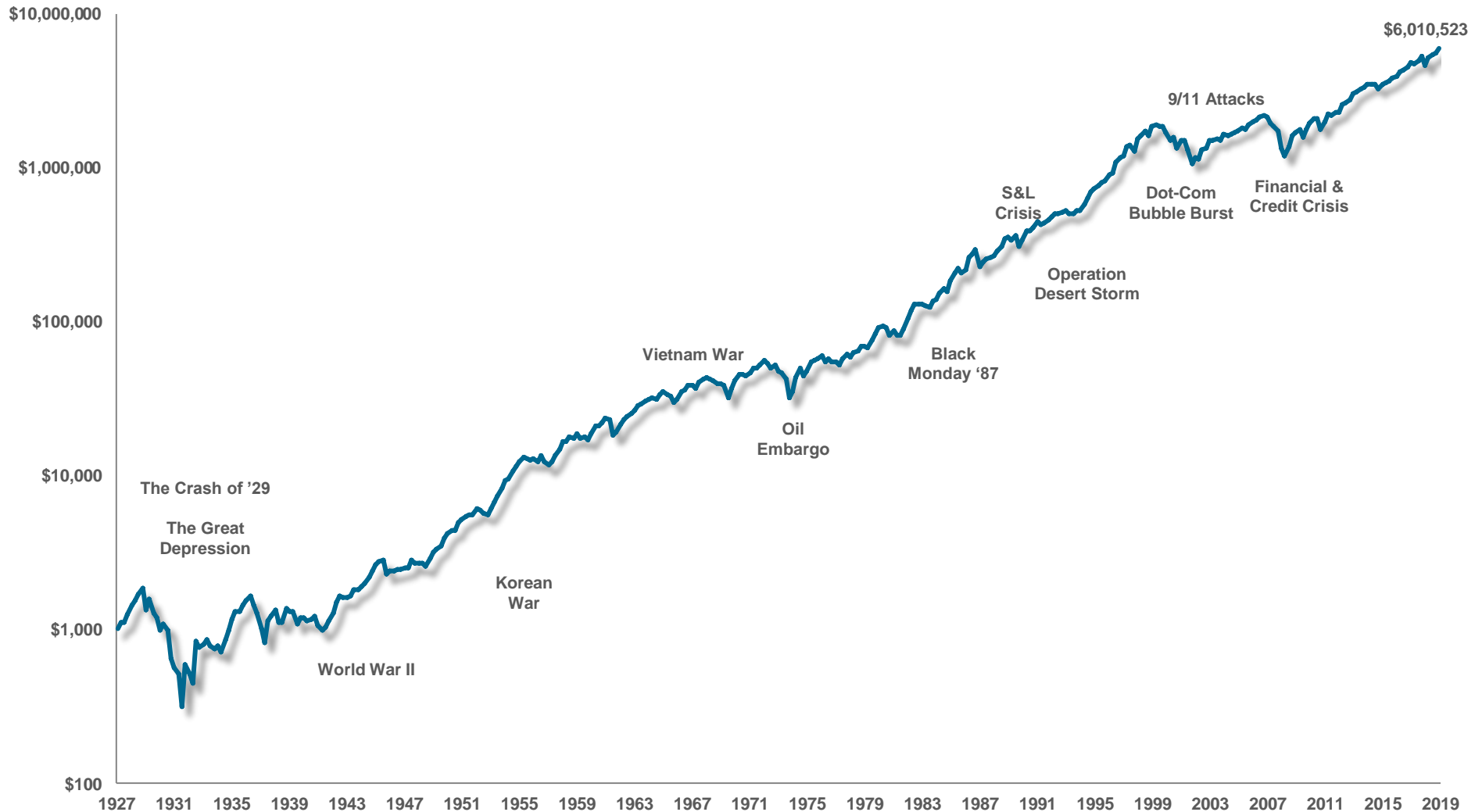
## S&P 500 Index Annual Returns (since 1926)



Source: Standard and Poor's, Baird Research. Past performance is not a guarantee of future results. Performance is calculated on a total return basis with dividend reinvestment. The S&P 500, computed by the Standard & Poor's Corporation, is a well known gauge of stock market movements determined by the weighted capitalization of the 500 leading U.S. common stocks. Indices are unmanaged and are not available for direct investment.

# Despite Setbacks the Market has Persevered

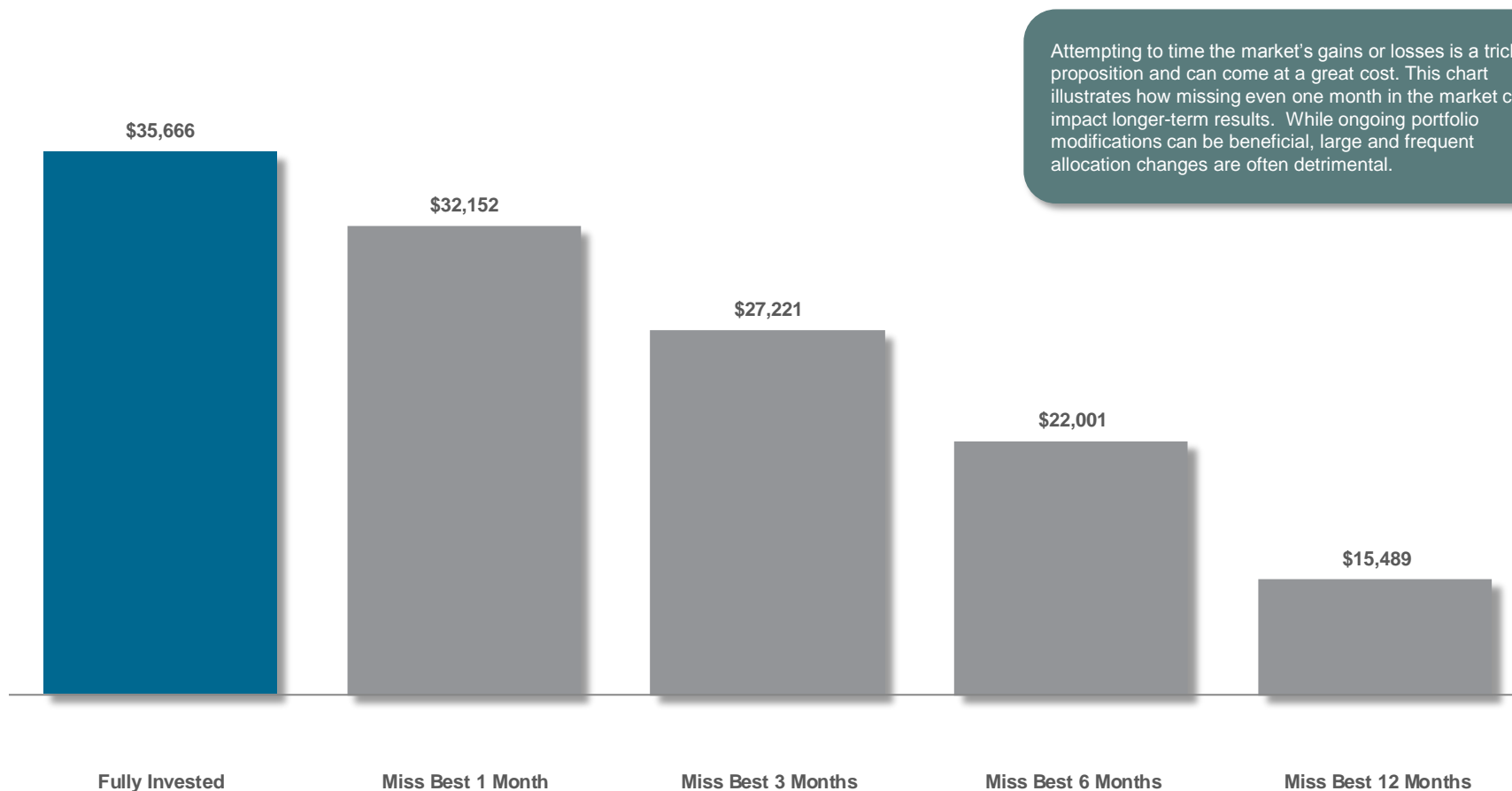
Growth of \$1,000 in the S&P 500 Index (Since 1928)



Source: Standard and Poor's, Ibbotson Associates, Baird Research. As of December 31, 2019. Past performance is not a guarantee of future results. Performance is calculated on a total return basis with dividend reinvestment. The S&P 500, computed by the Standard & Poor's Corporation, is a well known gauge of stock market movements determined by the weighted capitalization of the 500 leading U.S. common stocks. Indices are unmanaged and are not available for direct investment.

# You Must be Present to Win

## How Missing Large Market Moves Impacts Wealth Creation (Growth of \$10,000)

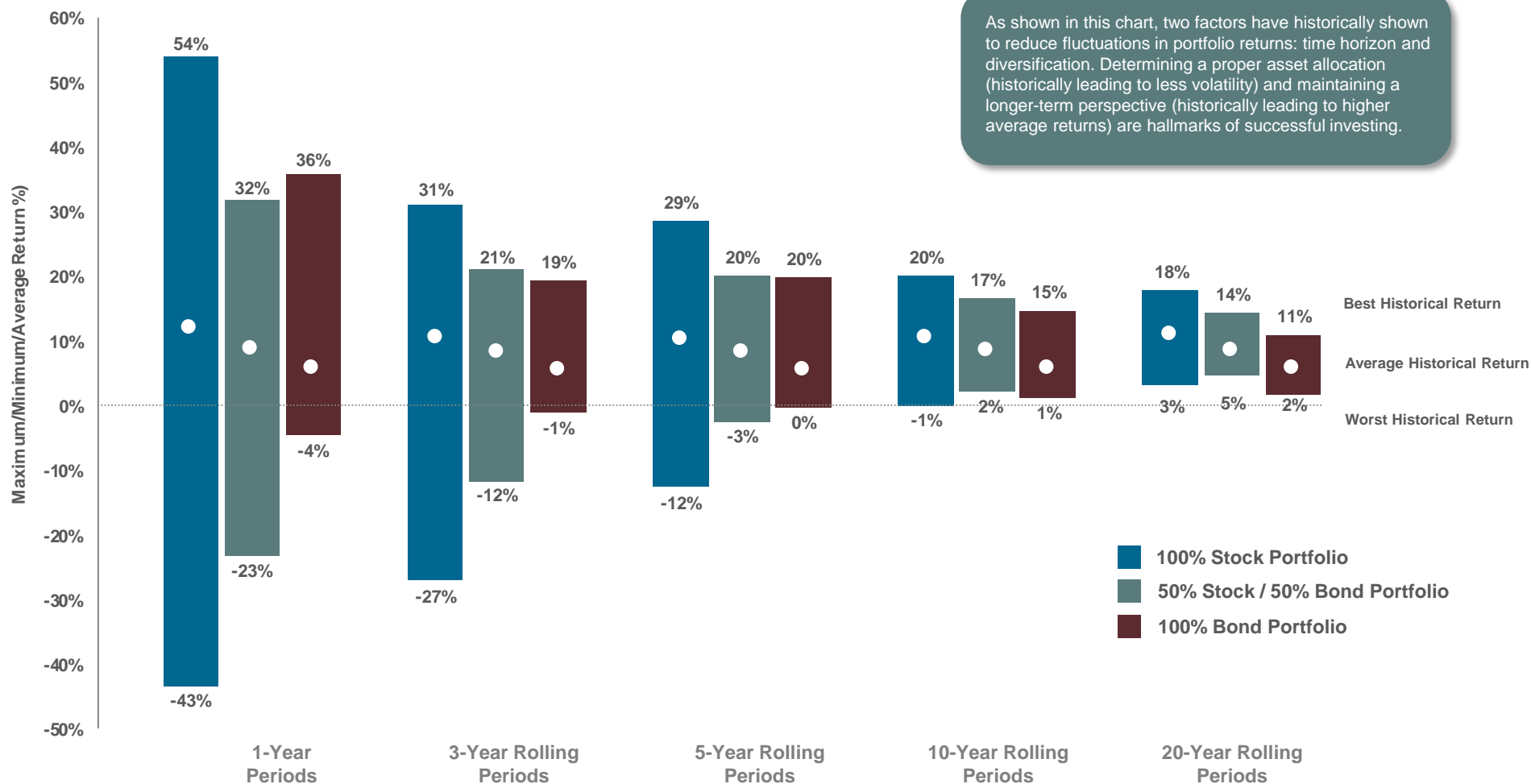


Source: Standard and Poor's, Morningstar Direct, Baird Research. For the 10-year period ending December 31, 2019 (total 120 months). Past performance is not a guarantee of future results. Performance is calculated on a total return basis with dividend reinvestment. The S&P 500, computed by the Standard & Poor's Corporation, is a well known gauge of stock market movements determined by the weighted capitalization of the 500 leading U.S. common stocks. Indices are unmanaged and are not available for direct investment. Past performance is not a guarantee of future results.



# The Importance of a Long-Term Perspective

## Historical Return Ranges for Various Allocations



Source: Baird research, Standard and Poor's, Barclays. For the December 31, 1926 to December 31, 2019 Stocks are represented by the S&P 500 Index and bonds by a 50/50 mix of the IA LT Corporate and IA IT Treasury. The S&P 500 Index is a well known gauge of stock market movements determined by the weighted capitalization of the 500 leading U.S. common stocks. The Ibbotson Associates (IA) bond indices measure the performance of U.S. gov't and corporate bonds with maturities greater than ten years. These allocations are rebalanced annually. Indices are unmanaged and are not available for direct investment. Past performance is not a guarantee of future results.

# The Benefits of Long-Term Investing

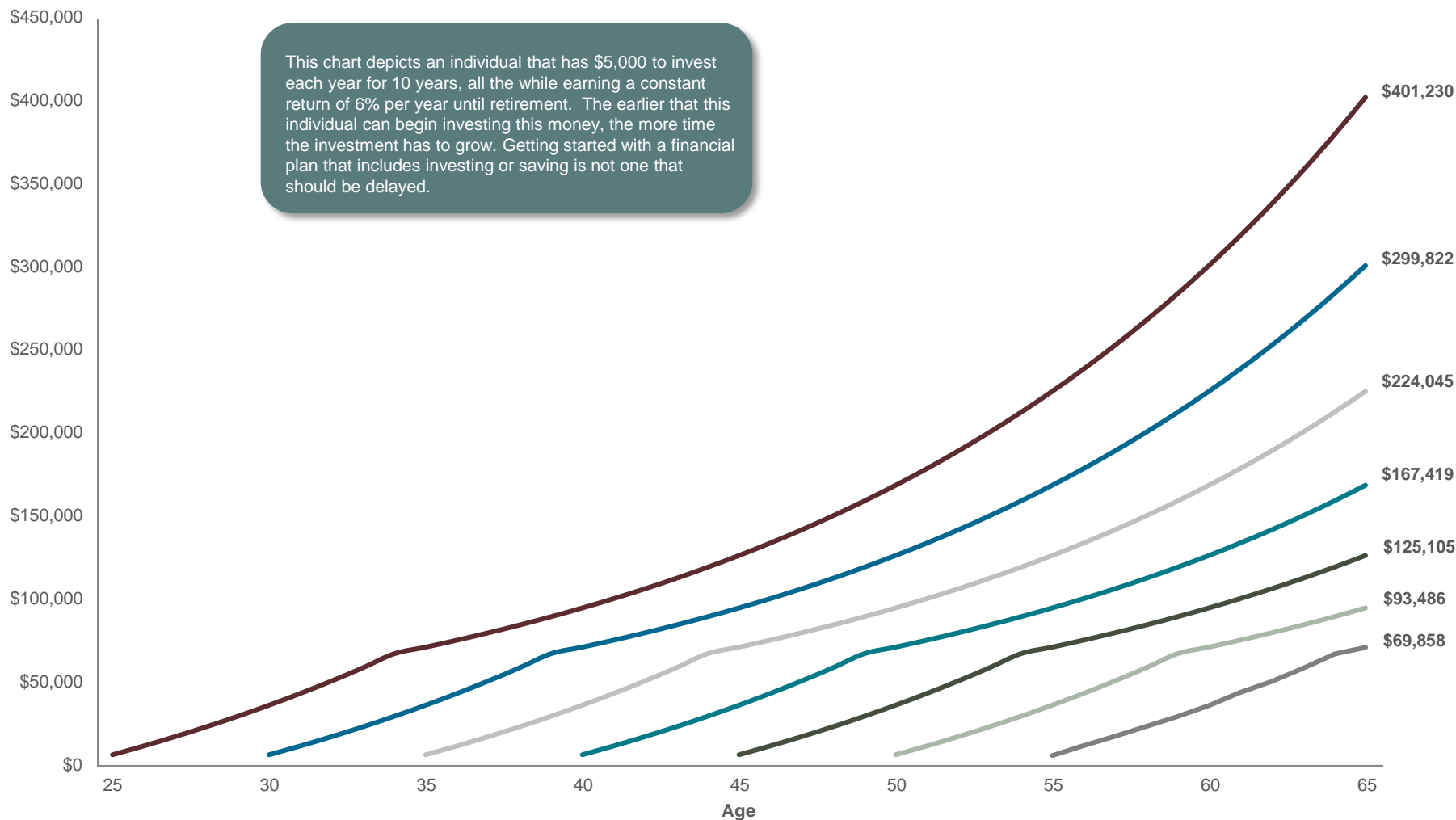
## Growth of \$1,000 (Since 1980)



Source: Baird research, Morningstar Direct. As of December 31, 2019. Asset classes are represented by the following indices: U.S. Large Cap (S&P 500), U.S. Small Cap (Russell 2000), International (MSCI EAFE), Corporate Bonds (BbgBarc. US Corp Bond), Treasury Bonds ( BbgBarc US Treasury Bond), Cash (FTSE 3-month T-bills). The S&P 500 Index is a representative sample of 500 leading companies in leading industries of the U.S. economy. The Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index. The MSCI EAFE Index is a market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada. The Bloomberg Barclays Corporate Bond Index is a subset of the Barclays Aggregate Index that measures the total return performance of investment-grade corporate bonds. The Bloomberg Barclays Treasury Bond Index is a subset of the Barclays Aggregate Index that measures the total return performance of U.S. Treasury bonds. The FTSE 3-month T-bills measures the performance of related Treasury bills. Investments in international and emerging market securities include exposure to risks including currency fluctuations, foreign taxes and regulations, and the potential for illiquid markets and political instability. Small- and mid-cap companies may be hindered as a result of limited resources or less diversified products or services and have therefore historically been more volatile than the stocks of larger, more established companies. Indices are unmanaged and are not available for direct investment. Past performance is not a guarantee of future results.

# Why it Pays to Begin Investing Early

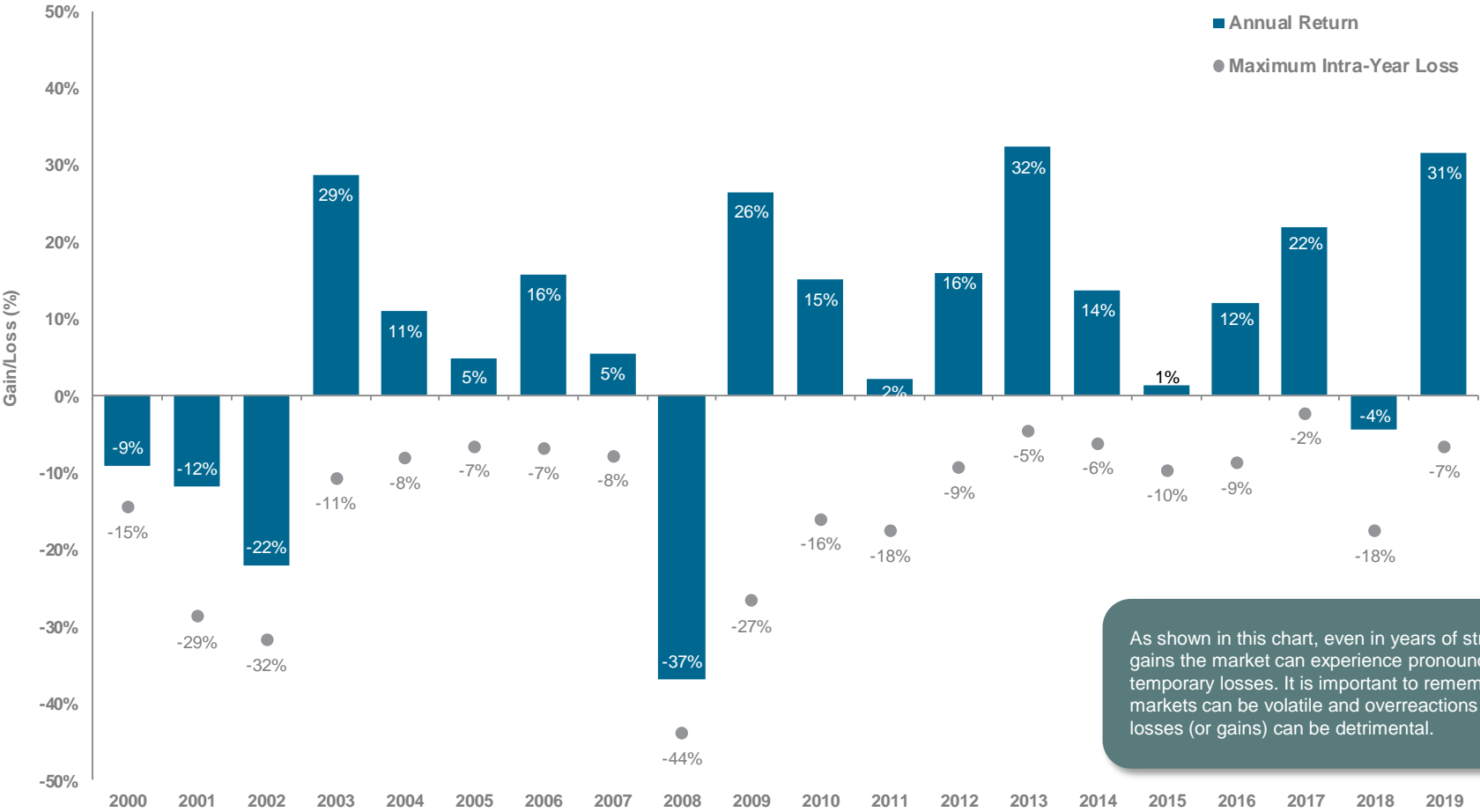
## The Power of Compounding Returns



Source: Baird research. For illustrative purposes only. Assumes that \$5,000 is invested at the beginning of each year for ten consecutive years. That investment earns a level 6% rate of return until the end of year 65.

# Corrections are Not Uncommon...Even in a Rising Market

## S&P 500 Annual Returns and Maximum Intra-Year Losses

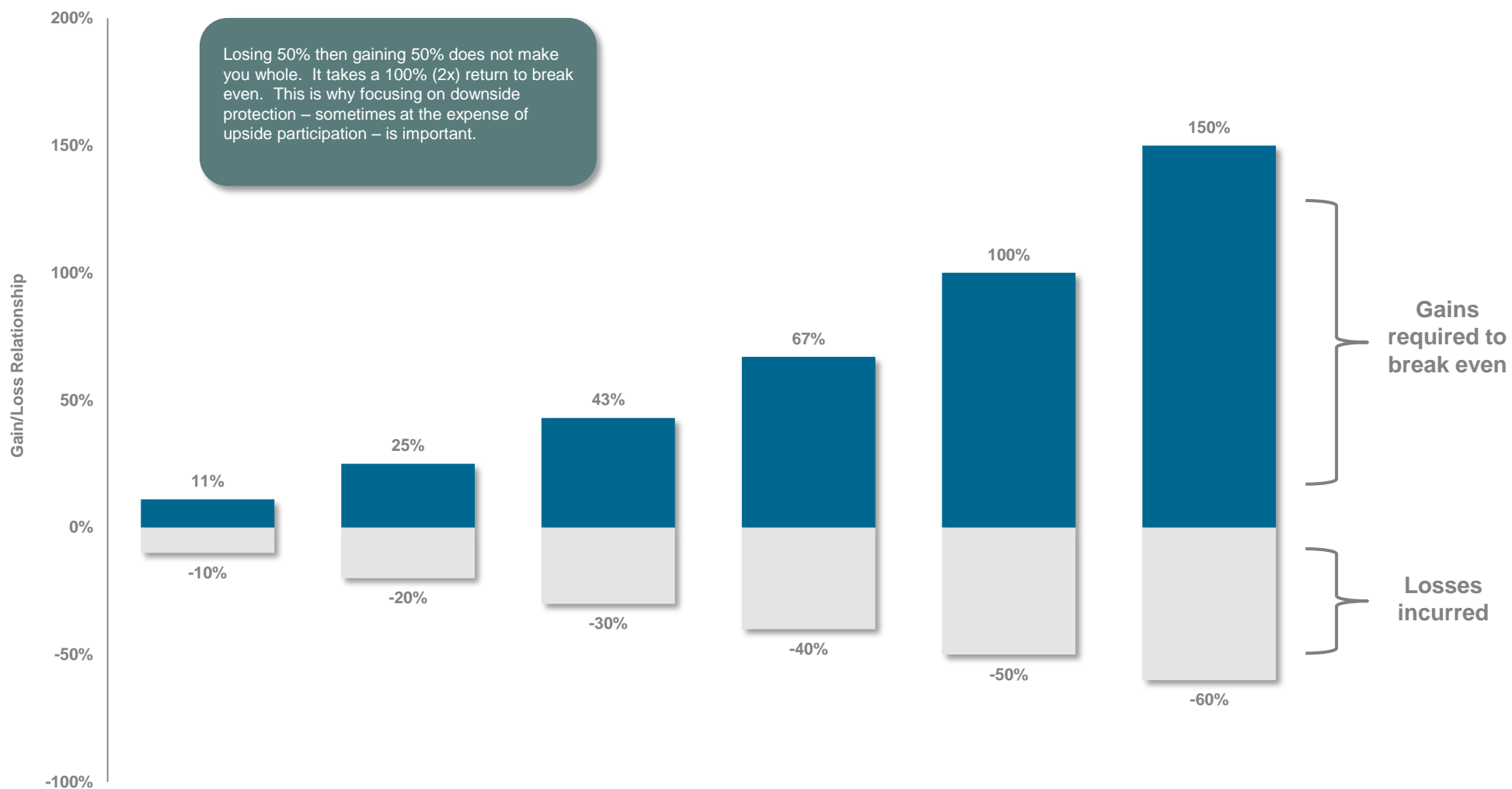


As shown in this chart, even in years of strong gains the market can experience pronounced temporary losses. It is important to remember that markets can be volatile and overreactions to losses (or gains) can be detrimental.

Source: Standard and Poor's, Baird analysis. The S&P 500, computed by the Standard & Poor's Corporation, is a well known gauge of stock market movements determined by the weighted capitalization of the 500 leading U.S. common stocks. Intra-year losses are calculated as the largest point-to-point loss in a given year, calculated on a weekly basis. Indices are unmanaged, and are not available for direct investment. Past performance is not a guarantee of future results.

# Why Downside Protection Matters

## Large Losses Require Even Greater Gains to Break Even

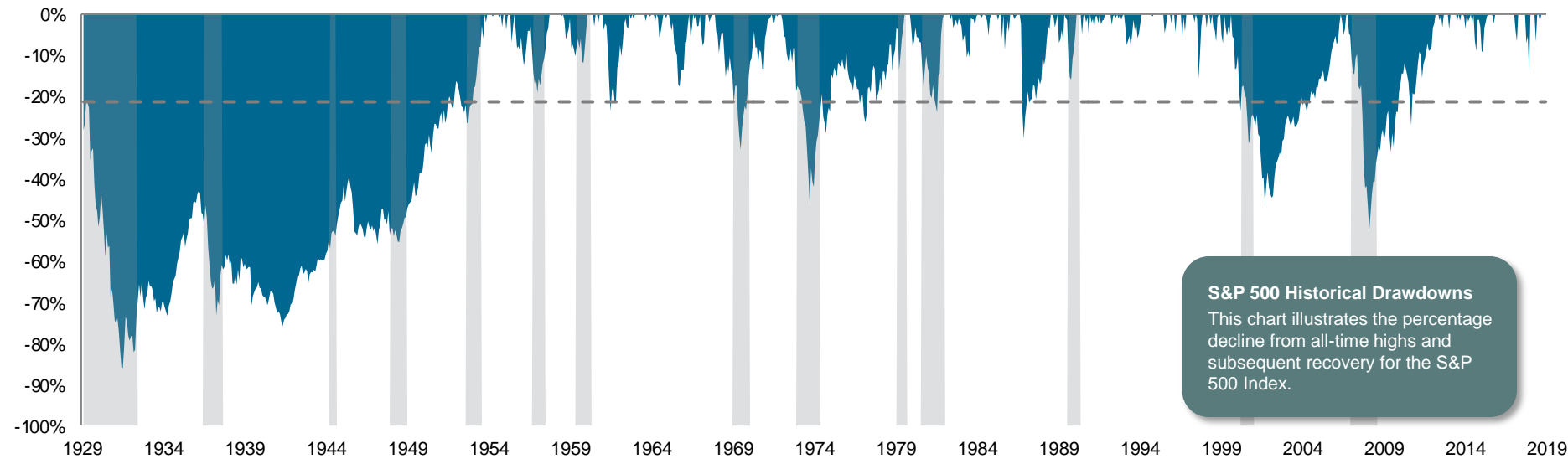


Source: Baird research. For illustrative purposes only.

# Historical Drawdowns of S&P 500

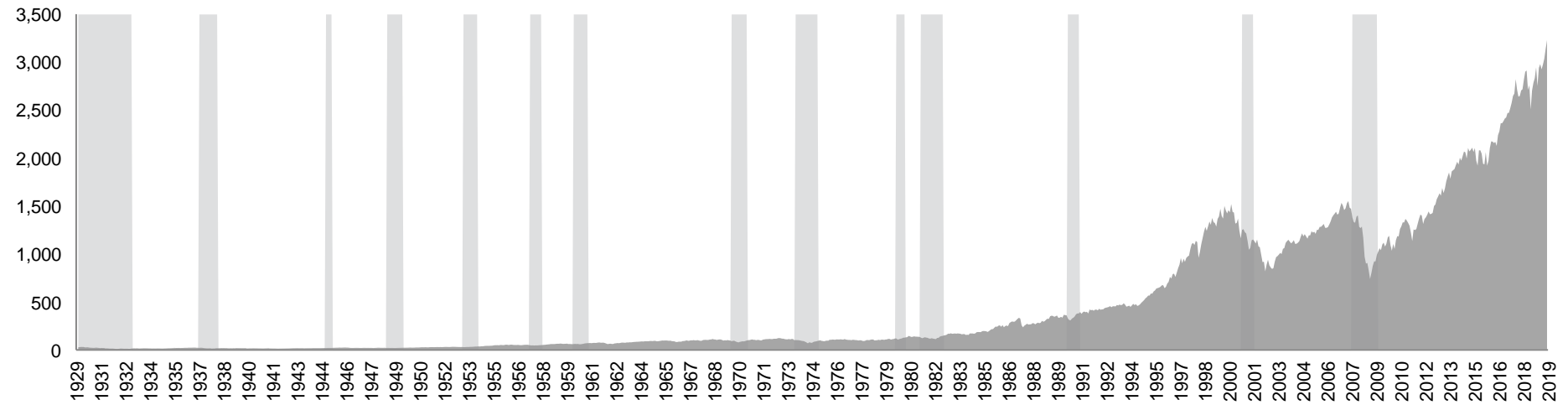


## S&P 500 Declines from Last Market High



**S&P 500 Historical Drawdowns**  
This chart illustrates the percentage decline from all-time highs and subsequent recovery for the S&P 500 Index.

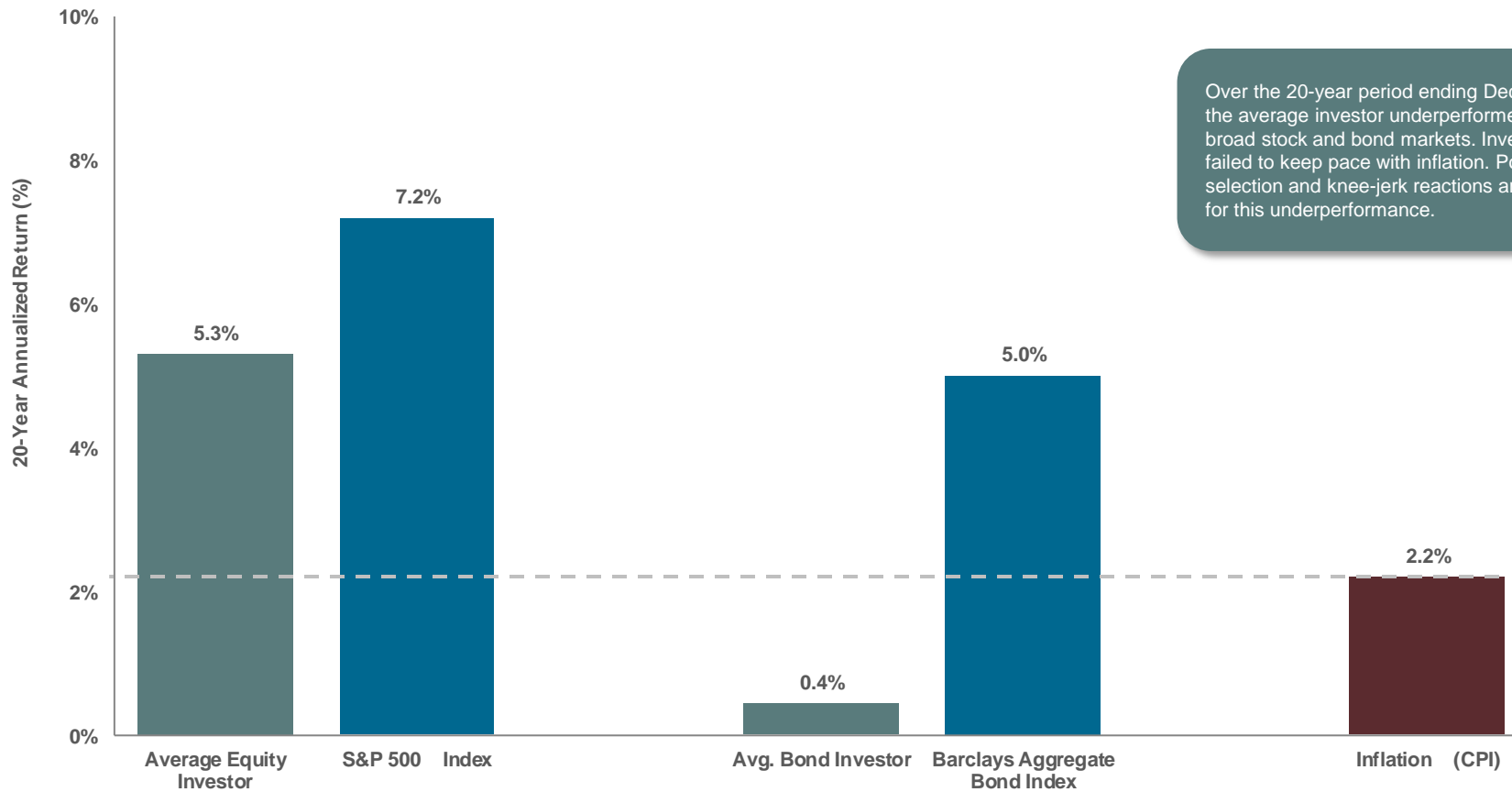
## S&P 500 Composite Index



Source: Morningstar; Baird Analysis. Shaded regions are represented by recessionary periods. Recessionary periods are defined by NBER business cycle dates.

# Most Investors Underperform

## How the Average Investor Has Fared

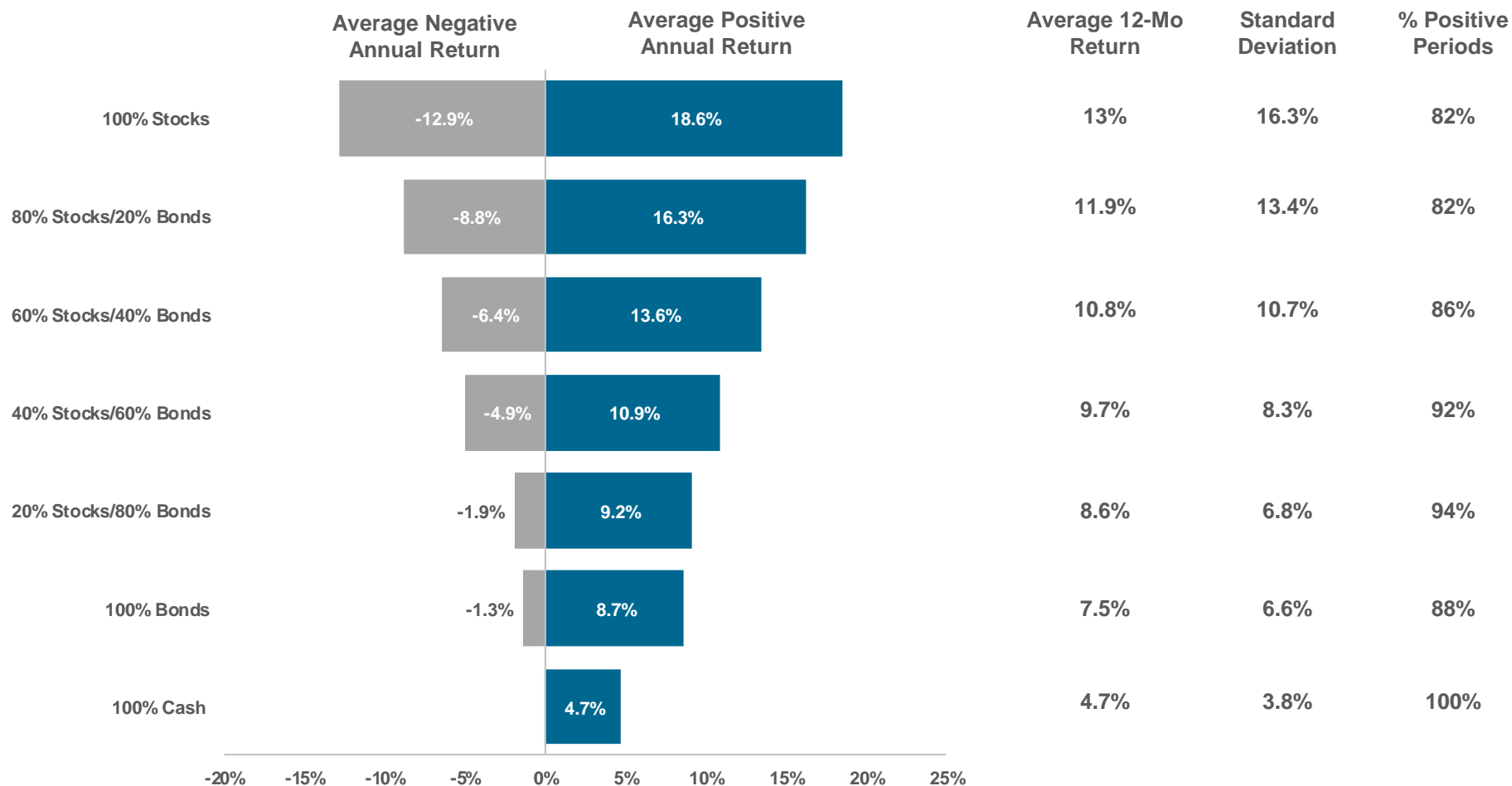


Over the 20-year period ending December 2017, the average investor underperformed both the broad stock and bond markets. Investors also failed to keep pace with inflation. Poor investment selection and knee-jerk reactions are key reasons for this underperformance.

Source: Dalbar, Inc. "Quantitative Analysis of Investor Behavior, Advisor Edition." April 2018. Average equity and bond investor returns are calculated using data from the Investment Company Institute for the 20-year period ending December 31, 2017. The "average" investor refers to the universe of all mutual fund investors whose actions and financial results are restated to represent a single investor. These returns are represented by a change in assets, excluding sales charges, fees, expenses and any other costs. While we believe this information to be accurate, no guarantees can be made to its authenticity or accuracy. Indices are unmanaged, and are not available for direct investment. Past performance is not a guarantee of future results

# The Power of Asset Allocation

## The Relationship Between Upside and Downside Potential

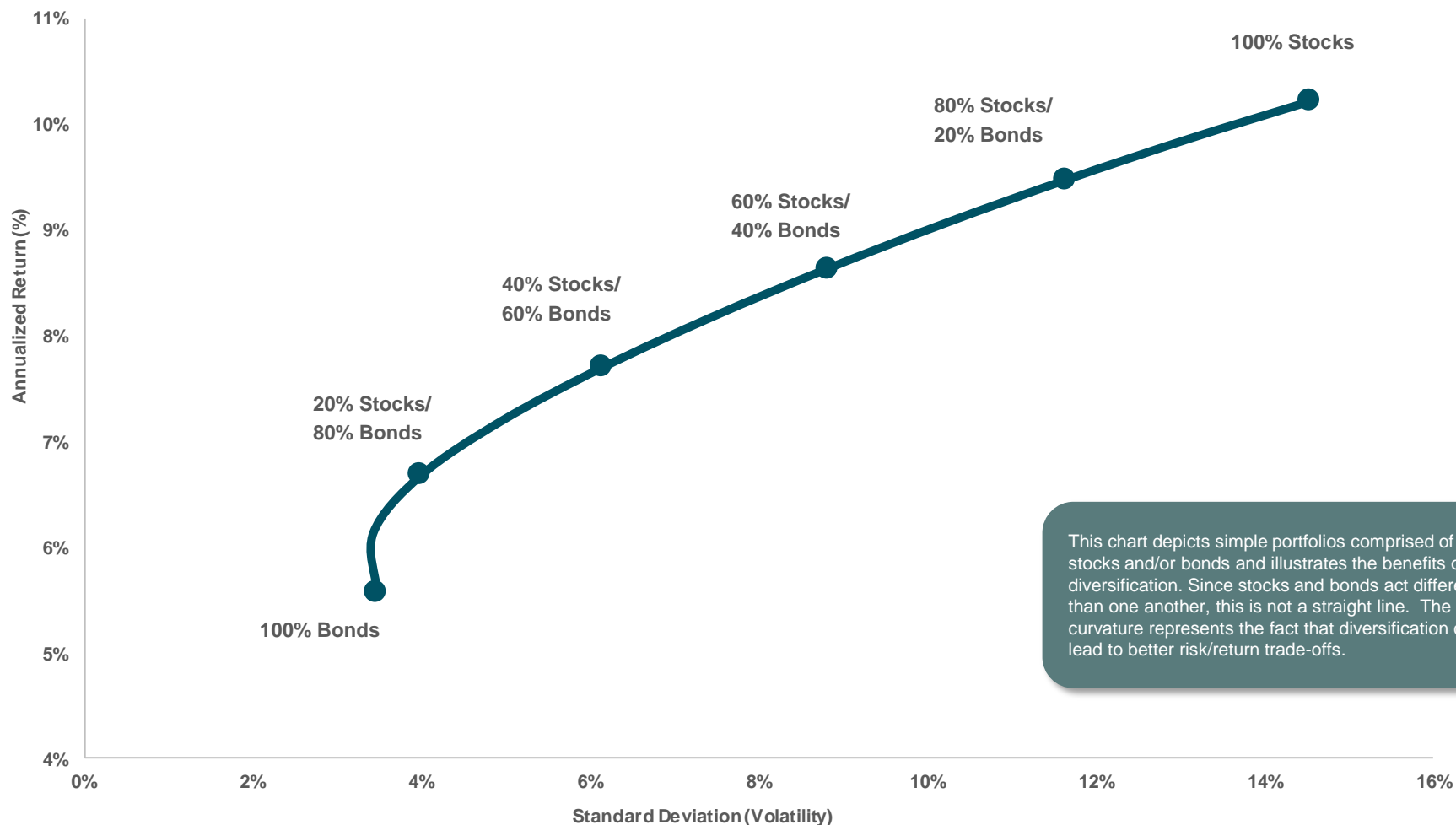


Source: Baird research, Standard and Poor's, Barclays, FTSE. For December 31, 1977 to December 31, 2019; rolling 12 month performance each six months. Stocks are represented by the S&P 500 Index and bonds by BbgBarc US Agg Bond Index rebalanced monthly. The S&P 500 Index is a well known gauge of stock market movements determined by the weighted capitalization of the 500 leading U.S. common stocks. The Barclays Aggregate Bond index is a broad U.S. bond benchmark composed of Treasury, government-related, corporate and securitized bonds. It includes investment-grade securities that have at least one year to maturity and an outstanding par value of at least \$250 million. These allocations are rebalanced annually. Indices are unmanaged and are not available for direct investment. Indices are unmanaged and are not available for direct investment. **Past performance is not a guarantee of future results.**



# Adding Value Through Diversification

## The Efficient Frontier

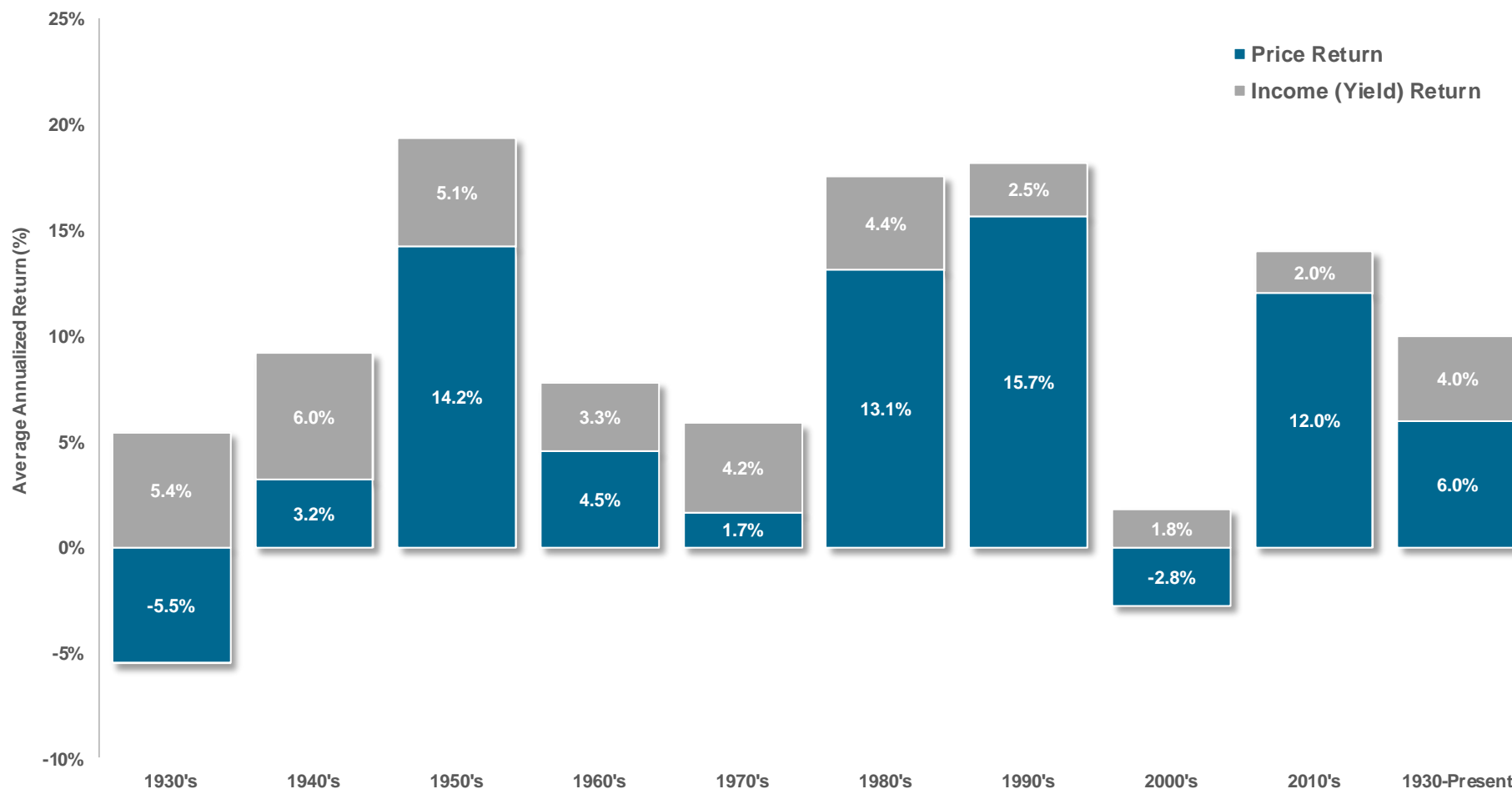


This chart depicts simple portfolios comprised of stocks and/or bonds and illustrates the benefits of diversification. Since stocks and bonds act differently than one another, this is not a straight line. The curvature represents the fact that diversification can lead to better risk/return trade-offs.

Source: Standard and Poor's, Barclays. For the 20-year period ending December 31, 2019. Stocks are represented by the S&P 500 Index, bonds by the Barclays Aggregate Bonds Index. The S&P 500 Index is a well known gauge of stock market movements determined by the weighted capitalization of the 500 leading U.S. common stocks. The Barclays Aggregate Bond index is a broad U.S. bond benchmark composed of Treasury, government-related, corporate and securitized bonds. It includes investment-grade securities that have at least one year to maturity and an outstanding par value of at least \$250 million. These allocations were rebalanced monthly. Indices are unmanaged and are not available for direct investment. Diversification does not guarantee a profit, nor does it ensure against loss. **Past performance is not a guarantee of future results.** Standard deviation is a statistical measure of performance dispersion. The higher the measure, the more volatile the historical return pattern.

# Income is an Important Component of Total Return

S&P 500 Index: Price Return and Income Return Over Time



Source: Standard and Poor's, Barclays. For the 20-year period ending December 31, 2019. Stocks are represented by the S&P 500 Index, bonds by the Barclays Aggregate Bonds Index. The S&P 500 Index is a well known gauge of stock market movements determined by the weighted capitalization of the 500 leading U.S. common stocks. The Barclays Aggregate Bond index is a broad U.S. bond benchmark composed of Treasury, government-related, corporate and securitized bonds. It includes investment-grade securities that have at least one year to maturity and an outstanding par value of at least \$250 million. These allocations were rebalanced monthly. Indices are unmanaged and are not available for direct investment. Diversification does not guarantee a profit, nor does it ensure against loss. **Past performance is not a guarantee of future results.** Standard deviation is a statistical measure of performance dispersion. The higher the measure, the more volatile the historical return pattern.

# Asset Class Correlations

## 10-Year Asset Class Correlation

	Large Value	Large Growth	Mid Cap	Small Cap	Int'l	Taxable Bonds	Municipal Bonds	Cash	Commodities	Real Estate	Emerging Markets	High Yield Bonds	Long/Short Equity	Managed Futures	Multi-Alternative	
Large Value	1.00															
Large Growth	0.91	1.00														
Mid Cap	0.96	0.94	1.00													
Small Cap	0.90	0.86	0.95	1.00												
Int'l	0.83	0.84	0.82	0.72	1.00											
Taxable Bonds	-0.24	-0.13	-0.18	-0.27	-0.07	1.00										
Municipal Bonds	-0.22	-0.08	-0.15	-0.25	-0.04	0.76	1.00									
Cash	-0.04	0.01	-0.04	-0.06	-0.01	0.07	0.03	1.00								
Commodities	0.55	0.51	0.55	0.50	0.58	-0.04	-0.03	0.03	1.00							
Real Estate	0.66	0.65	0.71	0.63	0.59	0.25	0.17	0.00	0.37	1.00						
Emerging Markets	0.73	0.74	0.74	0.65	0.84	0.04	0.04	0.00	0.63	0.57	1.00					
High Yield Bonds	0.74	0.70	0.75	0.67	0.79	0.15	0.08	-0.05	0.60	0.65	0.76	1.00				
Long/Short Equity	0.82	0.89	0.87	0.79	0.86	-0.15	-0.06	-0.04	0.49	0.58	0.74	0.67	1.00			
Managed Futures	0.09	0.20	0.11	0.01	0.13	0.39	0.32	0.02	-0.01	0.26	0.10	0.07	0.22	1.00		
Multi-Alternative	0.60	0.70	0.67	0.57	0.72	0.05	0.06	-0.14	0.41	0.52	0.60	0.65	0.83	0.34	1.00	

**Legend**

- High Correlation (0.70 - 0.99)
- Moderate Correlation (0.30 - 0.69)
- Low Correlation (less than 0.30)

The basis of asset allocation and diversification is founded on the concept of correlation. Correlation measures how two different variables relate to one another, and ranges from -1 to +1. A correlation of +1 indicates that two variables are perfectly related; -1 indicates a perfectly inverted relationship. The benefits of asset allocation and diversification can occur when combining asset classes with lower correlation to one another. While this does help to temper volatility, it does not guarantee against market losses.

Source: Vestek; Russell indices; Standard & Poors; For the 10-year period ending November 30, 2019; Baird Analysis. Asset classes are represented by the following benchmarks: Russell 1000 Value® (Large Value), Russell 1000 Growth® (Large Growth), Russell Midcap® (Mid Cap), Russell 2000® (Small Cap), MSCI EAFE (Int'l), BbgBarclays Intermediate Govt/Credit (Taxable Bonds), Bbg Barclays Municipal (Municipal Bonds), FTSE 3-month T-bills (cash), Bloomberg Commodity (Commodities), Dow Jones US REIT (Real Estate), MSCI Emerging Markets (Emerging Markets), ICE BofAML US Corp High Yield (High Yield), Dow Jones Managed Futures (Managed Futures), Dow Jones Multi-Strategy (Multi-Alternative), Dow Jones Long Short Equity (Long/Short Equity). See important disclosures and definitions included with this publication. Correlation does not guarantee against market losses.

# Disclosures



## Disclaimers

This is not a complete analysis of every material fact regarding any company, industry or security. The information has been obtained from sources we consider to be reliable, but we cannot guarantee the accuracy. Past performance is not a guarantee of future results.

## Style Definitions

**Large Growth:** equity securities of large capitalization companies having growth stock characteristics (high price to earnings, high return on equity and low dividend yield). Based upon the Russell 1000® Growth Index. **Large Value:** equity securities of large capitalization companies having value stock characteristics (low forecasted price-to-earnings ratio, low price-to-book ratio, high dividend yield). Based upon the Russell 1000® Value Index. **Mid Growth:** equity securities of middle capitalization companies having growth stock characteristics (high price to earnings, high return on equity and low dividend yield). Based upon the Russell Midcap® Growth Index. **Mid Value:** equity securities of middle capitalization companies having growth stock characteristics (high price to earnings, high return on equity and low dividend yield). Based upon the Russell Midcap® Value Index. **Small Growth:** equity securities of small capitalization companies having growth stock characteristics (high price to earnings, high return on equity and low dividend yield). Small capitalization stock may be subject to additional risks including illiquidity. Based upon the Russell 2000® Growth Index. **Small Value:** equity securities of small capitalization companies having value stock characteristics (low price-to-earnings ratio, low price-to-book ratio, high dividend yield). Small capitalization stocks may be subject to additional risks including illiquidity. Based upon the Russell 2000® Value Index. **International:** a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada, consisting of 21 developed market country indices. Based upon the MSCI EAFE Index. **Satellite:** these asset classes, as defined by Baird, include commodities, real estate, high yield bonds and emerging markets. Representative benchmarks are as follows: Dow Jones UBS Commodity (commodities), Dow Jones US REIT (real estate), BofA High Yield Master II (high yield), and MSCI Emerging Markets (emerging markets). **Short Term Taxable:** Short-term bond portfolios invest primarily in corporate and other investment-grade U.S. fixed-income issues and have durations of one to 3.5 years. Based upon the Barclays 1-3 Year Gov't/Credit Index. **Intermediate Taxable:** Intermediate-term bond portfolios invest primarily in corporate and other investment-grade U.S. fixed-income issues and have durations of 3.5 to six years. Based upon the Barclays Intermediate Gov't/Credit Index. **Short Term Municipal:** Muni national short portfolios invest in bonds issued by various state and local governments to fund public projects. These portfolios have durations of less than 4.5 years. Based upon the Barclays 3 Year Municipal Index. **Intermediate Term Municipal:** Muni national short portfolios invest in bonds issued by various state and local governments to fund public projects. These portfolios have durations of 4.5 to 7 years. Based upon the Barclays 7 Year Municipal Index.

## GICS

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## Domestic Equity Benchmarks

**S&P 500® Index:** A representative sample of 500 leading companies in leading industries of the U.S. economy. Considered a large-cap index.

**Russell 3000® Growth Index:** Measures the performance of those Russell 3000® Index companies with higher price-to-book ratios and higher forecasted growth values. An all-cap index.

**Russell 3000® Value Index:** Measures the performance of those Russell 3000® Index companies with lower price to- book ratios and lower forecasted growth values. An all-cap index.

**Russell Top 50® Index:** Measures the performance of the 50 largest companies in the Russell 1000® Index, which represents approximately 40% of the total market capitalization of the Russell 1000® Index. A mega-cap index.

**Russell Top 200® Index:** Measures the performance of the 200 largest companies in the Russell 1000® Index, which represents approximately 68% of the total market capitalization of the Russell 1000® Index. A large-cap index.

**Russell 1000® Growth Index:** Measures the performance of those Russell 1000® Index companies with higher price-to-book ratios and higher forecasted growth values. A large-cap index.

**Russell 1000® Value Index:** Measures the performance of those Russell 1000® Index companies with lower price to- book ratios and lower forecasted growth values. A large-cap index.

**Russell 1000® Defensive/Dynamic Index:** Measures the performance of those Russell 1000® Index companies based in terms of volatility of price and earnings, leverage and return on assets. The Russell 1000® Defensive Index includes those with relative stability and less sensitivity to economic cycles. The Russell 1000® Dynamics Index includes those with less stability and greater sensitivity to economic cycles.

**Russell Midcap® Index:** Measures the performance of the 800 smallest companies of the Russell 1000® Index, which represents approximately 36% of the total capitalization of the Russell 1000® Index. A mid-cap index.

**Russell Midcap® Growth Index:** Measures the performance of those Russell Midcap® Index companies with higher price-to-book and higher forecasted growth values. A midcap index.

**Russell Midcap® Value Index:** Measures the performance of those Russell Midcap companies with lower price-to book and lower forecasted growth values. A mid-cap index.

**Russell 2000® Index:** Measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represent approximately 10% of the total market capitalization of the Russell 3000® Index. A small-cap index.

**Russell 2000® Growth Index:** Measures the performance of those Russell 2000® Index companies with higher price-to-book ratios and higher forecasted growth values. A small-cap index.

**Russell 2000® Value Index:** Measures the performance of those Russell 2000® Index companies with lower price-to- book ratios and lower forecasted growth values. A small-cap index.

**Russell Microcap Index:** Measures the performance of smallest 1000 companies in the Russell 2000® Index, which represents less than 3% of the total market capitalization. A micro-cap index.

**Dow Jones U.S. Real Estate:** Measures the performance of Real Estate Investment Trusts (REIT) and other companies that invest directly or indirectly through development, management or ownership, including properties.

**Dow Jones Industrial Average:** A price-weighted index composed of 30 actively-traded large cap stocks.

**Bloomberg Commodity:** Aims to provide broadly diversified representation of commodity markets and represents 20 commodities, weighted based on economic significance and market liquidity.

**S&P 500® High/Low Quality Index:** The S&P Quality Rankings System measures growth and stability of earnings and dividends within the S&P 500 Index. The S&P 500 High Quality Index tracks stocks identified by Standard & Poor's as high quality (ranked A and above); The S&P 500 Low Quality Index tracks stocks identified by Standard & Poor's as low quality (ranked B and below).

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**Investors should consider the investment objectives, risks, charges and expenses of a fund carefully before investing. This and other information is found in the prospectus or summary prospectus. For a prospectus or summary prospectus, contact your Baird Financial Advisor. Please read the prospectus carefully before investing.**

## MSCI International Equity Benchmarks

**MSCI EAFE Index:** A free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada. The MSCI EAFE Index consists of 21 developed market country indices in Europe, Australasia, and the Far East. An international index.

**MSCI EAFE Large Cap:** The MSCI EAFE Large Cap Index is an unmanaged, market-weighted index of large companies in developed markets, excluding the U.S and Canada. An international large cap index.

**MSCI EAFE Mid Cap:** The MSCI EAFE Mid Cap Index is a free float-adjusted market capitalization index that is designed to measure the performance of mid capitalization equities in the developed markets excluding the US & Canada. An international mid cap index.

**MSCI EAFE Small Cap:** The MSCI EAFE Small Cap Index represents the small cap segment in 21 developed equity markets outside of North America. It targets 40% of the eligible small cap universe in each country. An international small cap index.

**MSCI EAFE Growth:** A sub-set of the MSCI EAFE Index, this benchmark is generally considered to be representative of the international growth stock market activity and often used as a benchmark for international growth equity portfolios. An international growth index.

**MSCI EAFE Value:** A sub-set of the MSCI EAFE Index, this benchmark is generally considered to be representative of international value stock market activity and often used as a benchmark for international value equity portfolios. An international value index.

**MSCI Europe Index:** A free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe. As of June 2006, the MSCI Europe Index consisted of the following 16 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK. An international index.

**MSCI Pacific ex Japan Index:** A free float-adjusted market capitalization index designed to measure equity market performance in the Pacific region, minus Japan. As of June 2006, the MSCI Pacific ex Japan Index consisted of the following 5 Developed Market countries: Australia, Hong Kong, New Zealand, and Singapore. An international index.

**MSCI BRIC:** A free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the following four emerging market country indices: Brazil, Russia, India and China.

**MSCI Emerging Markets Index:** A free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. As of December 2003 the MSCI Emerging Markets Index consisted of 26 emerging market country indices. An emerging markets index.

**MSCI Country Indices:** To construct an MSCI Country Index, every listed security in the market is identified. Securities are free float adjusted, classified in accordance with the Global Industry Classification Standard (GICS®), and screened by size and liquidity. MSCI then constructs its indices by targeting for index inclusion 85% of the free float adjusted market capitalization in each industry group, within each country. By targeting 85% of each industry group, the MSCI Country Index captures 85% of the total country market capitalization while it accurately reflects the economic diversity of the market. International indices.

## Fixed Income Benchmarks

**BbgBarc US Aggregate Bond Index:** is an unmanaged index that tracks domestic investment-grade bonds, including corporate, government, and mortgage-backed securities.

**BbgBarc 1-3 Yr Government/Credit Bond Index:** Includes bonds covered by the Barclays Government/Credit Index, with maturities from 1 up to (but not including) 3 years.

**BbgBarc US Govt/Credit Intermediate Bond Index:** Composed of approximately 3,500 publicly issued corporate and U.S. government debt issues rated Baa or better, with at least one year to maturity and at least \$1 million par outstanding. The index is weighted by the market value of the issues included in the index. The Index has duration of a little over 3 years and a maturity equal to slightly more than 4 years.

**BbgBarc Municipal Bond Index:** Bonds must have a minimum credit rating of at least Baa, an outstanding par value of at least \$3 million, part of a transaction of at least \$50 million, issued after December 31, 1990 and have a year or longer remaining maturity.

**BbgBarc 3 Year Muni Bond Index:** Includes bonds that have a minimum credit rating of BAA3, are issued as part of a deal of at least \$50 million, have a minimum maturity of 2 years and a maximum maturity of 4 years, and have been issued after December 31, 1990.

**BbgBarc 7 Year Muni Bond Index:** This index is a subset of the BC Municipal Bond Index. It includes maturities of six to eight years.

**BbgBarc Global Aggregate ex USD Index:** Tracks investment-grade government, corporate, agency, and mortgage-related bonds in markets outside the U.S. An international bond index.

**ICE BofAML US High Yield TR:** The US High Yield Index tracks the performance of below investment grade US dollar-denominated corporate bonds publicly issued in the US domestic market, subject to various qualifications. A high yield taxable bond index.

**BbgBarc US Treasury Bond Index:** Measures the performance of public obligations of the US Treasury with a remaining maturity of one year or more.

**BbgBarc US MBS Index:** Measures the performance of investment grade mortgage-backed pass-through securities of GNMA, FNMA and FHLMC.

**BbgBarc IG Corporate:** Measures the performance of investment grade corporate bonds with a remaining maturity of one year or more.

**FTSE Treasury Bill 3 Month:** An unmanaged index of three-month Treasury bills. Representative of short-term money market deposits, or "cash".

**S&P/LTSA Leveraged Loan:** A broad index designed to reflect the performance of U.S. dollar facilities in the leverage loan market.

## Other Benchmarks

**Dow Jones CSFB Managed Futures:** Designed to provide transparent representation of managed futures hedge fund performance. Funds are selected by Credit Suisse based on eligibility standards, rebalanced semi-annually and performance is calculated quarterly.

**Dow Jones CSFB Multi-Strategy:** Designed to provide transparent representation of fund of hedge fund performance. Funds are selected by Credit Suisse based on eligibility standards, rebalanced semi-annually and performance is calculated quarterly.

**Dow Jones CSFB Long/Short:** Designed to provide transparent representation of long/short equity hedge fund performance. Funds are selected by Credit Suisse based on eligibility standards, rebalanced semi-annually and performance is calculated quarterly.

**Investors should consider the investment objectives, risks, charges and expenses of a fund carefully before investing. This and other information is found in the prospectus or summary prospectus. For a prospectus or summary prospectus, contact your Baird Financial Advisor. Please read the prospectus carefully before investing.**