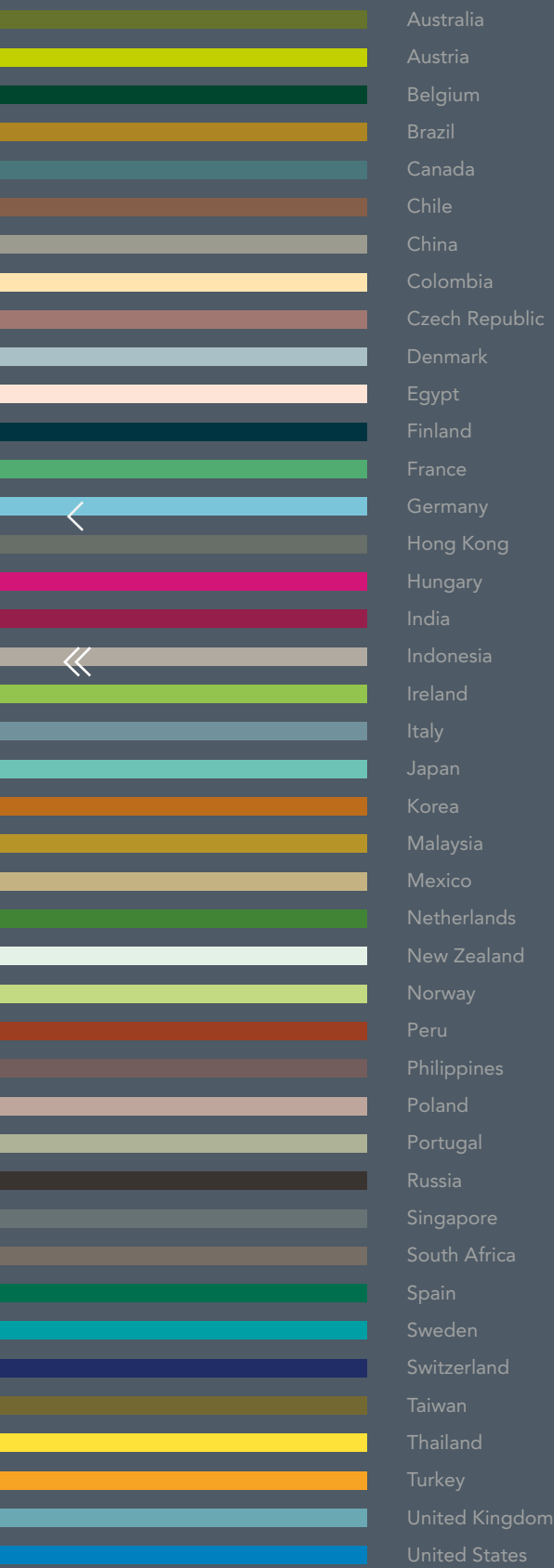




ON THE COVER

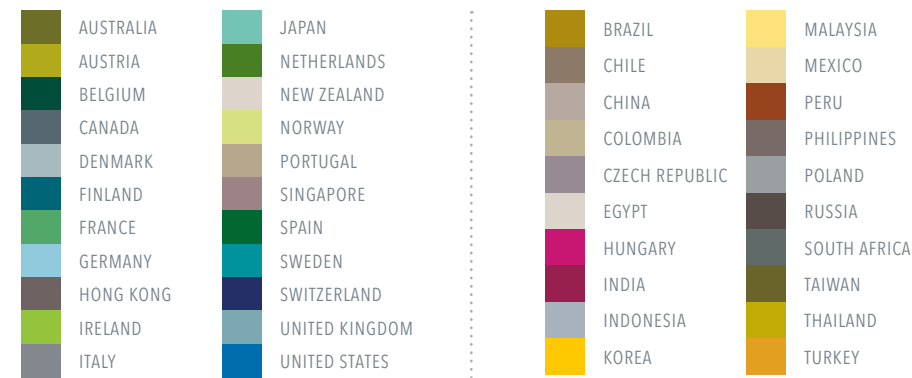
Dimensional invests in equities across more than 40 countries around the globe. Returns among these countries vary widely from year to year. On the front cover, each year on the left connects with that year's highest-performing country.

Over the last 20 years, no country has repeated as the top performer in consecutive years. **The randomness of global equity returns illustrates the difficulty of predicting future performance based on the past.**



**MATRIX BOOK 2019**  
HISTORICAL RETURNS DATA—US DOLLARS

# The RANDOMNESS of GLOBAL EQUITY RETURNS



**INVESTMENT OPPORTUNITIES EXIST ALL AROUND THE GLOBE.** Across more than 40 countries, there are over 15,000 publicly traded companies. If you listen to the news, however, some countries may seem like better places to invest than others based on how their economies and stock markets are doing at the time. Fluctuations in performance from year to year only add to the complexity, providing little useful information about future returns.

Daunted by the prospects of sorting it out, some investors look to the place they know best—their home market. There can be good reasons, such as tax benefits, for prioritizing an investment close to home, but too much home bias could mean underweighting or missing out on part of the investment universe.

Australia, for example, represents 2% of the global equity market. An Australian who aims to build a global equity portfolio may have cause for investing a greater amount at home. However, this would come with the tradeoff of reduced investment in other countries. The same is true for a Japanese investor, whose home country represents 8% of the global equity market. Even the US equity market—the world’s largest by far—is only about half of the global opportunity set.

Fortunately, no one needs to be an expert in every region to benefit from the opportunities those regions present. Equity markets process information continuously, leveraging knowledge from millions of buyers and sellers each day as they set security prices. Investors can trust market prices to provide an up-to-the-minute snapshot of global investment opportunities.

Because prices do such a good job incorporating information about securities in every market, they also offer the best prediction of future prospects. No sensible story or compelling empirical research suggests investors can consistently outguess those prices and pick winning countries. **A well-diversified global portfolio can help capture the returns of markets around the world and deliver more reliable outcomes over time.**

## Reading the Checkerboard

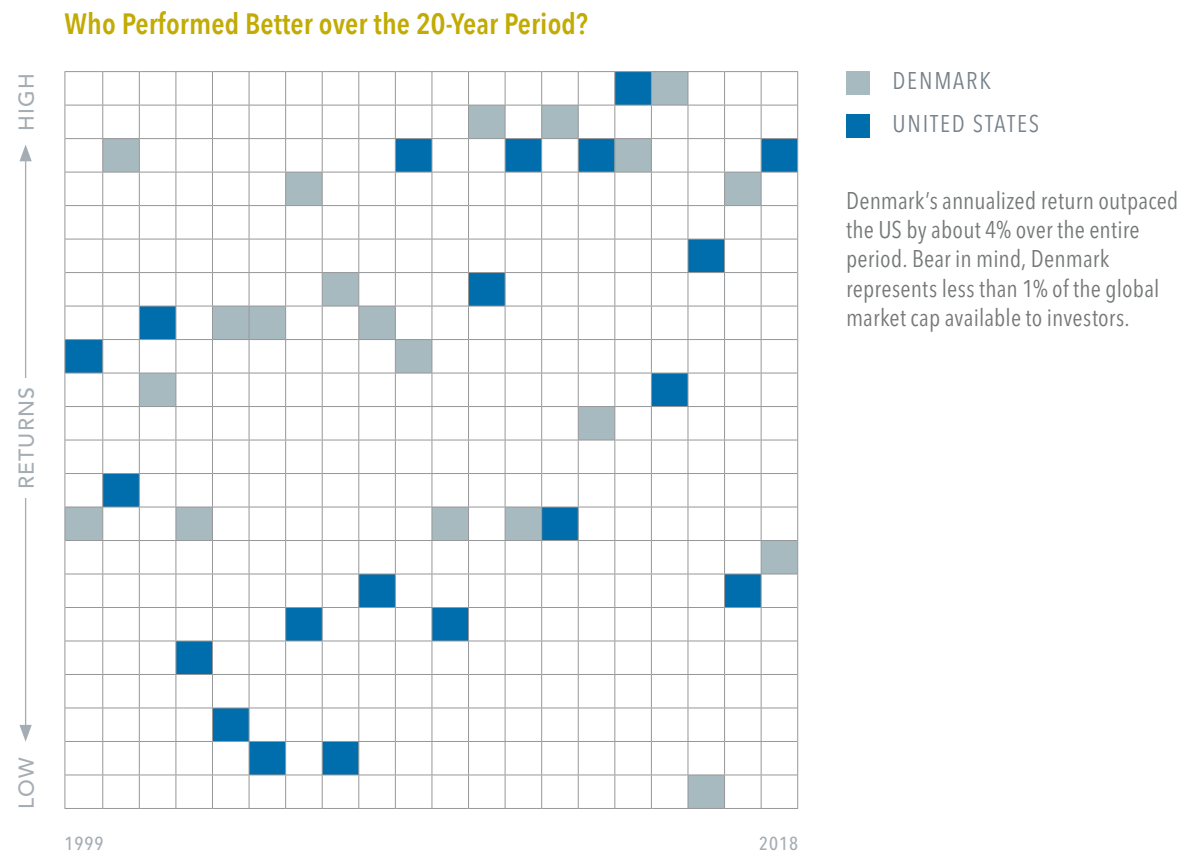
These tables illustrate 20 years of annual equity returns for developed and emerging markets. (Full-size tables and data sources.) Each color represents a different country. Each column is sorted top down, from the highest-performing country to the lowest.

Taken together, these tables powerfully demonstrate the randomness of global equity returns. In either table, pick a color in the first column and follow it through to the right. Does any country seem to follow a pattern that gives clues about its future performance?



Consider the performance of the US and Denmark, shown below. Is it immediately clear which country had the higher return over the past two decades?

Denmark, in fact, was the best performer among all developed markets, with an annualized return of 9.1%. Surprisingly perhaps, Denmark had the best calendar year return only once, in 2015. The US, despite some strong returns in the last several years, placed ninth overall with an annualized return of 4.9%.



## From First to Worst

Denmark also provides an example of the unpredictability in short-term results. After posting the highest developed market return in 2015, Denmark had the lowest return in 2016. Countries have also moved in the opposite direction, from worst to first, in consecutive years. In 2000, New Zealand had the lowest return among developed markets followed by the highest return in both 2001 and 2002. In emerging markets, Hungary and Russia went from the bottom two performers in 2014 to the top two performers in 2015.

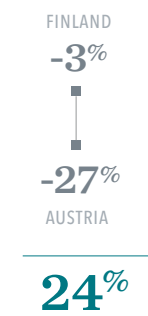
## Going to Extremes

In a single year, the difference between the return of the highest-performing country and the lowest can be dramatic. Among developed markets over the last 20 years, the difference between the best and worst performers has ranged from a low of 24% in 2018 to as much as 81% in 2009. The differences in emerging markets are even more pronounced, ranging from 39% in 2013 to 160% in 2005. In fact, the difference in emerging markets has exceeded 100% in several years.

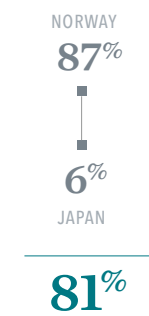
These extreme differences in outcomes, combined with the examples of countries that experienced sharp reversals in their return rankings, highlight the risk of trying to predict future returns by looking at the past and emphasize the importance of diversification across countries.

### Developed Markets

Smallest range of outcomes in a year



Largest range of outcomes in a year

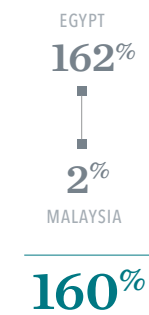


### Emerging Markets

Smallest range of outcomes in a year



Largest range of outcomes in a year



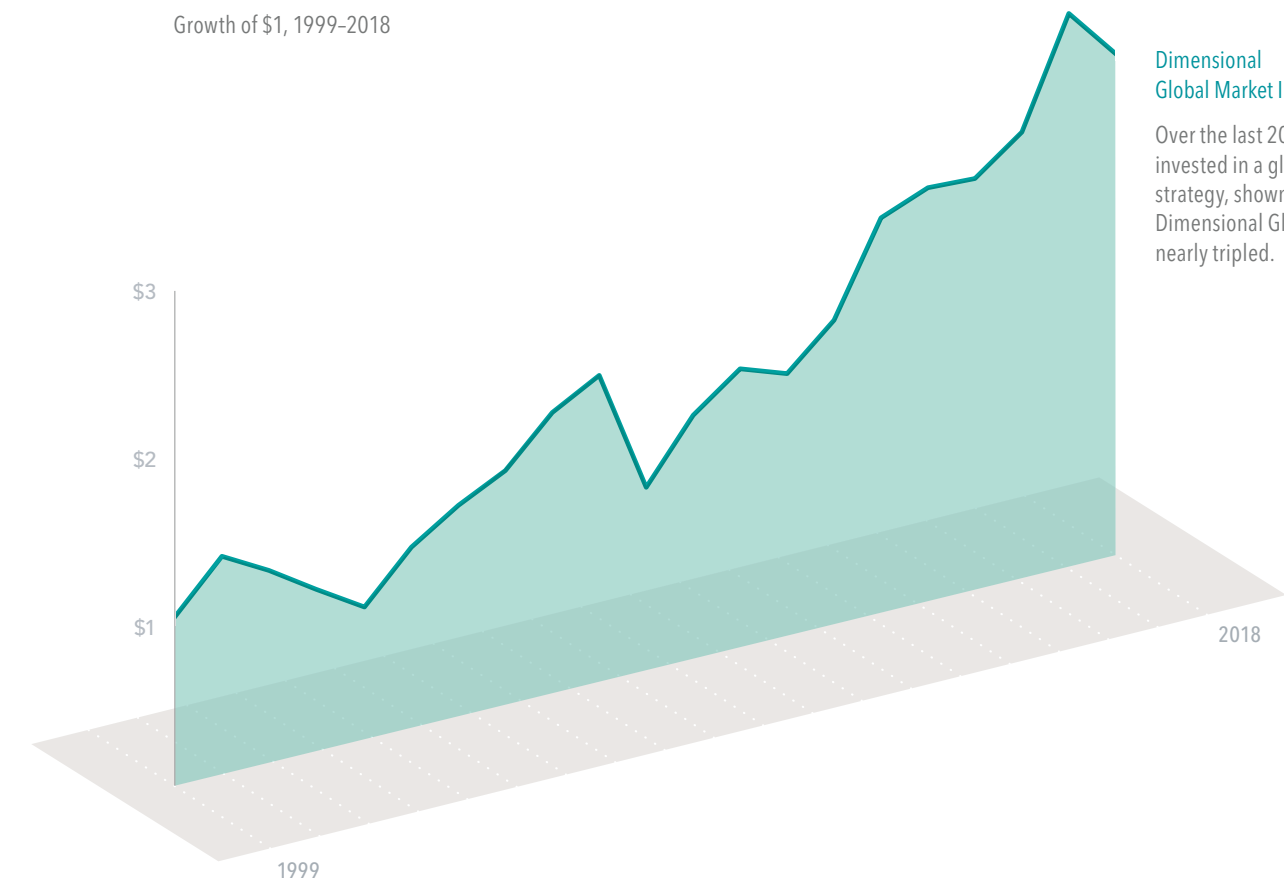
## Now, the Good News

This evidence of the randomness in global equity returns, though, is not bad news for investors. Rather than trying to guess which country is going to outperform when, investors committed to a well-structured, globally diversified portfolio are better positioned to capture the performance of the global markets, where and when it occurs.

A globally diversified approach can deliver more reliable outcomes over time with less volatility than investing in individual countries. This can help investors stay on track, through all kinds of markets, toward their long-term goals.

### A Picture of Growth

Growth of \$1, 1999-2018



Dimensional Global Market Index

Over the last 20 years, every dollar invested in a globally diversified strategy, shown here by the Dimensional Global Market Index, nearly tripled.

In USD. Past performance is not a guarantee of future results.

Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

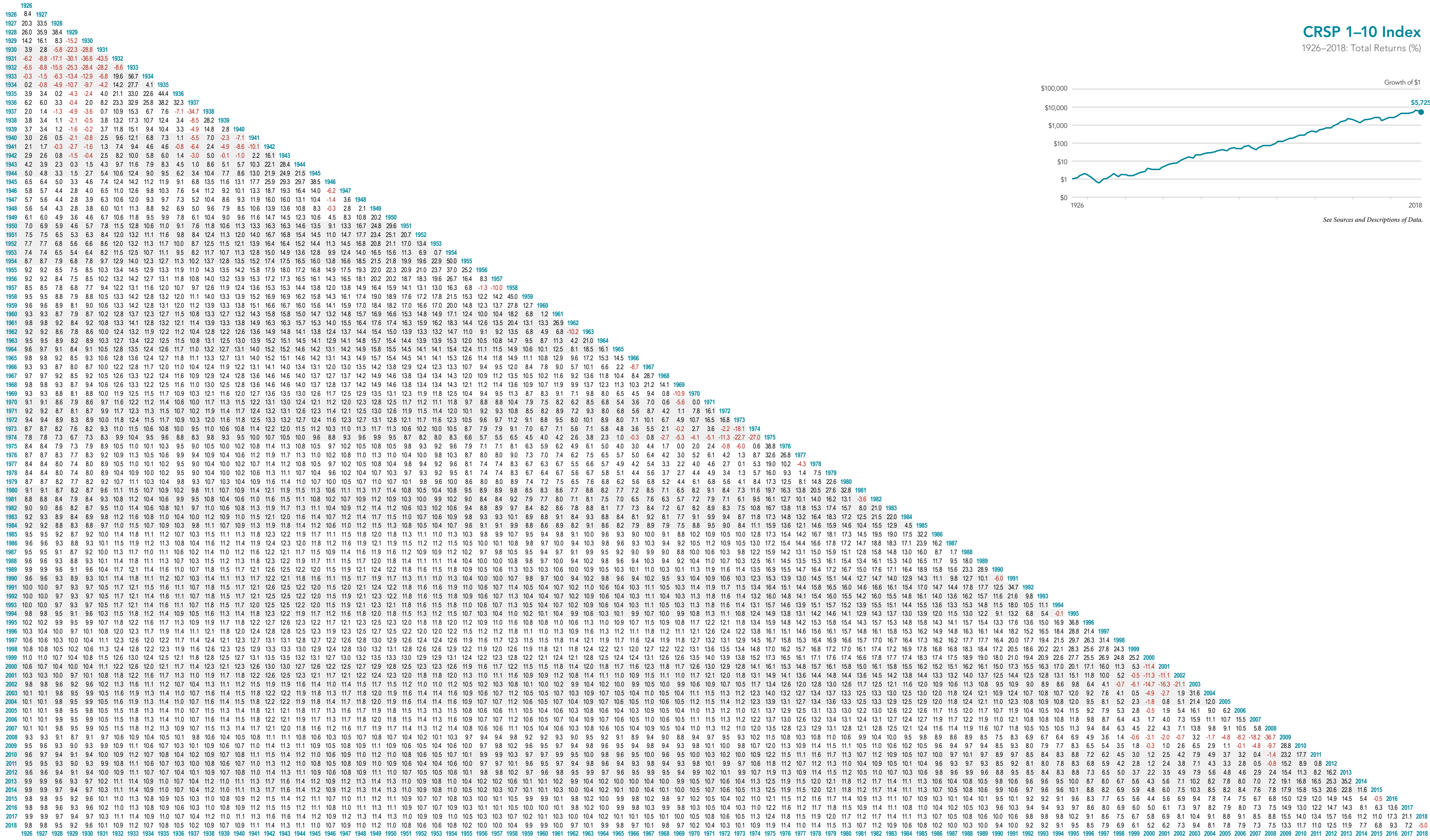
Diversification does not eliminate the risk of market loss. Investing risks include loss of principal and fluctuating value. International investing involves special risks, such as currency fluctuation and political instability. Investing in emerging markets may accentuate these risks. There is no guarantee an investing strategy will be successful.

Data presented in the Growth of \$1 charts is hypothetical and assumes reinvestment of income and no transaction costs or taxes. The charts are for illustrative purposes only and are not indicative of any investment.

## Table of Contents

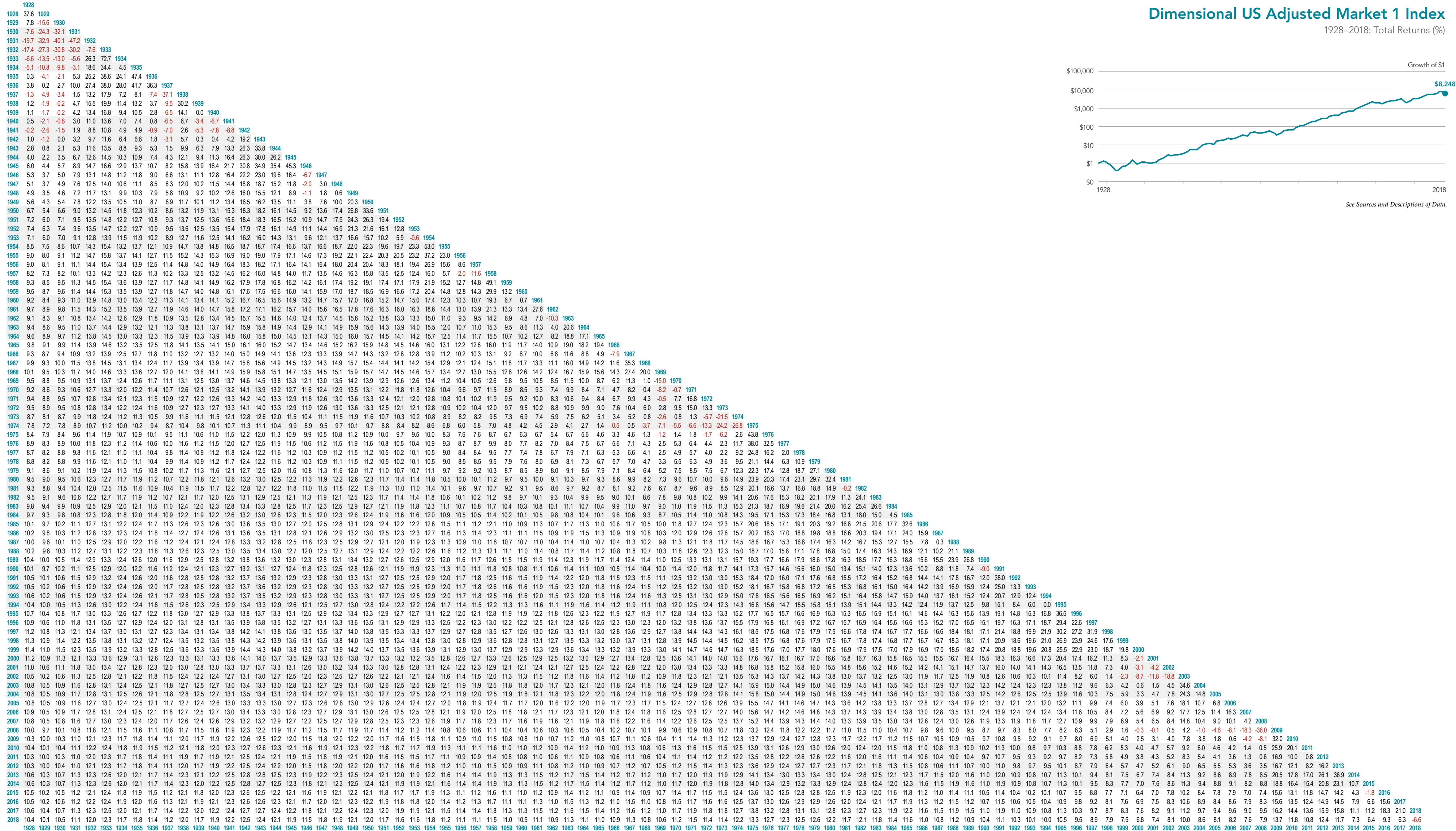
Feature Story: The Randomness of Global Equity Returns		▶	MSCI Emerging Markets Small Cap Index	1995–2018	▶
How to Use This Book		▶	Dimensional Emerging Markets Adjusted Market Index	1994–2018	▶
Annualized Rates of Returns (%)		▶	Dimensional Emerging Markets Value Index	1989–2018	▶
CRSP 1–10 Index	1926–2018	▶	Dimensional Emerging Markets Growth Index	1994–2018	▶
S&P 500 Index	1926–2018	▶	Dimensional Emerging Markets Small Index	1989–2018	▶
Dimensional US Adjusted Market 1 Index	1928–2018	▶	FTSE US Government Bond Index 1–3 Years	1986–2018	▶
Dimensional US Adjusted Market 2 Index	1928–2018	▶	FTSE US Government Bond Index 3–7 Years	1986–2018	▶
Dimensional US Adjusted Market Value Index	1928–2018	▶	One-Month US Treasury Bills	1926–2018	▶
Russell 3000 Index	1979–2018	▶	Long-Term Government Bonds	1926–2018	▶
Russell 1000 Index	1979–2018	▶	Long-Term Corporate Bonds	1926–2018	▶
Russell 1000 Value Index	1979–2018	▶	Bloomberg Barclays US Aggregate Bond Index	1976–2018	▶
Russell 1000 Growth Index	1979–2018	▶	Bloomberg Barclays US Government/Credit Bond Index Intermediate	1973–2018	▶
Dimensional US Adjusted Large Cap Equity Index	1928–2018	▶	Dimensional US Adjusted Investment Grade Index	1990–2018	▶
Dimensional US Large Cap Value Index	1928–2018	▶	FTSE World Government Bond Index 1–3 Years (Hedged to USD)	1986–2018	▶
Dimensional US Large Cap Growth Index	1975–2018	▶	FTSE World Government Bond Index 3–7 Years (Hedged to USD)	1986–2018	▶
Dimensional US Large Cap High Profitability Index	1975–2018	▶	Bloomberg Barclays Global Aggregate Bond Index (Hedged to USD)	1990–2018	▶
Russell 2000 Index	1979–2018	▶	Dimensional Global Short-Term Government Variable Maturity Index	1985–2018	▶
Russell 2000 Value Index	1979–2018	▶	Dimensional Global Intermediate-Term Government Variable Maturity Index	1985–2018	▶
Russell 2000 Growth Index	1979–2018	▶	Dimensional Global Adjusted Fixed Income Market Index	2000–2018	▶
Dimensional US Small Cap Growth Index	1975–2018	▶	Dow Jones US Select REIT Index	1978–2018	▶
Dimensional US Small Cap Index	1928–2018	▶	S&P Global ex US REIT Index	1990–2018	▶
Dimensional US Small Cap Value Index	1928–2018	▶	Bloomberg Barclays Municipal Bond Index	1980–2018	▶
Dimensional US Targeted Value Index	1928–2018	▶	Bloomberg Commodity Total Return Index	1992–2018	▶
MSCI World ex USA Index	1970–2018	▶	Bloomberg Barclays US TIPS Index	1998–2018	▶
MSCI All Country World ex USA Index	1988–2018	▶	Bloomberg Barclays US TIPS Index (Inflation Adjusted)	1998–2018	▶
Dimensional International Adjusted Market Index	1990–2018	▶	Inflation: US Consumer Price Index	1926–2018	▶
Dimensional International Vector Index	1990–2018	▶	S&P 500 Index (Inflation Adjusted)	1926–2018	▶
Dimensional International Large Value Index	1990–2018	▶	One-Month US Treasury Bills (Inflation Adjusted)	1926–2018	▶
Dimensional International Large Cap Growth Index	1990–2018	▶	Global Strategies	1994–2018	▶
Dimensional International Large Cap High Profitability Index	1990–2018	▶	Balanced Strategy	1973–2018	▶
MSCI World ex USA Small Cap Index	1999–2018	▶	World Equity Market Capitalization		▶
Dimensional International Small Cap Index	1970–2018	▶	Global Bond Market		▶
Dimensional International Small Cap Value Index	1982–2018	▶	The Randomness of Global Equity Returns		▶
Dimensional International Small Cap Growth Index	1990–2018	▶	Sources and Descriptions of Data		▶
MSCI Emerging Markets Index	1988–2018	▶			



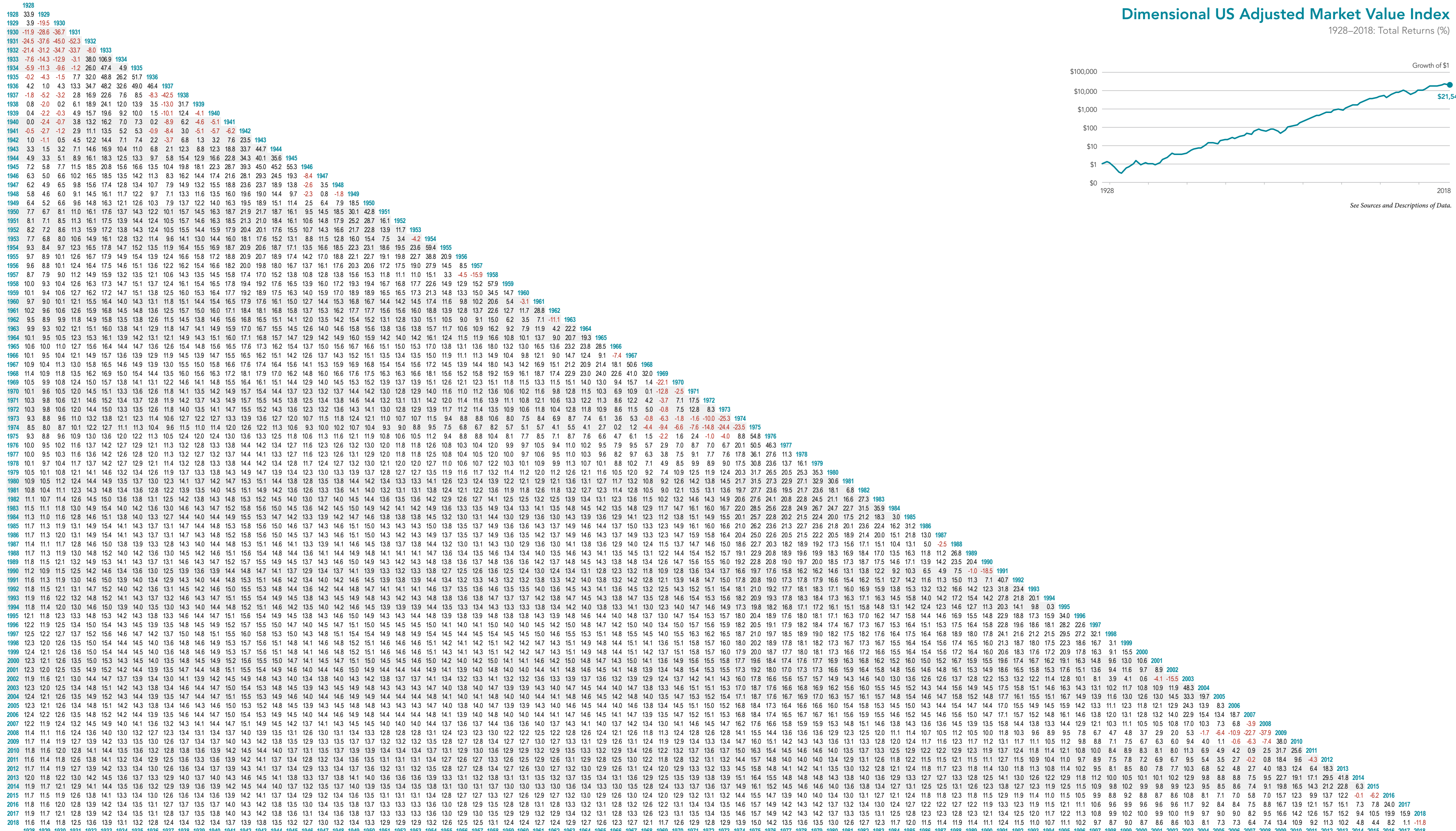






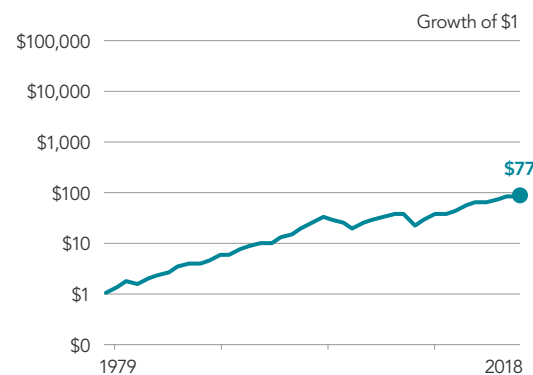






## Russell 3000 Index

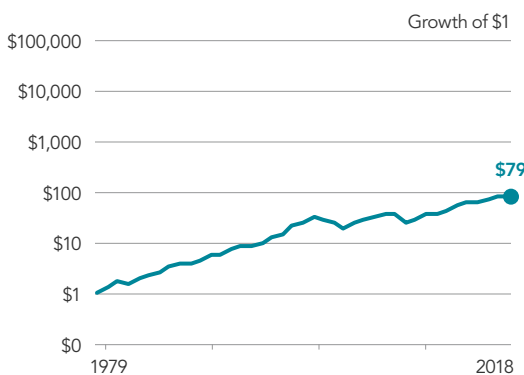
1979–2018: Total Returns (%)



See Sources and Descriptions of Data.

## Russell 1000 Index

1979–2018: Total Returns (%)



See Sources and Descriptions of Data.

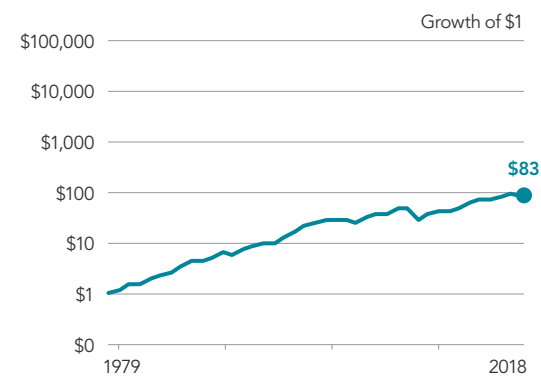


Year	Return (%)
1979	24.1
1980	28.2
1981	16.3
1982	17.4
1983	18.4
1984	15.8
1985	18.0
1986	17.8
1987	15.9
1988	16.1
1989	17.3
1990	15.2
1991	16.5
1992	16.0
1993	15.7
1994	14.7
1995	15.9
1996	16.2
1997	16.9
1998	17.3
1999	17.5
2000	16.2
2001	14.8
2002	13.0
2003	13.7
2004	13.6
2005	13.3
2006	13.4
2007	13.1
2008	10.9
2009	11.4
2010	11.6
2011	11.3
2012	11.4
2013	12.0
2014	12.0
2015	11.7
2016	11.7
2017	12.0
2018	11.5

Year	Return (%)
1979	22.4
1980	27.1
1981	15.3
1982	16.5
1983	17.6
1984	15.4
1985	17.6
1986	17.7
1987	15.9
1988	16.1
1989	17.3
1990	15.3
1991	16.6
1992	16.1
1993	15.7
1994	14.6
1995	15.9
1996	16.2
1997	17.1
1998	17.5
1999	17.7
2000	16.4
2001	15.0
2002	13.1
2003	13.8
2004	13.7
2005	13.4
2006	13.5
2007	13.2
2008	11.0
2009	11.5
2010	11.6
2011	11.3
2012	11.5
2013	12.0
2014	12.1
2015	11.8
2016	11.8
2017	12.0
2018	11.5

# Russell 1000 Value Index

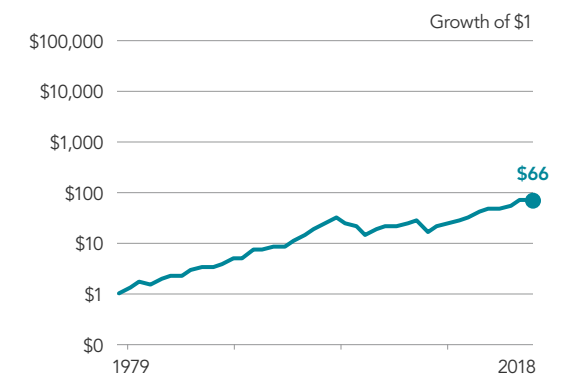
1979–2018: Total Returns (%)



See Sources and Descriptions of Data.

# Russell 1000 Growth Index

1979–2018: Total Returns (%)



See Sources and Descriptions of Data.



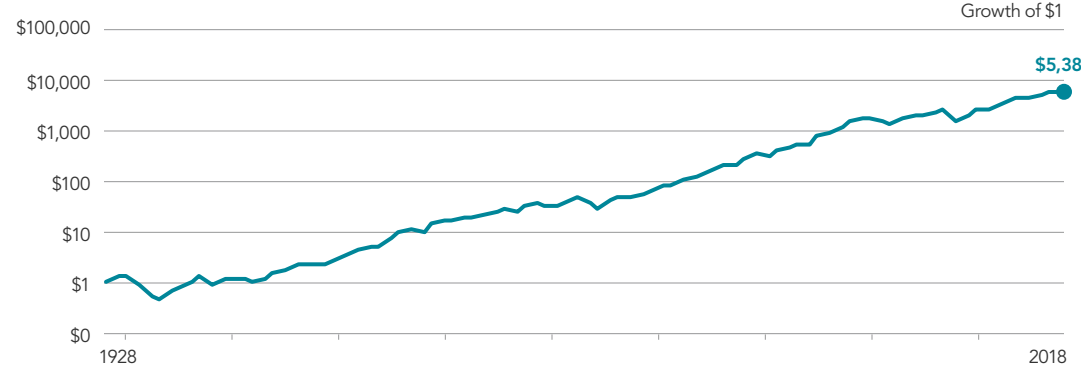
Year	Total Return (%)
1979	20.5
1980	22.5
1981	24.4
1982	14.9
1983	16.2
1984	17.1
1985	19.0
1986	19.2
1987	16.9
1988	17.5
1989	18.2
1990	15.8
1991	16.4
1992	16.2
1993	16.4
1994	15.1
1995	16.4
1996	16.6
1997	17.6
1998	17.5
1999	19.0
2000	16.5
2001	20.1
2002	13.9
2003	14.5
2004	14.6
2005	14.3
2006	14.6
2007	14.1
2008	11.8
2009	12.1
2010	12.2
2011	11.8
2012	12.0
2013	12.5
2014	12.5
2015	12.1
2016	12.2
2017	12.2
2018	11.7

Year	Total Return (%)
1979	23.9
1980	31.5
1981	15.3
1982	16.6
1983	16.5
1984	13.4
1985	16.0
1986	15.9
1987	14.7
1988	14.3
1989	16.1
1990	14.7
1991	16.5
1992	15.7
1993	14.8
1994	14.0
1995	15.2
1996	15.6
1997	16.4
1998	17.4
1999	18.1
2000	15.9
2001	14.0
2002	11.8
2003	12.5
2004	12.3
2005	12.0
2006	11.9
2007	11.9
2008	9.7
2009	10.5
2010	10.7
2011	10.4
2012	10.6
2013	11.1
2014	11.2
2015	11.0
2016	10.9
2017	11.4
2018	11.1

Year	Return (%)
1928	38.3
1929	-11.5
1930	-3.5
1931	-15.8
1932	-14.3
1933	-5.6
1934	-4.5
1935	0.5
1936	3.5
1937	-1.0
1938	1.3
1939	1.5
1940	0.8
1941	-0.1
1942	0.9
1943	2.3
1944	3.2
1945	4.8
1946	4.2
1947	4.2
1948	4.1
1949	4.8
1950	5.8
1951	6.4
1952	6.7
1953	6.4
1954	7.8
1955	8.4
1956	8.4
1957	7.7
1958	8.7
1959	8.9
1960	8.6
1961	9.1
1962	8.5
1963	8.9
1964	9.1
1965	9.2
1966	8.7
1967	9.0
1968	9.1
1969	8.6
1970	8.5
1971	8.6
1972	8.8
1973	8.2
1974	7.3
1975	7.9
1976	8.3
1977	8.0
1978	8.0
1979	8.3
1980	8.7
1981	8.5
1982	8.7
1983	9.0
1984	8.9
1985	9.3
1986	9.5
1987	9.3
1988	9.5
1989	9.8
1990	9.5
1991	9.9
1992	9.9
1993	9.9
1994	9.8
1995	10.1
1996	10.3
1997	10.6
1998	10.8
1999	10.9
2000	10.7
2001	10.4
2002	9.9
2003	10.2
2004	10.2
2005	10.3
2006	10.2
2007	10.2
2008	9.5
2009	9.7
2010	9.8
2011	9.7
2012	9.8
2013	10.0
2014	10.1
2015	9.9
2016	10.0
2017	10.1
2018	9.9

# Dimensional US Adjusted Large Cap Equity Index

1928–2018: Total Returns (%)

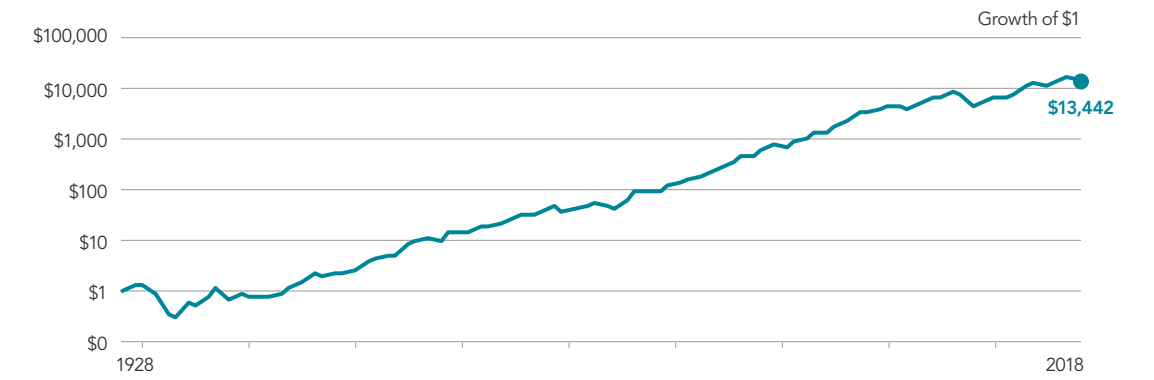


See Sources and Descriptions of Data.

1928	24.6
1929	13.2
1930	-5.5
1931	-24.3
1932	-21.8
1933	-9.1
1934	-9.0
1935	-3.8
1936	1.0
1937	-3.6
1938	-1.8
1939	-2.1
1940	-2.3
1941	-2.1
1942	-0.6
1943	1.1
1944	2.6
1945	4.5
1946	3.9
1947	4.0
1948	3.9
1949	4.4
1950	6.0
1951	6.5
1952	6.8
1953	6.3
1954	8.0
1955	8.6
1956	8.5
1957	7.6
1958	8.8
1959	8.8
1960	8.5
1961	9.0
1962	8.6
1963	9.0
1964	9.3
1965	9.5
1966	9.1
1967	9.4
1968	9.7
1969	9.0
1970	9.0
1971	9.0
1972	9.2
1973	8.8
1974	8.1
1975	8.9
1976	9.5
1977	9.3
1978	9.3
1979	9.6
1980	9.8
1981	9.7
1982	9.9
1983	10.3
1984	10.3
1985	10.7
1986	10.8
1987	10.7
1988	11.0
1989	11.3
1990	10.8
1991	11.1
1992	11.2
1993	11.3
1994	11.2
1995	11.6
1996	11.8
1997	12.1
1998	12.0
1999	12.0
2000	12.0
2001	11.9
2002	11.5
2003	11.9
2004	11.9
2005	11.9
2006	12.0
2007	11.8
2008	10.8
2009	11.0
2010	11.1
2011	11.0
2012	11.1
2013	11.4
2014	11.3
2015	11.1
2016	11.3
2017	11.3
2018	11.0

# Dimensional US Large Cap Value Index

1928–2018: Total Returns (%)



See Sources and Descriptions of Data.

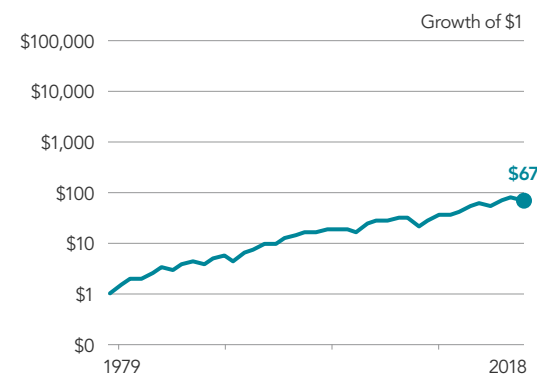






# Russell 2000 Index

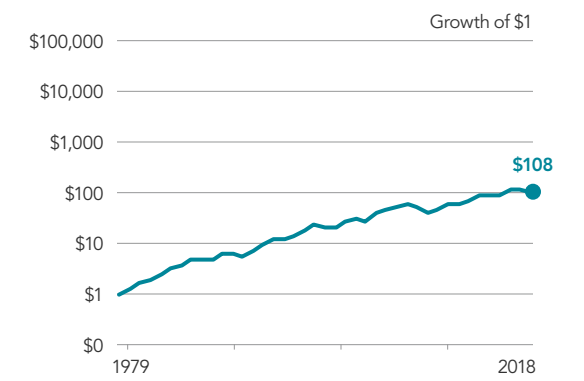
1979–2018: Total Returns (%)



See Sources and Descriptions of Data.

# Russell 2000 Value Index

1979–2018: Total Returns (%)



See Sources and Descriptions of Data.

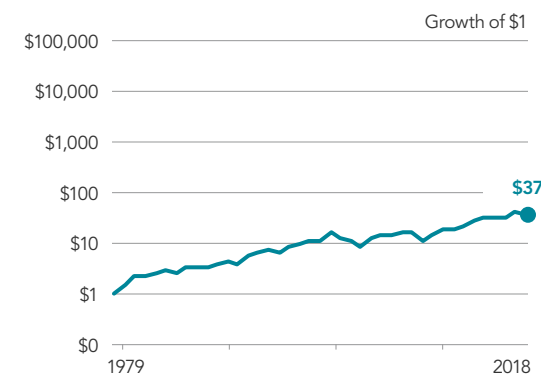


Year	Value
1979	43.1
1980	40.8
1981	26.5
1982	26.1
1983	26.7
1984	20.3
1985	21.7
1986	19.6
1987	16.1
1988	16.9
1989	16.9
1990	13.3
1991	15.5
1992	15.7
1993	15.9
1994	14.7
1995	15.5
1996	15.6
1997	15.9
1998	14.9
1999	15.2
2000	14.3
2001	13.8
2002	12.1
2003	13.3
2004	13.5
2005	13.2
2006	13.3
2007	12.8
2008	10.8
2009	11.3
2010	11.8
2011	11.2
2012	11.4
2013	12.1
2014	11.9
2015	11.4
2016	11.7
2017	11.7
2018	11.1

Year	Value
1979	35.4
1980	30.3
1981	24.9
1982	25.8
1983	28.3
1984	23.5
1985	24.6
1986	22.3
1987	18.6
1988	19.6
1989	19.0
1990	14.9
1991	16.8
1992	17.6
1993	18.0
1994	16.7
1995	17.2
1996	17.4
1997	18.1
1998	16.8
1999	15.8
2000	16.1
2001	16.0
2002	14.7
2003	15.9
2004	16.1
2005	15.6
2006	15.9
2007	14.9
2008	13.1
2009	13.3
2010	13.7
2011	13.0
2012	13.0
2013	13.7
2014	13.5
2015	12.8
2016	13.3
2017	13.2
2018	12.4

## Russell 2000 Growth Index

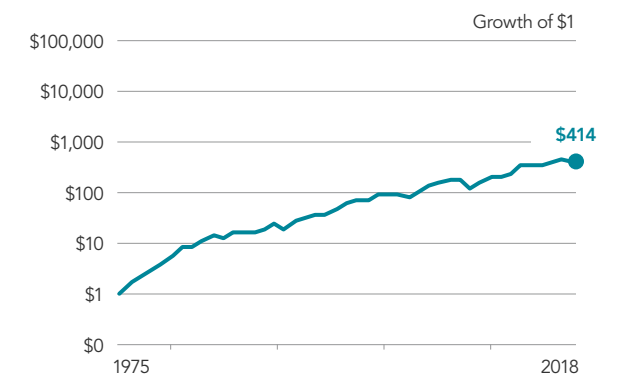
1979–2018: Total Returns (%)



See Sources and Descriptions of Data.

## Dimensional US Small Cap Growth Index

1975–2018: Total Returns (%)



See Sources and Descriptions of Data.

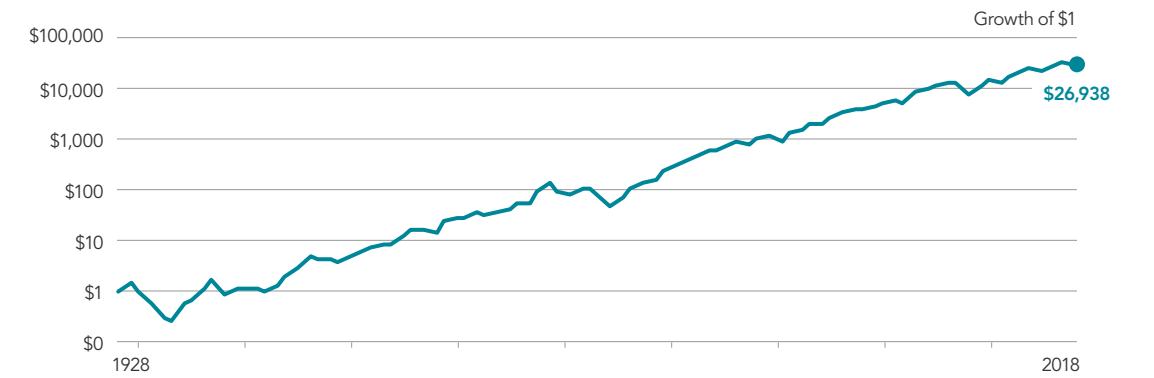
Year	Return (%)
1979	50.8
1980	51.5
1981	27.7
1982	26.0
1983	24.8
1984	16.9
1985	18.8
1986	16.8
1987	13.4
1988	14.1
1989	14.6
1990	11.5
1991	14.2
1992	13.7
1993	13.7
1994	12.6
1995	13.6
1996	13.5
1997	13.4
1998	12.8
1999	14.1
2000	12.1
2001	11.1
2002	8.9
2003	10.3
2004	10.5
2005	10.2
2006	10.3
2007	10.2
2008	8.1
2009	8.8
2010	9.4
2011	9.0
2012	9.2
2013	10.0
2014	9.9
2015	9.6
2016	9.6
2017	9.9
2018	9.4

Year	Return (%)
1975	64.3
1976	52.6
1977	41.7
1978	37.1
1979	39.7
1980	42.2
1981	34.5
1982	33.8
1983	33.7
1984	28.3
1985	28.8
1986	26.8
1987	23.3
1988	23.5
1989	23.1
1990	20.3
1991	21.9
1992	21.5
1993	21.1
1994	19.9
1995	20.4
1996	20.4
1997	20.5
1998	19.4
1999	19.6
2000	18.7
2001	18.2
2002	16.9
2003	17.6
2004	17.8
2005	17.5
2006	17.5
2007	16.9
2008	14.9
2009	15.3
2010	15.7
2011	15.3
2012	15.4
2013	16.0
2014	15.7
2015	15.2
2016	15.3
2017	15.4
2018	14.7

1928	42.9
1929	-2.9
1930	-15.7
1931	-24.7
1932	-22.2
1933	-8.2
1934	-5.1
1935	1.0
1936	5.7
1937	-1.6
1938	1.6
1939	1.4
1940	1.0
1941	0.1
1942	1.6
1943	4.4
1944	6.3
1945	8.9
1946	7.9
1947	7.4
1948	6.8
1949	7.4
1950	8.6
1951	8.8
1952	8.8
1953	8.4
1954	9.9
1955	10.3
1956	10.2
1957	9.3
1958	10.7
1959	10.9
1960	10.5
1961	10.1
1962	10.1
1963	10.3
1964	10.5
1965	11.1
1966	10.6
1967	12.0
1968	12.6
1969	11.4
1970	10.8
1971	11.0
1972	10.8
1973	9.5
1974	8.5
1975	9.7
1976	10.0
1977	10.3
1978	10.5
1979	11.0
1980	11.4
1981	11.3
1982	11.6
1983	12.1
1984	11.8
1985	12.1
1986	12.0
1987	11.6
1988	11.8
1989	11.9
1990	11.3
1991	11.8
1992	12.0
1993	12.1
1994	11.9
1995	12.2
1996	12.3
1997	12.6
1998	12.3
1999	12.4
2000	12.4
2001	12.0
2002	12.0
2003	12.5
2004	12.6
2005	12.6
2006	12.7
2007	12.4
2008	11.6
2009	11.9
2010	12.1
2011	11.9
2012	12.0
2013	12.3
2014	12.3
2015	12.0
2016	12.2
2017	12.2
2018	11.9

# Dimensional US Small Cap Index

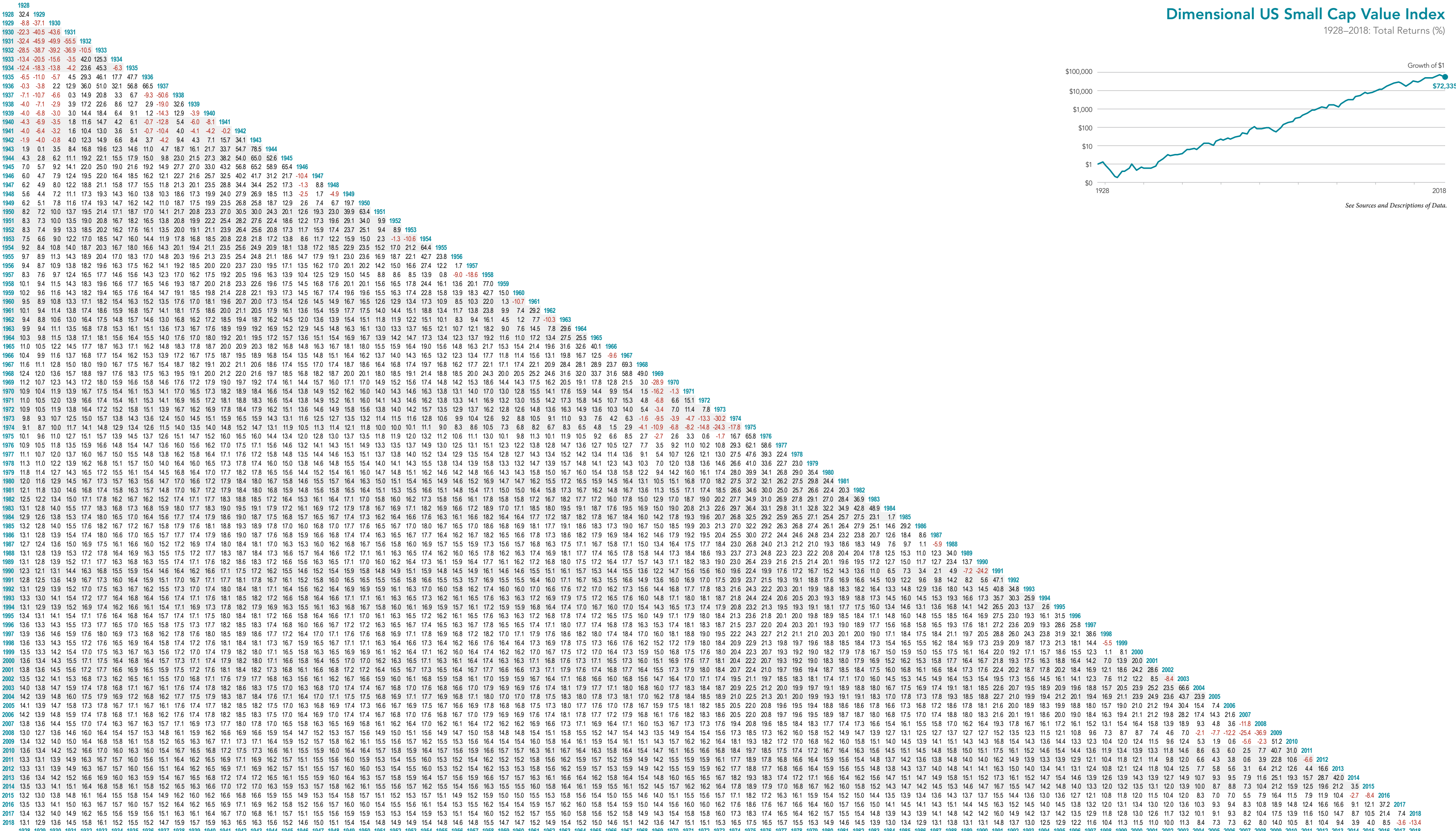
1928–2018: Total Returns (%)



See Sources and Descriptions of Data.



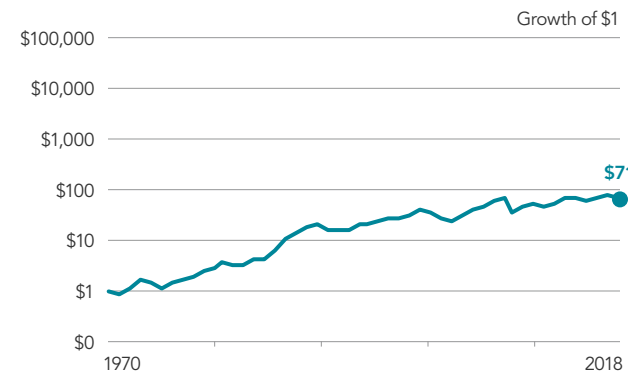
1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------





## MSCI World ex USA Index

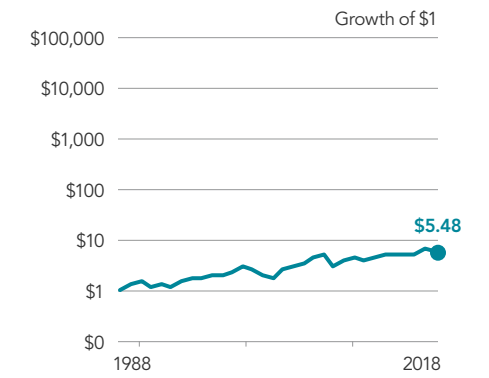
1970–2018: Total Returns (%)



See Sources and Descriptions of Data.

## MSCI All Country World ex USA Index

1988–2018: Total Returns (%)



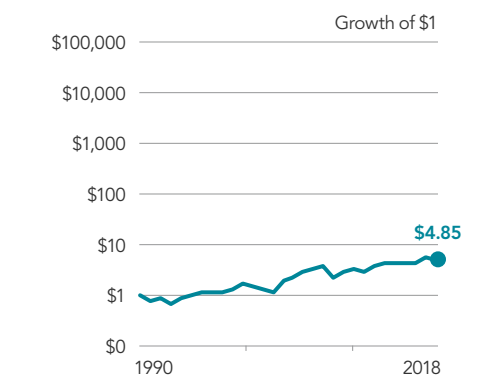
See Sources and Descriptions of Data.

Year	Total Return (%)
1970	-13.4
1971	7.4
1972	33.3
1973	17.4
1974	36.8
1975	40.4
1976	10.7
1977	18.7
1978	12.0
1979	10.7
1980	3.3
1981	8.0
1982	0.7
1983	-14.7
1984	-18.5
1985	17.5
1986	7.8
1987	12.6
1988	7.9
1989	-1.1
1990	4.0
1991	32.8
1992	7.1
1993	11.0
1994	7.0
1995	0.0
1996	3.9
1997	17.3
1998	3.6
1999	17.5
2000	10.3
2001	17.5
2002	10.3
2003	17.5
2004	10.3
2005	17.5
2006	10.3
2007	17.5
2008	10.3
2009	17.5
2010	10.3
2011	17.5
2012	10.3
2013	17.5
2014	10.3
2015	17.5
2016	10.3
2017	17.5
2018	10.3

Year	Total Return (%)
1988	27.9
1989	19.7
1990	12.0
1991	3.4
1992	-7.0
1993	-22.7
1994	14.0
1995	19.2
1996	2.4
1997	-3.2
1998	-7.8
1999	0.7
2000	-11.0
2001	7.2
2002	3.4
2003	1.4
2004	11.0
2005	9.6
2006	34.9
2007	7.1
2008	4.0
2009	2.4
2010	9.9
2011	8.6
2012	19.9
2013	6.6
2014	19.5
2015	7.4
2016	4.8
2017	3.6
2018	9.9

## Dimensional International Adjusted Market Index

1990–2018: Total Returns (%)

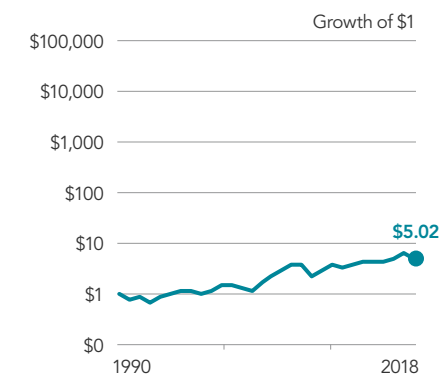


See Sources and Descriptions of Data.

Year	Total Return (%)
1990	-22.2
1991	-2.2
1992	-8.3
1993	8.1
1994	-10.9
1995	-4.6
1996	-15.8
1997	19.3
1998	-1.9
1999	5.9
2000	4.9
2001	30.6
2002	19.4
2003	7.5
2004	21.1
2005	12.4
2006	19.5
2007	7.0
2008	1.7
2009	7.3
2010	16.0
2011	9.4
2012	6.5
2013	7.0
2014	19.6
2015	9.4
2016	6.7
2017	7.0
2018	19.6

## Dimensional International Vector Index

1990–2018: Total Returns (%)

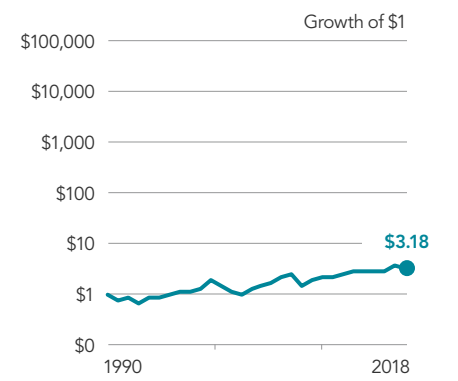


See Sources and Descriptions of Data.

1990	
1990	-22.3
1991	-8.7
1992	-11.5
1993	-2.2
1994	0.9
1995	1.5
1996	2.1
1997	0.7
1998	1.9
1999	3.9
2000	3.3
2001	1.7
2002	1.1
2003	4.3
2004	5.8
2005	6.7
2006	7.8
2007	7.7
2008	3.9
2009	5.7
2010	6.3
2011	5.3
2012	5.8
2013	6.5
2014	6.0
2015	5.8
2016	5.9
2017	6.7
2018	5.7

## Dimensional International Large Cap Growth Index

1990–2018: Total Returns (%)

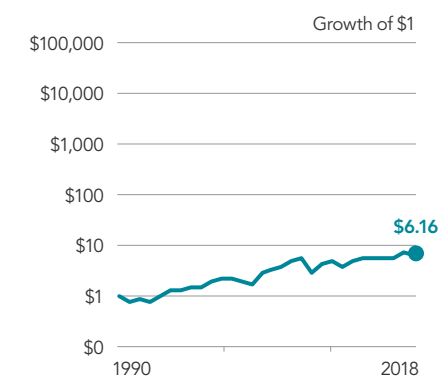


See Sources and Descriptions of Data.

1990	
1990	-24.9
1991	-8.5
1992	-10.9
1993	-3.6
1994	-1.4
1995	0.4
1996	1.1
1997	1.2
1998	3.2
1999	6.8
2000	3.6
2001	0.8
2002	-0.3
2003	1.9
2004	2.9
2005	3.7
2006	4.7
2007	5.3
2008	2.2
2009	3.5
2010	3.9
2011	3.4
2012	4.0
2013	4.7
2014	4.4
2015	4.3
2016	4.0
2017	4.8
2018	4.1

## Dimensional International Large Value Index

1990–2018: Total Returns (%)

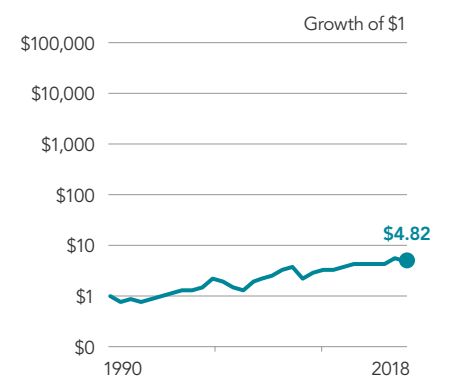


See Sources and Descriptions of Data.

1990	
1990	-22.9
1991	-8.1
1992	-8.8
1993	1.5
1994	4.1
1995	5.1
1996	5.6
1997	5.3
1998	6.8
1999	8.6
2000	8.0
2001	5.9
2002	4.4
2003	7.4
2004	8.5
2005	9.1
2006	10.2
2007	10.0
2008	5.8
2009	7.5
2010	7.7
2011	6.5
2012	7.0
2013	7.7
2014	7.1
2015	6.6
2016	6.8
2017	7.4
2018	6.5

## Dimensional International Large Cap High Profitability Index

1990–2018: Total Returns (%)



See Sources and Descriptions of Data.

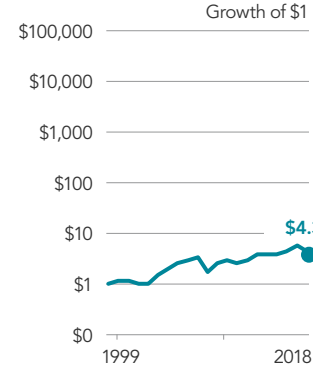
1990	
1990	-23.9
1991	-7.6
1992	-9.7
1993	-1.9
1994	0.7
1995	2.4
1996	3.4
1997	3.2
1998	5.2
1999	8.7
2000	6.0
2001	3.5
2002	2.3
2003	4.5
2004	5.5
2005	6.1
2006	7.1
2007	7.6
2008	4.3
2009	5.8
2010	6.0
2011	5.5
2012	5.8
2013	6.4
2014	6.0
2015	5.8
2016	5.6
2017	6.3
2018	5.6



## MSCI World ex USA Small Cap Index

1999–2018: Total Returns (%)

1999	20.8	2000	-6.9	2001	0.3	2002	-8.6	2003	-1.6	2004	-8.1	2005	-8.7	2006	-7.1	2007	8.8	2008	6.0	2009	10.7	2010	22.9	2011	62.6	2012	20.4	2013	13.9	2014	12.8	2015	17.2	2016	25.3	2017	38.4	2018	27.7																																																																																																																																																																																																																																																																																																																																																																		
2019	25.5	2020	25.5	2021	19.8	2022	19.8	2023	13.3	2024	12.4	2025	20.5	2026	26.9	2027	19.3	2028	15.9	2029	11.4	2030	3.6	2031	2008	2032	4.9	2033	3.3	2034	4.6	2035	6.9	2036	9.4	2037	1.1	2038	-5.0	2039	-13.4	2040	-26.4	2041	-47.8	2042	2009	2043	8.4	2044	7.3	2045	9.0	2046	11.7	2047	14.6	2048	8.1	2049	4.3	2050	-0.5	2051	-6.4	2052	-11.1	2053	51.4	2054	2010	2055	9.7	2056	8.8	2057	10.5	2058	13.1	2059	15.9	2060	10.4	2061	7.4	2062	4.2	2063	0.6	2064	-0.4	2065	37.5	2066	24.9	2067	2011	2068	7.5	2069	6.5	2070	7.8	2071	9.8	2072	6.8	2073	3.8	2074	0.6	2075	-2.9	2076	-4.4	2077	16.9	2078	2.7	2079	-15.5	2080	2012	2081	8.3	2082	7.3	2083	8.6	2084	10.5	2085	12.5	2086	8.0	2087	5.5	2088	2.9	2089	0.3	2090	-0.3	2091	17.2	2092	7.6	2093	-0.2	2094	17.9	2095	2013	2096	9.4	2097	8.6	2098	9.9	2099	11.7	2100	13.6	2101	9.6	2102	7.6	2103	5.5	2104	3.6	2105	3.6	2106	18.9	2107	11.9	2108	7.9	2109	21.9	2110	26.0	2111	2014	2112	8.4	2113	7.6	2114	8.7	2115	10.4	2116	11.9	2117	8.2	2118	6.3	2119	4.3	2120	2.5	2121	2.4	2122	14.5	2123	8.3	2124	4.5	2125	12.2	2126	9.4	2127	-5.0	2128	2015	2129	8.2	2130	7.5	2131	8.5	2132	10.0	2133	11.5	2134	8.0	2135	6.2	2136	4.5	2137	2.9	2138	2.8	2139	13.2	2140	7.9	2141	4.8	2142	10.6	2143	8.2	2144	0.3	2145	5.8	2146	2016	2147	8.0	2148	7.3	2149	8.3	2150	9.7	2151	11.0	2152	7.8	2153	6.1	2154	4.5	2155	3.1	2156	3.0	2157	12.1	2158	7.4	2159	4.8	2160	9.4	2161	7.3	2162	1.7	2163	5.3	2164	4.7	2017	2018	9.2	2019	8.6	2020	9.5	2021	10.9	2022	12.2	2023	9.3	2024	7.9	2025	6.5	2026	5.4	2027	5.6	2028	14.1	2029	10.2	2030	8.2	2031	12.8	2032	11.8	2033	8.5	2034	13.4	2035	17.4	2036	31.5	2037	2018	2038	7.6	2039	7.0	2040	7.8	2041	9.0	2042	10.1	2043	7.3	2044	5.8	2045	4.4	2046	3.2	2047	3.2	2048	10.5	2049	6.7	2050	4.6	2051	7.8	2052	6.2	2053	2.6	2054	4.6	2055	4.2	2056	4.0	2057	-17.8	2058	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018

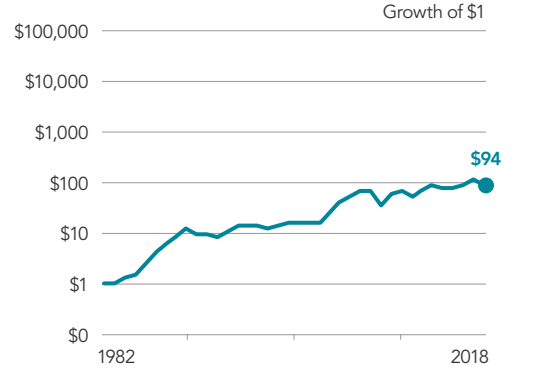


See Sources and Descriptions of Data.

## Dimensional International Small Cap Value Index

1982–2018: Total Returns (%)

1982	-2.4	1983	15.7	1984	14.3	1985	26.9	1986	32.4	1987	35.8	1988	35.6	1989	35.9	1990	28.4	1991	25.9	1992	21.0	1993	22.4	1994	22.0	1995	20.5	1996	19.5	1997	17.4	1998	16.6	1999	16.7	2000	16.0	2001	15.0	2002	14.5	2003	16.5	2004	17.4	2005	17.8	2006	18.2	2007	17.6	2008	14.2	2009	15.5	2010	15.7	2011	14.4	2012	14.6	2013	15.0	2014	14.2	2015	13.8	2016	13.7	2017	14.1	2018	13.1																																					
1982	-2.4	1983	15.7	1984	14.3	1985	26.9	1986	32.4	1987	35.8	1988	35.6	1989	35.9	1990	28.4	1991	25.9	1992	21.0	1993	22.4	1994	22.0	1995	20.5	1996	19.5	1997	17.4	1998	16.6	1999	16.7	2000	16.0	2001	15.0	2002	14.5	2003	16.5	2004	17.4	2005	17.8	2006	18.2	2007	17.6	2008	14.2	2009	15.5	2010	15.7	2011	14.4	2012	14.6	2013	15.0	2014	14.2	2015	13.8	2016	13.7	2017	14.1	2018	13.1	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018

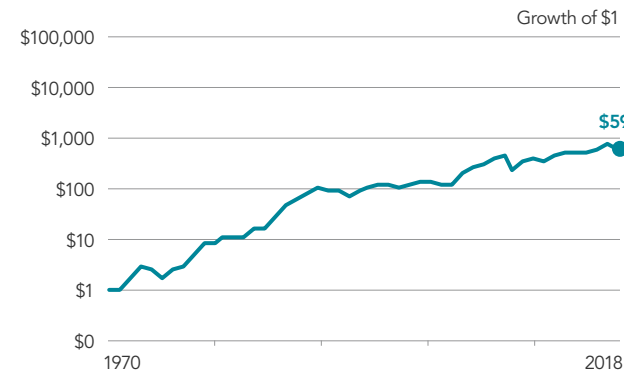


See Sources and Descriptions of Data.

## Dimensional International Small Cap Index

1970–2018: Total Returns (%)

1970	0.9	1971	30.3	1972	40.7	1973	24.5	1974	11.4	1975	17.1	1976	16.3	1977	22.3	1978	26.5	1979	23.4	1980	24.5	1981	22.2	1982	20.4	1983	21.4	1984	20.7	1985	23.2	1986	25.1	1987	25.9	1988	25.9	1989	26.2	1990	23.6	1991	22.7	1992	20.5	1993	20.9	1994	19.9	1995	19.8	1996	19.3	1997	18.1	1998	17.8	1999	18.0	2000	18.0	2001	16.1	2002	15.5	2003	16.7	2004	17.1	2005	17.4	2006	17.6	2007	17.6	2008	17.6	2009	15.6	2010	15.8	2011	15.3	2012	15.1	2013	14.7	2014	14.4	2015	14.6	2016	14.4	2017	14.7	2018	13.9	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
------	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

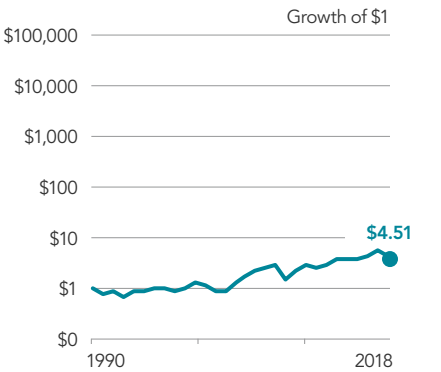


See Sources and Descriptions of Data.

## Dimensional International Small Cap Growth Index

1990–2018: Total Returns (%)

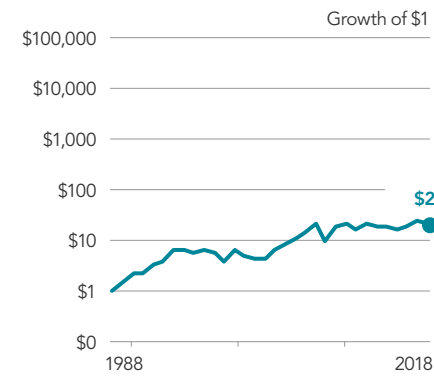
1990	-20.8	1991	-8.5	1992	-12.2	1993	-4.2	1994	-1.7	1995	-0.8	1996	0.2	1997	-1.3	1998	0.1	1999	3.0	2000	1.4	2001	-0.9	2002	-1.3	2003	2.0	2004	3.7	2005	5.0	2006	5.9	2007	6.0	2008	2.0	2009	4.0	2010	5.0	2011	4.1	2012	4.7	2013	5.3	2014	5.7	2015	5.5	2016	5.6	2017	6.3	2018	5.3																													
1990	-20.8	1991	-8.5	1992	-12.2	1993	-4.2	1994	-1.7	1995	-0.8	1996	0.2	1997	-1.3	1998	0.1	1999	3.0	2000	1.4	2001	-0.9	2002	-1.3	2003	2.0	2004	3.7	2005	5.0	2006	5.9	2007	6.0	2008	2.0	2009	4.0	2010	5.0	2011	4.1	2012	4.7	2013	5.3	2014	5.7	2015	5.5	2016	5.6	2017	6.3	2018	5.3	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018



See Sources and Descriptions of Data.

## MSCI Emerging Markets Index

1988–2018: Total Returns (%)



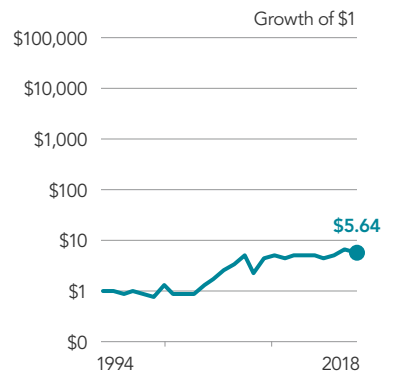
See Sources and Descriptions of Data.

1988	40.4
1989	52.2
1990	27.5
1991	34.9
1992	29.8
1993	36.4
1994	29.1
1995	24.2
1996	22.1
1997	18.2
1998	13.4
1999	17.0
2000	12.4
2001	11.3
2002	10.0
2003	12.5
2004	13.2
2005	14.3
2006	15.2
2007	16.3
2008	11.4
2009	13.8
2010	14.1
2011	12.5
2012	12.7
2013	12.1
2014	11.6
2015	10.5
2016	10.5
2017	11.4
2018	10.4

1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

## Dimensional Emerging Markets Adjusted Market Index

1994–2018: Total Returns (%)



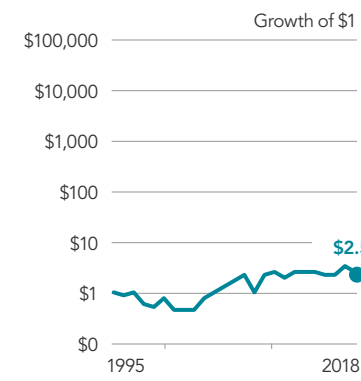
See Sources and Descriptions of Data.

1994	0.0
1995	-4.4
1996	-2.0
1997	-2.0
1998	-5.8
1999	4.4
2000	-1.9
2001	-1.6
2002	-1.7
2003	3.3
2004	5.5
2005	7.6
2006	9.6
2007	11.7
2008	5.4
2009	9.4
2010	10.1
2011	8.3
2012	8.9
2013	8.3
2014	7.9
2015	6.9
2016	7.1
2017	8.2
2018	7.2

1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

## MSCI Emerging Markets Small Cap Index

1995–2018: Total Returns (%)



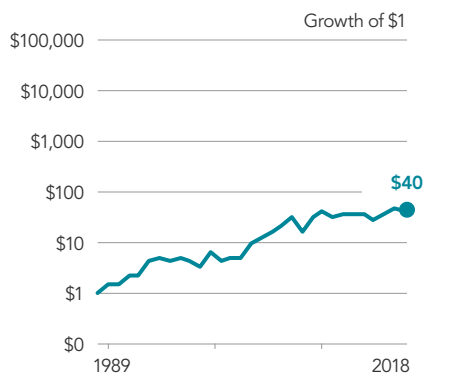
See Sources and Descriptions of Data.

1995	-7.2
1996	-2.6
1997	-14.7
1998	-15.1
1999	-6.0
2000	-11.7
2001	-10.1
2002	-9.0
2003	-3.1
2004	-0.6
2005	1.8
2006	4.1
2007	6.7
2008	-0.2
2009	5.0
2010	6.3
2011	4.0
2012	4.9
2013	4.7
2014	4.5
2015	4.0
2016	3.9
2017	5.1
2018	4.0

1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

## Dimensional Emerging Markets Value Index

1989–2018: Total Returns (%)



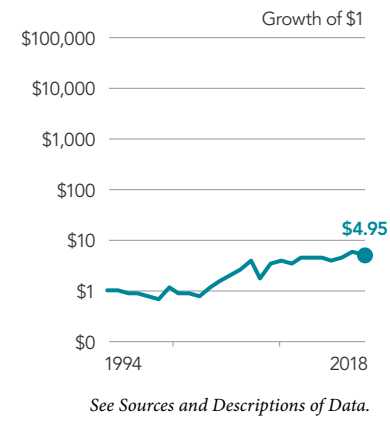
See Sources and Descriptions of Data.

1989	54.3
1990	25.4
1991	30.3
1992	20.5
1993	34.3
1994	29.6
1995	23.6
1996	22.4
1997	17.6
1998	13.1
1999	17.8
2000	13.3
2001	13.1
2002	12.4
2003	15.8
2004	16.8
2005	17.8
2006	18.8
2007	20.1
2008	14.9
2009	17.9
2010	18.1
2011	16.0
2012	16.1
2013	15.3
2014	14.6
2015	13.1
2016	13.4
2017	14.0
2018	13.0

1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

## Dimensional Emerging Markets Growth Index

1994–2018: Total Returns (%)

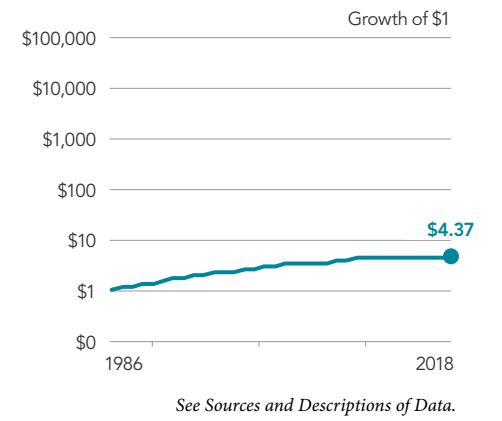


1994	-5.8
1995	-5.7
1996	-2.9
1997	-5.2
1998	-8.8
1999	2.2
2000	-2.6
2001	-2.3
2002	-2.6
2003	1.4
2004	3.4
2005	5.9
2006	7.8
2007	9.6
2008	3.9
2009	7.3
2010	8.5
2011	7.1
2012	7.8
2013	7.5
2014	7.3
2015	6.4
2016	6.4
2017	7.6
2018	6.6

1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

## FTSE US Government Bond Index 1–3 Years

1986–2018: Total Returns (%)



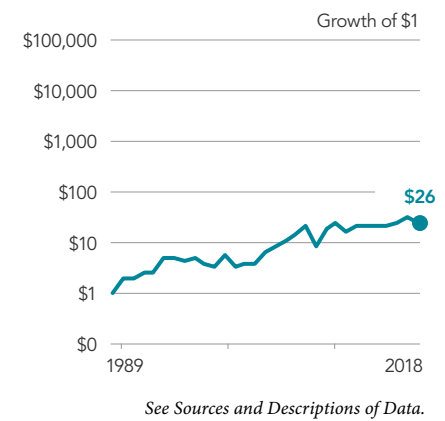
1986	10.2
1987	7.9
1988	7.4
1989	8.2
1990	8.5
1991	9.1
1992	8.7
1993	8.2
1994	7.4
1995	7.7
1996	7.5
1997	7.4
1998	7.4
1999	7.0
2000	7.1
2001	7.2
2002	7.1
2003	6.8
2004	6.5
2005	6.2
2006	6.1
2007	6.2
2008	6.2
2009	6.0
2010	5.8
2011	5.6
2012	5.4
2013	5.3
2014	5.1
2015	4.9
2016	4.8
2017	4.7
2018	4.6

1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018



## Dimensional Emerging Markets Small Index

1989–2018: Total Returns (%)

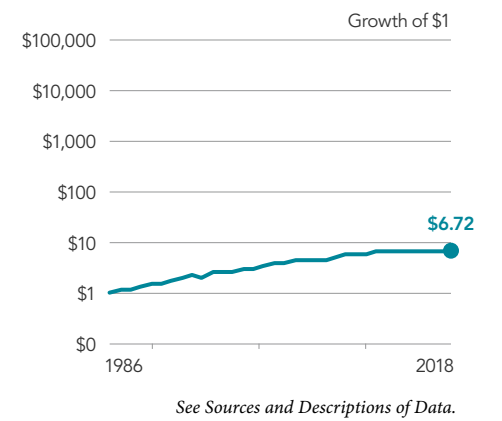


1989	84.3
1990	37.4
1991	33.3
1992	27.2
1993	38.0
1994	31.2
1995	23.3
1996	21.4
1997	16.6
1998	12.2
1999	16.3
2000	10.9
2001	10.2
2002	9.5
2003	12.7
2004	13.8
2005	14.8
2006	16.0
2007	17.3
2008	11.3
2009	14.7
2010	15.3
2011	13.2
2012	13.7
2013	13.1
2014	12.6
2015	11.8
2016	11.8
2017	12.5
2018	11.4

1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

## FTSE US Government Bond Index 3–7 Years

1986–2018: Total Returns (%)

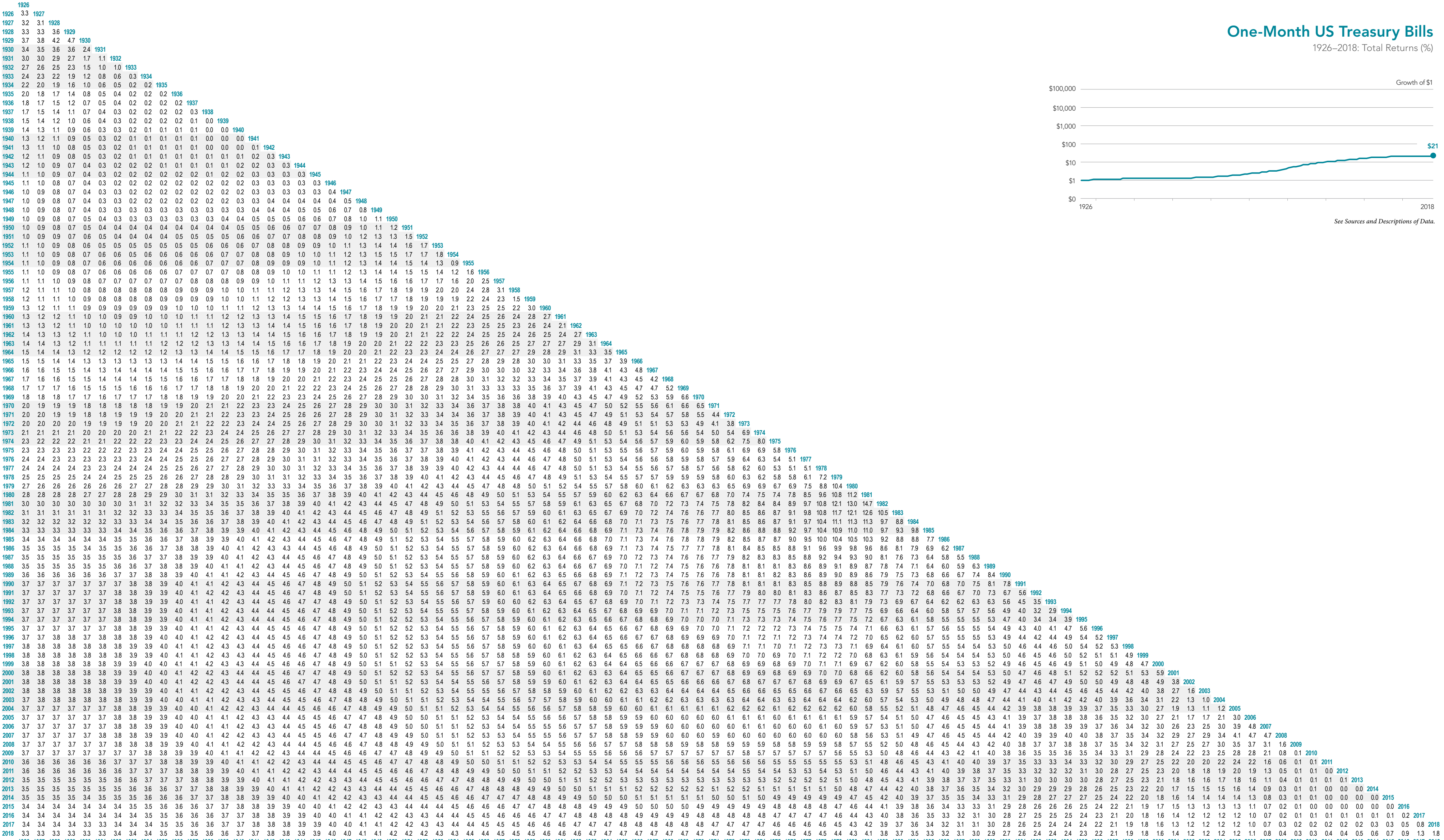


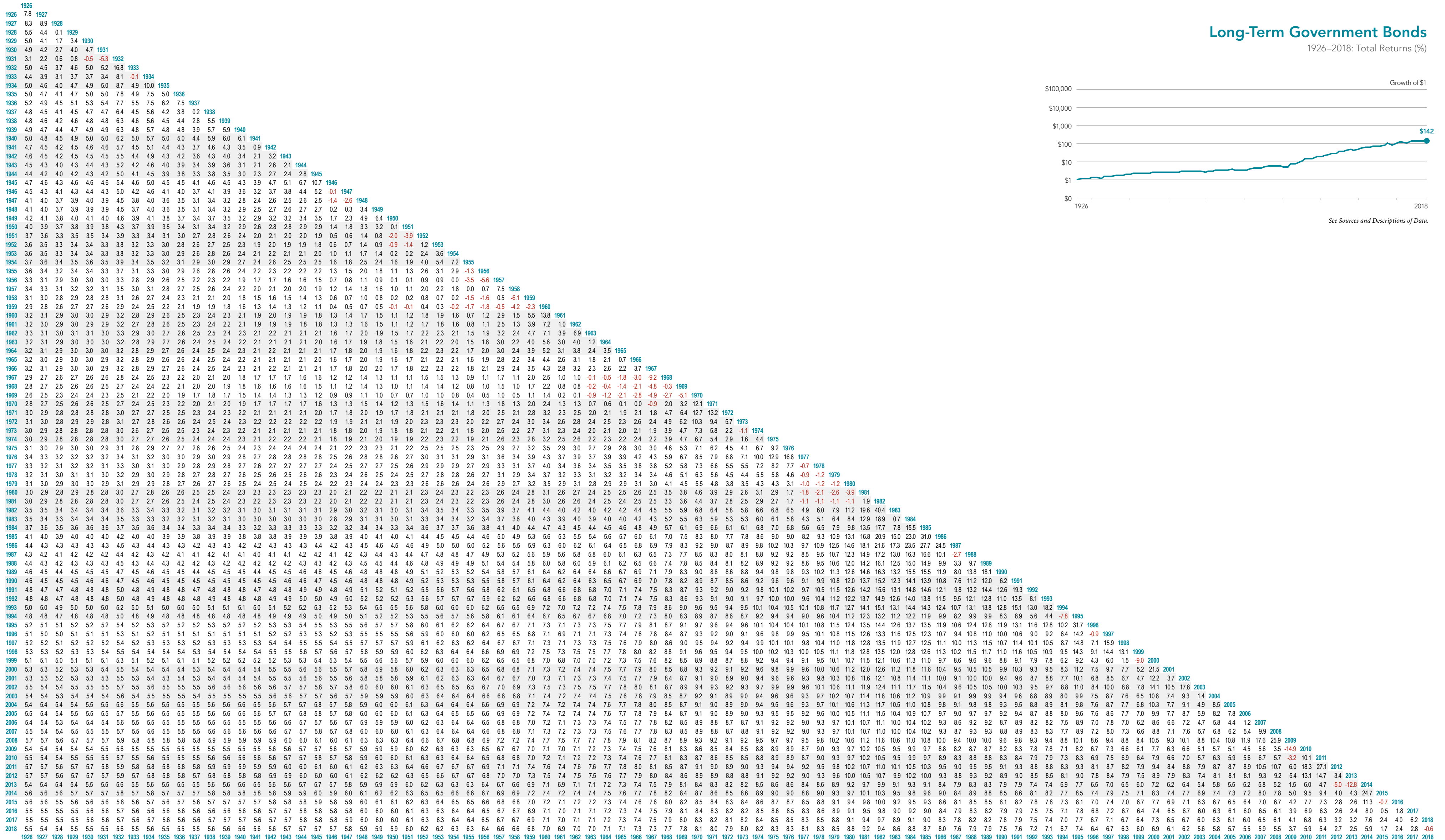
1986	14.7
1987	8.5
1988	7.7
1989	9.2
1990	9.3
1991	10.3
1992	9.9
1993	9.9
1994	8.3
1995	9.1
1996	8.6
1997	8.6
1998	8.7
1999	8.0
2000	8.2
2001	8.2
2002	8.4
2003	8.1
2004	7.8
2005	7.4
2006	7.2
2007	7.4
2008	7.6
2009	7.2
2010	7.2
2011	7.2
2012	7.0
2013	6.7
2014	6.6
2015	6.4
2016	6.2
2017	6.1
2018	5.9

1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

# One-Month US Treasury Bills

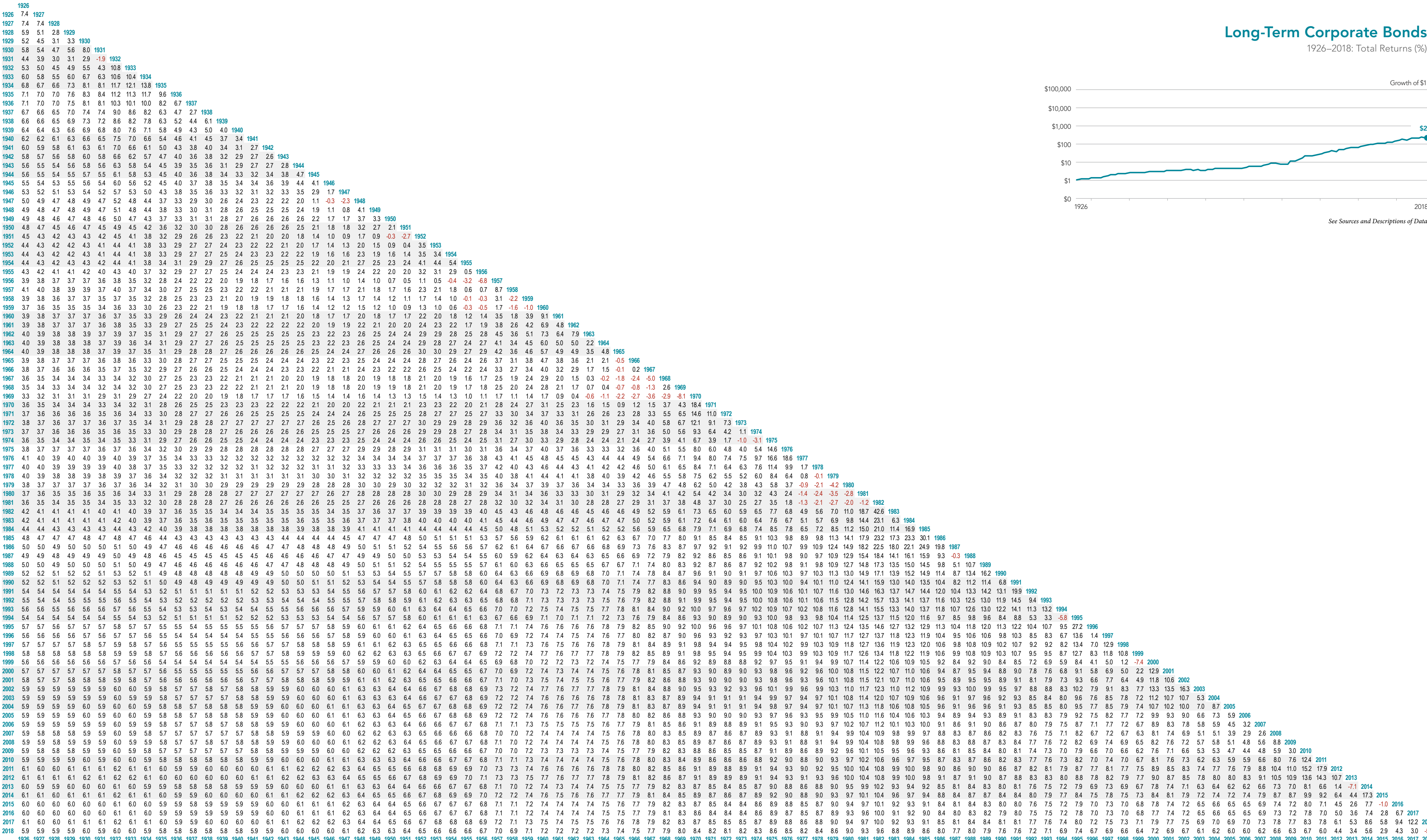
1926-2018: Total Returns (%)





# Long-Term Corporate Bonds

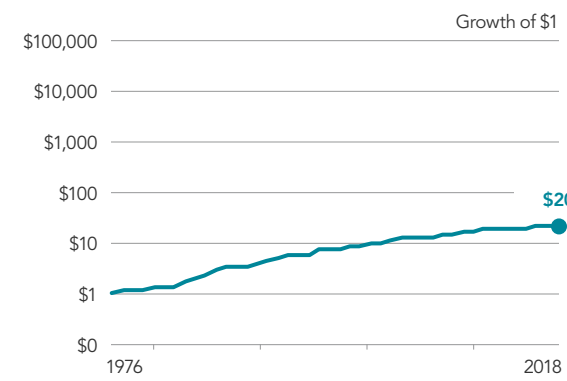
1926-2018: Total Returns (%)



See Sources and Descriptions of Data.

## Bloomberg Barclays US Aggregate Bond Index

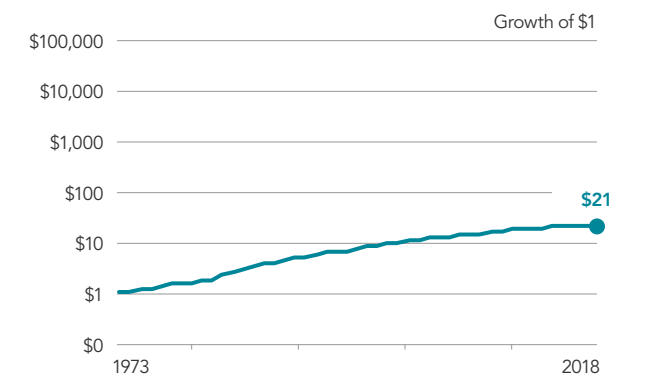
1976–2018: Total Returns (%)



See Sources and Descriptions of Data.

## Bloomberg Barclays US Government/Credit Bond Index Intermediate

1973–2018: Total Returns (%)



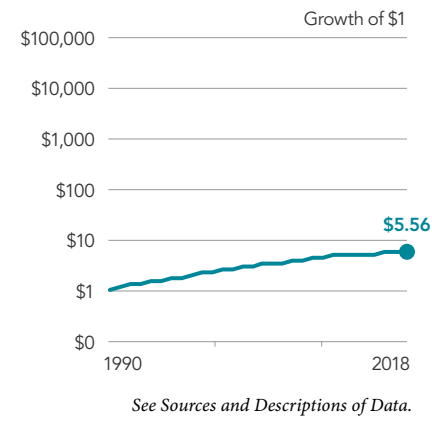
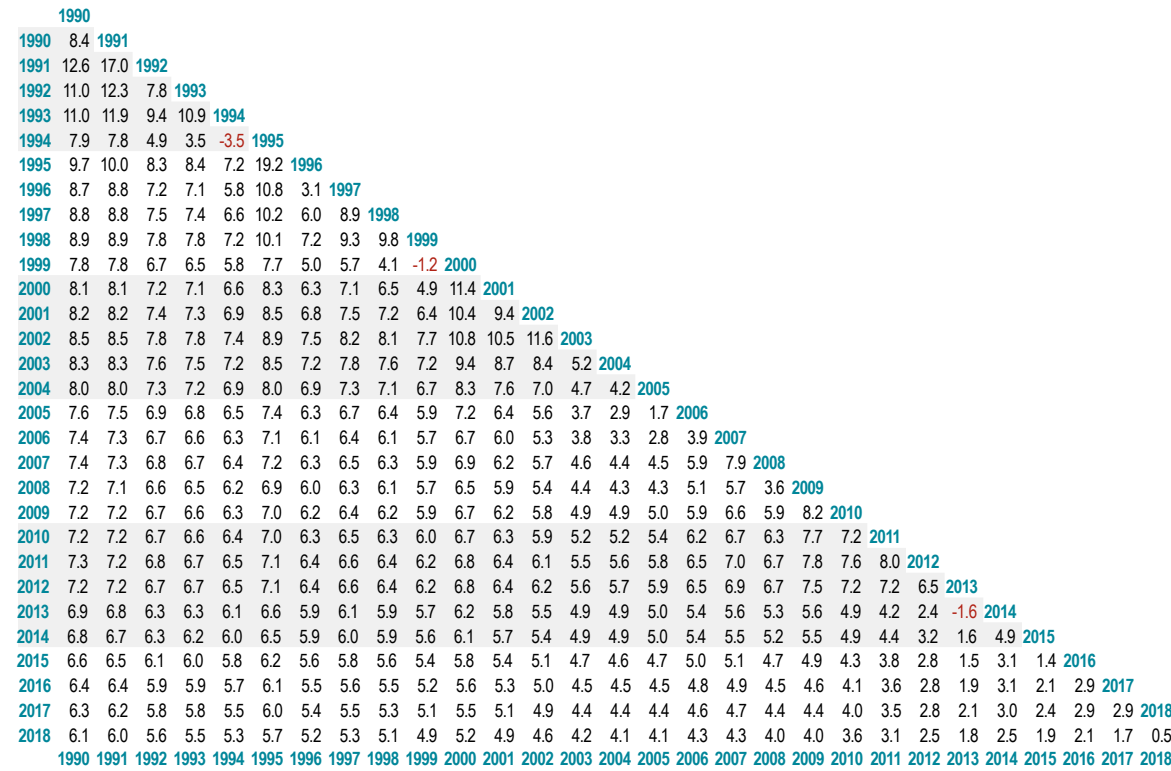
See Sources and Descriptions of Data.

Year	Return (%)
1976	15.6
1977	9.2
1978	6.5
1979	5.3
1980	4.8
1981	5.0
1982	8.6
1983	8.6
1984	9.3
1985	10.5
1986	10.9
1987	10.2
1988	10.0
1989	10.4
1990	10.3
1991	10.6
1992	10.4
1993	10.4
1994	9.6
1995	10.1
1996	9.8
1997	9.7
1998	9.7
1999	9.2
2000	9.3
2001	9.3
2002	9.3
2003	9.1
2004	9.0
2005	8.8
2006	8.6
2007	8.6
2008	8.5
2009	8.4
2010	8.3
2011	8.3
2012	8.2
2013	7.9
2014	7.9
2015	7.7
2016	7.6
2017	7.5
2018	7.3

Year	Return (%)
1973	3.3
1974	4.6
1975	6.2
1976	7.7
1977	7.7
1978	6.0
1979	6.0
1980	6.1
1981	6.5
1982	8.4
1983	8.4
1984	8.9
1985	9.5
1986	9.8
1987	9.4
1988	9.2
1989	9.4
1990	9.4
1991	9.7
1992	9.5
1993	9.5
1994	9.0
1995	9.2
1996	9.0
1997	9.0
1998	8.9
1999	8.6
2000	8.7
2001	8.7
2002	8.7
2003	8.6
2004	8.4
2005	8.2
2006	8.1
2007	8.0
2008	8.0
2009	7.9
2010	7.8
2011	7.8
2012	7.7
2013	7.5
2014	7.4
2015	7.2
2016	7.1
2017	7.0
2018	6.8

## Dimensional US Adjusted Investment Grade Index

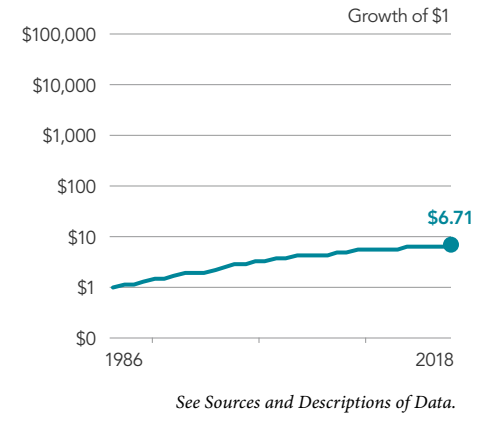
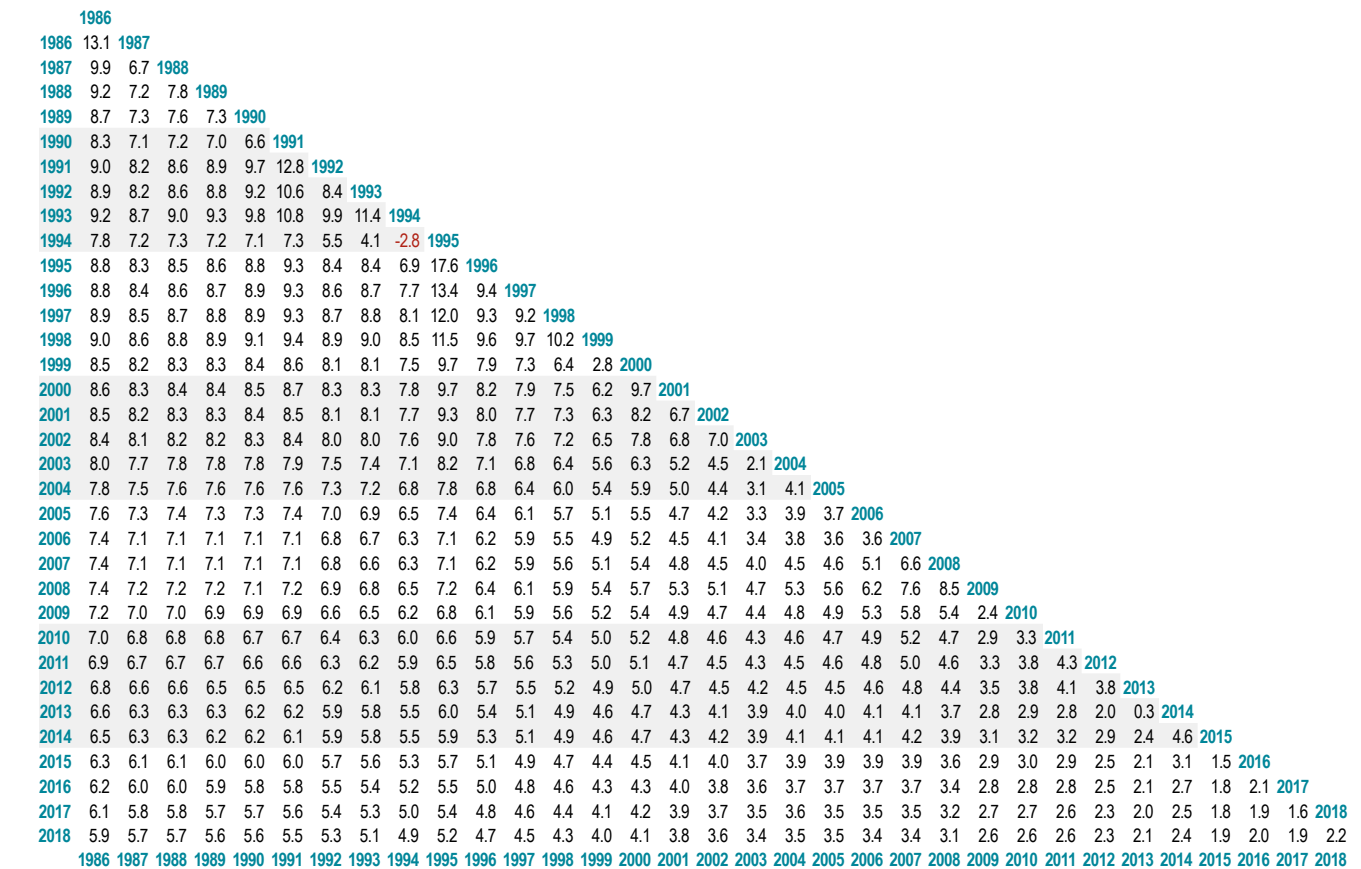
1990–2018: Total Returns (%)



## FTSE World Government Bond Index 3–7 Years

Hedged to USD

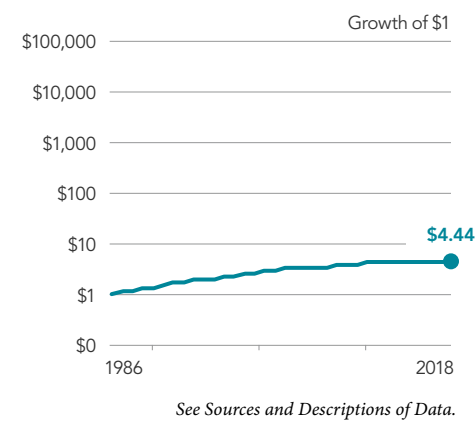
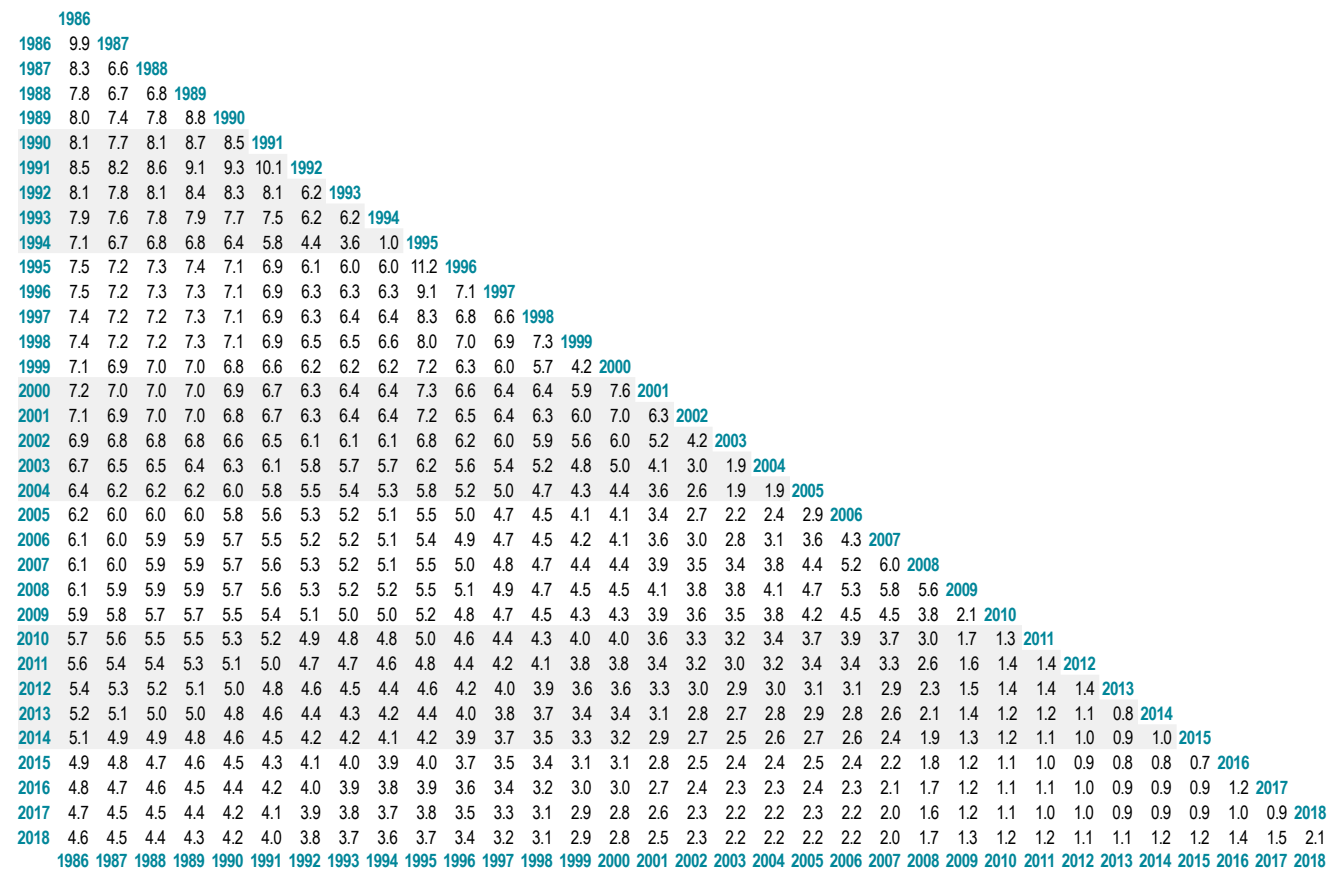
1986–2018: Total Returns (%)



## FTSE World Government Bond Index 1–3 Years

Hedged to USD

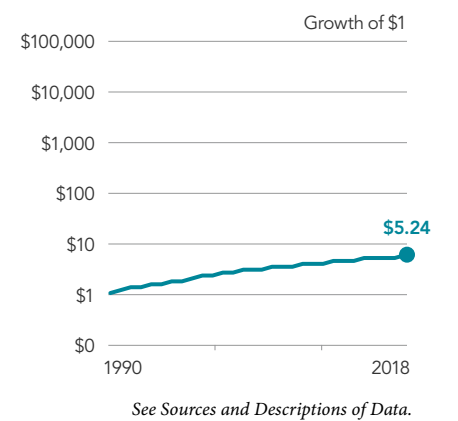
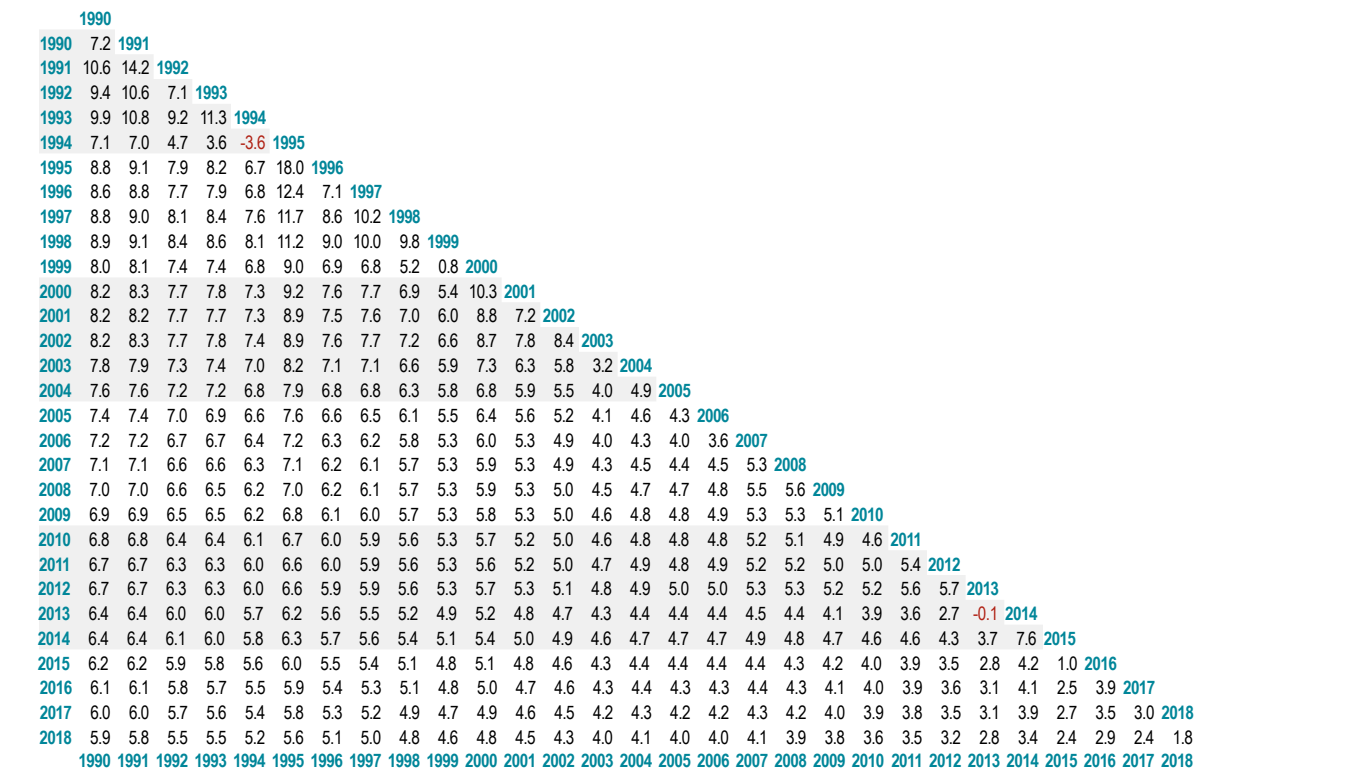
1986–2018: Total Returns (%)



## Bloomberg Barclays Global Aggregate Bond Index

Hedged to USD

1990–2018: Total Returns (%)

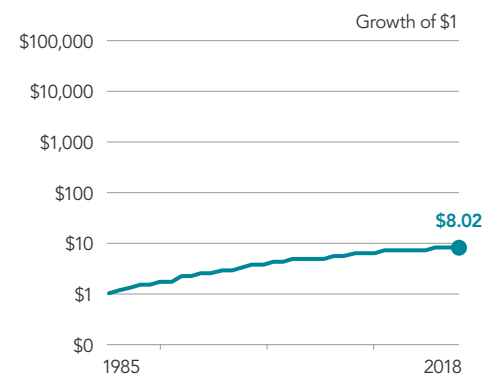




Year	Return (%)
1985	19.2
1986	16.3
1987	12.3
1988	10.7
1989	10.3
1990	10.3
1991	11.0
1992	10.5
1993	10.4
1994	9.0
1995	9.8
1996	9.7
1997	9.6
1998	9.6
1999	9.3
2000	9.2
2001	9.1
2002	9.0
2003	8.7
2004	8.4
2005	8.1
2006	7.9
2007	7.9
2008	8.0
2009	7.7
2010	7.6
2011	7.5
2012	7.4
2013	7.1
2014	7.0
2015	6.8
2016	6.6
2017	6.5
2018	6.3

## Dimensional Global Short-Term Government Variable Maturity Index

1985–2018: Total Returns (%)



See Sources and Descriptions of Data.

Year	Return (%)
2000	9.3
2001	9.2
2002	8.6
2003	8.5
2004	8.2
2005	7.6
2006	7.1
2007	6.7
2008	5.5
2009	6.5
2010	6.6
2011	6.5
2012	7.0
2013	6.6
2014	6.9
2015	6.5
2016	6.6
2017	6.5
2018	6.2

## Dimensional Global Adjusted Fixed Income Market Index

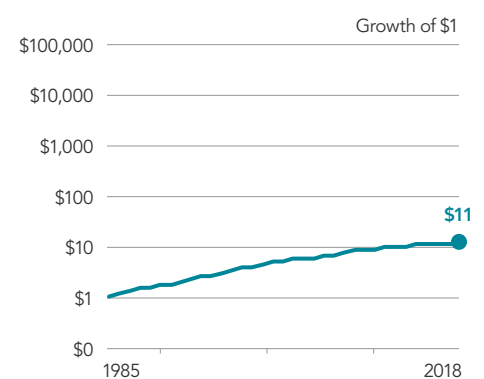
2000–2018: Total Returns (%)



See Sources and Descriptions of Data.

## Dimensional Global Intermediate-Term Government Variable Maturity Index

1985–2018: Total Returns (%)



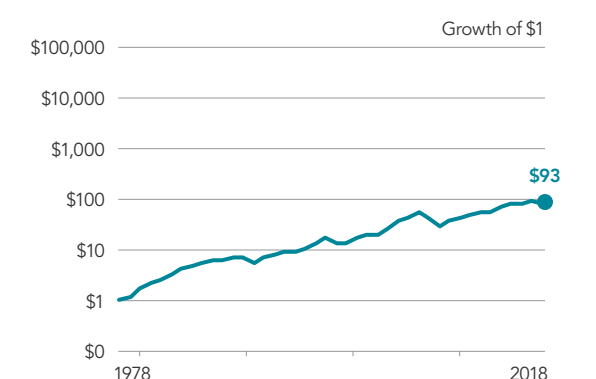
See Sources and Descriptions of Data.

Year	Return (%)
1985	21.2
1986	17.4
1987	12.6
1988	11.1
1989	10.1
1990	9.9
1991	10.8
1992	10.4
1993	10.7
1994	10.7
1995	10.2
1996	10.3
1997	10.3
1998	10.4
1999	10.0
2000	10.0
2001	9.9
2002	9.9
2003	9.5
2004	9.3
2005	9.1
2006	8.8
2007	8.9
2008	9.0
2009	8.7
2010	8.6
2011	8.6
2012	8.5
2013	8.1
2014	8.0
2015	7.8
2016	7.7
2017	7.5
2018	7.4

Year	Return (%)
1978	11.0
1979	28.6
1980	30.1
1981	26.9
1982	25.7
1983	26.8
1984	26.0
1985	23.4
1986	23.0
1987	19.7
1988	19.5
1989	18.0
1990	14.1
1991	14.8
1992	14.8
1993	14.8
1994	14.1
1995	14.0
1996	15.1
1997	15.3
1998	15.3
1999	12.7
2000	13.5
2001	13.4
2002	13.0
2003	13.8
2004	14.5
2005	14.5
2006	15.1
2007	13.9
2008	11.6
2009	12.1
2010	12.5
2011	12.4
2012	12.6
2013	12.2
2014	12.7
2015	12.5
2016	12.4
2017	12.1
2018	11.7

## Dow Jones US Select REIT Index

1978–2018: Total Returns (%)

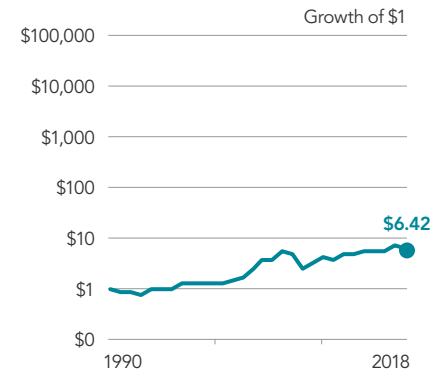


See Sources and Descriptions of Data.

Year	Return (%)
1990	-11.3
1991	-3.8
1992	-7.3
1993	1.3
1994	-0.1
1995	1.0
1996	3.3
1997	3.0
1998	3.3
1999	2.5
2000	2.5
2001	2.8
2002	4.3
2003	6.9
2004	8.8
2005	8.6
2006	10.4
2007	9.5
2008	4.9
2009	6.4
2010	6.9
2011	6.2
2012	7.3
2013	7.1
2014	7.3
2015	6.9
2016	6.8
2017	7.1
2018	6.6

## S&P Global ex US REIT Index

1990–2018: Total Returns (%)

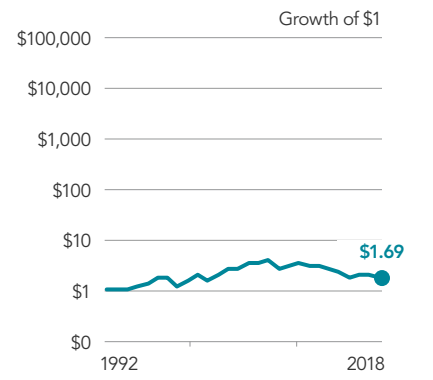


See Sources and Descriptions of Data.

Year	Return (%)
1992	3.7
1993	1.3
1994	6.2
1995	8.4
1996	11.2
1997	8.6
1998	2.6
1999	5.1
2000	7.8
2001	4.7
2002	6.4
2003	7.8
2004	7.9
2005	8.8
2006	8.4
2007	8.8
2008	5.5
2009	6.2
2010	6.8
2011	5.6
2012	5.3
2013	4.6
2014	3.5
2015	2.2
2016	2.6
2017	2.5
2018	2.0

## Bloomberg Commodity Total Return Index

1992–2018: Total Returns (%)



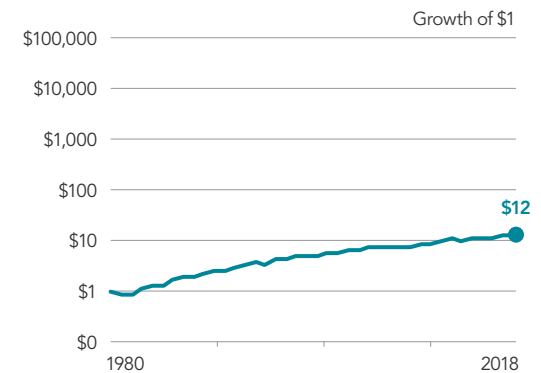
See Sources and Descriptions of Data.



Year	Return (%)
1980	-8.9
1981	-9.6
1982	4.9
1983	5.7
1984	6.6
1985	8.8
1986	10.2
1987	9.1
1988	9.2
1989	9.4
1990	9.2
1991	9.4
1992	9.4
1993	9.7
1994	9.4
1995	9.2
1996	8.9
1997	8.9
1998	8.8
1999	8.2
2000	8.4
2001	8.2
2002	8.3
2003	8.2
2004	8.0
2005	7.8
2006	7.7
2007	7.6
2008	7.2
2009	7.4
2010	7.2
2011	7.3
2012	7.3
2013	7.0
2014	7.1
2015	7.0
2016	6.8
2017	6.7
2018	6.6

## Bloomberg Barclays Municipal Bond Index

1980–2018: Total Returns (%)



See Sources and Descriptions of Data.

Year	Return (%)
1998	3.9
1999	3.2
2000	6.4
2001	6.8
2002	8.7
2003	8.6
2004	8.6
2005	7.9
2006	7.0
2007	7.5
2008	6.5
2009	6.9
2010	6.9
2011	7.3
2012	7.3
2013	6.3
2014	6.1
2015	5.7
2016	5.6
2017	5.5
2018	5.1

## Bloomberg Barclays US TIPS Index

1998–2018: Total Returns (%)

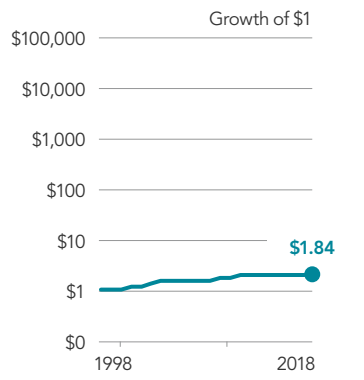


See Sources and Descriptions of Data.

Year	Return (%)
1998	2.3
1999	1.0
2000	3.7
2001	4.4
2002	6.2
2003	6.2
2004	6.1
2005	5.2
2006	4.4
2007	4.7
2008	4.0
2009	4.4
2010	4.4
2011	4.8
2012	4.8
2013	3.8
2014	3.8
2015	3.4
2016	3.4
2017	3.3
2018	3.0

## Bloomberg Barclays US TIPS Index

1998–2018: Real Returns (%) (Inflation Adjusted)



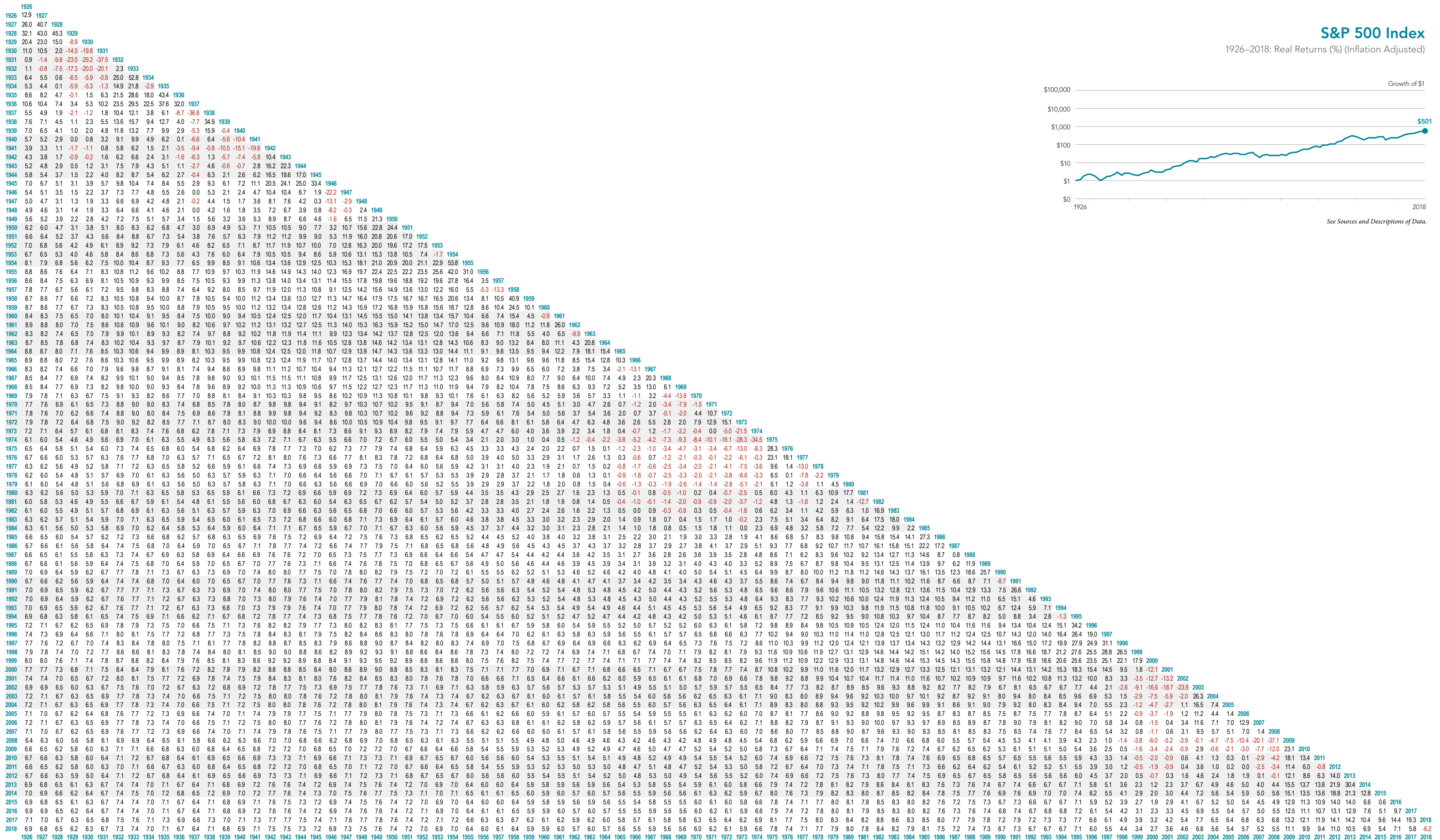
See Sources and Descriptions of Data.





S&P 500 Index

1926-2018: Real Returns (%) (Inflation Adjusted)

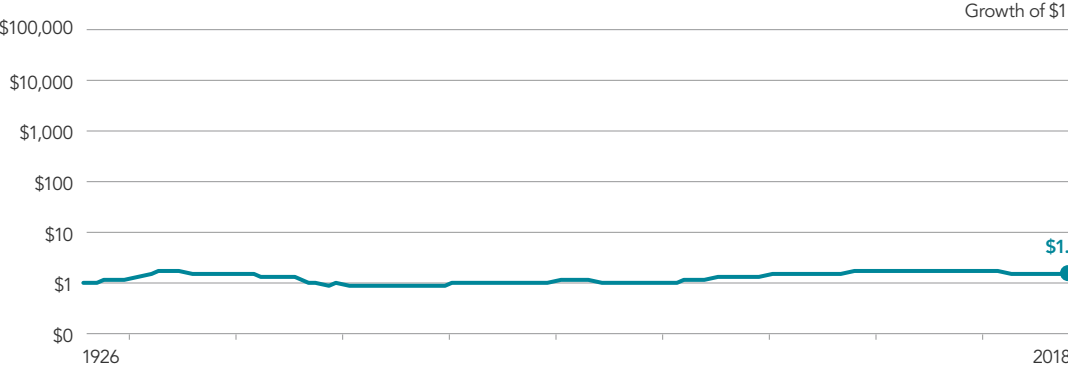


See Sources and Descriptions of Data.

1926	4.4
1927	5.0
1928	4.9
1929	4.7
1930	5.6
1931	6.6
1932	7.4
1933	6.4
1934	5.5
1935	4.7
1936	4.1
1937	3.5
1938	3.5
1939	3.2
1940	3.0
1941	2.2
1942	1.5
1943	1.3
1944	1.1
1945	1.0
1946	0.2
1947	-0.2
1948	-0.3
1949	-0.1
1950	-0.3
1951	-0.5
1952	-0.4
1953	-0.4
1954	-0.3
1955	-0.3
1956	-0.3
1957	-0.3
1958	-0.3
1959	-0.2
1960	-0.2
1961	-0.1
1962	-0.1
1963	0.0
1964	0.0
1965	0.1
1966	0.1
1967	0.1
1968	0.1
1969	0.1
1970	0.2
1971	0.2
1972	0.2
1973	0.1
1974	0.1
1975	0.0
1976	0.0
1977	0.0
1978	0.0
1979	-0.1
1980	-0.1
1981	0.0
1982	0.1
1983	0.2
1984	0.3
1985	0.3
1986	0.4
1987	0.4
1988	0.4
1989	0.5
1990	0.5
1991	0.5
1992	0.5
1993	0.5
1994	0.5
1995	0.6
1996	0.6
1997	0.6
1998	0.7
1999	0.7
2000	0.7
2001	0.7
2002	0.7
2003	0.7
2004	0.7
2005	0.6
2006	0.7
2007	0.7
2008	0.7
2009	0.6
2010	0.6
2011	0.6
2012	0.5
2013	0.5
2014	0.5
2015	0.5
2016	0.5
2017	0.4
2018	0.4

# One-Month US Treasury Bills

1926–2018: Real Returns (%) (Inflation Adjusted)



See Sources and Descriptions of Data.



## Global Strategies

### WEIGHTS

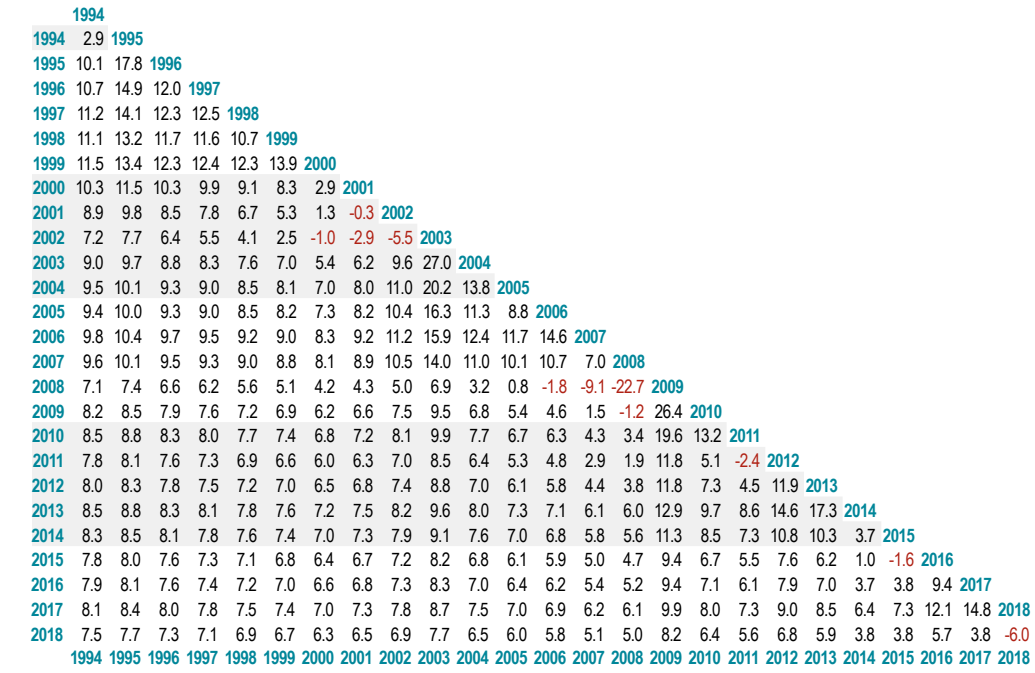
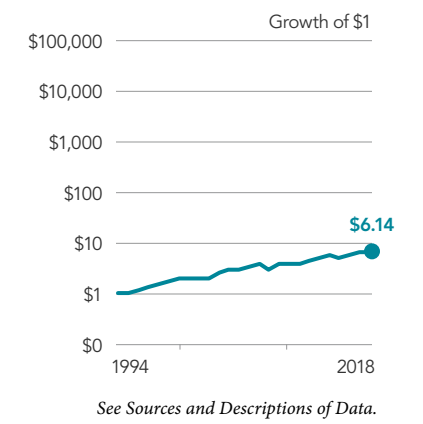
This section shows three example portfolio models ranging from 25% equity to 100% equity.

	Global 25/75	Global 60/40	Global Equity
<b>EQUITY</b>			
Dimensional US Adjusted Market 2 Index	15.4	37.0	61.6
Dimensional International Adjusted Market Index	7.1	16.9	28.2
Dimensional Emerging Markets Adjusted Market Index	2.5	6.1	10.2
<b>FIXED INCOME</b>			
Bloomberg Barclays US Government/Credit Bond Index Intermediate	0.0	18.0	0.0
FTSE Non-USD World Government Bond Index 1–5 Years (Hedged to USD)	0.0	20.0	0.0
Bloomberg Barclays US Government/Credit Index 1–3 Years	30.0	0.0	0.0
FTSE Non-USD World Government Bond Index 1–3 Years (Hedged to USD)	33.8	0.0	0.0
Bloomberg Barclays US TIPS Index	11.3	2.0	0.0

Weights as of January 31, 2018. Annually rebalanced in January. Regional equity weights change through time to reflect changes in global market capitalization.

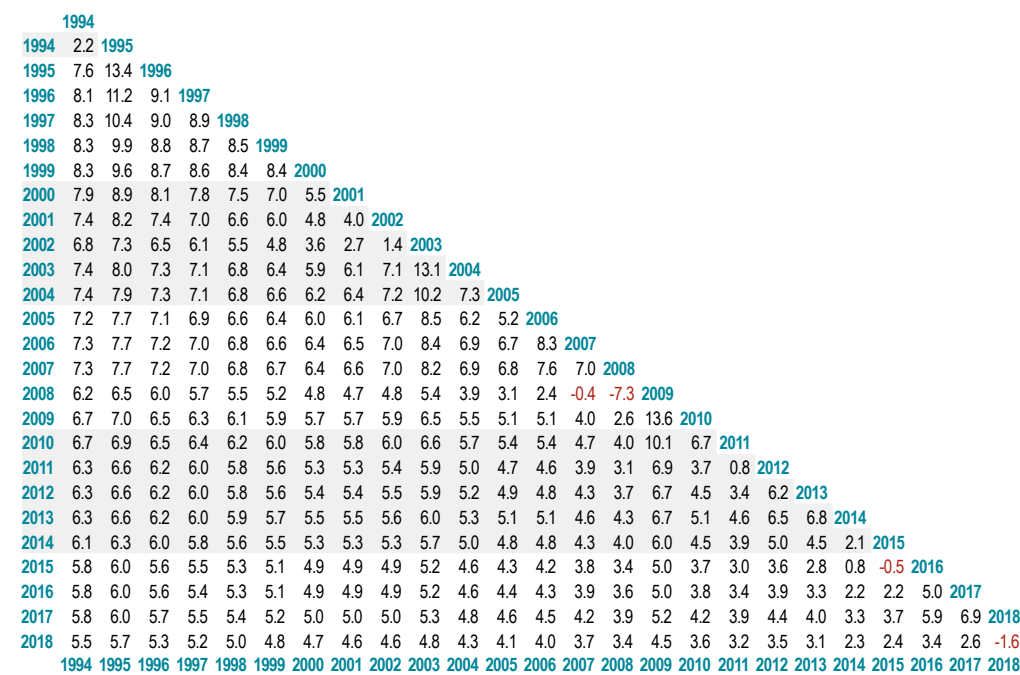
## Dimensional Global 60/40 Index

1994–2018: Total Returns (%)



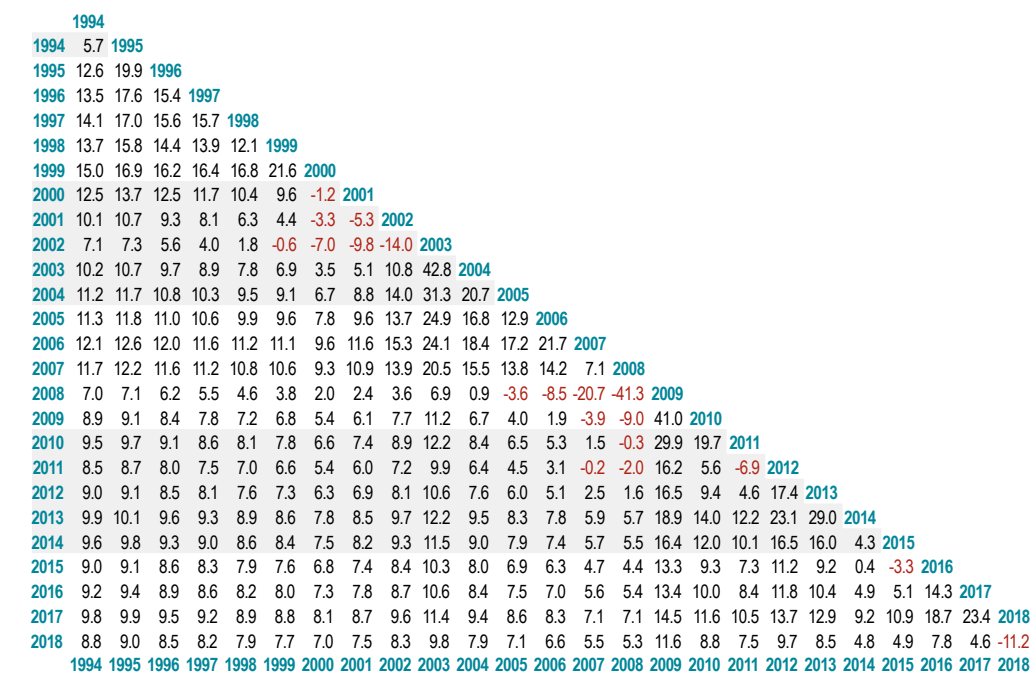
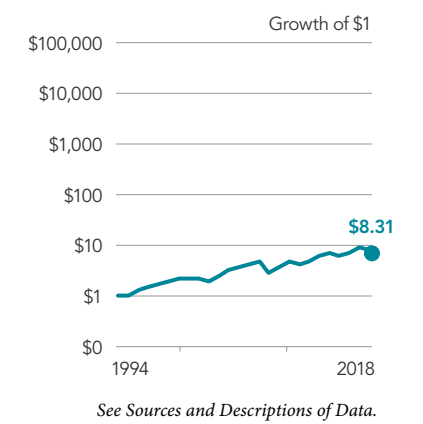
## Dimensional Global 25/75 Index

1994–2018: Total Returns (%)



## Dimensional Global Equity Index

1994–2018: Total Returns (%)



## Balanced Strategies

### WEIGHTS

This section shows six example portfolio models ranging from 100% fixed income to 100% equity.

	Fixed	Conservative	Moderate	Normal	Aggressive	Equity
<b>EQUITY</b>	<b>0%</b>	<b>20%</b>	<b>40%</b>	<b>60%</b>	<b>80%</b>	<b>100%</b>
<b>US STOCKS</b>	<b>0%</b>	<b>14%</b>	<b>28%</b>	<b>42%</b>	<b>56%</b>	<b>70%</b>
<b>Large Cap</b> S&P 500 Index	0.0	4.0	8.0	12.0	16.0	20.0
<b>Large Cap Value</b> Dimensional US Large Cap Value Index	0.0	4.0	8.0	12.0	16.0	20.0
<b>Small Cap</b> Dimensional US Small Cap Index	0.0	2.0	4.0	6.0	8.0	10.0
<b>Small Cap Value</b> Dimensional US Small Cap Value Index	0.0	2.0	4.0	6.0	8.0	10.0
<b>Real Estate Strategy</b> Dow Jones US Select REIT Index	0.0	2.0	4.0	6.0	8.0	10.0
<b>NON-US STOCKS</b>	<b>0%</b>	<b>6%</b>	<b>12%</b>	<b>18%</b>	<b>24%</b>	<b>30%</b>
<b>Value</b> Dimensional International Marketwide Value Index	0.0	2.0	4.0	6.0	8.0	10.0
<b>Small Cap</b> Dimensional International Small Cap Index	0.0	1.0	2.0	3.0	4.0	5.0
<b>Small Cap Value</b> Dimensional International Small Cap Value Index	0.0	1.0	2.0	3.0	4.0	5.0
<b>Emerging Markets</b> Dimensional Emerging Markets Index	0.0	0.6	1.2	1.8	2.4	3.0
<b>Emerging Markets Value</b> Dimensional Emerging Markets Value Index	0.0	0.6	1.2	1.8	2.4	3.0
<b>Emerging Markets Small Cap</b> Dimensional Emerging Markets Small Cap Index	0.0	0.8	1.6	2.4	3.2	4.0
<b>FIXED INCOME</b>	<b>100%</b>	<b>80%</b>	<b>60%</b>	<b>40%</b>	<b>20%</b>	<b>0%</b>
<b>One-Year</b> ICE BofAML One-Year US Treasury Note Index	25.0	20.0	15.0	10.0	5.0	0.0
<b>Two-Year Global</b> FTSE World Government Bond Index 1–3 Years (Hedged to USD)	25.0	20.0	15.0	10.0	5.0	0.0
<b>Five-Year Government</b> Bloomberg Barclays US Treasury Bond Index 1–5 Years	25.0	20.0	15.0	10.0	5.0	0.0
<b>Five-Year Global</b> FTSE World Government Bond Index 1–5 Years (Hedged to USD)	25.0	20.0	15.0	10.0	5.0	0.0

Rebalanced monthly. For illustrative purposes only. The balanced strategies are not recommendations for an actual allocation. Indices are not available for direct investment; their performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is no guarantee of future results. Real Estate Strategy weighting allocated evenly between US Small Cap and US Small Cap Value prior to January 1978 data inception. International Value represented by Fama/French International Value Index for 1975–1990. International Value weighting allocated evenly between International Small Cap and MSCI World ex USA Index (net dividends) prior to January 1975 data inception. International Small Cap Value weighting allocated to International Small Cap prior to July 1981 data inception. Emerging Markets represented by MSCI Emerging Markets Index (gross dividends) for 1988–1993. Emerging Markets weighting allocated evenly between International Small Cap and International Value prior to January 1988 data inception. Emerging Markets Value and Emerging Markets Small Cap weightings allocated evenly between International Small Cap and International Value prior to January 1989 data inception. Two-Year Global weighting allocated to One-Year prior to January 1985 data inception. Five-Year Government weighting allocated to Bloomberg Barclays Capital US Government Bond Index Intermediate prior to January 1976 data inception. Five-Year Global weighting allocated to Five-Year Government prior to January 1985 data inception.

## Balanced Strategies

### SUMMARY STATISTICS

As of December 31, 2018

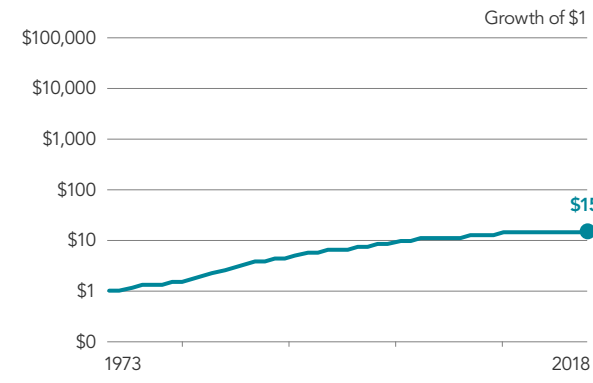
	Fixed	Conservative	Moderate	Normal	Aggressive	Equity
<b>EQUITY</b>	<b>0%</b>	<b>20%</b>	<b>40%</b>	<b>60%</b>	<b>80%</b>	<b>100%</b>
<b>FIXED INCOME</b>	<b>100%</b>	<b>80%</b>	<b>60%</b>	<b>40%</b>	<b>20%</b>	<b>0%</b>
<b>One-Year Total Return (%)</b>	1.9	-0.8	-3.5	-6.2	-8.9	-11.6
<b>Three-Year Annualized Return (%)</b>	1.3	2.6	3.9	5.1	6.3	7.4
<b>Five-Year Annualized Return (%)</b>	1.1	2.0	2.9	3.7	4.4	5.1
<b>Ten-Year Annualized Return (%)</b>	1.2	3.6	5.9	8.1	10.2	12.3
<b>Fifteen-Year Annualized Return (%)</b>	2.2	3.6	4.9	6.1	7.2	8.2
<b>Twenty-Year Annualized Return (%)</b>	2.9	4.3	5.6	6.8	7.9	8.8
<b>Annualized Return (%)</b> 1973–2018	6.0	7.5	9.0	10.4	11.7	12.9
<b>Annualized Standard Deviation (%)</b> 1973–2018	2.4	3.7	6.3	9.2	12.2	15.2
<b>Lowest One-Year Return (%)</b>	0.2 <small>(07/16–06/17)</small>	-9.7 <small>(03/08–02/09)</small>	-21.9 <small>(03/08–02/09)</small>	-32.8 <small>(03/08–02/09)</small>	-42.6 <small>(03/08–02/09)</small>	-51.3 <small>(03/08–02/09)</small>
<b>Lowest Annualized Three-Year Return (%)</b>	0.6 <small>(02/15–01/18)</small>	0.6 <small>(03/06–02/09)</small>	-4.4 <small>(03/06–02/09)</small>	-9.3 <small>(03/06–02/09)</small>	-14.2 <small>(03/06–02/09)</small>	-19.0 <small>(03/06–02/09)</small>
<b>Highest One-Year Return (%)</b>	22.6 <small>(10/81–09/82)</small>	25.5 <small>(07/82–06/83)</small>	33.7 <small>(07/82–06/83)</small>	46.2 <small>(03/09–02/10)</small>	63.8 <small>(03/09–02/10)</small>	83.1 <small>(03/09–02/10)</small>
<b>Highest Annualized Three-Year Return (%)</b>	15.7 <small>(03/80–02/83)</small>	17.3 <small>(07/82–06/85)</small>	21.7 <small>(08/84–07/87)</small>	27.0 <small>(08/84–07/87)</small>	32.6 <small>(08/84–07/87)</small>	38.3 <small>(08/84–07/87)</small>
<b>Growth of \$1</b> 1973–2018	14.52	28.35	53.00	94.86	162.43	265.86

Assumes all strategies have been rebalanced monthly. Highest and lowest one-year and three-year returns are calculated from periods overlapping monthly. Annualized standard deviation is calculated from monthly data. All performance results of the balanced strategies are based on performance of indices with model/backtested asset allocations; the performance was achieved with the benefit of hindsight; it does not represent actual investment strategies. The model's performance does not reflect advisory fees or other expenses associated with the management of an actual portfolio. There are limitations inherent in model allocations. In particular, model performance may not reflect the impact that economic and market factors may have had on the advisor's decision making if the advisor were actually managing client money. Past performance is no guarantee of future results.

# Balanced Strategy: Fixed

100% Fixed Income

1973–2018: Total Returns (%)

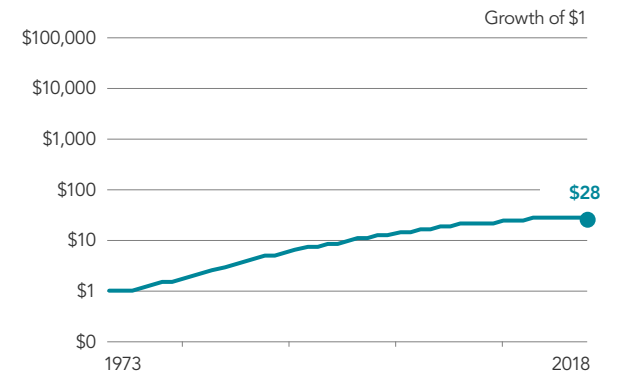


See Sources and Descriptions of Data.

# Balanced Strategy: Conservative

20% Equity, 80% Fixed Income

1973–2018: Total Returns (%)



See Sources and Descriptions of Data.

Year	Return (%)
1973	5.1
1974	6.5
1975	7.0
1976	7.3
1977	6.7
1978	6.3
1979	6.6
1980	6.9
1981	7.6
1982	8.8
1983	8.8
1984	9.2
1985	9.5
1986	9.5
1987	9.3
1988	9.1
1989	9.1
1990	9.1
1991	9.1
1992	9.0
1993	8.9
1994	8.5
1995	8.6
1996	8.5
1997	8.4
1998	8.4
1999	8.2
2000	8.2
2001	8.2
2002	8.1
2003	8.0
2004	7.9
2005	7.7
2006	7.5
2007	7.4
2008	7.3
2009	7.2
2010	7.0
2011	6.9
2012	6.8
2013	6.6
2014	6.5
2015	6.3
2016	6.2
2017	6.1
2018	6.0

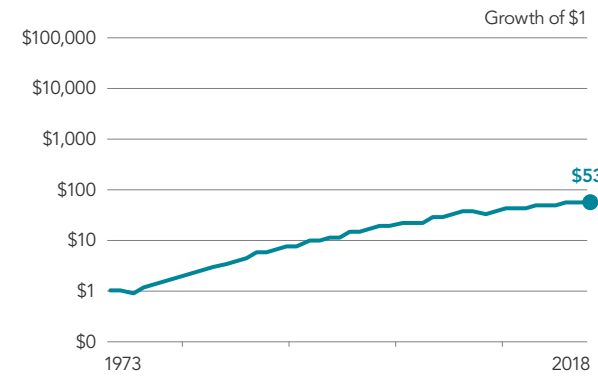
Year	Return (%)
1973	0.2
1974	0.7
1975	5.4
1976	7.2
1977	7.2
1978	7.4
1979	7.9
1980	8.5
1981	8.9
1982	9.9
1983	10.2
1984	10.4
1985	10.9
1986	11.1
1987	10.9
1988	10.9
1989	11.0
1990	10.6
1991	10.8
1992	10.6
1993	10.6
1994	10.2
1995	10.3
1996	10.2
1997	10.2
1998	10.1
1999	10.0
2000	10.0
2001	9.7
2002	9.5
2003	9.5
2004	9.4
2005	9.2
2006	9.2
2007	9.1
2008	8.7
2009	8.7
2010	8.6
2011	8.4
2012	8.3
2013	8.2
2014	8.1
2015	7.9
2016	7.8
2017	7.7
2018	7.5



## Balanced Strategy: Moderate

40% Equity, 60% Fixed Income

1973–2018: Total Returns (%)

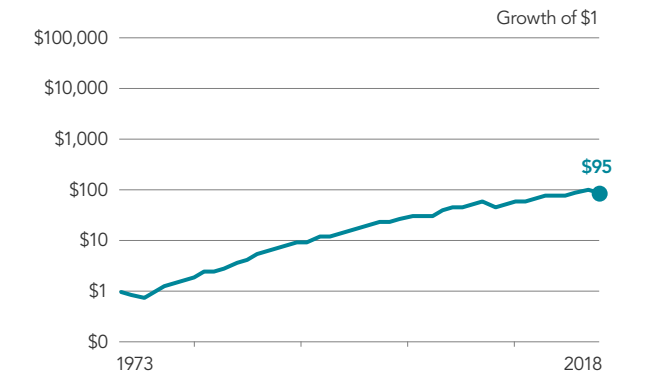


See Sources and Descriptions of Data.

## Balanced Strategy: Normal

60% Equity, 40% Fixed Income

1973–2018: Total Returns (%)



See Sources and Descriptions of Data.

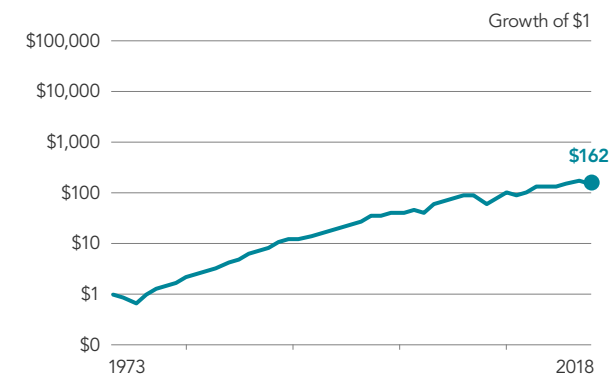
Year	Total Return (%)
1973	-4.7
1974	-5.0
1975	3.7
1976	6.9
1977	7.5
1978	8.3
1979	9.1
1980	10.0
1981	10.1
1982	10.9
1983	11.6
1984	11.6
1985	12.4
1986	12.7
1987	12.4
1988	12.6
1989	12.8
1990	12.0
1991	12.3
1992	12.1
1993	12.2
1994	12.2
1995	11.9
1996	11.9
1997	11.9
1998	11.7
1999	11.6
2000	11.4
2001	11.2
2002	10.8
2003	11.0
2004	11.0
2005	10.9
2006	10.9
2007	10.7
2008	9.9
2009	10.1
2010	10.1
2011	10.1
2012	10.1
2013	10.1
2014	9.6
2015	9.4
2016	9.3
2017	9.3
2018	9.0

Year	Total Return (%)
1973	-9.4
1974	-10.4
1975	1.9
1976	6.5
1977	7.7
1978	9.1
1979	10.1
1980	11.4
1981	11.2
1982	11.9
1983	12.8
1984	12.6
1985	13.7
1986	14.2
1987	13.9
1988	14.2
1989	14.5
1990	13.3
1991	13.8
1992	13.5
1993	13.8
1994	13.3
1995	13.5
1996	13.5
1997	13.6
1998	13.3
1999	13.2
2000	12.9
2001	12.6
2002	12.1
2003	12.5
2004	12.6
2005	12.5
2006	12.6
2007	12.3
2008	11.1
2009	11.4
2010	11.5
2011	11.1
2012	11.1
2013	11.1
2014	11.1
2015	10.8
2016	10.8
2017	10.8
2018	10.4

## Balanced Strategy: Aggressive

80% Equity, 20% Fixed Income

1973–2018: Total Returns (%)

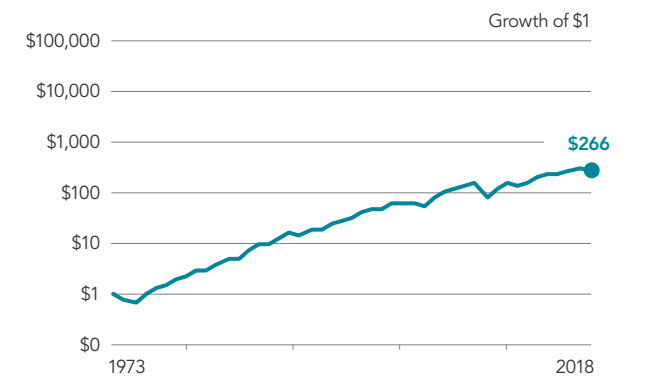


See Sources and Descriptions of Data.

## Balanced Strategy: Equity

100% Equity

1973–2018: Total Returns (%)



See Sources and Descriptions of Data.



Year	Total Return (%)
1973	-14.1
1974	19.4
1975	-0.1
1976	7.8
1977	5.9
1978	7.8
1979	9.8
1980	11.1
1981	12.7
1982	12.2
1983	12.7
1984	14.0
1985	13.6
1986	14.9
1987	15.6
1988	15.3
1989	15.7
1990	16.2
1991	14.6
1992	14.8
1993	15.2
1994	14.7
1995	14.9
1996	15.1
1997	15.1
1998	14.7
1999	14.8
2000	14.4
2001	14.0
2002	13.2
2003	13.9
2004	14.1
2005	14.0
2006	14.2
2007	14.6
2008	12.1
2009	12.7
2010	12.8
2011	12.3
2012	12.4
2013	12.6
2014	12.4
2015	12.1
2016	12.1
2017	12.2
2018	11.7

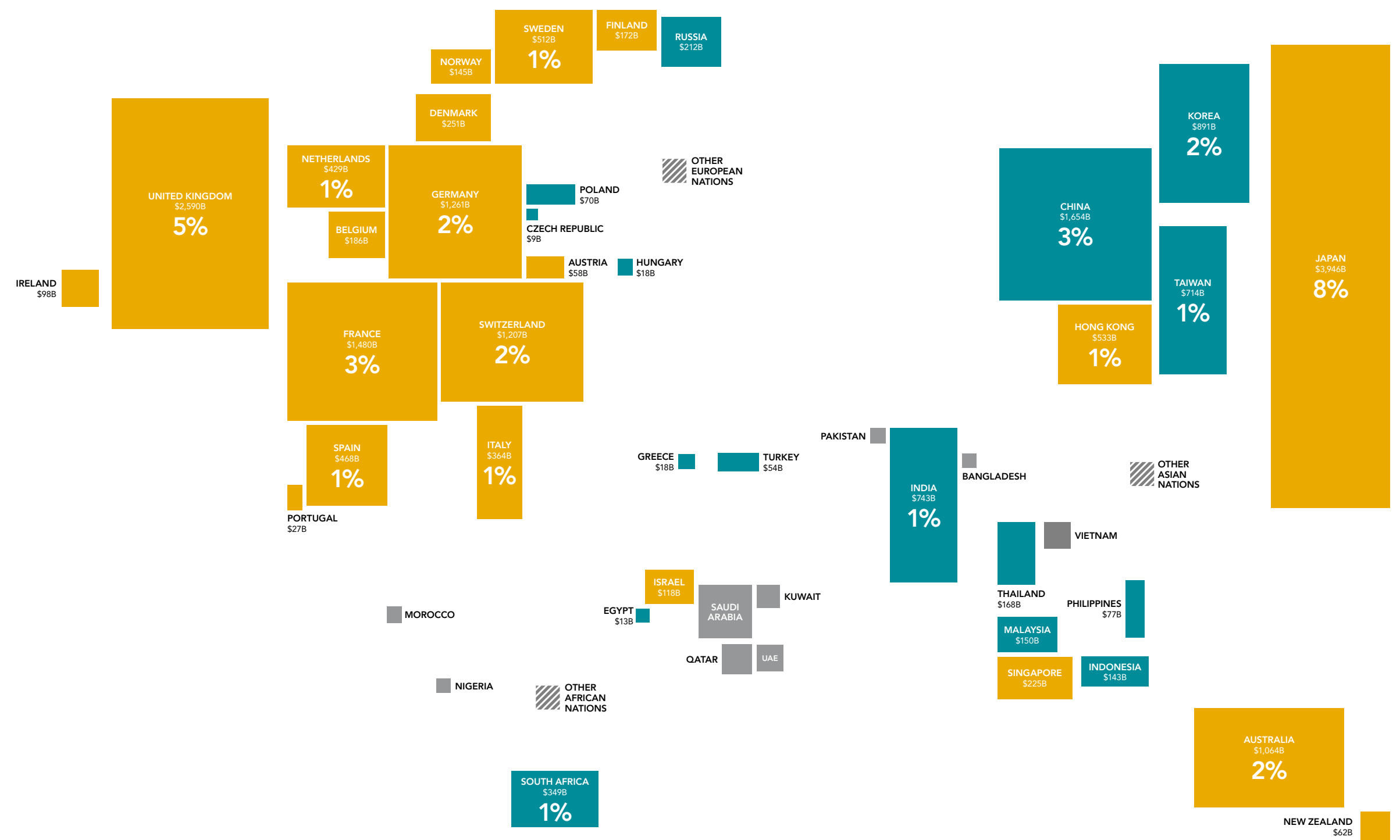
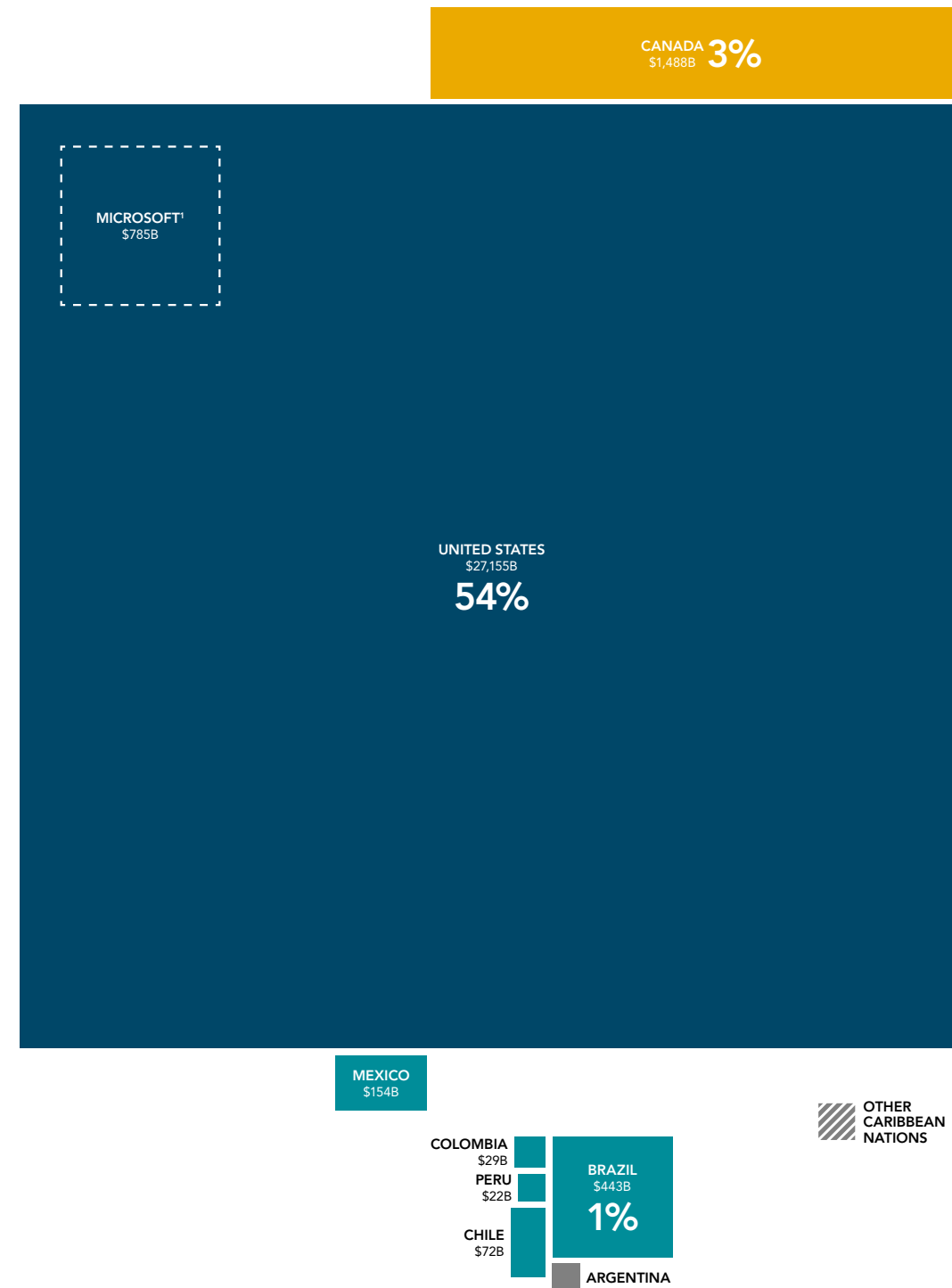


Year	Total Return (%)
1973	-18.6
1974	20.8
1975	-2.2
1976	5.2
1977	7.8
1978	10.4
1979	11.9
1980	13.9
1981	13.1
1982	13.4
1983	15.0
1984	14.5
1985	16.1
1986	16.9
1987	16.5
1988	17.2
1989	17.8
1990	15.7
1991	16.4
1992	16.0
1993	16.6
1994	16.1
1995	16.3
1996	16.5
1997	16.6
1998	16.2
1999	16.1
2000	15.8
2001	15.3
2002	14.3
2003	15.3
2004	15.5
2005	15.5
2006	15.7
2007	15.3
2008	13.1
2009	13.8
2010	14.0
2011	13.4
2012	13.6
2013	13.9
2014	13.7
2015	13.3
2016	13.4
2017	13.5
2018	12.9

# World Equity Market Capitalization

As of December 31, 2018

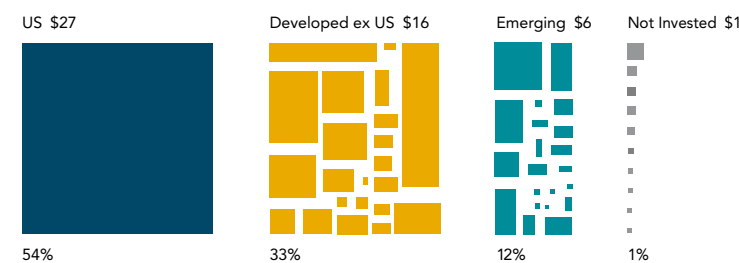
WHERE DIMENSIONAL INVESTS: ■ DEVELOPED MARKETS ■ EMERGING MARKETS ■ NOT INVESTED



How do we measure the world? Thinking only in terms of landmass can distort investment decisions. Directly comparing the markets of nations produces some surprising results. Measures such as population, gross domestic product, or exports do not directly indicate the size or suitability of investments in a market. This cartogram illustrates the balance of equity

investment opportunities around the world. The size of each country has been adjusted to reflect its total relative capitalization. Of course, the world is in motion—there is no fixed relationship between markets, and their proportion can change over time. Viewing the world this way brings the scope of diversification into new light and helps clarify allocation decisions.

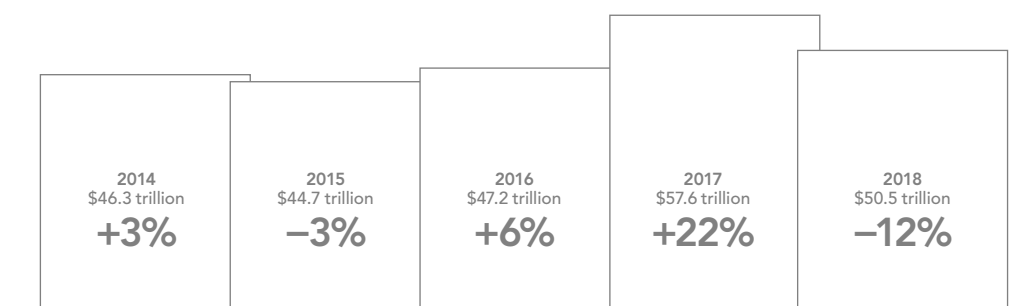
## BY ASSET CLASS (\$ TRILLIONS)



## BY NATION (\$ BILLIONS)

United States	27,155	Hong Kong	533	Finland	172	New Zealand	62	Morocco	18	Oman	7	Botswana	2
Japan	3,946	Sweden	512	Thailand	168	Austria	58	Pakistan	17	Panama	7	Bulgaria	2
United Kingdom	2,590	Spain	468	Mexico	154	Turkey	54	Bangladesh	14	Lebanon	6	Ecuador	2
China	1,654	Brazil	443	Malaysia	150	UAE	51	Nigeria	14	Croatia	5	Ghana	2
Canada	1,488	Netherlands	429	Norway	145	Vietnam	50	Egypt	13	Kazakhstan	5	Tunisia	2
France	1,480	Italy	364	Indonesia	143	Kuwait	39	Czech Republic	9	Sri Lanka	5	Ukraine	2
Germany	1,261	South Africa	349	Israel	118	Colombia	29	Bahrain	8	Jamaica	4	Burkina Faso	1
Switzerland	1,207	Denmark	251	Ireland	98	Portugal	27	Jordan	8	Trinidad and Tobago	4	Côte D'Ivoire	1
Australia	1,064	Singapore	225	Philippines	77	Argentina	24	Kenya	8	Slovenia	4	Estonia	1
Korea	891	Russia	212	Chile	72	Saudi Arabia	205	Romania	8	Luxembourg	3	Lithuania	1
India	743	Poland	70	Greece	18	Qatar	65	Greece	7	Senegal	3	Namibia	1
Taiwan	714	Belgium	186	Hungary	18			Mauritius	7	Serbia	3	Slovakia	1

## CHANGE OVER TIME



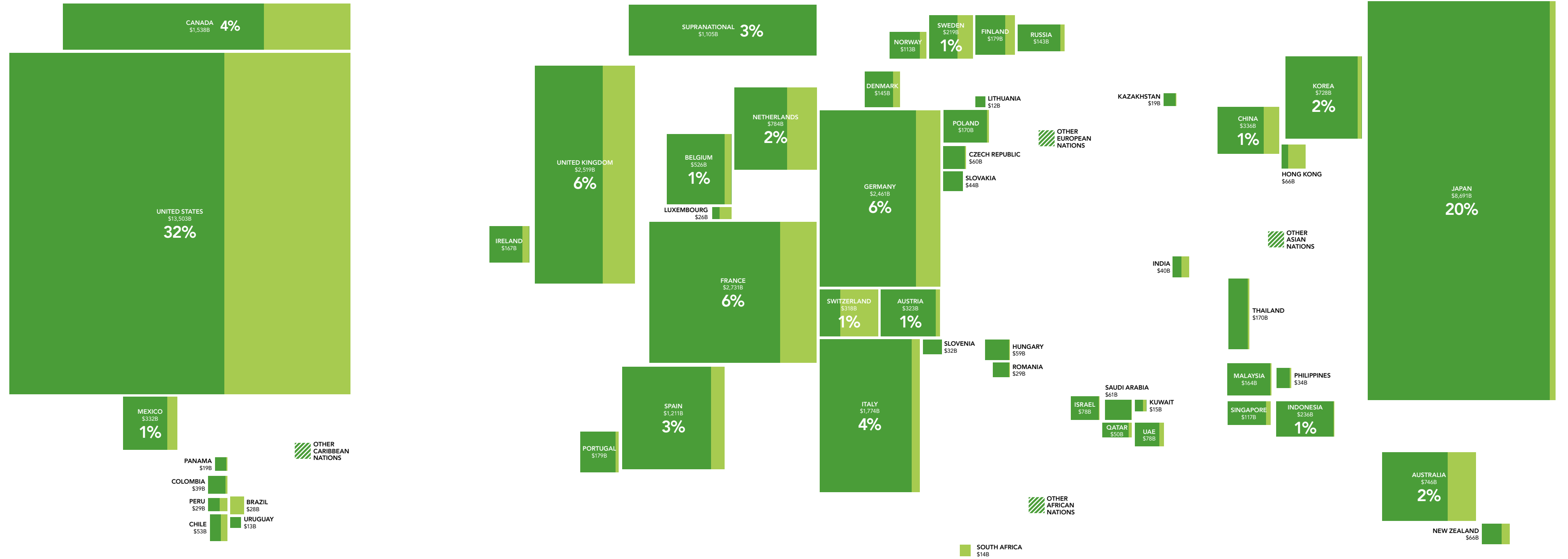
1. An example large cap stock provided for comparison.

In USD. Market cap data is free-float adjusted and meets minimum liquidity and listing requirements. Dimensional makes case-by-case determinations about the suitability of investing in each emerging market, making considerations that include local market accessibility, government stability, and property rights before making investments. China market capitalization excludes A-shares, which are generally only available to mainland China investors. Many nations not displayed. Totals may not equal 100% due to rounding. For educational purposes; should not be used as investment advice. Data provided by Bloomberg.

# Global Bond Market

As of December 31, 2018

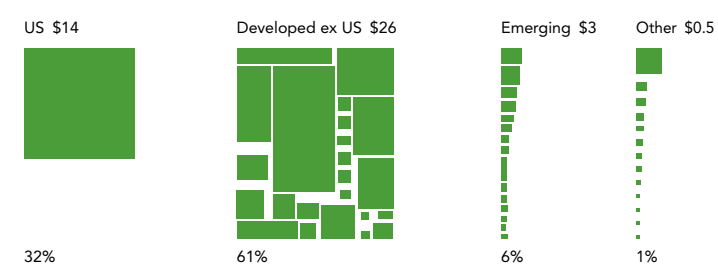
BOND TYPE: ■ GOVERNMENT ■ CORPORATE



Viewing the world in terms of bond markets produces a very different perspective on countries and regions, as compared to their landmass, population, gross domestic product, or even stock markets. This cartogram shows the balance of the investment grade fixed income opportunities around the world, with the size of each country adjusted to reflect the relative size of its fixed income market. It may be surprising that the relative

sizes of a country's bond and equity markets are not necessarily the same. Different regulations and preferences regarding capital structures for companies—as well as differing requirements and methods for government funding—lead to different outcomes. These proportions can change over time, but viewing the fixed income world this way highlights opportunities for diversification in fixed income and helps clarify allocation decisions.

## BY ASSET CLASS (\$ TRILLIONS)

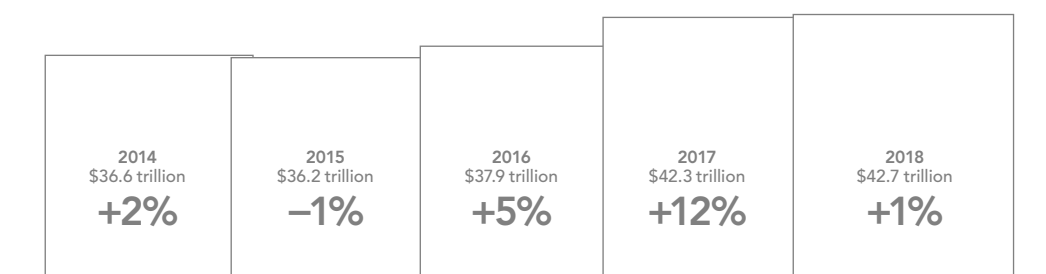


## BY NATION (\$ BILLIONS)

United States*	13,503	Australia*	746	Portugal	179	Israel	78	Colombia	39	South Africa	14	Egypt	2
Japan*	8,691	Korea	728	Poland	170	Hong Kong	66	Philippines	34	Uruguay	13	Oman	2
France*	2,731	Belgium*	526	Thailand	170	New Zealand*	66	Slovenia	32	Lithuania	12	Taiwan	2
United Kingdom*	2,519	China	336	Ireland*	167	Saudi Arabia	61	Peru	29	Latvia	9	Estonia	1
Germany*	2,461	Mexico	332	Malaysia	164	Czech Republic	60	Romania	29	Bermuda	8	Guernsey	1
Italy*	1,774	Austria	323	Denmark*	145	Hungary	59	Brazil	28	Bulgaria	8	Jersey	1
Canada*	1,538	Switzerland*	318	Russia	143	Chile	53	Luxembourg	26	Morocco	8	Liechtenstein	1
Spain*	1,211	Indonesia	236	Singapore*	117	Qatar	50	Kazakhstan	19	Cyprus	7	Malta	1
Supranational*	1,105	Sweden*	219	Norway*	113	Norway*	44	Panama	19	Macao	6	Nigeria	1
Netherlands*	784	Finland*	179	UAE	78	India	40	Kuwait	15	Iceland	4	Trinidad and Tobago	1

\*Where Dimensional invests

## CHANGE OVER TIME



In USD. Data is from Bloomberg Barclays Global Aggregate Ex-Securitized Bond Index. Index excludes non-investment grade securities, bonds with less than one year to maturity, tax-exempt municipal securities, inflation-linked bonds, floating rate issues, and securitized bonds. Many nations not displayed. Totals may not equal 100% due to rounding. For educational purposes; should not be used as investment advice. Data provided by Bloomberg.





REITs and investment companies. The index has been retroactively calculated by Dimensional and did not exist prior to April 2008. The calculation methodology was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index.

Prior to January 1994

Fama/French Emerging Markets Value Index.

#### DIMENSIONAL EMERGING MARKETS GROWTH INDEX

Compiled by Dimensional from Bloomberg securities data. Targets securities of companies whose relative price is in the top 50% of their country's companies after the exclusion of utilities and companies with either negative or missing relative price data. The index emphasizes companies with smaller market capitalization, lower relative price, and higher profitability. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. Exclusions: REITs and investment companies. The index has been retroactively calculated by Dimensional and did not exist prior to April 2008. The calculation methodology was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index.

#### DIMENSIONAL EMERGING MARKETS SMALL INDEX

January 1994–present

Compiled by Dimensional from Bloomberg securities data. The index is a market capitalization-weighted index of small company securities in the eligible markets excluding those with the lowest profitability and highest relative price within the small cap universe. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. Exclusions: REITs and investment companies. The index has been retroactively calculated by Dimensional and did not exist prior to April 2008. The calculation methodology was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index.

Prior to January 1994

Fama/French Emerging Markets Small Cap Index.

## Fixed Income

#### FTSE US GOVERNMENT BOND INDEX 1–3 YEARS

FTSE fixed income indices © 2019 FTSE Fixed Income LLC. All rights reserved.

#### FTSE US GOVERNMENT BOND INDEX 3–7 YEARS

FTSE fixed income indices © 2019 FTSE Fixed Income LLC. All rights reserved.

#### ONE-MONTH US TREASURY BILLS

© 2019 and earlier, Morningstar. All rights reserved. Underlying data provided by Ibbotson Associates via Morningstar Direct.

#### LONG-TERM GOVERNMENT BONDS

© 2019 and earlier, Morningstar. All rights reserved. Underlying data provided by Ibbotson Associates via Morningstar Direct. Includes US government bonds with an average maturity of 20 years.

#### LONG-TERM CORPORATE BONDS

© 2019 and earlier, Morningstar. All rights reserved. Underlying data provided by Ibbotson Associates via Morningstar Direct. Includes US corporate bonds with an average maturity of 20 years.

#### BLOOMBERG BARCLAYS US AGGREGATE BOND INDEX

Data provided by Bloomberg.

#### BLOOMBERG BARCLAYS US GOVERNMENT/CREDIT BOND INDEX INTERMEDIATE

Data provided by Bloomberg.

#### DIMENSIONAL US ADJUSTED INVESTMENT GRADE INDEX

Compiled by Dimensional using data provided by Bloomberg. Includes securities in Bloomberg Barclays US 3–10 Year Government, Credit Aaa, Aa, A, Baa indexes, and Bloomberg Barclays US 1–3 Year Government, Credit Aaa, Aa, A, Baa indexes. Securities can be over- or underweighted based on government/credit spreads. When the difference in yields between credit and government bonds is narrow, government bonds may be held above 50%. When the difference in yields between credit and government bonds is wide, government bonds may be held below 50%. Securities can be over- or underweighted with respect to their market cap weight based on credit spreads. When the difference in yields between AAA+AA and A+BBB is narrow, AAA+AA bonds may be held above market cap weight. When the difference in yields between AAA+AA and A+BBB is wide, AAA+AA bonds may be held below market cap weight. When the difference in yields between AAA+AA and BBB is narrow, BBB bonds may be held below market cap weight. When the difference in yields between AAA+AA and BBB is wide, BBB bonds may be held above market cap weight. The duration of the index is based on the term spread between 5–10 year government/credit bonds and 1–3 year government/credit bonds. When the term spread is wide, the duration of the index can be longer than the duration of Bloomberg Barclays US Aggregate Index. When the term spread is narrow, the duration of the index can be shorter than the duration of Bloomberg Barclays US Aggregate Index. The duration of the government component is based on the term spread between 5–10 year government bonds and 1–3 year government bonds. When the term spread is wide, the duration of the government component can be longer than the duration of Bloomberg Barclays US Government Index. When the term spread is narrow, the duration of the index can be shorter than the duration of Bloomberg Barclays US Government Index.

#### FTSE WORLD GOVERNMENT BOND INDEX 1–3 YEARS (HEGED TO USD)

FTSE fixed income indices © 2019 FTSE Fixed Income LLC. All rights reserved.

#### FTSE WORLD GOVERNMENT BOND INDEX 3–7 YEARS (HEGED TO USD)

FTSE fixed income indices © 2019 FTSE Fixed Income LLC. All rights reserved.

#### BLOOMBERG BARCLAYS GLOBAL AGGREGATE BOND INDEX (HEGED TO USD)

Data provided by Bloomberg.

#### DIMENSIONAL GLOBAL SHORT-TERM GOVERNMENT VARIABLE MATURITY INDEX

Compiled by Dimensional using FTSE data © 2019. Includes securities in the FTSE World Government Bond 1–3 Years and 3–5 Years indices. Countries: Austria, Australia, Belgium, Canada, France, Germany, Japan, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, the UK, and the US. Countries with the steepest yield curves are overweight with respect to their market cap weight. For countries included, duration corresponds to the steepest segment of that country's yield curve. Currency exposure is hedged to USD. Rebalanced monthly.

#### DIMENSIONAL GLOBAL INTERMEDIATE-TERM GOVERNMENT VARIABLE MATURITY INDEX

Compiled by Dimensional using FTSE data © 2019. Includes securities in the FTSE World Government Bond 1–3 Years, 3–5 Years, and 5–7 Years indices. Countries with the steepest yield curves are overweight with respect to their market cap weight. For countries included, duration corresponds to the steepest segment of that country's yield curve. Currency exposure is hedged to USD. The index has been retroactively calculated by Dimensional and did not exist prior to December 2012.

#### DIMENSIONAL GLOBAL ADJUSTED FIXED INCOME MARKET INDEX

Compiled by Dimensional using data provided by Bloomberg. Based on securities in the universe of the Bloomberg Barclays Global Aggregate Index and Global High Yield Index. Includes global government bonds,

global investment grade corporate bonds, and global BB corporates. Eligible currencies: AUD, CAD, CHF, EUR, GBP, JPY, USD. Currency exposure is hedged to USD. Within the universe, the index identifies the yield curves that offer the highest expected returns, the duration ranges on those yield curves offering the highest expected returns, and assesses the increased expected returns associated with allocation to bonds with different credit qualities. It then overweights (with respect to their market cap weight) bonds of yield curves, duration ranges, and credit qualities that offer higher expected returns. It also employs credit quality, currency, and duration requirements relative to the eligible market.

#### DOW JONES US SELECT REIT INDEX

Dow Jones data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

#### S&P GLOBAL EX US REIT INDEX

Shown in gross dividends. S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

#### BLOOMBERG BARCLAYS MUNICIPAL BOND INDEX

Data provided by Bloomberg.

#### BLOOMBERG COMMODITY TOTAL RETURN INDEX

Data provided by Bloomberg.

#### BLOOMBERG BARCLAYS US TIPS INDEX

Data provided by Bloomberg.

## Inflation

#### INFLATION: US CONSUMER PRICE INDEX

© 2019 and earlier, Morningstar. All rights reserved. Underlying data provided by Ibbotson Associates via Morningstar Direct.

#### DIMENSIONAL GLOBAL 25/75 INDEX

Compiled by Dimensional. Rebalanced annually in January. 25% equity component is composed of Dimensional US Adjusted Market 2 Index with home bias, Dimensional International Adjusted Market Index, and Dimensional Emerging Markets Adjusted Market Index. 75% fixed income component is composed of 30% Bloomberg Barclays US Government/Credit Bond Index Intermediate, 33.75% FTSE Non-USD World Government Bond Index 1–5 Years (hedged to USD), and 11.25% Bloomberg Barclays US TIPS Index. Prior to January 2001, fixed income component is composed of 37.5% Bloomberg Barclays US Government/Credit Bond Index Intermediate and 37.5% FTSE Non-USD World Government Bond Index 1–5 Years (hedged to USD).

#### DIMENSIONAL GLOBAL 60/40 INDEX

Compiled by Dimensional. Rebalanced annually in January. 60% equity component is composed of Dimensional US Adjusted Market 2 Index with home bias, Dimensional International Adjusted Market Index, and Dimensional Emerging Markets Adjusted Market Index. 40% fixed income component is composed of 18% Bloomberg Barclays US Government/Credit Bond Index Intermediate, 20% FTSE Non-USD World Government Bond Index 1–5 Years (hedged to USD), and 2% Bloomberg Barclays US TIPS Index. Prior to January 2001, fixed income component is composed of 20% Bloomberg Barclays US Government/Credit Bond Index Intermediate and 20% FTSE Non-USD World Government Bond Index 1–5 Years (hedged to USD).

#### DIMENSIONAL GLOBAL EQUITY INDEX

Compiled by Dimensional. Rebalanced annually in January. Index is composed of Dimensional US Adjusted Market 2 Index with home bias, Dimensional International Adjusted Market Index, and Dimensional Emerging Markets Adjusted Market Index.

---

Dimensional Fund Advisors LP (“Dimensional Fund Advisors”) is an investment advisor registered with the Securities and Exchange Commission.

The Dimensional *Matrix Book 2019* contains copyrighted data owned by Dimensional Fund Advisors and/or licensed for use by Dimensional Fund Advisors pursuant to agreements with index data providers. **This book and the data contained herein may not be redistributed, reproduced, copied, modified, transferred, disclosed, or used in any way not expressly permitted by Dimensional Fund Advisors. Any such redistribution, reproduction, copying, modification, transfer, disclosure, or use may constitute a violation of the rights of Dimensional Fund Advisors or its licensors under copyright and trade secret laws, including the copyright laws of the United States (17 U.S.C. 101 et seq) and/or the trade secret laws of several states, and may subject the user to civil and criminal penalties as provided under these laws.**

Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is not a guarantee of future results.

This material is solely for informational purposes and shall not constitute an offer to sell or the solicitation to buy securities. The opinions expressed herein represent the current, good faith views of the author(s) at the time of publication and are provided for limited purposes, are not definitive investment advice, and should not be relied on as such. The information presented in this book has been developed internally and/or obtained from sources believed to be reliable; however, Dimensional Fund Advisors does not guarantee the accuracy, adequacy, or completeness of such information. Predictions, opinions, and other information contained in this book are subject to change continually and without notice of any kind and may no longer be true after the date indicated. Any forward-looking statements speak only as of the date they are made, and Dimensional Fund Advisors assumes no duty to and does not undertake to update forward-looking statements. Forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Actual results could differ materially from those anticipated in forward-looking statements.

The returns of indices presented herein reflect hypothetical performance and do not represent returns that any investor actually attained. Changes in the assumptions upon which such performance is based may have a material impact on the hypothetical returns presented. Hypothetical backtested returns have many inherent limitations. Unlike actual performance, it does not represent actual trading. Since trades have not actually been executed, results may have under- or overcompensated for the impact, if any, of certain market factors, such as lack of liquidity, and may not reflect the impact that certain economic or market factors may have had on the decision-making process. Hypothetical backtested performance also is developed with the benefit of hindsight. Other periods selected may have different results, including losses. There can be no assurance that Dimensional Fund Advisors will achieve profits or avoid incurring substantial losses.

Data presented in the Growth of \$1 charts is hypothetical and assumes reinvestment of income and no transaction costs or taxes. The charts are for illustrative purposes only and are not indicative of any investment.

Equity investment risks include loss of principal and fluctuating value. Small cap securities are subject to greater volatility than those in other asset categories. International investing involves special risks, such as currency fluctuation and political instability. Investing in emerging markets may accentuate these risks. Sector-specific investments can also increase these risks.

Fixed income risks include loss of principal and fluctuating value. Fixed income securities are subject to increased loss of principal during periods of rising interest rates. Fixed income investments are subject to various other risks, including changes in credit quality, liquidity, prepayments, and other factors.

Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP.

© 2019 Dimensional Fund Advisors LP



AMERICAS

Austin, Charlotte, Santa Monica, Toronto, Vancouver

EUROPE

London, Amsterdam, Berlin

ASIA PACIFIC

Sydney, Melbourne, Singapore, Hong Kong, Tokyo

[dimensional.com](https://dimensional.com)

