
LESSONS FOR THE NEXT CRISIS

September 2017

It will soon be the 10-year anniversary of when, in early October 2007, the S&P 500 Index hit what was its highest point before losing more than half its value over the next year and a half during the global financial crisis. Over the coming weeks and months, as other anniversaries of major crisis-related events pass (for example, 10 years since the bank run on Northern Rock or 10 years since the collapse of Lehman Brothers), there will likely be a steady stream of retrospectives on what happened as well as opinions on how the environment today may be similar or different from the period leading up to the crisis. It is difficult to draw useful conclusions based on such observations; financial markets have a habit of behaving unpredictably in the short run. There are, however, important lessons that investors might be well-served to remember: Capital markets have rewarded investors over the long term, and having an investment approach you can stick with—especially during tough times—may better prepare you for the next crisis and its aftermath.

BENEFITS OF HINDSIGHT

In 2008, the stock market dropped in value by almost half. Being a decade removed from the crisis may make it easier to take the past in stride. The eventual rebound and subsequent years of double-digit gains have also likely helped in this regard. While the events of the crisis were unfolding, however, a future of this sort looked anything but certain. Headlines such as

Capital markets have rewarded investors over the long term, and having an investment approach you can stick with may better prepare you for the next crisis and its aftermath.

“Worst Crisis Since ‘30s, With No End Yet in Sight,”¹ “Markets in Disarray as Lending Locks Up,”² and “For Stocks, Worst Single-Day Drop in Two Decades”³ were common front page news. Reading the news, opening up quarterly statements, or going online to check an account balance were, for many, stomach-churning experiences.

While being an investor today (or during any period, for that matter), is by no means a worry-free experience, the feelings of panic and dread felt by many during the financial crisis were distinctly acute. Many investors reacted emotionally to these developments. In the heat of the moment, some decided it was more than they could stomach, so they sold out of stocks. On the other

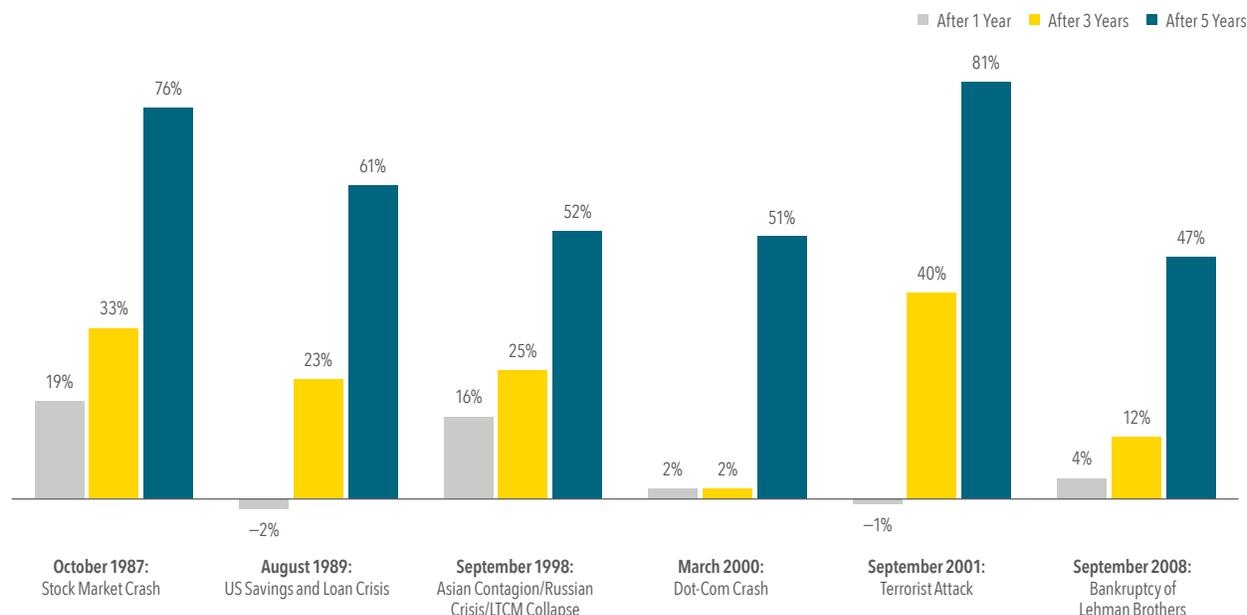
1. wsj.com/articles/SB122169431617549947.

2. washingtonpost.com/wp-dyn/content/article/2008/09/17/AR2008091700707.html.

3. nytimes.com/2008/09/30/business/30markets.html.

Exhibit 1: The Market's Response to Crisis

Performance of a Balanced Strategy: 60% Stocks, 40% Bonds (Cumulative Total Return)



In US dollars. Represents cumulative total returns of a balanced strategy invested on the first day of the following calendar month of the event noted. Balanced Strategy: 12% S&P 500 Index, 12% Dimensional US Large Cap Value Index, 6% Dow Jones US Select REIT Index, 6% Dimensional International Marketwide Value Index, 6% Dimensional US Small Cap Index, 6% Dimensional US Small Cap Value Index, 3% Dimensional International Small Cap Index, 3% Dimensional International Small Cap Value Index, 2.4% Dimensional Emerging Markets Small Index, 1.8% Dimensional Emerging Markets Value Index, 10% Bloomberg Barclays Treasury Bond Index 1-5 Years, 10% Citigroup World Government Bond Index 1-5 Years (hedged), 10% Citigroup World Government Bond Index 1-3 Years (hedged), 10% BofA Merrill Lynch 1-Year US Treasury Note Index. The S&P data are provided by Standard & Poor's Index Services Group. The Merrill Lynch Indices are used with permission; copyright 2017 Merrill Lynch, Pierce, Fenner & Smith Incorporated; all rights reserved. Citigroup Indices used with permission, © 2017 by Citigroup. Bloomberg Barclays data provided by Bloomberg. For illustrative purposes only. Dimensional indices use CRSP and Compustat data. 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 not a guarantee of future results. Not to be construed as investment advice. Rebalanced monthly. Returns of model portfolios are based on back-tested model allocation mixes designed with the benefit of hindsight and do not represent actual investment performance. See Appendix for additional information.

hand, many who were able to stay the course and stick to their approach recovered from the crisis and benefited from the subsequent rebound in markets.

It is important to remember that this crisis and the subsequent recovery in financial markets was not the first time in history that periods of substantial volatility have occurred. **Exhibit 1** helps illustrate this point. The exhibit shows the performance of a balanced investment strategy following several crises, including the bankruptcy of Lehman Brothers in September of 2008, which took place in the middle of the financial crisis. Each event is labeled with the month and year that it occurred or peaked.

Although a globally diversified balanced investment strategy invested at the time of each event would have suffered losses immediately following most of these events, financial markets did recover, as can be

seen by the three- and five-year cumulative returns shown in the exhibit. In advance of such periods of discomfort, having a long-term perspective, appropriate diversification, and an asset allocation that aligns with their risk tolerance and goals can help investors remain disciplined enough to ride out the storm. A financial advisor can play a critical role in helping to work through these issues and in counseling investors when things look their darkest.

CONCLUSION

In the mind of some investors, there is always a "crisis of the day" or potential major event looming that could mean the beginning of the next drop in markets. As we know, predicting future events correctly, or how the market will react to future events, is a difficult exercise. It is important to understand, however, that market volatility is a part of investing. To enjoy the benefit of higher potential returns, investors

must be willing to accept increased uncertainty. A key part of a good long-term investment experience is being able to stay with your investment philosophy, even during tough times. A well-thought-out, transparent investment approach can help people be better prepared to face uncertainty and may improve their ability to stick with their plan and ultimately capture the long-term returns of capital markets.

APPENDIX

Balanced Strategy 60/40

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. The balanced strategies are not recommendations for an actual allocation.

International Value represented by Fama/French International Value Index for 1975–1993. 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 Small Cap represented by Fama/French Emerging Markets Small Cap Index for 1989–1993. Emerging Markets Value and Small Cap weighting 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 1990 data inception. Five-Year Global weighting allocated to Five-Year Government prior to January 1990 data inception. For illustrative purposes only.

The Dimensional Indices used have been retrospectively calculated by Dimensional Fund Advisors LP and did not exist prior to their index inception dates. Accordingly, results shown during the periods prior to each Index's index inception date do not represent actual returns of the Index. Other periods selected may have different results, including losses.

Index Descriptions

Dimensional US Large Cap Value Index is compiled by Dimensional from CRSP and Compustat data. Targets securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market with market capitalizations above the 1,000th-largest company whose relative price is in the bottom 30% of the Dimensional US Large Cap Index after the exclusion of utilities, companies lacking financial data, and companies with negative relative price. The index emphasizes securities with higher profitability, lower relative price, and lower market capitalization. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. Exclusions: non-US companies, REITs, UITs, and investment companies. The index has been retroactively calculated by Dimensional and did not exist prior to March 2007. The calculation methodology for the Dimensional US Large Cap Value Index was amended in January 2014 to include direct profitability as a factor in selecting securities for inclusion in the index. Prior to January 1975: Targets securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market with market capitalizations above the 1,000th-largest company whose relative price is in the bottom 20% of the Dimensional US Large Cap Index after the exclusion of utilities, companies lacking financial data, and companies with negative relative price.

Dimensional US Small Cap Index was created by Dimensional in March 2007 and is compiled by Dimensional. It represents a market-capitalization-weighted index of securities of the smallest US companies whose market capitalization falls in the lowest 8% of the total market capitalization of the Eligible Market. The Eligible Market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: Non-US companies, REITs, UITs, and investment companies. From January 1975 to the present, the index also excludes companies 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.

Source: CRSP and Compustat. The index monthly returns are computed as the simple average of the monthly returns of 12 sub-indices, each one reconstituted once a year at the end of a different month of the year. The calculation methodology for the Dimensional US Small Cap Index was amended on January 1, 2014, to include profitability as a factor in selecting securities for inclusion in the index.

Dimensional US Small Cap Value Index is compiled by Dimensional from CRSP and Compustat data. Targets securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market whose relative price is in the bottom 35% of the Dimensional US Small Cap Index after the exclusion of utilities, companies lacking financial data, and companies with negative relative price. The index emphasizes securities with higher profitability, lower relative price, and lower market capitalization. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. Exclusions: non-US companies, REITs, UITs, and investment companies. The index has been retroactively calculated by Dimensional and did not exist prior to March 2007. The calculation methodology for the Dimensional US Small Cap Value Index was amended in January 2014 to include direct profitability as a factor in selecting securities for inclusion in the index. Prior to January 1975: Targets securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market whose relative price is in the bottom 25% of the Dimensional US Small Cap Index after the exclusion of utilities, companies lacking financial data, and companies with negative relative price.

Dimensional International Marketwide Value Index is compiled by Dimensional from Bloomberg securities data. The index consists of companies whose relative price is in the bottom 33% 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 capitalization, lower relative price, and higher profitability. The index also excludes those companies with the lowest profitability and highest relative price within their country's value 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 for the Dimensional International Marketwide Value Index was amended in January 2014 to include direct profitability as a factor in selecting securities for inclusion in the index.

Dimensional International Small Cap Index was created by Dimensional in April 2008 and is compiled by Dimensional. July 1981–December 1993: It includes non-US developed securities in the bottom 10% of market capitalization in each eligible country. All securities are market capitalization weighted. Each country is capped at 50%. Rebalanced semiannually. January 1994–Present: 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. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of a different quarter of the year. Prior to July 1981, the index is 50% UK and 50% Japan. The calculation methodology for the Dimensional International Small Cap Index was amended on January 1, 2014, to include profitability as a factor in selecting securities for inclusion in the index.

Dimensional International Small Cap Value Index is defined as companies whose relative price is in the bottom 35% of their country's respective constituents in the Dimensional International Small Cap Index after the exclusion of utilities and companies with either negative or missing relative price data. The index also excludes those companies with the lowest profitability within their country's small value 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 for the Dimensional International Small Cap Value Index was amended in January 2014 to include direct profitability as a factor in selecting securities for inclusion in the index. Prior to January 1994: Created by Dimensional; includes securities of MSCI EAFE countries in the top 30% of book-to-market by market capitalization conditional on the securities being in the bottom 10%

of market capitalization, excluding the bottom 1%. All securities are market-capitalization weighted. Each country is capped at 50%; rebalanced semiannually.

Dimensional Emerging Markets Index is compiled by Dimensional from Bloomberg securities data. Market-capitalization-weighted index of all securities in the eligible markets. The index has been retroactively calculated by Dimensional and did not exist prior to April 2008.

Dimensional Emerging Markets Value Index is compiled by Dimensional from Bloomberg securities data. The index consists of companies whose relative price is in the bottom 33% 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 capitalization, lower relative price, and higher profitability. The index also excludes those companies with the lowest profitability and highest relative price within their country's value 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 for the Dimensional Emerging Markets Value Index 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 Small Cap Index was created by Dimensional in April 2008 and is compiled by Dimensional. January 1989–December 1993: Fama/French Emerging Markets Small Cap Index. January 1994–Present: Dimensional Emerging Markets Small Index Composition: 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. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of a different quarter of the year.

Source: Bloomberg. The calculation methodology for the Dimensional Emerging Markets Small Cap Index was amended on January 1, 2014, to include profitability as a factor in selecting securities for inclusion in the index.

There is no guarantee investment strategies will be successful. Investing involves risks including possible loss of principal. Diversification does not eliminate the risk of market loss.

All expressions of opinion are subject to change. This article is distributed for informational purposes, and it is not to be construed as an offer, solicitation, recommendation, or endorsement of any particular security, products, or services.

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