

Revisiting the Global Financial Crisis: The Long Fall of 2008

SEPTEMBER 2018

Snapshot

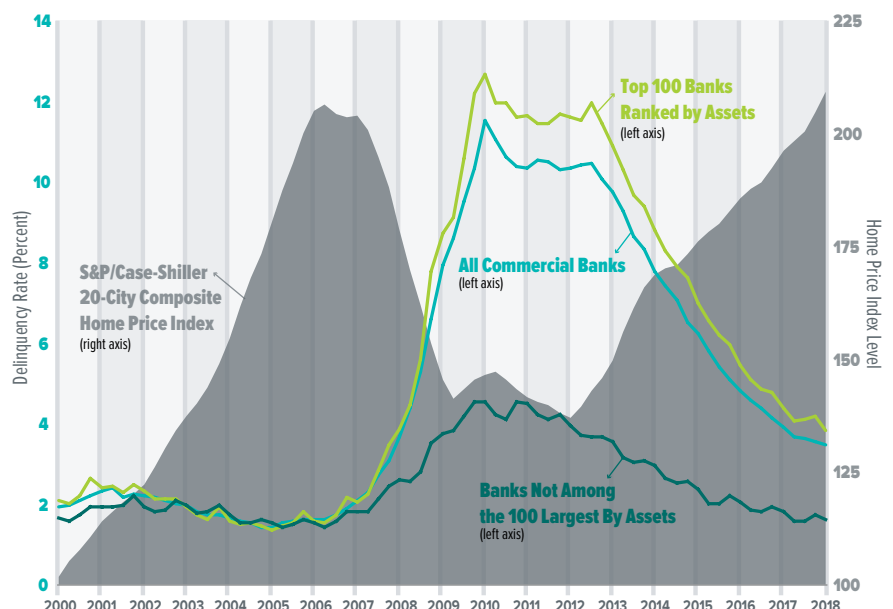
- September 2008 began with an ominous start as Fannie Mae and Freddie Mac were placed into government conservatorship and single-family mortgage delinquencies more than tripled from their low point in 2006.
- Market volatility increased in October to levels not seen since the Great Depression.
- Attempts to time markets can be painful unless an investor has perfect foresight, and the historic volatility of Fall 2008 could have increased the penalty of poor timing decisions.

The U.S. stock market is at a record high and nights are turning cooler as the Fall of 2018 approaches. Today's pleasant realities make it easy to forget that the global financial crisis entered its most acute stage exactly a decade ago, in September 2008.

The Crisis Came from Inside the House

Delinquencies on single-family mortgages began to climb in the third quarter of 2006—immediately after the top in house prices—reaching 11.53% of outstanding mortgages by the first quarter of 2010. The prior high-water marks in delinquencies, for comparison, were 3.3% (in 1991) and 2.4% (in 2001). Larger banks were disproportionately exposed to the mortgage-market fallout (as shown in Exhibit 1): the delinquency rate reached 12.66% in early 2010 among the top 100 commercial banks by assets, but only 4.56% among smaller banks.

Exhibit 1: Big Banks Hit Hard by Mortgage Delinquencies



Delinquency Rate: Seasonally Adjusted. Home Price Index: Jan 2000=100, Quarterly Average, Seasonally Adjusted
Source: Board of Governors of the Federal Reserve System, S&P Dow Jones Indices LLC

Banks on the Brink

The banking system casualties of September 2008 earned instant name recognition from Fort Lauderdale to Frankfurt and caused real lasting hardship as far away as the Arabian Peninsula and Iceland. Signs of a deepening credit crunch first spilled into public view with the near failure and acquisition of Bear Stearns in March 2008, spurring the Federal Reserve (Fed) to create the Term Securities Lending Facility (TSLF) and Primary Dealer Credit Facility (PDCF). These would eventually be joined by an alphabet soup of other lending programs aimed at providing liquidity to the financial system as bank losses grew.

Dominoes continued to fall in succession through the summer: Bank of America absorbed Countrywide, a failed mortgage lender, in June; and IndyMac was shuttered in July by the U.S. bank regulator. Efforts by the Fed and U.S. Treasury Department in July to extend credit to government-backed mortgage guarantors Fannie Mae and Freddie Mac proved insufficient to convince investors of their solvency, so the Securities Exchange Commission (SEC) eventually halted naked short selling in their stocks and those of primary dealer banks.

Headlines announcing that Fannie and Freddie would be placed into government conservatorship surfaced the weekend after Labor Day, marking an ominous start to September. A week later, Bank of America acquired Merrill Lynch, rescuing it from the clutches of insolvency.

Lehman Brothers was clearly not alone in fumbling its way into a precarious financial position. But the investment bank, having exhausted all prospects for salvation, was forced to file for bankruptcy protection in the pre-dawn hours of Monday, September 15, 2008. The S&P 500 Index closed down 4.7%, its largest one-day decline since U.S. stock markets re-opened after the 9/11 terrorist attack.

The next day delivered two historic events of its own: the Fed authorized up to \$85 billion in lending to American International Group (AIG). The insurer was caught deeply short of liquidity because it had sold credit default swaps during the housing boom that required it to pay out when mortgage-related and corporate debt became distressed, along with other risky activities. The government's bailout of AIG would eventually total \$180 billion. Elsewhere, a major money-market fund fell below the longstanding one-dollar per share level on Lehman-related losses. Money-market funds were traditionally considered approximately as safe as cash, so the development sparked a raft of investor redemptions and raised fears of Depression-era bank runs.

The S&P 500 fell another 4.7% on September 17, prompting the SEC to ban all short selling on *all* financial stocks. Two days of relief rallies in excess of 4% followed, and the Fed and Treasury created emergency lending facilities for money-market funds on Friday, September 19.

Investors were rocked once more before September concluded, and significantly harder than before. The failure by Congress to pass the Emergency Economic Stabilization Act (EESA), a massive rescue package, sent the S&P 500 down 8.8% on September 29, the steepest single-day decline since the Crash of '87. The EESA passed a few days later and was signed into law, enabling creation of the \$700 billion Troubled Asset Relief Program (TARP).

The chart below details the chain of events that caused the global financial crisis, as well as the actions that helped the U.S. stock market climb toward an eventual recovery.

Exhibit 2: An Extended Timeline of the Global Financial Crisis



*S&P/Case-Shiller 20-City Composite Index.

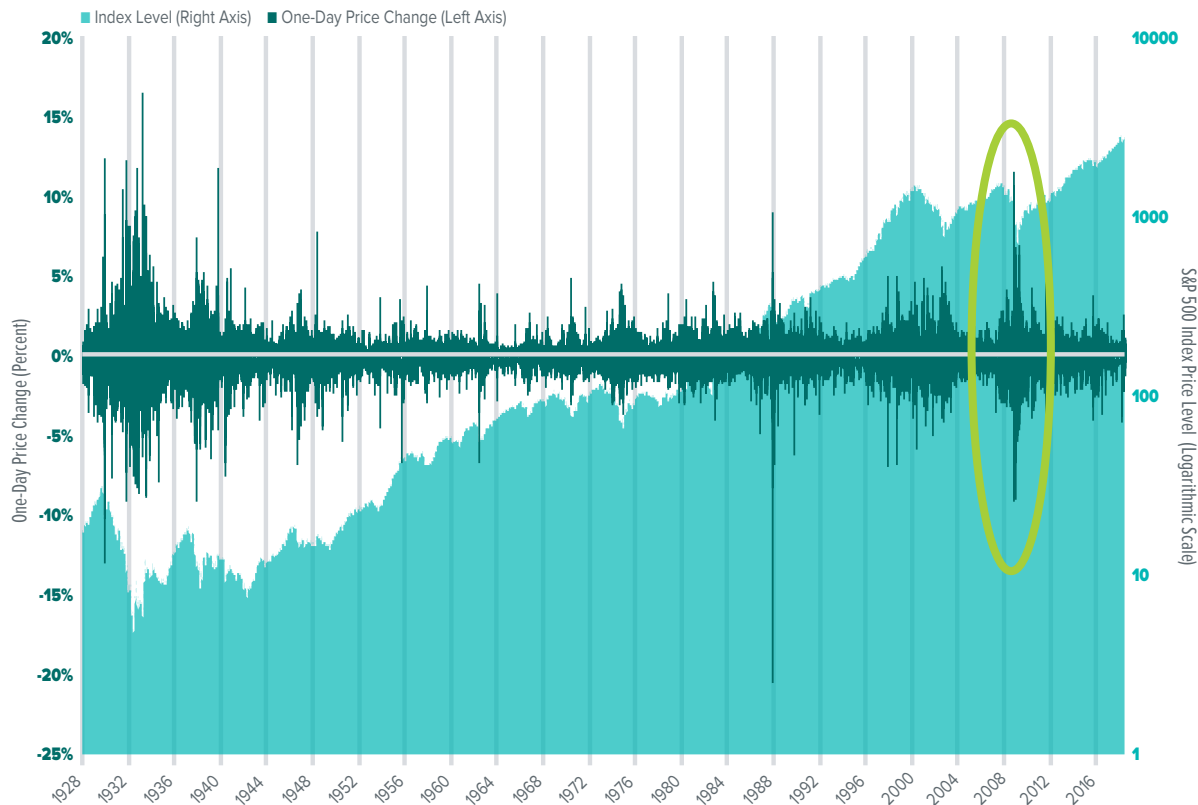
Market Reaction

Government interventions continued for years in an effort to breathe life back into a shell-shocked financial system and re-instill investors with confidence in markets. Market volatility actually increased in October 2008, casting a heavy shadow over the home stretch of a U.S. presidential campaign. The sustained volatility of late 2008 had not been witnessed since the Great Depression:

- The four largest one-day price declines in the previous 30 years all occurred in Fall 2008, as did 10 of the top 20 (all of which were one-day drops of 5% or more). This period gave us three of the top 10 one-day losses going all the way back through 1928 (the earliest available data, which includes the S&P 500's predecessor), encompassing Depression-era volatility.
- On the upside, six of the top 10 one-day gains in the prior 30 years took place in Fall 2008, including the top two, and four of the top five. All six of the greatest one-day gains over those 30 years occurred between Fall 2008 and the first quarter of 2009. October also gave us two of the top 10 one-day gains going back through 1928 (11.58% on October 13 and 10.79% on October 28).

The following exhibit depicts the magnitude of one-day price changes in the S&P 500 Index (and its predecessor) going back through 1928. Fall 2008 stands out as the most remarkable period of elevated volatility since the Great Depression.

Exhibit 3: One-Day Price Changes in the S&P 500 Index



Price Return for the S&P 500 Index (and S&P 90 Index, its predecessor, until 1957). Source: S&P Dow Jones Indices LLC

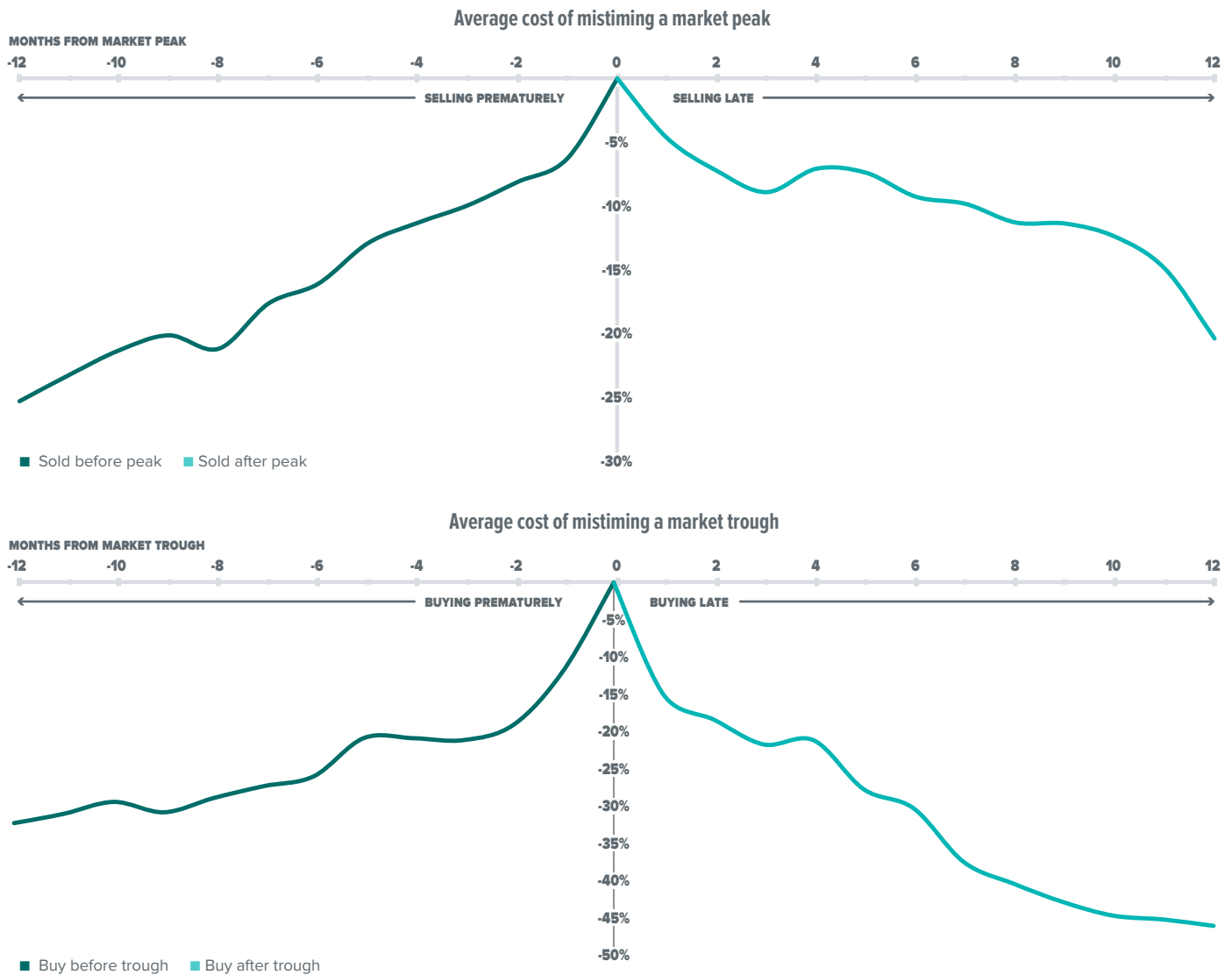
SEI's View

So, what did we learn? As paradoxical as it may seem in the context of a notorious period of financial-market turmoil, investors can find plenty of reinforcement for the argument to resist making major changes to their allocations.

Stocks continued to tumble through Winter 2009, extending the bear market to 17 months from the top in late 2007. How would investors have known precisely when to sell their stock holdings to limit their exposure to the downturn? Also, if they're investing as part of a long-term plan to meet financial goals, they presumably would need to re-invest at some point, so how would investors know when it's "safe" to return to the financial markets?

Attempts to time markets can be painful unless an investor has perfect foresight, as illustrated by exhibit 4. Average returns surrounding major U.S. stock-market peaks show that the costs of missing the mark (by selling up to 12 months too early or late) can reach about 25% on a relative basis. The costs of mistiming re-entry, by buying back into stocks too far before or after the bottom, can surpass 40% in relative terms.

Exhibit 4: The Opportunity Costs of Timing Markets



Average return of S&P 500 relative to historic market peaks and troughs surrounding 9 bull and 8 bear markets since 1957, as defined by Yardeni Research. Source: Bloomberg, Yardeni Research, SEI. As of July 31, 2018.

The historic volatility of Fall 2008—which is represented in the average returns for market troughs given its proximity to the March 2009 bottom—could have increased the penalty of poor timing decisions. Regular one-day price swings above 5% could understandably fuel the investor urge to take action, but they also increase the risk of selling after a sharp decline, only to miss an equally large relief rally. Remember that four years from its low, the S&P 500 Index had erased its entire decline. By the ninth anniversary of hitting bottom, it had increased by more than 300%. Investors who stuck to their plans—weathering the storm and resisting the urge to sell—benefitted from their patience.

For long-term investors, the lesson is clear: market timing is fraught with risk. A portfolio designed and managed to meet specific objectives should be well-positioned to meet its goals—over the long term—both in the depths of a financial crisis and when the stock market is hovering at a record high.

Index Definitions

S&P 500 Index: The S&P 500 Index is a market-capitalization weighted index that consists of 500 publicly traded large U.S. companies that are considered representative of the broad U.S. stock market.

Important Information

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