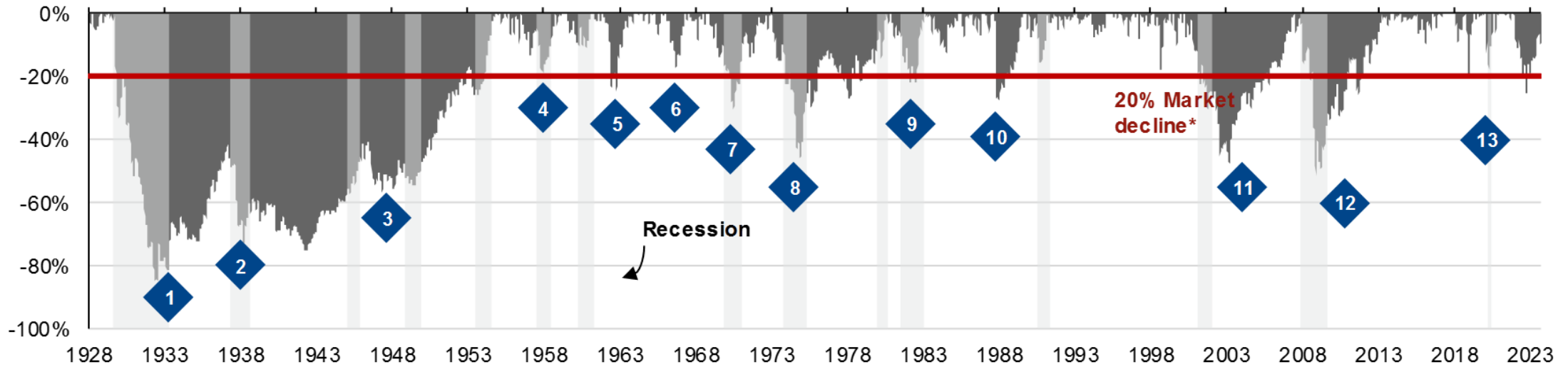




# Bear markets and subsequent bull runs

U.S. recessions and S&P 500 composite declines from all-time highs



## Characteristics of bull and bear markets

| Market correction  | Bear Market     |              |                    | Macro environment |                 |                |                   | Bull markets    |             |                   |
|--|-----------------|--------------|--------------------|-------------------|-----------------|----------------|-------------------|-----------------|-------------|-------------------|
|  | Market peak     | Bear return* | Duration (months)* | Recession         | Commodity Spike | Aggressive Fed | Extreme Valuation | Bull begin date | Bull return | Duration (months) |
| 1 Crash of 1929 - Excessive leverage, irrational exuberance    | Sep 1929        | -86%         | 32                 | ◆                 |                 |                | ◆                 | Jul 1926        | 152%        | 37                |
| 2 1937 Fed Tightening - Premature policy tightening            | Mar 1937        | -60%         | 61                 | ◆                 |                 | ◆              |                   | Mar 1935        | 129%        | 23                |
| 3 Post WWII Crash - Post-war demobilization, recession fears   | May 1946        | -30%         | 36                 | ◆                 |                 |                | ◆                 | Apr 1942        | 158%        | 49                |
| 4 Eisenhower Recession - Worldwide recession                   | Aug 1956        | -22%         | 14                 | ◆                 |                 | ◆              | ◆                 | Jun 1949        | 267%        | 85                |
| 5 Flash Crash of 1962 - Flash crash, Cuban Missile Crisis      | Dec 1961        | -28%         | 6                  |                   |                 |                | ◆                 | Oct 1960        | 39%         | 13                |
| 6 1966 Financial Crisis - Credit crunch                        | Feb 1966        | -22%         | 7                  |                   |                 | ◆              | ◆                 | Oct 1962        | 76%         | 39                |
| 7 Tech Crash of 1970 - Economic overheating, civil unrest      | Nov 1968        | -36%         | 17                 | ◆                 | ◆               | ◆              |                   | Oct 1966        | 48%         | 25                |
| 8 Stagflation - OPEC oil embargo                               | Jan 1973        | -48%         | 20                 | ◆                 | ◆               |                |                   | May 1970        | 74%         | 31                |
| 9 Volcker Tightening - Whip Inflation Now                      | Nov 1980        | -27%         | 20                 | ◆                 | ◆               | ◆              |                   | Mar 1978        | 62%         | 32                |
| 10 1987 Crash - Program trading, overheating markets           | Aug 1987        | -34%         | 3                  |                   |                 |                | ◆                 | Aug 1982        | 229%        | 60                |
| 11 Tech Bubble - Extreme valuations, .com boom/bust            | Mar 2000        | -49%         | 30                 | ◆                 |                 |                | ◆                 | Oct 1990        | 47%         | 113               |
| 12 Global Financial Crisis - Leverage/housing, Lehman collapse | Oct 2007        | -57%         | 17                 | ◆                 | ◆               | ◆              |                   | Oct 2002        | 101%        | 60                |
| 13 Global Pandemic Recession                                   | Feb 2020        | -34%         | 1                  | ◆                 |                 |                |                   | Mar 2009        | 401%        | 131               |
| <b>Current</b>   | <b>Jan 2022</b> | <b>-25%</b>  | <b>9</b>           |                   |                 |                |                   | <b>Mar 2020</b> | <b>114%</b> | <b>21</b>         |
| <b>Averages</b>  | <b>-</b>        | <b>-40%</b>  | <b>20</b>          |                   |                 |                |                   | <b>-</b>        | <b>162%</b> | <b>51</b>         |

Source: FactSet, NBER, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.

\*A bear market is defined as a 20% or more decline from the previous market high. The related market return is the peak to trough return over the cycle. Periods of "Recession" are defined using NBER business cycle dates. "Commodity spikes" are defined as movement in oil prices of over 100% over an 18-month period. Periods of "Extreme Valuations" are those where S&P 500 last 12-months P/E levels were approximately two standard deviations above long-run averages, or time periods where equity market valuations appeared expensive given the broader macroeconomic environment. "Aggressive Fed Tightening" is defined as Federal Reserve monetary tightening that was unexpected and/or significant in magnitude. Bear and bull returns are price returns.

Guide to the Markets - U.S. Data are as of September 30, 2023.