

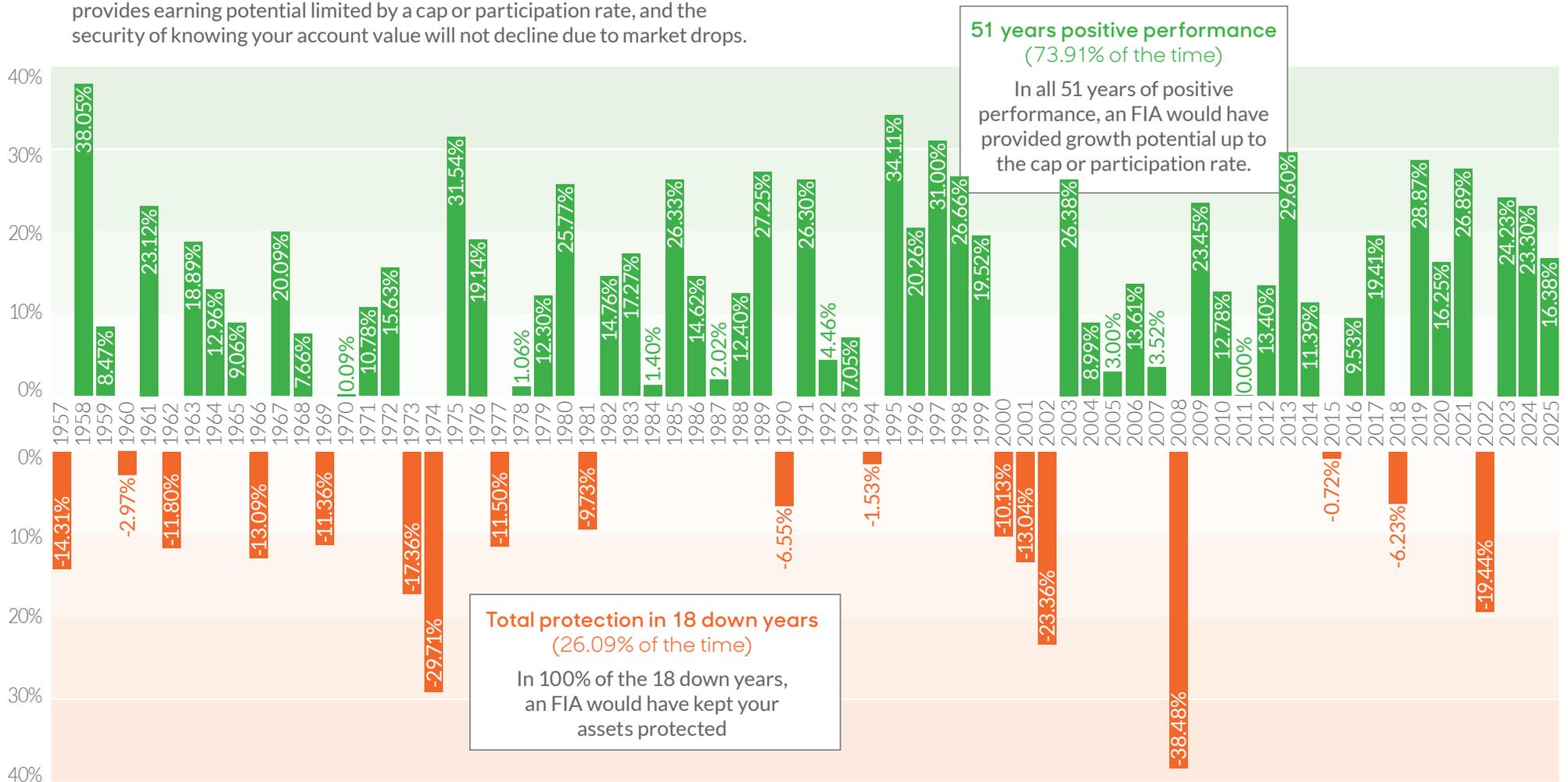
S&P 500: Comparing positive and negative return frequency over time

As you're planning for your financial future, market volatility is probably top of mind – a major downturn could eliminate years of accumulated assets and derail your future plans. There's a solution that offers growth potential and principal protection, mitigating market volatility.

With a fixed-indexed annuity (FIA) from MassMutual Ascend Life Insurance Company, you can allocate money to an S&P 500® indexed strategy which provides earning potential limited by a cap or participation rate, and the security of knowing your account value will not decline due to market drops.

Frequency Of S&P 500 Returns Since 1957

The S&P 500 Index, which is a common benchmark of the U.S. stock market, has experienced a wide range of positive and negative returns in the **69 years since its inception in 1957**. Let's take a closer look at how a fixed-indexed annuity would have fared when applied to calendar years of varying performance.



You can't predict market performance, but you can count on an FIA to protect your assets from the next market decline.

Talk with your financial professional about how an FIA could fit into your overall retirement plan and help you reach your long-term financial goals.

For advice tailored to your specific circumstances, contact your financial professional.

MassMutual Ascend is not an investment adviser and the information provided in this document is not investment advice. You should consult your investment professional for advice based on your personal circumstances and financial situation.

While past performance does not guarantee future results, with a fixed-indexed annuity, you can be certain that your money will be protected against loss if you hold your annuity through the early withdrawal charge period.

With a fixed-indexed annuity, money can be allocated to an indexed strategy for a specified period of time (term). Indexed interest is credited only on the last day of the term. The portion of a positive index change credited to the account value is limited by the cap or the participation rate we set for the term. The indexed interest rate for a term will never be lower than 0%, but we do not guarantee that amounts allocated to an indexed strategy will earn interest.

When you buy a fixed-indexed annuity, you own an insurance contract. You are not buying shares of any stock or investing in an index. All guarantees are backed by the claims-paying ability of the issuing insurance company.

The "S&P 500 Index" is a product of S&P Dow Jones Indices LLC or its affiliates ("SPDJ") and has been licensed for use by MassMutual Ascend Life Insurance Company. S&P®, S&P 500®, US 500, The 500, iBoxx®, iTraxx® and CDX® are trademarks of S&P Global, Inc. or its affiliates ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"); MassMutual Ascend Life Insurance Company's products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of the S&P 500 Index.

Products issued by MassMutual Ascend Life Insurance CompanySM (Cincinnati, OH), a wholly owned subsidiary of Massachusetts Mutual Life Insurance Company, under contract form numbers P1074514NW, P1074514ID, P1074514OR, ICC25-P1470025NW, ICC21-P1152021NW, ICC21-P1152121NW, ICC21-P1476721NW, P1140119NW, P1140119ID, P1140119OR, P1140219NW, P1140219ID, P1140219OR, P1146620NW, P1146620ID, P1146620OR, P1110416NW, P1110416ID, P1110416OR, ICC20-P1144420NW, ICC20-P1144420NW-NoMVA, ICC20-P1144520NW, ICC20-P1144520NW-NoMVA, ICC20-P1474420NW, ICC20-P1474420NW-NoMVA, P1134618NW, P1134618ID, P1134618OR, P1134618NW, P1134618ID-NoMVA, P1134618OR, P1112916NW, P1112916ID, P1112916OR, P1129918NW, P1129918ID, P1129918OR, P1129918NW, P1129918ID-NoMVA, and P1129918OR.

This content does not apply in the state of New York.

NOT A BANK OR CREDIT UNION DEPOSIT OR OBLIGATION • NOT FDIC OR NCUA-INSURED • NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY • MAY LOSE VALUE • NOT GUARANTEED BY ANY BANK OR CREDIT UNION

