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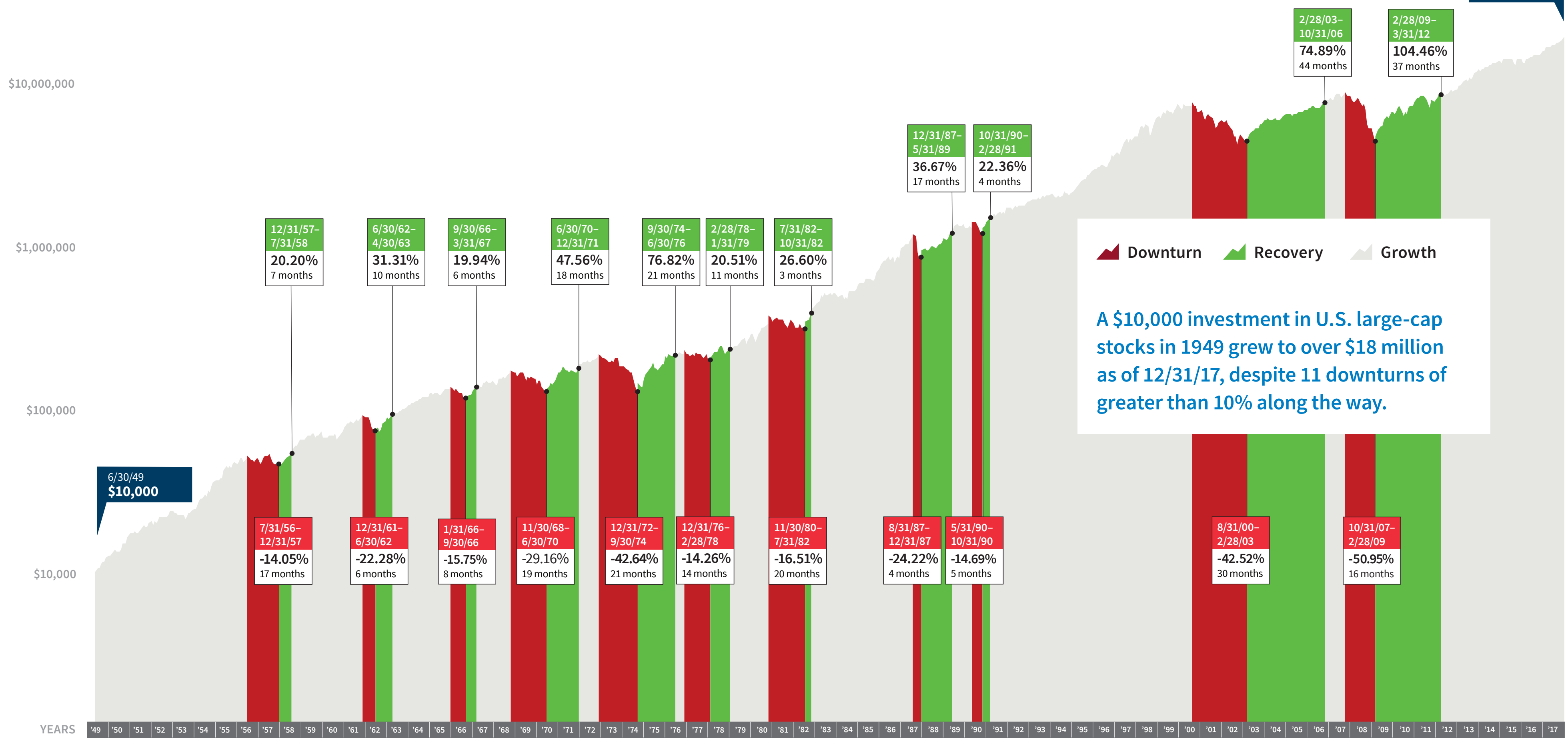
Putnam INVESTMENTS

Market rebounds outlasted declines

The stock market has experienced many downturns over the past 60 years, but in each case there was a period of recovery followed by growth that more than made up for the losses. Since 1949, the market has spent longer periods rising (46 months on average) than falling. While it is impossible to predict when a market recovery will begin, it is possible to miss one by waiting on the sidelines.



Data is as of 12/31/17, is historical, and reflects reinvestment of dividends. Data is plotted on a logarithmic scale so that comparable percentage changes appear similar. Past performance does not guarantee future results. The stock market is represented by the S&P 500 Index, which is an unmanaged index of common stock performance. You cannot invest directly in an index. A bull market is here defined as a period when the stock market rises for at least four straight months. A bear market is defined as a market decline of at least four months.

What matters most is how you respond

Imagine you had $100,000 invested in the stock market just before the 1973–1974 bear market, and you had been contributing $10,000 per year ($833 per month). Which action would have produced the best result?

INVESTOR A
Stayed invested, but stopped contributing
3.5 years until account returned to $100,000

Value of account in 20 years **$858,194**

INVESTOR B
Moved into cash and kept contributing
Never lost money

Value of account in 20 years **$896,826**

INVESTOR C
Stayed invested and kept contributing
2.34 years until account returned to $100,000

Value of account in 20 years **$1,892,293**

If you chose to stay the course through the 1970s bear market rather than halting your investment program or moving to cash, you would have ended up with twice as much money.

Moving assets into conservative investments with low rates of return, such as Treasury bills, may prolong the time it takes for your account to recover from a downturn. Remember, the greater the bear market decline, the longer the recovery time.

RATE OF RETURN	SIZE OF DOWNTURN -10%	-20%	-30%	-40%	-50%
0.5%	21.00 yrs	44.75 yrs	71.25 yrs	102.25 yrs	138.75 yrs
2.0%	5.25 yrs	11.25 yrs	17.75 yrs	25.50 yrs	34.75 yrs
4.0%	2.75 yrs	5.50 yrs	9.00 yrs	12.75 yrs	17.25 yrs
6.0%	1.75 yrs	3.75 yrs	6.00 yrs	8.50 yrs	11.50 yrs
8.0%	1.25 yrs	2.75 yrs	4.50 yrs	6.50 yrs	8.75 yrs
10.0%	1.00 yr	2.25 yrs	3.50 yrs	5.25 yrs	7.00 yrs

This hypothetical illustration is based on mathematical principles and assumes monthly compounding. It is not meant as a forecast of future events or as a statement that prior markets may be duplicated. Recovery periods are rounded to the nearest quarter of a year.

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All funds involve risk, including the loss of principal.

Past performance is not indicative of future results. Regular investing does not assure a profit or protect against loss in a declining market. You should consider your ability to continue investing during periods of low prices. The stock market is represented by the S&P 500 Index, which is an unmanaged index of common stock performance. Cash is represented by the Ibbotson U.S. 30-day T-Bill Total Return Index, an unmanaged index that seeks to measure the performance of U.S. Treasury bills available in the marketplace. You cannot invest directly in an index.

Request a prospectus, or a summary prospectus if available, from your financial representative or by calling Putnam at 1-800-225-1581. The prospectus includes investment objectives, risks, fees, expenses, and other information that you should read and consider carefully before investing.

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