INVESTMENT INSIGHTS

Analysis, Insights and a Different Perspective

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REBALANCING TO STAY ON TRACK

With large swings in the market like we had this year, how do you make sure that your portfolio is on track? The Model Wealth Program utilizes a 10% threshold between asset classes to indicate when to rebalance the portfolios we manage in order to maintain proper balance. Rebalancing helps realign portfolios to their intended level of risk, which can reduce the impulse for investors to panic and sell during market volatility. This issue of Investment Insights discusses portfolio rebalancing along with its potential benefits.

WHY DO INVESTORS PANIC SELL?

Humans have an instinct to flee whenever sensing danger, which tends to protect us from things that can inflict harm. Our fight-or-flight response can also be triggered even when there is no real threat. For example, most people flinch backward when they see a dangerous animal leap toward them, even when it is in a steel cage.

KEY POINTS

- Our analysis shows that jumping in and out of the stock market is usually a bad idea.
- Portfolio rebalancing is a strategy that aims to maintain a consistent level of risk in portfolios.
- Rebalancing brings your portfolio back to its intended allocation based on your investment goals.
- While rebalancing can improve returns modestly, its primary intent is to mitigate risk.

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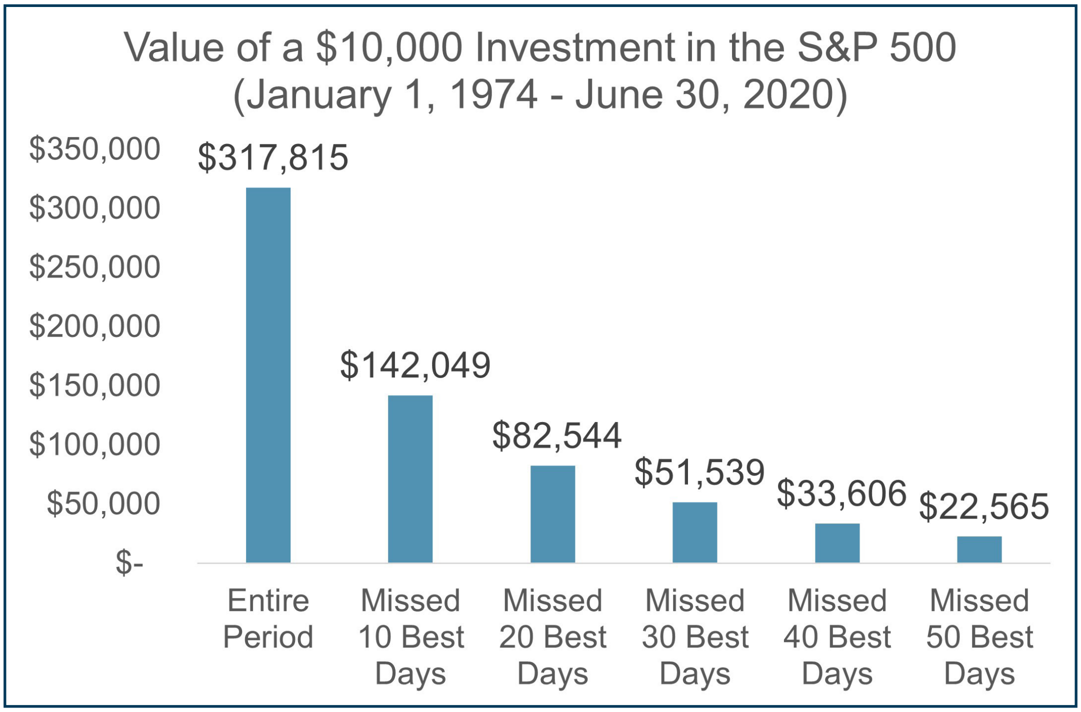
In the investment world, this instinct to avoid danger can often lead many investors to panic sell. But our analysis shows that selling investments during market declines usually is a big mistake. First, it is almost impossible to know if a small decline in the stock market will result in a full-fledged market rout. Over the past 70 years, the stock market (as measured by the S&P 500 index) has declined by 5% or more about three times a year and by 20% or more about once every six years.[1] So on average, there have been 18 market declines of 5% or more for every one decline of 20% or more. Thus, historically, investors would have about a 6% chance (1 in 18) of accurately predicting if a small market decline of 5% would turn into a 20% market selloff.

Second, successfully timing when to get back in the market appears to be even more difficult. Using the time period between 1974 and 2020, the graph below shows the outcome of investing $10,000 in the S&P 500 for the entire duration, compared with the same investment if it missed the best 10, 20, 30, 40, or 50 days in the stock market.).[4]



Source: Morningstar Direct. Total return includes dividends. These calculations do not include any commissions or transaction fees that an investor may have incurred. If these fees were included, it would have a negative impact on the return. The S&P 500 is an unmanaged index and cannot be invested in directly. Past performance does not assure future results. This is a hypothetical example and is not representative of any specific situation. Your results will vary. The hypothetical rates of return used do not reflect the deduction of fees and charges inherent to investing.

As you can see, missing just the best 10 days dropped the overall return by more than 50% compared with an investor who stayed fully invested for the entire duration. As a point of reference, between 1974 and 2020, there were more than 11,000 market trading days.

REBALANCING

Try recalling the first day of your investment journey. You and your advisor discuss your investment experience, financial goals and time horizon, tolerance for risk, and income or liquidity needs. Based on your financial situation, your advisor recommends an asset allocation that matches your risk tolerance.

As time passes, the original allocation changes based on market returns. Over time, these changes can compound, and your portfolio may no longer align with your investment objectives or risk tolerance. That's when rebalancing your portfolio can help bring it back to its intended allocation and risk tolerance based on your original investment plan.

1 *What Past Stock Market Declines Can Teach Us.* Capital Group.

A hypothetical example can help illustrate rebalancing. With different time periods, the tables below show the result of $100,000 invested in the market using 70% allocation to equities and 30% allocation to bonds. This illustration uses the S&P 500 index for equity and Bloomberg Barclays US Aggregate Bond index for bonds.

The tables compare three portfolios: 1) a portfolio that is rebalanced when the target allocation has shifted 10% beyond its intended range (for example, when a portfolio with 70% equity weighting reaches 77% equity weighting); 2) a portfolio that is not rebalanced; and 3) a portfolio that is sold out of the stock market after a 20% drop and reinvested 12 months later. The final portfolio represents a proxy for an investor that panics and sells during a large market decline.

You can see that over a long time period, the rebalanced portfolio with a 10% threshold performed slightly better than the portfolio that had not been rebalanced. That said, both of these portfolios performed substantially better than that of a "panic-and-sell" investor.

TIME PERIOD: 1/1/1974 – 6/30/2020[2]

	Rebalance at 10% Threshold	No Rebalancing	Panic and Sell When S&P 500 Falls >20%
Ending Value	$9,433,281	$9,411,679	$4,957,793
Annual Total Return	10.3%	10.3%	8.8%

In the table below, we can observe the same results over a shorter time between 1995 and 2020. Similar to the findings above, investors who panicked and sold had substantially less wealth than investors who rebalanced their portfolio. Specifically, in this hypothetical example, we found the cost of panicking to be more than $300,000 (calculated as the difference between the rebalance portfolio of $910,764 and panic and sell a portfolio of $591,355).

TIME PERIOD: 1/1/1995 – 6/30/2020[2]

	Rebalance at 10% Threshold	No Rebalancing	Panic and Sell When S&P 500 Falls >20%
Ending Value	$910,764	$887,453	$591,355
Annual Total Return	9.0%	8.9%	7.2%

REDUCE RISK

While rebalancing had a better result in the two illustrations above, the difference between the portfolio that was rebalanced and the one with no rebalancing was not incredibly significant. So why should investors rebalance? The predominant reason is that rebalancing intends to reduce risk, which is helpful especially in times of market volatility. The table on the next page lists the five worst time periods for the stock market since 1974. As you can see, the portfolio that was not rebalanced declined more during these time periods than the rebalanced portfolio.

2 Source: Morningstar Direct. Using monthly data for periods ended June 2020 with semiannual rebalancing and a 20% decline in the S&P 500 on an annual basis. S&P 500 and Barclays Capital Aggregate are unmanaged indices and do not include fees and taxes. Past performance is not an indication of future results. Hypothetical examples shown above are not representative of any specific situation. Your results will vary. The hypothetical rates of return used do not reflect the deduction of fees and charges inherent to investing. Dividends are reinvested.

5 WORST PERIODS FOR S&P 500 SINCE 1/1/74[2]

	Rebalance at 10% Threshold	No Rebalancing
8/31/1987 - 11/30/1987	-20.9%	-23.4%
7/31/1998 - 8/31/1998	-10.5%	-12.5%
8/31/2000 - 9/30/2002	-27.5%	-38.2%
10/31/2007 - 2/28/2009	-35.6%	-43.3%
1/31/2020 - 3/31/2020	-12.1%	-17.7%

WAITING FOR A PULLBACK

One fear investors may have is investing at the wrong time. They worry about the possibility of a market decline right as they invest. We can use two examples to show the impact of poor market timing. The following hypothetical illustrations show an initial investment of $100,000 in the same three portfolios as our previous example (rebalance, no rebalancing, and panic sell and buy back 12 months later). In the first example, we changed the start year to 2000, right before the S&P 500 declined by almost 50%.

TIME PERIOD: 1/1/2000 – 6/30/2020[2]

	Rebalance at 10% Threshold	No Rebalancing	Panic and Sell When S&P 500 Falls >20%
Ending Value	$330,033	$300,601	$249,833
Annual Total Return	6.0%	5.5%	4.6%

The next example uses the same initial investment of $100,000 in the same three portfolios. The start year is updated to 2007, just in time for another almost 50% drop in the S&P 500.

TIME PERIOD: 1/1/2007 – 6/30/2020[2]

	Rebalance at 10% Threshold	No Rebalancing	Panic and Sell When S&P 500 Falls >20%
Ending Value	$273,130	$256,456	$215,859
Annual Total Return	7.7%	7.23%	5.87%

2 Source: Morningstar Direct. Using monthly data for periods ended June 2020 with semiannual rebalancing and a 20% decline in the S&P 500 on an annual basis. S&P 500 and Barclays Capital Aggregate are unmanaged indices and do not include fees and taxes. Past performance is not an indication of future results. Hypothetical examples shown above are not representative of any specific situation. Your results will vary. The hypothetical rates of return used do not reflect the deduction of fees and charges inherent to investing. Dividends are reinvested.

In the two examples on the previous page, you can observe that a rebalanced portfolio performed better than the one that was not rebalanced because the rebalanced portfolio increased its stock allocation at lower prices after the market declined. While rebalancing may improve returns, its primary aim is to manage risk. The ratio of higher risk assets in a portfolio increases over time as they tend to produce higher returns. By rebalancing, the weight of higher risk assets is reduced, which aims to control risk.

COSTS

Rebalancing may well be a great tool for risk mitigation, but investors should be aware of its adverse costs. Rebalancing more frequently may increase expenses like transaction costs and taxes. These costs may reduce the benefits of rebalancing. Using data between 1980 and 2014, a study conducted by Vanguard found that a 10% threshold with annual monitoring is sufficient to balance the benefits of rebalancing with its cost.[3] More recent research suggests that while there may be no single optimal rebalance strategy, most investors benefit from a systematic rebalancing approach.[4]

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Model Wealth Program

3 Zilbering, Yan M, et al. Best Practices for Portfolio Rebalancing. Vanguard, Nov. 2015.
4 McNamee, Jenna L, et al. Getting Back on Track: A Guide to Smart Rebalancing. Vanguard, 2019.