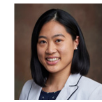
Perfect Imperfection: Contrarian Investing During a Sell-Off

Rewards to be found without timing the market trough.

May 2020

KEY INSIGHTS

- Investors are often obsessed with timing the market perfectly—of finding the exact moment a bull market peaks or a bear market hits a bottom.
- Our analysis of 17 major drawdowns over 90 years suggests that investors who add risk during a sell-off can mistime the bottom and still make major gains.
- Our analysis shows increasing allocation to stocks one month either side of a trough can deliver significant returns a year later.



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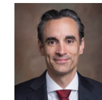

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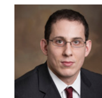

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Knowing the precise moment that a bull market peaks or a bear market hits a bottom would offer guaranteed success—and a very early retirement. But our analysis of severe downturns over the past 90 years suggests that it is not necessary to time the bottom precisely. Investors who add risk during a major sell-off can mistime the bottom by some distance and still make considerable gains—in other words, we believe it pays to be contrarian during a crisis irrespective of whether you manage to time the absolute market bottom perfectly.

A Lesson From History

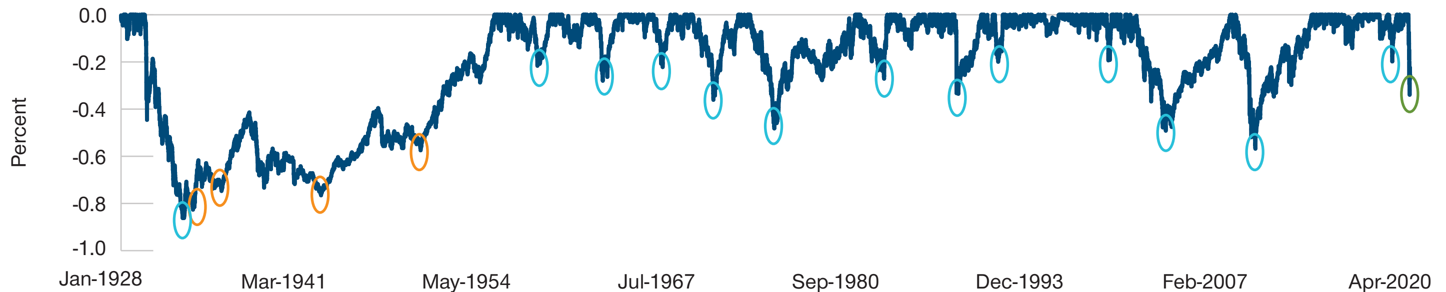
There are many ways in which the coronavirus pandemic market crisis has been historic: the nature of the shock (a pandemic); the speed of the equity sell-off; the rapidity with which liquidity vanished from credit markets; the abrupt stop of the real economy; and the size of the stimulus measures. As the crisis continues to play out, investors across the world are grappling with the challenge of how—and when—to allocate their assets. While it is important that investors remain diversified and invested for the long run, short-term tactical asset allocation decisions can add value by over- or underweighting risk assets to take advantage of shorter-term relative value opportunities. These tactical decisions should be made in the context of long-term strategic weights—not to shift assets from 0%–100% in favor of stocks or bonds.

In the current environment, while the benefits of adding risk assets when they are cheap are obvious enough, choosing the right moment to do so is a daunting proposition. At the heart of this dilemma is a simple question: What is the price of being too early or too late?

To seek an answer to that question, we examined 17 episodes in which the S&P 500 Index sold off by 15% or more, beginning with the Crash of 1929. These episodes are circled in

There Have Been 18 Major Sell-Offs Since 1928

(Fig. 1) March 2020's low was the joint eighth worst



0 In 15% maximum drawdown threshold.
0 In 15% maximum drawdown threshold, after setting floor to Great Depression drawdown bottom (June 1, 1932).
0 Current drawdown (did not form part of the analysis).

Past performance is not a reliable indicator of future performance.

As of April 3, 2020.

Source: T. Rowe Price calculations using data from FactSet Research Systems Inc. All rights reserved.

To identify what constitutes a trough or major drawdown event, we used SP500 price data from January 3, 1928, to April 3, 2020, to calculate the drawdowns from a previous peak (each peak being an absolute peak) and then identified the dates with the largest drawdown corresponding to each peak. From that, we implemented a 15% maximum drawdown threshold in order to find the historic dates that have had major drawdowns. In order to capture the immediate recessions that followed the Great Depression (February 27, 1933, March 14, 1935, April 28, 1942, and June 13, 1949), we ran a second round of identifying major drawdowns by shifting the data to have the June 1, 1932, date as the new floor and starting point so that "new peaks" and their corresponding drawdowns could be identified.

blue in Figure 1. The final circle marks the current downturn, which was not included in our analysis.

We calculated the average returns for a hypothetical investor trying to time the bottom of each of these 17 drawdowns, working on the assumption that the investor tactically shifts from a 60% stocks/40% bonds allocation to a 70% stocks/30% bonds mix when they think they are at the bottom of the market. Our analysis revealed that if the investor had timed the bottom of the market perfectly, average alpha would have been quite high: One year after shifting 10% of the portfolio from bonds to stocks, the hypothetical investor would have earned an average of around 500 bps of alpha.

What is particularly surprising is the fact that the investor could have added to stocks anywhere between three months before and three months after the absolute bottom of the market and still added value a year later; even adding to stocks six months either side of the bottom would eventually reap rewards. Or to put it another way, it is possible to mistime the bottom a lot and still make money by adding stocks during a market crisis.

Figure 2 shows the results in more detail. It reveals that if we had added 10% to stocks one month before the trough, average returns 12 months forward would be 274 bps higher than the 60/40 benchmark. If we had added to stocks one month after the trough, results would have been similar—in fact, they would have been slightly better, implying that it's better to be late than early. However, the most important finding is that adding to stocks would have boosted returns in most of the 17 major drawdowns since 1928—in other words, based on 90 years' worth of data, we know that adding to stocks after a major sell-off has turned out to be the right decision.

To confirm these results, we re-ran the analysis, this time measuring the percentage return from the bottom instead of the time from the bottom. The outcomes were similar: Mistiming the bottom by 10%–15% either side would still have added value in the combined 17 drawdowns, with an average alpha of more than 200 bps a year later.

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>
> — **Sébastien Page**
> *Head of Global Multi-Asset*

Adding Equities During a Sell-Off Has Boosted Returns

(Fig. 2) The impact of adding 10% stocks to a 60% stock/40% bond portfolio

	Days Before Trough						Days After Trough				
Avg. Return Difference [Average Hit Rate]	6-Months (126 days) (%)	3-Months (63 days) (%)	1-Month (21 days) (%)	2-Weeks (10 days) (%)	1-Week (5 days) (%)	At Trough (%)	1-Week (5 days) (%)	2-Weeks (10 days) (%)	1-Month (21 days) (%)	3-Months (63 days) (%)	6-Months (126 days) (%)
1-Month	-0.21 [47.1]	-0.34 [23.5]	-1.27 [0.0]	-0.10 [41.2]	0.16 [70.6]	1.01 [94.1]	0.33 [70.6]	0.23 [58.8]	0.60 [76.5]	0.22 [64.7]	0.29 [76.5]
3-Month	-0.48 [41.2]	-2.12 [0.0]	0.05 [52.9]	0.80 [76.5]	1.38 [76.5]	2.55 [100.0]	1.78 [88.2]	1.19 [76.5]	1.69 [82.4]	0.47 [82.4]	0.65 [76.5]
6-Month	-2.50 [0.0]	-0.43 [29.4]	0.96 [82.4]	1.62 [94.1]	2.07 [94.1]	3.07 [100.0]	2.30 [94.1]	2.14 [94.1]	2.13 [100.0]	1.19 [88.2]	1.52 [88.2]
12-Month	-0.57 [47.1]	0.7 [52.9]	2.74 [100.0]	3.40 [100.0]	4.01 [100.0]	5.27 [100.0]	4.24 [100.0]	3.84 [100.0]	4.09 [100.0]	2.34 [93.8]	1.83 [87.5]
18-Month	0.86 [52.9]	1.78 [81.3]	3.30 [100.0]	3.86 [100.0]	4.43 [100.0]	5.69 [100.0]	4.40 [100.0]	4.25 [100.0]	4.62 [100.0]	3.12 [93.8]	2.52 [87.5]
36-Month	1.62 [62.5]	2.23 [75.0]	4.18 [93.8]	5.07 [93.8]	5.60 [93.8]	6.89 [100.0]	5.49 [93.8]	4.97 [87.5]	5.29 [93.8]	3.33 [87.5]	3.40 [81.3]
60-Month	3.13 [81.3]	4.68 [81.3]	7.03 [87.5]	8.17 [87.5]	8.94 [93.8]	10.5 [93.8]	8.96 [87.5]	8.41 [93.8]	8.82 [93.8]	5.45 [75.0]	4.79 [75.0]

Past performance is not a reliable indicator of future performance.

As of January 31, 2020.

Sources: Bloomberg Finance L.P., Morningstar (see Additional Disclosure), and U.S. Treasury/Haver Analytics.

The chart is shown for illustrative purposes only, does not represent an actual investment and does not reflect fees and costs of a portfolio. Actual investment results may vary. Equity data use S&P 500 Index total returns daily data from the time period January 3, 1928, to January 31, 2020. Fixed income data use an estimate of daily interpolated Ibbotson returns for the earlier time period from January 3, 1928, to December 29, 1961, and 5-yr. U.S. Treasury total returns where daily data are available from January 2, 1962, to January 31, 2020. The results in the table are derived from daily rebalancing and cite daily cumulative returns. While we examine all 17 events, there are some metrics in the cells in the chart that exclude the December 2018 event due to no data being available yet. The 24 December, 2018 event is the most recent event we examine. Thus, due to limited data availability, we do not have forward-looking metrics for certain time horizons, and we do not include those cells into the calculations of the averages for the summary tables in those cases. The cells that do include available data for the 24 December, 2018 event are: 1-month, 3-month, and 6-month forward returns; 12-month forward return, except when buying 3-months and 6-months after the trough; and 18-month forward return only when buying 6-months before the trough. Return difference is the difference between cumulative returns of the 70/30 hypothetical portfolio and the 60/40 hypothetical benchmark, averaged across the 17 historical events. Hit rate is the percentage of times the 70/30 outperformed the 60/40 benchmark.

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In addition, we measured the impact that daily rebalancing had on the portfolio by comparing returns if rebalancing had occurred monthly or not at all. We found that rebalancing would have had very little impact on returns.

Being Contrarian Can Be a Smart Strategy

The "current" low of the coronavirus crisis occurred on March 23, when the S&P 500 Index closed 33% lower than its all-time high, which it reached on February 19. Stocks then rebounded more than 25% from that low over the next 18 days. This was a much faster recovery than in the 17 drawdowns in our study, where the average time to rebound 20% was 65 days.

At present, there is no clear sign of whether the current sell-off reached a bottom on March 23 or will retest that low in the coming months. As our analysis shows, however, increasing allocations to stocks during a severe market sell-off has historically, invariably paid off in the long term irrespective of the precision of timing. As counterintuitive as it may sometimes feel, history shows that adding risk, even when it might not be clear whether markets have reached a bottom, can be a rewarding investment strategy.

Additional Disclosure

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