

ONCE BITTEN, TWICE SHY?

Ease Market Entry Fears by Dollar-Cost Averaging

Going all in at the lowest point during a market downturn generates the highest overall return. But that can be daunting. Fear of purchasing a security only to watch it fall often paralyzes investors, especially after a traumatic market decline. Yet, entering the market isn't an all-or-nothing proposition. Skittish investors may find it more palatable to slowly dip their toes in the water by buying a little at a time. This method of investing, termed dollar-cost averaging, can coax investors to wade back in, particularly during volatile or declining markets.

BABY STEPS

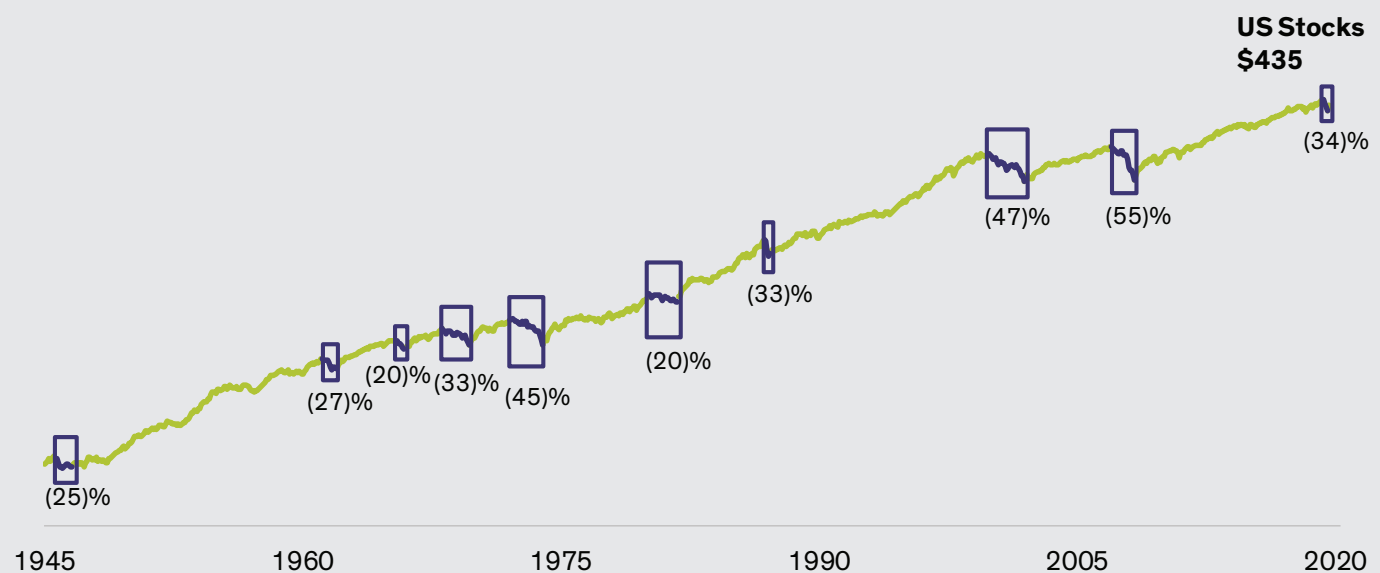
Dollar-cost averaging (DCA) involves systematically investing set amounts in the market at fixed intervals. This staged entry allows investors to buy more shares of a stock when its price falls and fewer shares when it rises. But this slow and steady strategy exacts a price—the wealth lost from sitting on the sidelines during positive return periods. On the flip side, investors end up better off with dollar-cost averaging if markets fall once they've initiated the strategy. In fact, thanks to the popularity of automatic payroll deductions for retirement investing, millions of individuals already practice this approach every day.

Dollar-cost averaging makes intuitive sense as part of a plan to set aside a portion of your paycheck. It also offers an intangible benefit that many investors prize—peace of mind. Investing at a comfortable pace can alleviate the anxiety that's typical of new investors or those who have just endured a steep market decline. But does it deliver the best returns?

DOES SLOW AND STEADY WIN THE RACE?

Stock returns track the expansion of the economy over time. This explains why, despite deep downturns, stocks have historically served as the engines of long-term growth (*Display 1*). But when the US stock market experiences a steep decline, as it did in March, investing a large sum can feel nerve-racking.

DISPLAY 1: LONG TERM, STOCKS CREATE WEALTH...DESPITE DEEP DOWNTURNS
GROWTH OF \$1 IN US STOCKS, JANUARY 1945–MAY 2020



As of May 31, 2020. **Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.** US stocks are represented by the S&P 500. Percent returns and growth of \$1 use daily returns. The line uses the monthly S&P 500 level and is for illustrative purposes. Boxes represent a 20% or greater peak-to-trough fall in the S&P 500. Source: S&P and AB

Historically, though, that's the best time to jump in. Weak markets often set up rapid recoveries and missing the strong returns early on often proves detrimental to building long-term wealth. Investing immediately, and all at once, tends to yield higher returns than investing incrementally over time. For instance, the US stock market returned 44% on average in the 12 months following the bottom of each 20% sell-off since World War II. A hesitant investor who missed the best five days of the recovery from the bottom averaged just a 20% return. In contrast, an investor who employed a three-month dollar-cost averaging strategy earned an average return of 31% (*Display 2*).

DISPLAY 2: MARKETS RECOVER QUICKLY AFTER STEEP SELL-OFFS

Peak Month	Trough Month	12-Month Return Following Trough	12-Month Return Following Trough: Excluding Best 5 Days	12-Month Return Following Trough: 3-Month DCA Strategy
5/29/1946	5/19/1947	26%	6%	16%
12/12/1961	6/26/1962	37%	21%	16%
2/9/1966	10/7/1966	37%	25%	28%
11/29/1968	5/26/1970	49%	28%	40%
1/11/1973	10/3/1974	44%	20%	33%
11/28/1980	8/12/1982	66%	37%	44%
8/25/1987	10/19/1987	28%	(1)%	21%
9/1/2000	10/9/2002	36%	13%	24%
10/9/2007	3/9/2009	72%	35%	44%

As of May 31, 2020. **Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.** Sell-offs are defined as a market decline of 20% from its previous high through the lowest close after the 20% decline. All returns in this analysis are based on the S&P 500 total return index, which includes gains from price returns and dividend returns. Recoveries are defined as the day after the trough that the total return index reaches a level higher than the prior peak.
Source: Bloomberg, S&P, and AB

DCA: RETURN ENHANCING OR RISK MITIGATING?

To dimension the potential sacrifice associated with dollar-cost averaging, we analyzed returns at various entry points—one quarter, one half, and three-quarters of the way down from the peak after sell-offs or up by the same intervals from the trough. Keep in mind: The entry points are not a function of time, but rather a proportion of the cumulative rise or fall in market value.

We found that after a 20% pullback, investors should expect to give up returns unless they implement dollar-cost averaging early in a market contraction. A lump sum invested near the bottom—even before the trough—may accumulate more wealth over the following 12 months than staging the investment over time. Not surprisingly, investors who prolong the DCA implementation period during a rebound sacrifice more returns (*Display 3*). The results suggest DCA should not be employed in order to enhance returns. Instead, it serves as a hedge against a potentially deteriorating scenario.

DISPLAY 3: DOLLAR-COST AVERAGING COMES AT A COST ADDITIONAL WEALTH AFTER ONE YEAR DOLLAR-COST AVERAGING VS. INVESTING IMMEDIATELY

■ >10% ■ 5% to 10% ■ 0% to 5% ■ (5)% to 0% ■ (10)% to (5)% ■ (15)% to (10)% ■ (20)% to (15)% ■ <(20)%

Initiate DCA	At Peak	At 1/4 Down from Peak	At 1/2 Down from Peak	At 3/4 Down from Peak	At Trough	At 1/4 Up from Trough	At 1/2 Up from Trough	At 3/4 Up from Trough	At Recovery
Over 3 Months	3.5%	2.6%	0.6%	(1.4)%	(13.2)%	(2.0)%	(2.2)%	(2.1)%	(1.8)%
Over 6 Months	7.0%	4.1%	3.4%	(3.3)%	(19.7)%	(7.0)%	(5.0)%	(4.9)%	(4.0)%
Over 9 Months	9.5%	4.9%	3.6%	(6.6)%	(25.0)%	(11.4)%	(7.1)%	(6.9)%	(6.0)%
Over 12 Months	10.7%	6.1%	2.0%	(9.4)%	(29.0)%	(14.7)%	(9.4)%	(8.0)%	(7.7)%

As of May 31, 2020. **Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.** The peak represents the high before a fall of 20% or more. The recovery represents the point at which markets reach the prior peak again. The trough is the lowest point between those two dates. All returns in this analysis are based on the S&P 500 total return index, which includes price returns and dividend returns.
Source: Bloomberg, S&P, and AB

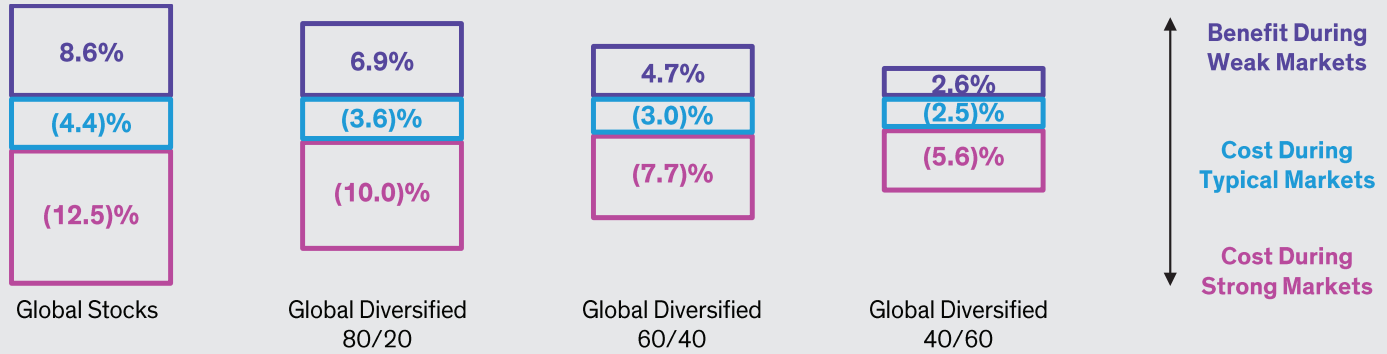
DIVERSIFIED PORTFOLIOS OFFER INHERENT RISK REDUCTION

The analysis above only considers sell-offs of 20% or more in the US stock market, assuming a 100% allocation to US stocks. However, many investors with reasonable risk tolerances and long-time horizons tend to favor a global portfolio of stocks and bonds. Can DCA benefit a diversified portfolio?

By design, a portfolio exposed to various asset classes and geographies is less risky than investing in a single stock or market. Diversification provides built-in protection that significantly undercuts the cost-benefit of dollar-cost averaging. Plus, the effectiveness of dollar-cost averaging decreases in direct proportion to an increase in the amount invested in bonds—the risk-mitigating component of an allocation (*Display 4*). This makes intuitive sense: As the volatility of returns dissipates, the risk of a significant decline in value fades.

DISPLAY 4: DCA EFFECTIVENESS DECREASES WITH HIGHER BOND ALLOCATION

ADDITIONAL WEALTH AFTER ONE YEAR—DOLLAR-COST AVERAGING VS. INVESTING IMMEDIATELY, 1988–2020*



As of May 31, 2020. **Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.**

*Based on 12-month rolling periods from 1988 through March 2020. Global stocks represented by the MSCI ACWI Index and bonds are represented by the Bloomberg Barclays 1-10 Year Municipal Bond Index. Investing Immediately is the allocation return. Dollar-cost averaging assumes level investments for 12 months into the allocation while holding the balance in three-month Treasury bills. Typical markets represent the middle 60%, weak markets the bottom 20%, and strong markets the top 20% of the index returns.

Source: Bloomberg, Bloomberg Barclays, FactSet, MSCI, and AB

HOW SHOULD YOU IMPLEMENT DCA?

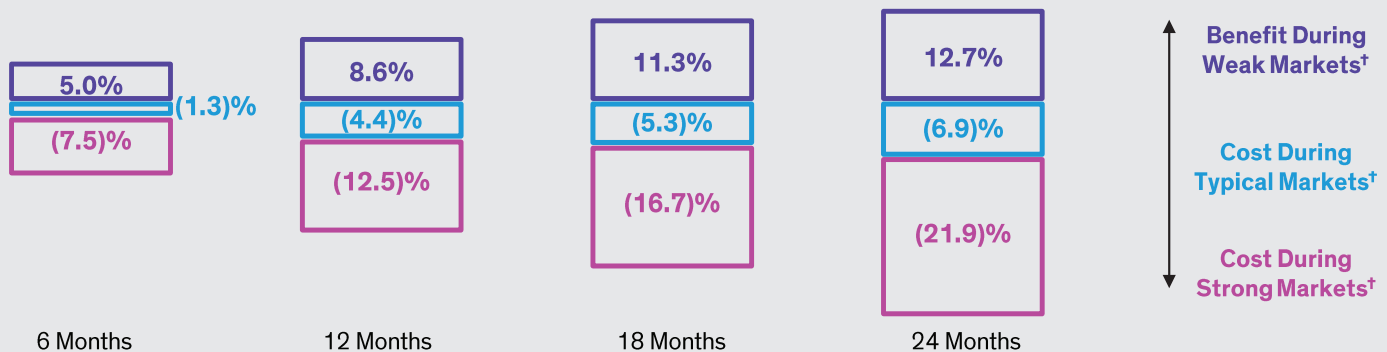
Despite the cost, the “insurance” secured by DCA offers the reassurance some investors need to enter the market. But after electing this strategy, investors must consider two crucial components before forging ahead—the length of time over which to invest and the amount earned on uninvested cash.

As discussed earlier, the market tends to move higher over time. Therefore, an investor employing DCA faces a greater chance of underperforming the longer it takes to invest. To help quantify that risk, we analyzed the returns of investing immediately in global equities versus dollar-cost averaging over several intervals, on a monthly rolling basis going back 30 years.

We found that dollar-cost averaging strategies generally should not exceed six months. Highly risk-averse investors may extend the staged entry to 12 months, but beyond that point, the likelihood of missing substantial gains far outweighs the potential benefits (*Display 5*). On average, an investor in weak markets would have earned 5.0% better returns after six months compared to investing immediately. However, the longer it takes to invest, the more that benefit erodes. The same investor would have outperformed by only 1.4% if they lengthened the staged entry from 18 to 24 months.

DISPLAY 5: BENEFIT OF DOLLAR-COST AVERAGING DIMINISHES AFTER 12 MONTHS

DOLLAR-COST AVERAGING VS. INVESTING IMMEDIATELY—GLOBAL STOCK MARKET, 1988–2020*



As of May 31, 2020. **Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.**

*Based on 12-month rolling periods from 1988 through 2011. Investing Immediately is the MSCI ACWI Index return. Dollar-cost averaging assumes level investments into the MSCI ACWI Index while holding the balance in three-month Treasury bills. Typical markets represent the middle 60%, and weak markets the bottom 20%, of MSCI ACWI returns.

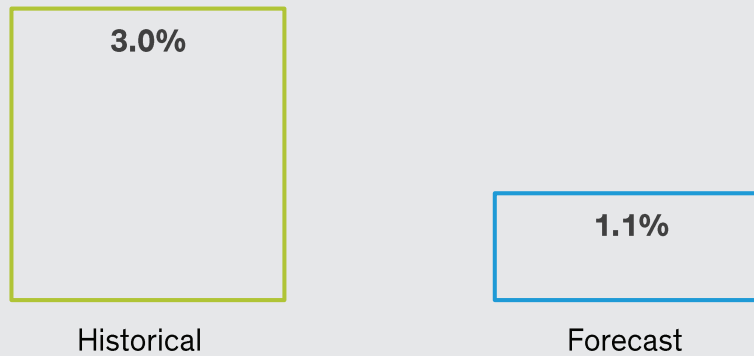
†As of the end of the averaging-in period.

Source: FactSet, Bloomberg, MSCI, and AB

Longer DCA horizons also put the upside at risk. The differential between the cost in a strong market and the benefit in a weak one grows exponentially over time. While DCA for six months outperformed by 5.0% in weak markets, in strong markets, it underperformed by 7.5%. That differential more than doubles from six to 18 months, and almost quadruples at 24 months.

What else should investors consider in today's environment? The paltry return on uninvested capital suggests a loss of advantage going forward. With interest rates near zero, holding cash will not add to returns, and the lost opportunity of sitting idle grows over time. With low rates expected to persist, cash will likely drag on returns for the foreseeable future, especially after accounting for inflation (*Display 6*). Low interest rates underscore our recommendation for a truncated dollar-cost averaging approach, as extended periods out of the market may dampen long-term wealth accumulation.

DISPLAY 6: CASH FORECASTED TO CONTRIBUTE LESS
ANNUAL CASH RETURN 1988–2020*



As of May 31, 2020. **Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.**
*Historical returns are based on annualized monthly return since 1988. Cash is the three-month Treasury bill return.
10-year annualized growth rate of cash forecast is derived from Bernstein's proprietary Wealth Forecasting System.
Source: FactSet and AB

CROSSING THE BRIDGE

There are always trade-offs in investing. For some, peace of mind outweighs a potential loss of opportunity. So while immediately investing near market bottoms provides the best returns, dollar-cost averaging can induce a fearful investor to execute a planned asset allocation strategy. Think of it as a bridge to your optimal asset allocation destination.

The Bernstein Wealth Forecasting SystemSM uses a Monte Carlo model that simulates 10,000 plausible paths of return for each asset class and inflation and produces a probability distribution of outcomes. The model does not draw randomly from a set of historical returns to produce estimates for the future. Instead, the forecasts: (1) are based on the building blocks of asset returns, such as inflation, yields, yield spreads, stock earnings, and price multiples; (2) incorporate the linkages that exist among the returns of various asset classes; (3) take into account current market conditions at the beginning of the analysis; and (4) factor in a reasonable degree of randomness and unpredictability. Moreover, actual future results may not meet Bernstein's estimates of the range of market returns, as these results are subject to a variety of economic, market, and other variables. Accordingly, the analysis should not be construed as a promise of actual future results, the actual range of future results, or the actual probability that these results will be realized.

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