## JUMP In OR GO SLOW? <br> StRategies for Entering the Market


#### Abstract

In the aftermath of 2008, investors may be holding on to cash, fearful of another market downturn. Many intend to reinvest once the markets show clear signs of improvement. But what is the best way to reenter? History suggests that a staged approach may be preferable to an extended stint on the sidelines. Careful analysis can help make the choice easier.


The study of behavioral finance tells us that people's fear of financial loss exceeds their desire for gain. The fierce bear market has sharpened the edge of investor anxiety, and many investors today are holding large cash positions with the intent of entering the market when it seems "safe" again. Yet they are caught in an excruciating situation: On the one hand, staying in cash would clearly have been profitable during 2008, but staying in cash during the early part of 2009 has actually been costly, and over the long term it will almost certainly result in less wealth than investing in a diversified portfolio of stocks and bonds.

A strategy of staging investments over timeknown as "dollar cost averaging"-has long been viewed as an emotional aid in such times. This practice involves making investments of a fixed amount of money at regular intervals. The intended benefit is to limit an investor's exposure to downturns while providing a way to take advantage of market weakness. However, there is a risk to dollar cost averaging: If the market rises while you are "averaging in," you miss out on potential gains. And those forgone gains could be substantial: Market rallies, especially coming out of bear markets, have often been rapid, with the bulk of gains occurring in a short time frame. Missing gains like that could have a substantial impact on your wealth if you are investing for the long term.

Bernstein recently completed a study of dollar cost averaging in the stock market, aimed at answering:
> How does this strategy compare with investing all at once, in terms of wealth creation and risk reduction?
> Considering the possibility of extreme downturns like that of the recent past, how does dollar cost averaging fare versus investing all at once during poor markets?

Our conclusion is that any strategy for getting invested is likely to be far better at realizing long-term investment goals than remaining in cash. Further, while dollar cost averaging can help protect wealth in a falling market, it comes with a cost in typical or better markets. Investors should assess the trade-offs between the potential benefits of dollar cost averaging and the long-term potential costs.

## What Has Been the Best Long-Term Strategy?

The appeal of stock investing as a wealthcreation vehicle is easy to see if you compare the growth in portfolio values over the period from 1926 through May 2009-thus reflecting the ride through both good and tough times (Display 1, following page). One dollar invested in US stocks at the start of 1926 would have grown to $\$ 2,101$ by the end of May of 2009; a dollar invested in cash would have grown to $\$ 24$ over the same period. But Display 1 also
reveals just how severe market downturns can be and why investors gravitate to strategies like dollar cost averaging. US stock declines in excess of $20 \%$ from peak to trough are highlighted, although there have been many smaller downturns along the way.

Display 1
Stocks have created wealth over time despite severe periodic downturns

Growth of \$1
1926-May 2009


Past performance does not guarantee future results. US Stocks are represented by Ibbotson through 1974 and by the S\&P 500 thereafter; Cash is represented by three-month T-bills. The display uses a logarithmic scale
Source: Compustat; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard \& Poor's; and AllianceBernstein

Dollar cost averaging is appealing as an insurance against these downturns. So how has it performed versus investing all at once or holding cash? To quantify the trade-offs involved, we compared the strategies in a historical analysis of the US stock market since 1926, the point at which reliable data begin. We measured the average 12 -month return generated by a strategy of averaging in to the US stock market during every rolling 12 -month period. This encompasses approximately 1,000 different entry points across a wide range of market environments, from the Great Depression to the raging bull markets of the 1980s and 1990s to the worst of 2008. The results were illuminating.

On average, investing all at once has been the best strategy for maximizing returns. In Display 2, we show the average gain of the stock market and cash in all the rolling 12 -month periods since 1926. Not surprisingly, the strategy of dollar cost averaging came in at the middle: $8 \%$. That means that an investor who chose to make fixed monthly investments for a year would have, once fully invested, a portfolio that had grown about four percentage points less than someone who invested all at once at the start of the year, but at twice the rate of the investor who stayed in cash.

Display 2
For highest potential returns, invest all at once


Past performance does not guarantee future results. Invest All at Once represents the return for the S\&P 500; Dollar Cost Averaging assumes level investments for 12 months; Hold Cash represents the return for T-bills.
*Based on rolling 12-month US stock market returns from January 1926 through November 2008, represented by Ibbotson through 1974 and by the S\&P 500 thereafter
Source: FactSet; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard \& Poor's; and AllianceBernstein

## Recent Results Amplify the Pattern

Of course, the average results are only modestly informative to an investor deciding whether or not to enter the market right now. The individual investor doesn't have 1,000 market entry points, as our study did. And in today's environment of heightened stock market volatility, the risk of further losses is higher than usual. Although we can't predict the path of returns over the coming several months, we can
look to history for some guideposts. Does the pattern portrayed in Display 2 change when we focus only on bear market periods?

We shifted our analysis to show one-year returns for the three strategies following 12-month periods in which US stocks gained and after 12-month periods in which they declined. As Display 3 shows, regardless of how one enters the stock market, the average one-year returns were better in years following a negative 12 -month period than in years following a positive 12 -month period. The strategy of investing all at once generated returns of $11 \%$ on average after a positive year (positive years occurred in $74 \%$ of our study periods), but $15 \%$ after a negative year (negative years occurred in $26 \%$ of the periods we analyzed). And dollar cost averaging chalked up returns of $8 \%$ on average after a positive year, but $10 \%$ after a negative year. The reason for this is quite simple: Because the stock market has tended to revert to its mean

Display 3
The benefit of investing via either strategy over cash has been even greater following bear markets

Average One-Year Returns
US Stock Market* 1926-2008


Past performance does not guarantee future results.
Invest All at Once represents the return for the S\&P 500; Dollar Cost Averaging assumes level investments for 12 months; Hold Cash represents the return for T-bills.
*Based on rolling 12-month US stock market returns from January 1926 through November 2008, represented by lbbotson through 1974 and by the S\&P 500 thereafter.
Source: FactSet; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard \& Poor's; and AllianceBernstein

## Key Concepts

> On average, entering the market all at once has proven to be a better strategy for wealth creation than either entering the market in stages-called "dollar cost averaging"—or holding cash for extended periods.
> Dollar cost averaging is, however, a reasonable "insurance policy" against poor markets, paid for by giving up potential gains in typical or better markets.
> If you decide to average in to the market, the optimal balance between cost and benefit occurs over a period of six months. Beyond that, the cost starts to outweigh the benefit, and after 18 months, the cost increases without added benefit.
$>$ A systematic, monthly program of dollar cost averaging works best. Trying to boost the strategy's effectiveness by buying only on dips or in rising markets is less effective.
growth rate (unusually strong growth tends to slow, and unusually poor results tend to improve), the likelihood of a strong 12 -month period was greater if the market had lost ground in the previous 12 months.

Holding cash-that is, not investing-did not come close to the returns of the stock market in either case, but was especially detrimental to returns after a negative year in the market: Remaining in cash yielded only 3\% in the periods following a down year.

However, just because the statistics favor investing immediately doesn't make it the best strategy for all investors. There is a trade-off between the potential reward of stock market gains and the risk that the market might drop after you've invested. Because everyone has a different tolerance for risk, we've developed a framework to help assess the trade-offs.

## What Price Does Protection Carry?

To compare the cost and benefit of averaging in over different market environments, we arrayed all of the 12 -month periods in our study by stock market returns, from the strongest to the weakest, and then broke those into five subsets, or quintiles. The bottom quintile included markets as bad as those of 2008, while the top quintile included markets like 1954, when the S\&P 500 rose $53 \%$.

Display 4 shows that averaging in during poor markets (the bottom quintile of performance) helped preserve capital, resulting in $11.6 \%$ more wealth on average at the end of the 12-month periods than investing all at once. In typical markets (the middle quintile of performance), however, averaging in resulted

Display 4
Averaging in can protect in poor markets, but can be costly in good ones

Additional Wealth After One Year Dollar Cost Averaging vs. Investing All at Once

US Stock Market* 1926-2008
11.6\%


Poor Markets
Typical Markets
(13.4) \%

Past performance does not guarantee future results.
Dollar Cost Averaging assumes level investments for 12 months. Poor Markets represent the bottom 20\%, Typical Markets the middle 20\%, and Strong Markets the top 20\%.
*Based on rolling 12-month US stock market returns from January 1926 through November 2008, represented by Ibbotson through 1974 and by the S\&P 500 thereafter.
Source: FactSet; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard \& Poor's; and AllianceBernstein
in $2.9 \%$ less wealth. But in strong markets (the top quintile of performance), dollar cost averaging detracted significantly from returns: The average wealth after one year was $13.4 \%$ less than investing all at once.

Note that the results are asymmetrical. The benefit of dollar cost averaging in poor markets is less than its cost in strong markets. Further, this cost has an enduring impact on an investor's long-term wealth: At the end of one year, both strategies will be fully invested-but the portfolio that used dollar cost averaging is more likely to be starting in a hole. If we take two portfolios that are identical—except for the fact that one was funded using dollar cost averaging and the other all at once-and track them side by side for 20 years, the portfolio that began with a $13.4 \%$ reduction from dollar cost averaging is always worth $13.4 \%$ less than the portfolio that began invested all at once.

Of course, dollar cost averaging also has a nonmonetary value: It can help a nervous investor sleep at night. So one way to think of the strategy is as an insurance policy against stock market losses. The cost of this policy in typical markets is $2.9 \%$ of one's holdings. An investor thinking about dollar cost averaging should consider whether the potential benefits match the cost.

## The Question of Timing the Averaging

Assuming one is going to average in to the stock market, is there an optimal period? After all, a very nervous investor might want to ease in over years, while a more confident investor might be comfortable with a time frame of several months.

Display 5 shows the cost and benefit of averaging in over different time periods, from six months to two years. We measured the cost (shown on the horizontal axis) as the amount of potential gain given up by averaging in during typical markets, and the benefit (shown on the vertical axis) as the amount protected by averaging in during poor markets. For example, the 12-month point on the display shows the wealth cost of $2.9 \%$ mentioned above-if markets are typical-mapped against an $11.6 \%$ advantage if markets turn out to be poor.

This analysis demonstrates that the longer one takes to average in, the higher the cost and the greater the potential benefit, but they don't rise equally. Between zero and six months, the

Display 5
After 18 months, the benefit of averaging in doesn't keep pace with the cost

Cost/Benefit Ratio of Dollar Cost Averaging (\%)* US Stock Market 1926-2008 ${ }^{+}$


[^0]slope of the line is favorably steep: roughly $7 \%$ protection for a cost of about $1 \%$. Between six and 18 months, the trade-off between cost and benefit moderates, and after 18 months, the slope becomes almost flat, indicating little increased benefit for much higher cost.

Our conclusion is that averaging in for a period of six months or less offers the best trade-off between cost and benefit. However, for those risk-averse investors who are willing to effectively pay an increased premium, the strategy can be extended for as long as 18 months. But beyond 18 months, averaging in doesn't make financial sense-unless it is part of a program like payroll deduction, in which the money becomes available incrementally over time.

## The Markets Don't Send Signals

Some investors have tried to improve on the dollar cost averaging strategy with a tactical approach—either by watching market signals carefully to attempt investing before an upturn, or by investing only on market "dips." We analyzed these approaches to see if they can boost results.

Using the same rolling 12 -month periods, we modeled three strategies. In the first, we invested in six equal installments, investing each installment only after a down month-in order to invest on the dips. In the second strategy, we invested in six equal installments, only after an up month-in order to capture "momentum." And in the third strategy, we invested all at once after the market had moved up by $10 \%$.

The result: In typical markets, almost none of the strategies created an improvement over the simple strategy of level monthly investments

Display 6
Tweaking the formula makes little difference


Past performance does not guarantee future results.
Dollar cost averaging assumes level investments for 12 months. *Based on rolling 12-month US stock market returns from January 1926 through November 2008, represented by Ibbotson through 1974 and by the S\&P 500 thereafter.
Source: FactSet; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard \& Poor's; and AllianceBernstein
(Display 6). Only waiting for a $10 \%$ move off a trough showed a slight benefit, although its result of $13.0 \%$ greater wealth in poor markets was not much better than the $11.6 \%$ result of regular monthly dollar cost averaging (as seen in Display 4), and its cost in typical markets was high- $5.0 \%$-compared with the cost of regular monthly dollar cost averaging, $2.9 \%$ (as also seen in Display 4). In essence, what these strategies do is extend the averaging in period-in many cases over 12 months and longer-which, as we've seen, is not cost-effective.

Strategies that prolong the market entry time period also open the door to another risk: that if poor markets ensue, you will lose your nerve and stop investing altogether. The biggest risk to a staged investment plan is the temptation to second-guess the market and continue to wait in cash, which can lead to substantial erosion in long-term wealth.

## Finding the Right Balance

Investors today understandably are struggling to balance their desire for capital preservation with the need to achieve growth in their portfolios. It is a difficult dilemma with no single answer that fits everyone. However, our analysis of dollar cost averaging provides some objective guidelines for finding a balance.

Our research shows that if you have a sum of money to invest for the long term, entering the market all at once will usually prove to be a better strategy than dollar cost averaging. The odds are in your favor that you will reap greater wealth in the end.

However, dollar cost averaging is a reasonable "insurance policy" against the risk of investing into a falling market. If the market declines, your losses will be less than if you were fully invested. But if the markets are typical or strong, the cost of that protection may be a significant portion of your invested wealth.

When choosing to dollar cost average, a time period of up to six months is the most efficient strategy; between six and 18 months offers a reasonable cost/benefit trade-off; periods over 18 months come at a high price.

Finally, if you decide to average in, it is essential that you choose a systematic method and time frame and stick to them. The alternative invites emotions to rule your investment decisions, which is likely to erode your wealth over the long term.


[^0]:    Past performance does not guarantee future results.
    Dollar cost averaging assumes level investments for 12 months. *As of the end of the averaging period
    †Based on rolling 12-month US stock market returns from January 1926 through November 2008, represented by Ibbotson through 1974 and by the S\&P 500 thereafter.
    Source: FactSet; Roger G. Ibbotson and Rex A. Sinquefield, "Stocks, Bonds, Bills, and Inflation: Year-by-Year Historical Returns," University of Chicago Press Journal of Business (January 1976); Standard \& Poor's; and AllianceBernstein

