

MARKET MONITOR

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MARKET TIMING REDUX

SUMMARY

From the market's November 2007 peak to its early March 2009 trough, an investment in the S&P 500® and other broad U.S. domestic stock indexes would have lost as much as 55%. Over that same period, a money market investment would have protected an investor from any significant loss but would have failed to produce any significant return.

What should you invest today for a return tomorrow? Specifically, which stock, sector, style, region or asset class is about to tank, take off or move sideways? The very nature of active investing involves a belief that some assets or securities will rise faster than others. But just because this is true in theory doesn't mean that investors can successfully capture the returns associated with differing market movements.

TIAA-CREF's investment philosophy emphasizes security selection—picking the right stocks, bonds, and buildings—over trying to time which asset class or index will outperform and, most important, when it will outperform.

This week we will focus on market timing:

- What is involved in market timing?
- What can happen when you do it?
- Why it makes sense for most investors to avoid it.



When investors talk about market timing they usually mean one of two things:

- 1) Attempting to predict the future direction of broad markets (e.g., broad asset classes, geographic regions, investment styles) through the use of economic or technical indicators; and
- 2) Short- to medium-term switching among asset classes in an attempt to profit from changes in an investor's market outlook (perhaps based on #1).

Market timing is a controversial issue in investing, since some research suggests that it is impossible for anyone to time the market, while others, particularly some active managers, believe that it is possible to obtain extra returns by timing the market.

Simply put, market timing requires the investor to have a view on at least two assets and to be able to predict with a high probability of success on which days or months one of those asset will do better than the other asset. In other

EXHIBIT 1
25 BEST DAYS OF THE DOW (1900–2008)

March 15, 1933	15.34%
October 6, 1931	14.87%
October 30, 1929	12.34%
June 22, 1931	11.90%
September 21, 1932	11.36%
October 13, 2008	11.08%
October 28, 2008	10.88%
October 21, 1987	10.15%
August 3, 1932	9.52%
September 5, 1939	9.52%
February 11, 1932	9.47%
November 14, 1929	9.36%
December 18, 1931	9.35%
May 6, 1932	9.08%
April 19, 1933	9.03%
October 8, 1931	8.70%
August 8, 1932	8.16%
June 10, 1932	7.99%
June 19, 1933	7.59%
June 3, 1931	7.12%
January 6, 1932	7.12%
October 14, 1932	6.83%
March 15, 1907	6.69%
November 13, 2008	6.67%
November 21, 2008	6.54%

words, the investor should know when to switch from one asset to the other and when to switch back.

The simplest illustration of market timing might be to imagine an investor who invests passively, versus another investor who tries to outperform by switching in and out of cash depending on when the market is about to go up or down. Last year, we tracked both hypothetical investors using the Dow Jones Industrial Average daily price returns from the beginning of 1900 to the end of 2006.

We can now update this example through the end of 2008. Our first investor invests \$100 on January 1, 1900 and doesn't touch it until the end of 2008. In other words, the first investor's initial \$100 experiences all 27,301 stock trading days over 109 years. This passive investment would have returned an average of 0.02% per day or about 4.6% per year. (Past performance is not an indicator of future results.) But, on its best days, the Dow produced a much higher return than average. On its worst days, the return was much lower than average.

EXHIBIT 2
25 WORST DAYS OF THE DOW (1900–2008)

October 13, 1989	-22.61%
July 30, 1914	-20.53%
September 29, 2008	-13.47%
July 20, 1933	-11.73%
September 24, 1931	-10.73%
September 17, 2001	-9.92%
October 5, 1932	-8.40%
October 27, 1997	-8.29%
October 18, 1937	-8.10%
February 1, 1917	-8.04%
October 9, 2008	-7.87%
December 1, 2008	-7.87%
July 21, 1933	-7.84%
June 16, 1930	-7.70%
October 15, 2008	-7.33%
October 26, 1987	-7.24%
January 4, 1932	-7.20%
March 14, 1907	-7.18%
August 12, 1932	-7.15%
November 6, 1929	-7.13%
October 5, 1931	-7.07%
October 29, 1929	-7.07%
October 28, 1929	-6.98%
December 14, 1914	-6.91%
October 19, 1987	-6.91%

* Brett Hammond. "Market Timing or Swing Betting?" *TIAA-CREF Market Monitor*, 9/8/08.

Exhibits 1 and 2 list, respectively, the Dow's 25 best and worst days since 1900. The best day's return (1933) over the 109-year timespan was more than 15%, and the worst day's return was a breathtaking -22.6%. Four of the 25 worst days occurred in 2008, compared to three in 1929 and 1932, and two in 1931, 1933 and 1937. So 2008 was one of the worst years, but it was not close to being part of the worst decade of the Dow.

Looking at the Dow's 25 best days shows us some surprises. Nineteen of the best days occurred between 1929 and 1939, with eight in 1932 alone! And four of the Dow's best days can be found in 2008. So it seems as though good and bad days often occur close together.

It might seem from all this data that an investor who managed to avoid the worst days and to benefit from the best days did much better than the passive investor.

Turning to the next table, we can look at the effect on portfolio returns and ending accumulations when we remove a number of good and bad market days.

EXHIBIT 3
INVEST \$100 IN THE DOW JONES INDUSTRIAL AVERAGE
ON JANUARY 1, 1900

27,391 Trading Days	Ending Value
\$100 Passive Investment at the end of 2008	\$13,351
<i>If Out of the Market on the Best...</i>	
10 Days	\$4,323
25 Days	\$1,298
100 Days	-\$69
<i>If Out of the Market on the Worst...</i>	
10 Days	\$49,687
25 Days	\$125,119
100 Days	\$12,456,130

To see this, we can look at what would have happened to the passive investment of \$100 in the Dow Jones Industrial Average versus a similar active investment based on market timing. A passive investment at the beginning of 1900 would have grown to more than \$13,000 by the end of 2008. (You may recall that in our earlier Market

Monitor—*Market Timing or Swing Betting?*, 9/8/08—the passive investment would have been worth about \$25,000 at the end of 2006.) In contrast, an investor who moved all assets out of market on the 10 worst performing days would have ended with about four times as much money (a little less than \$50,000). Spectacularly, an investor who avoided the worst 100 market days would enjoy a nest egg of over \$12 million—a larger return than that of the passive investor by a factor of 100 larger.

However, an active investor who missed the best market days would do rather poorly. Missing the 10 best days over 109 years would have produced an ending accumulation about a third the size of the passive accumulation. Missing the best 100 days would have more than wiped out the entire nest egg altogether.

So, no matter how you look at it, a few days over the last 109 years had an outsized impact on both total return and final accumulation. A passive investor would have experienced both the ups and the downs, while the active market timer, if successful, would have done much better or, if completely unsuccessful, much worse.

The remaining issue is whether it is possible for an investor to actually achieve some or all of the excess gains (beyond what a passive investor would have achieved) and/or avoid the excess losses. Clearly, in this example, we know that it would have been impossible for anyone, even a professional money manager, to know on which 10, 25 or 100 days to avoid the market completely or to be fully invested.

But could an active market timer get it right enough of the time to perform better than a passive investor? Are there longer periods when we can anticipate which assets to be in and which ones to be out of?

We think this is unlikely for several reasons:

When is the right time to get out of one asset class?

Based on the preceding examples, we can be pretty sure that we can't predict on which individual days to be out of a risky asset class. If so, then we must also acknowledge how hard it is to do the same thing over longer periods of time—weeks, months or years.

In other words, saying that we know when to be out of the market is essentially an argument that we know that one or more of the worst days, weeks, or months will occur during that period. For example, if we could have been out of stocks during the fall and winter of 2008–2009, then we could have avoided most of the market losses. However, could we have known that the time to switch back into stocks was March 6, 2009? If not, we would have missed all or most of the runup since then.

Which asset class should we go to? Getting out of an asset class implies that we know where to invest the money. One option is the safety of a money market account, which will likely earn a positive return, but, as we have seen over the last year, not necessarily one that will beat even a modest inflation rate.

In addition, missing any good market days by being out of a risky asset means we have to make up for them by hoping for more bad days in the market. If, instead, we move the money from one risky asset class to another, we are essentially predicting that the new asset class will experience fewer or milder down days than the original asset class.

When is the right time to get back into the market? Like being out of the market, getting back in is essentially a prediction that one or more of the worst days won't occur when we are fully invested. But could we have known that the time to return to the stock market was early in March, rather than April—or May, January or February? Getting it wrong, even by a few days, would have meant experiencing poor returns or foregoing good ones.

While some investors have been lucky enough to time movements in and out of markets or asset classes successfully on one or more occasions, it is not something the average investor can do consistently enough to garner returns sufficient to beat passive investors. In fact, there is strong evidence that, the more an investor trades, the worse he or she does compared to investors who trade less often. (This can also be true of some professional investment managers.)

That is one reason why TIAA-CREF's investment managers focus on individual security selection and for the most part avoid market timing with asset classes, sectors or geographic regions.

As an investor, what should you do? The most important thing is to periodically check your asset allocation seatbelt to ensure that you are maintaining a diversified portfolio that fits your personal circumstances, including tolerance for risk.

If there is a need to change your allocation or to rebalance back to the original allocation, do this as a strategic, longer-term move—rather than a tactical one that attempts to time when the performance of one asset class or another. TIAA-CREF has individual counselors and wealth managers who will be happy to assist investors with these issues.

TIAA-CREF is a national financial services organization and the leading provider of retirement services in the academic, research, medical and cultural fields with over \$370 billion in combined assets under management (as of June 30, 2008). Further information can be found at tiaa-cref.org.

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