Perspectives

(So) What If You Miss the Market's N Best Days?

June 5, 2025

A mere 25+ years ago, I submitted a paper to the *Financial Analysts Journal*. It debunked a common argument against timing the market. You know it: "You only have to miss the N best days to totally ruin your long-term returns," with N being (supposedly) surprisingly small.[1] It was rejected.[2]

And it should have been rejected. The writing was poor. In fact, it's a little hard for me to read it now without cringing (I kept my hands off the original even though my desire to edit/improve it was great!). I think I write better today than I did when I was a mere yute! Particularly bad was that I mentioned three myths in the abstract but really mostly discussed #1 and skipped #2 entirely. Yep, rejection was warranted! At best it should've been a revise and resubmit, saying something like "it's an interesting question and accurate analysis, but crap writing." That would have been harsh but fair.

But that's not why it was rejected. The reason it was rejected was not that it was wrong or poorly done (god forbid!), or that the writing was substandard. The stated reason was "everyone knows what you're saying already, and nobody really believes the bad argument."

Now, almost no one ever agrees with a rejection. But sometimes, as time passes, I do eventually come to see that the referee(s) or editor(s) were right. Of course, other times I remain steadfast in thinking they were wrong. In this case I can say, with the unnecessary benefit of 25+ years of out-of-sample evidence, that they were very wrong![3] For example, even today this very silly reason for avoiding market timing is being promoted here and here and here and here and here and here and here by many who should know better.[4] Note two things. First, I had to limit myself to these eight "heres" as I could've gone on for way longer. Second, all of these "heres" are startlingly unoriginal in regurgitating the same nonsense. If you're going to make very, very bad arguments, you could at least use a modicum of creativity!

So, I think what we've done below is kind of fun. My partner Dan Villalon went to the microfiche and has (super lightly) edited the original 1999 manuscript (for typos, second decimal point errors, etc., which do not lead to the slightest change in the argument, evidence, and conclusion — and, importantly, do not improve the bad writing!). But, warts and all, I think it's kind of fun to read it in its original form. Then Dan did the out-of-sample test (and extended the results to the near-present using the more common daily, rather than monthly, frequency). It turns out that the 1999 paper held up amazingly well over the next quarter century.[5] Actually it's not that amazing, it was kind of obvious that it would. But still cool.

If you'd like the TL;DR version, the very question "what if I miss only the N best days?" is, how do I put this nicely, very dumb.[6] OK, that wasn't nice. To be as charitable as possible, the answer is very obvious and very useless.[7] It turns out that if you time the market and all you ever do is N times sell all your stocks and go to cash for a day, and precisely the next day, one the best days ever in market history occurs, then that would be bad. That is, a super radical market timing strategy, executed perfectly and presciently incompetently, is a disaster. Film at eleven.

I really could've stopped there, dismissing the commonly quoted "evidence" from this exercise as obviously silly. But why stop? I then asked the obvious (also silly) question about missing the worst days. It turns out the results are basically symmetric. Someone, quite stupidly, arguing *in favor of* market timing could just as easily produce the "what if you missed the worst N days?" table – which would argue, again quite stupidly, that you should *definitely* time the market and do it *bigly*. Just look at the huge potential gains! I then went on to show through simulations that although returns are "fat-tailed," even if you assume normality these results are pretty close to what we should expect.

I think the advice to avoid market timing is, for almost everyone,[8] quite good. But the reason to avoid it is that you're likely bad at it and doing it without skill is actually harmful, as you are randomly deviating from a properly diversified portfolio. If you're convinced you're good enough at it,[9] you should do some, but nowhere near the radical asymmetric strategy of being 100% out for only a few months or days. Even if (a giant if) an investor is really good at market timing, nobody is even a small fraction of *that* good (and why you'd do it by asymmetrically only getting out and never raising the weight perplexes me).

Finally, I call on the legion of people and companies still making this very bad argument, including some I otherwise respect very much,[10] to stop. You know (or should know, either is quite bad) that it's gibberish. You may say it's a terrible, silly, embarrassing argument. but at least it is in the service of helping people because market timing is still very likely harmful. Ok, so make the argument another way. A more honest way. Respect whomever you are talking to.

There, that's my advice. If my advice is not followed, I ask all loyal readers of my blog to send a copy of this post as often as you can to the perpetrators. That should make me even more popular with them.

So, let's go back to 1999 including, for verisimilitude, the original Times New Roman font…

Market Timing Myths

Clifford S. Asness[11]
President and Managing Principal
AQR Capital Management, LLC

September 30, 1999
Preliminary Draft, Please Do Not Quote

Comments Welcome:
10 Rockefeller Plaza, Suite 624
New York, NY 10020

Executive Summary

There are some misguided notions regarding the ongoing debate about whether investors should attempt to time the market. We call these market timing myths. Myth #1 is that you should not try to time the market because if you miss even a few of the best periods all the long-term returns from being in the market go away. In other words, do not practice market timing because it is very dangerous. Myth #2 is that you should not try to time the market because even an investor with perfectly terrible market timing (defined as investing a set amount every year at the worst possible time) does almost as well over the long-term as someone with perfectly wonderful market timing. In other words, do not worry about trying to time the market as it is neither very dangerous to time poorly nor very advantageous to time well. Myth #3, based on the massive amount of market timing advice disseminated, is that it is likely that an individual investor can time the market successfully. Ironically, myths #1, #2, and #3 all seem mutually contradictory, yet are often stated by the same institutions and advisors at the same time! Market timing, like any active investment decision, should be undertaken by an investor only if they believe they have some edge in predictive ability, and furthermore believe this edge overcomes hurdles such as taxes and transactions costs. Also like any active management decision, the amount of market timing an investor undertakes should be proportional to how large their net edge. The above myths all arise from studying unreasonable or irrelevant portfolio strategies and the general bias of investment professionals to guide investors into choices that protect the profits of those providing the advice.

This material does not purport to give investment advice and is for your private information only. Opinions expressed herein are the author's opinions only. The author is the president of AQR Capital Management, LLC, an investment manager based in New York, New York, that applies quantitative forecasting models and systematic risk control to the management of capital.

Introduction

Market timing is the practice of actively altering market exposure in an effort to add value to a portfolio (i.e. attempting to be over weight stocks in a rally and under weight in a trade-off). Market timing has many critics who will often make or paraphrase the following argument:

> Staying invested in the stock market is far more important than market timing, or put differently "time in the market" is more important than "market timing." Over long periods the stock market has significantly outperformed a cash or bond investment. Most importantly, attempting to time the market is exceptionally dangerous. If you were out of the market for just the few months that the market performed best, you would have lost all the advantage of investing in stocks. Thus, you shouldn't try to time the market, but should simply stay in for the long haul when stocks assuredly will perform well.

This argument is logically flawed. Potentially damaging attacks against market timing do exist, but the above argument is not one of them.[12]

Don't Try to Time the Market

Admonitions not to time the market are often based on results like those in the following table:

Table 1
1/70-12/96

Investment	Compound Return
S&P 500	12.3%
1-Month T-Bills (rolled over)	6.9%
Long-term bonds	9.3%
S&P 500 (out for 12 best months)	7.2%

The monthly total return on the S&P 500, long-term bonds, and the 1-month T-Bill are from Ibbotson Associates. The long-term bond is the Ibbotson® SBBI® US Long-term (20-Year) Government Bonds (Total Return) index. The compound returns are annualized holding period returns. Each strategy is rebalanced monthly. A strategy that is out for the 12 best months involves substituting the T-Bill return for the S&P 500 return for those specific months.

The S&P 500 had a compound return of 12.3% for the 27 years from 1970 through 1996, handily beating the returns from both Treasury Bills and long-term bonds.[13] However, the final line of table 1 shows what happened if you left the stock market during its 12 best months (during these months I assume you were in T-bills).[14] Simply missing the 12 best months out of 27 years leads to cash-like returns, and returns substantially below long-term bonds. In fact, you don't even need to miss 12 months. Missing only the best 6 months for the stock market out of 324 months from 1970-1996 leads to almost exactly bond-like returns over the whole 27 year period.[15]

The message that often accompanies analysis like this is "Don't try to time the market." By leaving the stock market for selected months you risk giving back the entire gain obtained from being in the market at all. Indeed, from this analysis, market timing seems like a very dangerous activity.

But, What if I'm Good At Timing?

The above analysis is extremely one-sided. That is, it makes the risks of being out of the market seem great, while ignoring the potential gains. Table 2 compares the effect of being out of the market for the N best months, to being out of the market for the N worst months. In parentheses are the differences between the "out N best/worst month" returns, and the 12.3% compound return from always being fully invested in stocks.

Table 2
1/70-12/96

N	S&P 500 Compound Return Out N best months (difference from S&P 500)	S&P 500 Compound Return Out N worst months (difference from S&P 500)
0	12.3% (0.0%)	12.3% (0.0%)
1	11.7% (-0.6%)	13.3% (+1.0%)
2	11.2% (-1.1%)	13.9% (+1.6%)
3	10.7% (-1.6%)	14.4% (+2.1%)
6	9.4% (-2.9%)	15.7% (+3.4%)
12	7.2% (-5.1%)	18.1% (+5.8%)
24	4.1% (-8.2%)	21.6% (+9.3%)
36	1.7% (-10.6%)	24.2% (+11.9%)

The monthly total return on the S&P 500 and the 1-month T-Bill are from Ibbotson Associates. The compound returns are annualized holding period returns. Each strategy is rebalanced monthly. A strategy that is out for either the N best or N worst months involves substituting the T-Bill return for the S&P 500 return for those specific months.

The effects of being out of the market during the best months are indeed great. However, they are commensurate with the gains from being out of the market during the worst months (in fact they are slightly larger!). In other words, the returns from market timing are relatively symmetric.[16] Furthermore, investors who engage in market timing should not believe there is only a 50% chance they are right. Investors engage in market timing precisely because they believe there is more of a chance of being in the right column than the left column. Common arguments against market timing not only ignore the right column, but assume investors will land in the left column!

One might argue that the crash of October 1987 gives too big an advantage to strategies that are out of stocks for the worst months. Table 3 repeats the analysis for the pre-crash period.

Table 3
1/70-12/87

N	S&P 500 Compound Return Out N best months (difference from S&P 500)	S&P 500 Compound Return Out N worst months (difference from S&P 500)
0	12.0% (0.0%)	12.0% (0.0%)
1	11.1% (-0.9%)	12.8% (+0.8%)
2	10.3% (-1.7%)	13.6% (+1.6%)
3	9.6% (-2.4%)	14.4% (+2.3%)
6	7.6% (-4.4%)	16.2% (+4.2%)

12	4.7% (-7.3%)	19.4% (+7.3%)
24	0.7% (-11.3%)	24.1% (+12.1%)
36	-2.4% (-14.4%)	27.7% (+15.6%)

The monthly total return on the S&P 500 and the 1-month T-Bill are from Ibbotson Associates. The compound returns are annualized holding period returns. Each strategy is rebalanced monthly. A strategy that is out for either the N best or N worst months involves substituting the T-Bill return for the S&P 500 return for those specific months.

Table 3 shows that the results in table 2 are not an artifact of the crash of '87. The negative impact of being out of stocks for the best months is on a par with the positive impact of being out of stocks for the worst months.

Let's paraphrase the traditional argument against market timing: "If all the market timing you ever did consisted of temporarily moving your entire portfolio from stocks into cash N times, and these N times turned out to be the N best times for the stock market, then that would be very bad." Put this way, it is clear that this is an obvious and one-sided statement. Table 2 and 3 show above that the converse is equally, and as obviously, true.

Let's Be Reasonable

A market timing strategy that is 100% invested in the market for most of 25 years, while 100% out of the market for a few specific months, is not a realistic version of how most investors run their portfolios (even those that try to "time the market"). Portfolio shifts of less than 100% are far more common. Furthermore, most investor's passive position is not 100% exposure to stocks. Thus, for most investors, there is room to overweight stocks when they are particularly attractive, as well as underweight them when unattractive.

Table 4 examines 3 more realistic strategies. Strategy #1 entails no market timing, it is always invested 80% in the S&P 500 and 20% in long-term bonds (rebalanced monthly). Strategy #2 is a similar 80% / 20% most months, but is 60% / 40% during the S&P 500's 12 best months, and 100% / 0% during the 12 worst months. Strategy #2 exhibits unrealistically terrible market timing, but at least assumes realistic portfolio shifts. Strategy #3 is 80% / 20% most months, but is 100% / 0% during the market's 12 best months, and 60% / 40% during the market's 12 worst months. Strategy #3 exhibits unrealistically great market timing, but again assumes realistic portfolio shifts.

Table 4
1/70-12/96

Investment Strategy	Compound Return
#1 80% / 20% Stocks/Bonds	11.9%
#2 Terrible Market Timing	10.3%
#3 Great Market Timing	13.5%

The monthly total return on the S&P 500, long-term bonds, and the 1-month T-Bill are from Ibbotson Associates. The long-term bond is the Ibbotson® SBBI® US Long-term (20-Year) Government Bonds (Total Return) index. The compound returns are annualized holding period returns. Each strategy is rebalanced monthly.

There is perfect symmetry in returns between terrible and great market timing (the long-term returns on the timing strategies vary from the passive 80% / 20% by –1.6% and +1.6% respectively). More importantly, the 80/20 strategies yield far much more reasonable effects on long term return than the earlier more radical timing strategies. Obviously, when more modest market timing bets are taken, more modest deviations in return are created. However, this is still an important point. The market timing bets one commonly hears disparaged (100% out of the market at the worst times) do not represent common portfolio strategies, but rather are designed to shock investors. Table 4 demonstrates a more reasonable strategy that will, appropriately, outperform if an investor is right, or underperform if an investor is wrong.[17]

A Statistician Wouldn't Be Surprised by Any of This

Even though it is not a relevant argument against market timing, the degree to which long term returns are determined by a relatively small sample of months may still strike many as a surprising phenomenon. This raises the question, is there something strange about stock returns that produces this effect? Should we be surprised?

To address this question, I conduct simulations in the following manner. First, I simulate a monthly series of excess stock returns by drawing each month from a normal distribution. Over the 1970 1996 period, the S&P 500's realized monthly return in excess of T bills has averaged 0.5% with a monthly standard deviation of 4.4%. I use these parameters to generate simulated normally distributed returns. I add this series of simulated excess returns to the actual monthly T bill return to get a simulated series of stock returns. I then repeat the tests of table 2 on this new series of simulated S&P 500 monthly returns. This exercise is repeated 250 times and the average values are reported

in table 5.

Table 5
1/70-12/87 *(simulated)*

N	Simulated S&P 500 Compound Return Out N best months (difference from S&P 500)	Simulated S&P 500 Compound Return Out N worst months (difference from S&P 500)
0	12.3% (0.0%)	12.3% (0.0%)
1	11.8% (-0.5%)	12.8% (+0.5%)
2	11.3% (-1.0%)	13.3% (+1.0%)
3	10.9% (-1.4%)	13.8% (+1.4%)
6	9.7% (-2.6%)	15.0% (+2.7%)
12	7.6% (-4.7%)	17.1% (+4.8%)
24	4.2% (-8.1%)	20.6% (+8.3%)
36	1.5% (-10.9%)	23.6% (+11.3%)

The S&P 500 returns are simulated as described above. The compound returns are annualized holding period returns. Each strategy is rebalanced monthly. A strategy that is out for either the N best or N worst months involves substituting the T-Bill return for the S&P 500 return for those specific months.

The effects of being out of the market documented in table 5 are similar, if somewhat shy, of the effects found for actual stock returns shown in table 2. For instance, leaving out the 12 extreme months in simulations leads to returns either 4.7% below or 4.8% above the S&P 500 return. Using actual returns and leaving out the 12 extremes results in either 5.1% below or 5.8% above the S&P 500 return.

The effect of missing the best/worst months is somewhat larger for actual S&P 500 returns than for our simulated returns from a normal distribution. However, the difference is quite small.[18] The commonly quoted argument against market timing could just as easily have been made about the returns in table 5 as about the returns in table 2. These results are a direct consequence of the mathematics of the normal distribution and compound returns. Thus, while perhaps an interesting piece of statistical trivia, the often quoted results are not shocking and not unique to stock returns.

The extreme months, both good and bad, have a strong but not surprising influence on long-term compound returns. Market-timing, both good and bad, is about getting the tails right. While perhaps interesting, this is not an argument for or against market-timing.

Don't Time This at Home

This paper is not an argument in favor of market timing (thus, my carefully worded title). It is a refutation of the most common argument against market timing. This common argument focuses on the consequences of missing the best months for stocks, which admittedly are severe. However, this argument is flawed on two counts. One, it assumes unrealistic pathologically bad timing. Two, it assumes that huge market timing bets are made. The common conclusion is that if you are pathologically bad at something and you make huge bets, then this is a recipe for disaster. Investors who engage in market timing, by definition, should think they are good at it, and should bet proportional to their perceived skill.

Aside from the common argument which I refute, there are some legitimate methods of attacking market timing. Any attack should begin with an argument against investors' ability to time the market, not the potential consequences of doing so pathologically poorly. In theory, an efficient market would offer little opportunity for successful market timing. Empirical evidence on market timers' lack of ability might be convincing (although, this of course would not necessarily apply to all potential market timers). Arguments about tax consequences, trading costs, etc., clearly will raise the hurdle of skill a potential timer must possess. In general, an investor practicing market timing will make moves away from an otherwise efficient portfolio. If these moves are random, then they are costly. The cost is an investor's loss of utility that comes from moving away from a portfolio that otherwise maximizes their utility. In general, these arguments apply to all active management, a category that includes market timing.

None of the above arguments rule out successful market timing. However, each lowers the probability of finding timing skill or raises the hurdle of skill a successful timer must possess. Thus, beyond the commonly heard and often misinterpreted advice this paper refutes, there are still good reasons to be skeptical of market timing. If market timing is folly for these reasons, then the common argument against market timing might be serving a noble, if accidental purpose. However, it should not be necessary to trick investors into doing the right thing with a flawed argument. Market timing can be discouraged, while showing investors the respect of presenting sound arguments.

Conclusion

Market timing is a form of active management. In general, like all active management, market timing should be undertaken only to the extent an investor feels his skills overcome the hurdles. If an investor believes he has no skill after hurdles (call this net skill), then he should not time the market at all. An investor with a small amount of net skill should only allow small deviations from the otherwise optimal

passive market portfolio. Finally, for an investor who truly believes he has a large amount of net skill (a presumably rare event), large market timing bets are rational.

Finally, the often quoted results of missing the best months for stock returns might be interesting, but they are neither relevant or shocking. First, if you make extreme bets on something you're pathologically bad at, you should lose a lot of money. Second, if monthly excess returns are drawn from a normal distribution, results are expected to be very similar to those we observe.

Now, we go back to 2025…

Postscript: Out-of-Sample and Daily Results

My original paper used data that was available only up until December 1996. Enough time has passed since then that the out-of-sample period is now slightly longer than the original in-sample period (but the myths associated with market timing are still commonplace!). Below I repeat the original 1/70-12/96 analysis, here using 1/97-4/24 data. I also show the results using daily instead of monthly periods (out for the N best/worst days instead of months). as I think is more common today (my memory, possibly flawed, is that it was more mixed back in 1999).

Even though the level of returns has come down over this more-recent period (e.g., 9.3% average equity return compared to 12.3% in the original study), the costs/benefits from market timing are very similar in magnitude. For instance, the difference between "Great" and "Terrible" market timing in table 4 below is +/-1.8%, whereas in the original sample it was +/-1.6%. And using daily instead of monthly periods to be in/out of the market changes none of the argument.

The table numbers below refer to the original tables in the 1999 piece – but with either the out-of-sample period or daily data instead of monthly data, or both (so 2a, 2b, and 2c, repeat table 2 from the original paper using out-of-sample monthly data, in-sample daily data, and out-of-sample daily data, respectively). I do not repeat table 3.

Table 1 – Out-of-Sample
1/97-4/24

Investment	Compound Return
S&P 500	9.3%
1-Month T-Bills (rolled over)	2.0%
Long-term bonds	5.0%
S&P 500 (out for 12 best months)	5.0%

The monthly total return on the S&P 500, long-term bonds, and the 1-month T-Bill are sourced from Ibbotson Associates. Data is gross of fee. The long-term bond is the Ibbotson® SBBI® US Long-term (20-Year) Government Bonds (Total Return) index. The compound returns are annualized holding period returns. Each strategy is rebalanced monthly. A strategy that is out for the 12 best months involves substituting the T-Bill return for the S&P 500 return for those specific months.

Table 2a – Out-of-Sample
1/97-4/24

N	S&P 500 Compound Return Out N Best Months (Difference from S&P 500)	S&P 500 Compound Return Out N Worst Months (Difference from S&P 500)
0	9.3% (0.0%)	9.3% (0.0%)
1	8.8% (-0.5%)	10.0% (+0.7%)
2	8.4% (-0.9%)	10.6% (+1.4%)
3	8.0% (-1.3%)	11.2% (+1.9%)
6	6.9% (-2.4%)	12.5% (+3.3%)
12	5.0% (-4.3%)	14.9% (+5.6%)
24	1.8% (-7.5%)	18.9% (+9.6%)
36	-0.8% (-10.1%)	22.1% (+12.9%)

The monthly total return on the S&P 500 and the 1-month T-Bill are sourced from Ibbotson Associates. Data is gross of fee. The compound returns are annualized holding period returns. Each strategy is rebalanced monthly. A strategy that is out for either the N best or N worst months involves substituting the T-Bill return for the S&P 500 return for those specific months.

Table 2b – Original Sample, Daily Returns
1/70-12/96

N	S&P 500 Compound Return Out N Best Days (Difference from S&P 500)	S&P 500 Compound Return Out N Worst Days (Difference from S&P 500)
0	12.3% (0.0%)	12.3% (0.0%)
5	11.1% (-1.2%)	14.4% (+2.1%)
10	10.3% (-2.0%)	15.3% (+3.0%)
15	9.5% (-2.8%)	16.0% (+3.7%)
20	8.8% (-3.5%)	16.7% (+4.4%)
30	7.6% (-4.7%)	18.0% (+5.7%)

The total return on the S&P 500 and the 1-month T-Bill are sourced from Ibbotson Associates. Data is gross of fee. The compound returns are annualized holding period returns. A strategy that is out for either the N best or N worst days involves substituting the T-Bill return for the S&P 500 return for those specific days.

Table 2c – Out-of-Sample, Daily Returns
1/97-4/24

N	S&P 500 Compound Return Out N Best Days (Difference from S&P 500)	S&P 500 Compound Return Out N Worst Days (Difference from S&P 500)
0	9.3% (0.0%)	9.3% (0.0%)
5	7.4% (-1.8%)	11.3% (+2.1%)
10	6.2% (-3.1%)	12.8% (+3.6%)
15	5.1% (-4.1%)	14.2% (+4.9%)
20	4.1% (-5.1%)	15.3% (+6.1%)
30	2.4% (-6.8%)	17.4% (+8.1%)

The total return on the S&P 500 and the 1-month T-Bill are sourced from Ibbotson Associates. Data is gross of fee. The compound returns are annualized holding period returns. A strategy that is out for either the N best or N worst days involves substituting the T-Bill return for the S&P 500 return for those specific days.

Table 4 – Out-of-Sample
1/97-4/24

Investment Strategy	Compound Return
#1 80% / 20% Stocks/Bonds	8.7%
#2 Terrible Market Timing	6.9%
#3 Great Market Timing	10.6%

The monthly total return on the S&P 500, long-term bonds, and the 1-month T-Bill are sourced from Ibbotson Associates. Data is gross of fee. The long-term bond is the Ibbotson® SBBI® US Long-term (20-Year) Government Bonds (Total Return) index. The compound returns are annualized holding period returns. Each strategy is rebalanced monthly.

Table 5 – Out-of-Sample
1/97-4/24 (simulated)

N	Simulated S&P 500 Compound Return Out N Best Months (Difference from S&P 500)	Simulated S&P 500 Compound Return Out N Worst Months (Difference from S&P 500)
0	9.3% (0.0%)	9.3% (0.0%)
1	8.7% (-0.5%)	9.8% (+0.5%)
2	8.3% (-1.0%)	10.3% (+1.0%)
3	7.9% (-1.4%)	10.7% (+1.5%)
6	6.7% (-2.6%)	11.9% (+2.7%)
12	4.6% (-4.6%)	14.0% (+4.7%)
24	1.2% (-8.1%)	17.4% (+8.2%)
36	-1.6% (-10.9%)	20.3% (+11.0%)

The S&P 500 returns are simulated as described above. Data is gross of fee. The compound returns are annualized holding period

returns. Each strategy is rebalanced monthly. A strategy that is out for either the N best or N worst months involves substituting the T-Bill return for the S&P 500 return for those specific months.

---

[1] I was very careful not to make a positive argument for market timing. Just that this very widespread argument against it was totally without merit.

[2] Yes, it happens to me too. Less these days than it used to, but still sometimes!

[3] I should mention that the *FAJ* has been much more than kind to me over the years, and they've accepted a few papers that with hindsight maybe they shouldn't have. I'll let you try to figure out which. :)

[4] In the original 1999 paper I say that I don't cite specific examples of those making the silly arguments because they were so ubiquitous that singling out anyone in particular would be unfair. Today in 2025 I apparently have no such compunctions.

[5] I like "quarter century" more than "25+ years" as I think it has more gravitas.

[6] You'll notice below that the original paper worked with "missing the best and worst months," not days. The conclusions are pretty much the same (though days are more fat-tailed), and in the postscript we add in the daily analysis both backcast to the original paper and out-of-sample.

[7] "Very useless" contains approximately 1.5x more uselessness than merely useless.

[8] Full disclosure, we indeed arrogantly think we should do a little.

[9] To be clear, you are very likely wrong.

[10] Some, uh, not so much.

[11] From 1999 verbatim, I would like to thank Tom Dunn, Britt Harris, Brian Hurst, Bruce Jacobs, Larry Kohn, John Liew, Tom Phillips, Larry Smith, and Ross Stevens for helpful comments on this paper and an earlier version focusing only on myth #1, and, as of 2025, Dan Villalon for the out-of-sample updates.

[12] I have avoided citing any specific examples of this argument because it would be unfair to single out any one person or organization for this near ubiquitous line of reasoning. In particular, readers of mutual fund brochures or popular financial magazines (especially the ads) will find this argument familiar.

[13] Current-day Cliff: No, I have no idea why I used the 20-year for the long-term bond, but it can't possibly matter.

[14] The market timing strategies studied here ignore transactions costs. Transactions costs obviously raise the hurdle that a market timing strategy must overcome. However, the points made here, and the logic behind them, are not sensitive to costs.

[15] In addition to the monthly analysis carried out in this paper, this same phenomenon is often explored at the weekly and daily level with similar results.

[16] Most analysts miss this symmetry entirely. One who does not miss it is Shilling (*Financial Analysts Journal*, 1992). Shilling and I carry out similar analysis but come to related but somewhat different conclusions. Shilling's paper looks at the effects of missing the best and worst months, finds relatively symmetrical results like those in table 3, and concludes that market timing is better than buy and hold. My paper only argues that market timing is a fair gamble, and furthermore, that we expect results of this magnitude ex ante.

[17] These strategies are more reasonable in terms of the size of the deviations. However, the market timing employed is still perfectly good or perfectly bad.

[18] It is quite possible that carrying out this paper's tests on daily data, rather than monthly data, would find that missing extreme days has more of an effect than that implied by a normal distribution. This is because daily stocks returns are more fat tailed (leptokurtic) than monthly stock returns. Thus, the normality approximation is worse for daily returns. Of course, assuming an investor is generally in the market, but is completely out for only the best *days*, is even sillier than the analogous assumption for months.

This document has been provided to you solely for information purposes and does not constitute an offer or solicitation of an offer or any advice or recommendation to purchase any securities or other financial instruments and may not be construed as such. The factual information set forth herein has been obtained or derived from sources believed by the author and AQR Capital Management, LLC ("AQR") to be reliable but it is not necessarily all-inclusive and is not guaranteed as to its accuracy and is not to be regarded as a representation or warranty, express or implied, as to the information's accuracy or completeness, nor should the attached information serve as the basis of any investment decision. This document is not to be reproduced or redistributed to any other person. The information set forth herein has been provided to you as secondary information and should not be the primary source for any investment or allocation decision. Past performance is not a guarantee of future performance. Diversification does not eliminate the risk of experiencing investment losses.

Hypothetical performance results have many inherent limitations, some of which, but not all, are described herein. No representation is being made that any fund or account will or is likely to achieve profits or losses similar to those shown herein. Hypothetical performance results are presented for illustrative purposes only.

This material is not research and should not be treated as research. This paper does not represent valuation judgments with respect to any financial instrument, issuer, security or sector that may be described or referenced herein and does not represent a formal or official view of AQR. The views expressed reflect the current views as of the date hereof and neither the author nor AQR undertakes to advise you of any changes in the views expressed herein.

The information contained herein is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Charts and graphs provided herein are for illustrative purposes only. The information in this presentation has been developed internally and/or obtained from sources believed to be reliable; however, neither AQR nor the author guarantees the accuracy, adequacy or completeness of such information. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied on in making an investment or other decision. There can be no assurance that an investment strategy will be successful. Historic market trends are not reliable indicators of actual future market behavior or future performance of any particular investment which may differ materially, and should not be relied upon as such. Diversification does not eliminate the risk of experiencing investment losses.

The information in this paper may contain projections or other forward-looking statements regarding future events, targets, forecasts or expectations regarding the strategies described herein, and is only current as of the date indicated. There is no assurance that such events or targets will be achieved, and may be significantly different from that shown here. The information in this document, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.

Broad-based securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index.

The S&P 500 Index is the Standard & Poor's composite index of 500 stocks, a widely recognized, unmanaged index of common stock prices.

The Ibbotson® SBBI® US Long-term (20-Year) Government Bonds (Total Return) Index measures the performance of a single issue of outstanding U.S. Treasury bonds with a maturity term of around 20 years, and is unweighted.