

Level Set: What's the Distribution of Outcomes Over Time?

What's the distribution of outcomes? We nearly always ask this question at Trivariate when we are doing research. Let's analyze something by looking at the size, style, substance, sector, basket, and then let's assess the distribution of outcomes over time. What is the performance of each decile over time, or the top and bottom quintiles and median over time. What's the skew to the outcome? Lately, it seems like no matter what the subject or area we are analyzing, the distribution of outcomes appears skewed to the negative relative to S&P500 returns. Now that's a numerator-less statement if ever there was one - but let us explain via some examples.

1. **What's the distribution of outcomes for an acquirer in an M&A transaction?** It ain't good. It's worse if you are growth than value, worse if you buy a non-US company than a US company, worse if you use all stock vs. all cash, but no matter how you slice it, the distribution of outcomes is skewed to the negative for acquirers.
2. **What's the distribution of outcomes if you launch an ETF?** It ain't good. Worse if you don't scale quickly, worse if there are a lot of other ETFs in that specialty group already out there, but no matter how you slice it the distribution of outcomes is skewed to the negative.
3. **What's the distribution of outcomes for the remain-co post a spin-off?** It ain't good. It's worse if the spin is in the same industry as the remain, it is worse if the remain is in the most expensive quintile vs. the S&P500 on price-to-forward earnings, but no matter how you slice it the distribution of outcomes is skewed to the negative.

What's the distribution of outcomes for an IPO? What's the distribution of outcomes for a buyback of the same amount every quarter? What's the distribution of outcomes for a broken follow-on? And so on, and so forth.

These questions don't just apply to equity-related outcomes, but hold true in the bigger picture. What's the distribution of outcomes for starting a hedge fund? For an active manager to beat the S&P500? For starting a Biotechnology company and getting a safe and effective drug? What's the distribution of outcomes for starting a restaurant, a Broadway show? For return on the investment of paying full private tuition to go to college?

Why do so many people engage in ventures, or pursue things where the data so strongly suggest the median outcome and overall distribution of outcomes are skewed to the negative? Why do so many people say things or pursue things where they have no skill or edge?

A Dated Survey of Analysts Is Revealing

More than 20 years ago, the former CEO of Sanford C. Bernstein & Co, LLC shared with employees the results of a survey in which equity research analysts were asked key questions about their own skills. At the time, most of the Bernstein analysts were some combination of Harvard MBAs, and ex-McKinsey or BCG consultants, with a range of 10-30 years of work experience. They were hired because they were highly educated, hardworking, intelligent, industry experts, and a shade paranoid.

These analysts were asked to rate themselves, vs. their peers, on three categories. **First, their analytical abilities.** 90% said they were in the top 10% of their peers on analytical skill. Now, to be fair, that isn't that surprising. These people were highly

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educated with elite academic accomplishments. Nonetheless, with a survey of only 30 or so analysts being targeted, for 27 of the people to say they were in the top 3 of analytical skill among this crew, it is a bit surprising. I would have thought a shade more self-awareness and humility would have surfaced. Some of the biggest geniuses and giant-CPU people I have ever met in my life were in this group, including equity-research legends like Zlotnikov, Goldstein, Gray, Mandle, Sacconaghi, Shalett, and Galbraith, to name a few. There is no way that 90% of survey respondents should think they were analytically more competent than Goldstein, Zlotnikov, or Gray, just to pick three. Yet, when asked in essence about their own IQ, 90% said they were top decile among peers. Not the average American - their peers.

The second question the analysts were asked: how would you rate your interpersonal skills vs. your peers? Again, 90% of the analysts said they were in the top 10% of their peers regarding their ability to connect with others. While many of the respondents were geniuses and electric presenters and have high EQ, not all of them were. Let me give you an example. I sat across a narrow hallway from an analyst who once a week for two years was among a small group of people who I would bring dinner to when we were working late. As the junior person in that section of the hallway, there were typically a few of us who were working until 9pm or later, and I would gather the order (pre Seamless), call the restaurant (using the voice function on the phone, a feature most sub-30 year-olds don't know exists), and then go to the elevator and get the food and bring it to the others. The analyst I referenced was among the group. My estimate is that I brought this person food over 20x in a 2-year stretch, and I estimate that the door to my small windowless office was four feet from the door of his windowed office across the hallway for the entire two years. Three years later, this analyst was at another firm, and I was a #1 I.I. ranked analyst in Semiconductors, accompanied by the Bernstein salesperson in the "hockey rink" style floor at the old SAC. We ran into that the same ex-Bernstein analyst, and the sales person said "have you guys met?" in a polite effort to connect us, and my former research colleague, the analyst across the hallway, who I heard scream at his wife and contractor 50x, who I had brought food to 20x, who sat four feet from my office door for two years, said "No, I don't think we have met." My bet is - that guy - said he was in the top 10% of interpersonal skills.

The third question the analysts were asked was "How would you rate your athletic skill vs. your peers?" You guessed it - 90% of the analysts said they were in the top 10% on athletics. Now this is a group that included a guy who used to bring out a tennis ball can-sized of Metamucil at group lunches just to be physically able to handle a chicken salad sandwich, and a guy who was the best man at my wedding, so I can say with love, hits his pitching wedge and 4-iron the exact same distance. The math dictates that at least one of them said they were in the top 90% of athletics - if not both!

What's my point? 90% of people think they are in the top 10% of everything.

Most people engage in ventures where the distribution of outcomes is historically skewed to the negative. They embrace the path anyway, for a variety of reasons. They believe they have the skill, relationships, and experience to defy the distribution of outcomes and that they will be successful. They know personally people in the most successful 20% of the distribution and believe they have more IQ and EQ and athletic ability - and that they will also get that same positive outcome. I started a hedge fund that failed to raise any meaningful capital, as a close-to-home example of this "phenomena." Most of the negatively skewed distributions we mention above have wildly successful 80th or 90th percentile outcomes, and most people think they will be in the 80th or 90th percent. The analyst survey example above shows this! It is partly delusional, and partly that many of these people are in absolute terms exceptional, and this combination has them attempting things that are - distribution-wise - not a good idea.

What does this mean for US equity investing? We are really trying to increase our self-awareness and work with our clients on where we can actually add value, not where we know we don't have any skill.

As an example, over the past few weeks we have been asked many times and in many ways where we are in the AI Revenue cycle, and what we think of MU, SNDK, and the other associated securities. We are confident that we will **not** be able to compete with the experts in the Semiconductor industry at making this call. They have too many employees and contacts on the ground in Taiwan and Korea and too many dedicated resources and vested interest -by which we mean invested long / short capital - in getting this call right.

If somehow we downgrade Semiconductors correctly, it will be lucky. Instead, we have been trying to add value on this issue in other ways where our perspective, skill, and experience can be relevant. On this issue:

1. In our view, the AI revenue cycle began in earnest in May 2023 with NVDA's first large upward sales revision. The consensus view, derived from hyper-scaler commentary and supply chain experts, is that the AI revenue cycle is likely ten years, plus or minus two years. This means we are currently 3.3 years into an 8-12 year spending cycle. **We don't think the associated stocks have peaked, and think most will reach new highs, including MU, NVDA, and others. There is no precedent for equities to be THAT anticipatory.**
2. We have classified each US equity with more than 5% of its revenue related to AI, and clustered the AI revenue companies (265 out of the top 3000) into six unique groups. We now can measure whether a portfolio is over-or-underweight AI revenue vs. any common index, and which of the six AI Revenue subgroups are over-or-underweight.
3. We track carefully the rolling correlation of returns of the AI revenue stocks to other major themes, focusing on risk management within, and outside the AI revenue exposure.
4. We did 10,000 simulations each on various scenarios for Micron's earnings, assuming various cycle lengths and structural improvements in the DRAM cycle. We concluded the stock trades at 4-5x peak earnings, and 10-11x normalized earnings, AND, that this assessment doesn't properly account for the fact that the balance sheet is MASSIVELY improved in the interim. In our judgment that risk-reward seems quite attractive at these levels.

Many of the portfolios we analyze for clients show that some investors have large active underweight positions in the AI trade and cycle, with their largest underweights in the Great 8 or the Memory stocks. That has helped them recently, after hurting dramatically earlier in the year. When we question people on how confident they are, many point toward longer-term history as their rationale. As we wrote a few weeks ago, we think the cycle is already different this time, and that using history as an analog won't be helpful. Using history has already been a disastrous strategy for many investors. Others point to technicals. As an example, every day we hear people talk about Technicals such as moving averages, and often, they reference the 50-200-day as a metric of interest. The idea is the "Golden Cross" of the 50-day crossing the 200-day is bullish, or that dipping below is bearish. Below we show the efficacy of that strategy. **Our view is: why use something that it's pretty easy to demonstrate doesn't work - to make a large active bet in a stock.**



Source: Trivariate Research, LP

How do we find other stocks or industries to own to accompany the AI Semiconductor bet? We look for stocks that have low correlation to AI Semiconductors that have still been relatively strong the last few months. When inspecting the list, we

see several Healthcare stocks, as well as some Energy names. So along with Technology, because we like Semiconductors, we are recommending Healthcare and Energy. Because our logic indicates we want to own Semiconductors, we try to suggest other sectors or industries to accompany that recommendation from the risk management perspective. But, we worry that we don't have the skill to make sector and industry calls, and increasingly, when we try to use a consistent set of rules to pick sectors or industries, the backtests are increasingly poor. Hence, our industry-level recommendations are more from the risk management than the alpha perspective.

We built a systematic model to predict the ranking of 1-month forward industry group returns. We tested the model by going long the top 10 industries and short the bottom 10 industries each month (out of the GICS 25 Industry Groups). The model only modestly works from 2009 to 2020, returning an average of 2.6% per year with a Sharpe ratio of 0.50. Not exactly enough to start a fund with! However, after 2020, the model fails to consistently identify signals with predictive power, as the volatility, maximum drawdown, and mean return of the model is quite poor (see below).

Systematic Long/Short 1-Month Fwd. Industry Group Model Back-test Descriptive Statistics Through End-June, 2026

Statistic	2009 to 2020	2020 to Present
Annualized Mean Return	2.6%	2.0%
Annualized Standard Deviation	5%	7%
Sharpe Ratio	0.50	0.28
Hit Rate	50%	52%
Maximum Drawdown	(7.1%)	(12.5%)

Source: Trivariate Research, LP

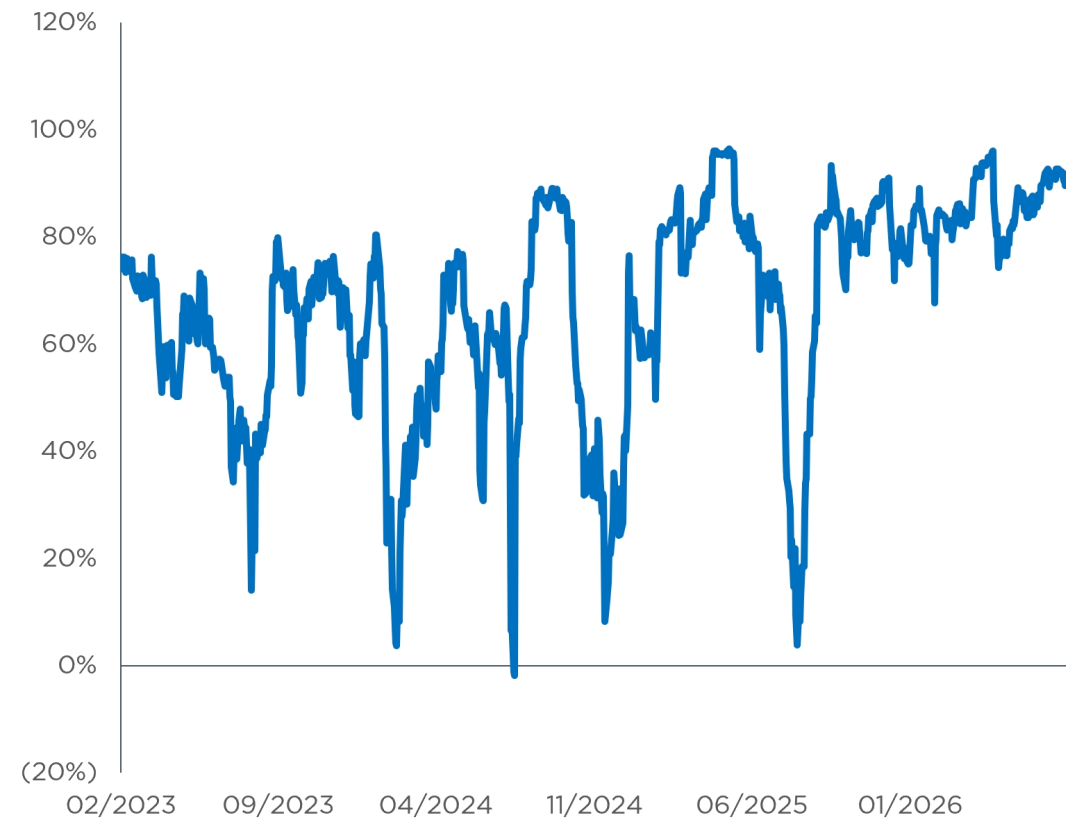
The model is designed to take the kinds of signals a bottom-up investor already cares about: valuation, margins, revisions, growth, capital allocation, ownership, momentum, and balance-sheet quality, and systematically measure which ones are currently working across industries. Rather than relying on any single factor, it creates several versions of each signal, groups together highly similar variants, and then gives more weight to signals that have recently shown stronger cross-sectional efficacy while penalizing redundant or overly concentrated exposures. The model is retrained every three months to capture changing factor efficacy and gives more weight to recent months. The output is a ranked list of industries where the underlying stock-level fundamentals and market signals are most consistently improving versus deteriorating. Our point - a pretty scientific approach to investing in industries yields limited fruit. Yet, people pick one or two non-scientific reasons and confidently make industry calls with no backtest!

Our conclusion: Using a broad factor base to predict industry-level returns no longer works. We hypothesize that the “second derivative” of factor efficacy has been higher as of late. By the time that a statistical model has enough sample size to identify

effective factors, their efficacy may have died out or even reversed. The COVID-19 pandemic, inflation, interest rate cycle, and A.I. theme have all greatly impacted the factors which predict winners from losers. Levered ETFs, and zero day options exacerbate moves.

As we mentioned, many pundits and investors make top-down industry calls not knowing whether they can generate value from that thinking. We strongly believe that it is challenging and of minimal efficacy to do that, and are focusing instead on what we can measure for a better risk-managed portfolio. Sector-based risk management has long been deemed weak, as themes like AI run through sector boundaries. The most obvious example today is the high correlation between AI Semiconductors and Electrification Industrials (see below). We first began highlighting this relationship two years ago!

AI Semi vs. Electrification Industrials
21-Day Rolling Correlation of Returns
Through End-July, 2026



Source: Trivariate Research, LP

CONCLUSION

Think about where you have skill, and focus in those areas. Don't be in the 90% who think they are in the top 10%. Just get one basis point a day vs. the market. That's 252bps a year. And if you do that ten years in a row - you are a God.

Important Disclosures

Analyst Certification

The analysts, Adam Parker, Maxwell Arnold, Chang Ge, Colin Cooney, Ryan McGovern and Jesse Goodman, responsible for the preparation of this research report certifies that: all the views expressed in this research report accurately reflect the research analyst's personal views.

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