

Experts

"Don't hire the best expert, hire the cheapest expert." - J. Scott Armstrong's classic economic paper from 1980, *The Seer-Sucker Theory: The Value of Experts in Forecasting*

From November 2nd's WSJ:

By Jason Zweig

Dow Crosses 36000, Belatedly ...

This week, the book "Dow 36,000" by James Glassman and Kevin Hassett turned out to be prophetic.

The Dow Jones Industrial Average should hit that mark "very quickly," "immediately," even "today," the book had proclaimed. "The rational time frame is this afternoon," wrote Messrs. Glassman and Hassett, although they conceded it might take "three to five years."

The book was published Oct. 1, 1999, when the Dow closed at 10273. More than 22 years later, when the index very briefly crossed the mark in a technical blip at 9:42 a.m. on Monday, the book's prediction finally came true.

"Dow 36,000" is a reminder of a Wall Street maxim about market predictions: Forecast a number or a date, never both. Yet many have done just that anyway, and the index's long march to 36000 has made nearly all of those projections look ridiculous.

On Jan. 17, 2012, with the Dow at 12482 and used copies of "Dow 36,000" selling around that time for as little as one penny, a reviewer using the pseudonym "Annyong Bluth," a character from the television comedy "Arrested Development," gave the book a five-star review on Amazon.com.

It wasn't what most people would consider positive, though.

"I used the pages of this book to line the base of our two-month-old Rottweiler puppy's cage," the reviewer wrote. "I was struck by the moisture and odor-absorbing power of its pages. These super-absorbent sheets really took to canine urine and feces. And, at 1 penny for 294 pages, Dow 36,000 was such a steal! Highly recommended!"

The reviewer's real name and whether he or she had bought "Dow 36,000" couldn't be determined. It is the only Amazon review listed with that username.

In a recent interview, Mr. Glassman, one of the authors, shrugged off such reviews. "We went out into the wild blue yonder with our eyes wide open when we expressed our views in this book," he said. "We understand that some people will be upset with us. The nasty reviews don't bother me at all."

Mr. Glassman, 74 years old, is a journalist, a former undersecretary of state and the founding executive director of the George W. Bush Institute.

"On the one hand, I'm very happy" about the Dow finally hitting 36000, he said. "We dared to say this could happen at a time when many people didn't think it would ever be possible. On the other hand, it's very clear to

me that the thesis at the foundation of the book was faulty. People are afraid of stocks. We need to recognize that.”

His co-author, Mr. Hassett, 59, is a former Federal Reserve economist who chaired the Council of Economic Advisers in the Trump administration. In an email, Mr. Hassett pointed out that an investor who had taken the duo’s advice “beginning on March 30th, 1998, the day our first piece ran in the WSJ laying out the theory,” would have earned more than a 500% cumulative return, including dividends, on the S& P 500 stock index by mid-August 2021.

The authors of “Dow 36,000: The New Strategy for Profiting from the Coming Rise in the Stock Market” deserve some credit for making so specific a prediction, said Philip Tetlock, a psychologist at the University of Pennsylvania’s Wharton School who studies expert forecasting.

“People pay more attention when you make a bold and catchy and specific forecast than when you use vague verbiage,” he said. “If you’re wrong, the price you pay is ridicule and schadenfreude.” ...

There is a method to the madness of making extreme market forecasts, said former analyst Henry Blodget, who in late 1998 called for Amazon.com Inc.’s stock to hit \$400 within a year. Other analysts called the target “not realistic” and “irresponsible.”

Amazon’s shares hit \$400 days later. The shares tanked in 2000 and bottomed in 2001, roughly 88% below their level the day of Mr. Blodget’s prediction. Amazon’s stock is now up approximately 6,900% since his original call.

In 2003, regulators barred Mr. Blodget from the securities industry and assessed \$4 million in penalties and other sanctions, alleging he had made some stock recommendations without “a sound basis.” He settled without admitting or denying the charges.

An extreme prediction is “supersimple, and it shows the magnitude of the possible opportunity,” said Mr. Blodget, now chief executive of Insider Inc., the online news publisher. Investors, he said, don’t benefit from generic forecasts: “What doesn’t create value is saying the same thing everybody else is saying in the same way.”

On Oct. 15, 1929, the preeminent economist in the U.S., Irving Fisher of Yale University, captured headlines by declaring stocks had reached “what looks like a permanently high plateau.” That day, the Dow closed at 347.24. Less than two weeks later, the Crash of 1929 began. The Dow finally hit bedrock on July 8, 1932, at 41.22.

That was 88% below Mr. Fisher’s permanently high plateau.

Mr. Fisher had borrowed money to invest on the basis of his own bullish forecast. Formerly wealthy, he ended up hundreds of thousands of dollars in debt, according to business historian Walter Friedman. By 1939, Mr. Fisher could no longer afford the rent payments on his home. He died in 1947.

On Jan. 7, 1981, the popular technical analyst Joe Granville told his newsletter subscribers to “sell everything.” The Dow, then about 1000, tumbled 3.9% in two days on then-record trading volume.

Mr. Granville considered himself so prophetic that he titled his memoir “The Book of Granville” and often dressed up as Moses in front of live audiences.

His influence waned after he missed the epic bull market of the 1980s, calling it a “sucker’s rally.” In November 1985, he called for the Dow, then around 1400, to sink to “600 or lower” within six months. Instead the index shot above 1800.

Mr. Granville, who died in 2013, predicted he would win a Nobel Prize in economics for solving the mystery of the stock market. He never did.

In 2010, Robert Prechter, president of Elliott Wave International, a newsletter publisher and data service in Gainesville, Ga., called for the Dow (then around 10000) to fall below 1000 within six years.

Six years later, the index was at roughly 18000.

“Sticking my neck out a mile makes errors commensurate,” Mr. Prechter said in a recent email. “Doing so has been rewarding when right, though.” He pointed out that he turned bullish on stocks in early 2009 and in early 2016, when many others were bearish.

As for “Dow 36,000,” after years of insisting that the book’s thesis was correct, Mr. Glassman finally wrote in an opinion piece in the Journal in February 2011: “I was wrong.”

Saying the world had become “a riskier place” since 1999, Mr. Glassman urged investors to scale back their stockholdings. The Dow closed at 12068.50 that day.

Since then, the Dow has tripled.

The Peculiar Blindness of Experts

Credentialed authorities are comically bad at predicting the future. But reliable forecasting is possible.

DAVID EPSTEIN JUNE 2019 ISSUE [The Atlantic](#)

THE BET WAS ON, and it was over the fate of humanity. On one side was the Stanford biologist Paul R. Ehrlich. In his 1968 best seller, *The Population Bomb*, Ehrlich insisted that it was too late to prevent a doomsday apocalypse resulting from overpopulation. Resource shortages would cause hundreds of millions of starvation deaths within a decade. It was cold, hard math: The human population was growing exponentially; the food supply was not. Ehrlich was an accomplished butterfly specialist. He knew that nature did not regulate animal populations delicately. Populations exploded, blowing past the available resources, and then crashed.

In his book, Ehrlich played out hypothetical scenarios that represented “the kinds of disasters that *will* occur.” In the worst-case scenario, famine rages across the planet. Russia, China, and the United States are dragged into nuclear war, and the resulting environmental degradation soon extinguishes the human race. In the “cheerful” scenario, population controls begin. Famine spreads, and countries teeter, but the major death wave ends in the mid-1980s. Only half a billion or so people die of starvation. “I challenge you to create one more optimistic,” Ehrlich wrote, adding that he would not count scenarios involving benevolent aliens bearing care packages.

The economist Julian Simon took up Ehrlich’s challenge. Technology—water-control techniques, hybridized seeds, management strategies—had revolutionized agriculture, and global crop yields were increasing. To Simon, more people meant more good ideas about how to achieve a sustainable future. So he proposed a wager.

Ehrlich could choose five metals that he expected to become more expensive as resources were depleted and chaos ensued over the next decade. Both men agreed that commodity prices were a fine proxy for the effects of population growth, and they set the stakes at \$1,000 worth of Ehrlich's five metals. If, 10 years hence, prices had gone down, Ehrlich would have to pay the difference in value to Simon. If prices went up, Simon would be on the hook for the difference. The bet was made official in 1980.

In October 1990, Simon found a check for \$576.07 in his mailbox. Ehrlich got smoked. The price of every one of the metals had declined. In the 1960s, 50 out of every 100,000 global citizens died annually from famine; by the 1990s, that number was 2.6.

Ehrlich's starvation predictions were almost comically bad. And yet, the very same year he conceded the bet, Ehrlich doubled down in another book, with another prediction that would prove untrue: Sure, his timeline had been a little off, he wrote, but "now the population bomb has detonated." Despite one erroneous prediction after another, Ehrlich amassed an enormous following and received prestigious awards. Simon, meanwhile, became a standard-bearer for scholars who felt that Ehrlich had ignored economic principles. The kind of excessive regulations Ehrlich advocated, the Simon camp argued, would quell the very innovation that had delivered humanity from catastrophe. Both men became luminaries in their respective domains. Both were mistaken.

When economists later examined metal prices for every 10-year window from 1900 to 2008, during which time the world population quadrupled, they saw that Ehrlich would have won the bet 62 percent of the time. The catch: Commodity prices are a poor gauge of population effects, particularly over a single decade. The variable that both men were certain would vindicate their worldviews actually had little to do with those views. Prices waxed and waned with macroeconomic cycles.

Yet both men dug in. Each declared his faith in science and the undisputed primacy of facts. And each continued to miss the value of the other's ideas. Ehrlich was wrong about the apocalypse, but right on aspects of environmental degradation. Simon was right about the influence of human ingenuity on food and energy supplies, but wrong in claiming that improvements in air and water quality validated his theories. Ironically, those improvements were bolstered through regulations pressed by Ehrlich and others.

Ideally, intellectual sparring partners "hone each other's arguments so that they are sharper and better," the Yale historian Paul Sabin wrote in *The Bet*. "The opposite happened with Paul Ehrlich and Julian Simon." As each man amassed more information for his own view, each became more dogmatic, and the inadequacies in his model of the world grew ever more stark.

The pattern is by now familiar. In the 30 years since Ehrlich sent Simon a check, the track record of expert forecasters—in science, in economics, in politics—is as dismal as ever. In business, esteemed (and lavishly compensated) forecasters routinely are wildly wrong in their predictions of everything from the next stock-market correction to the next housing boom. Reliable insight into the future is possible, however. It just requires a style of thinking that's uncommon among experts who are certain that their deep knowledge has granted them a special grasp of what is to come.

THE IDEA FOR the most important study ever conducted of expert predictions was sparked in 1984, at a meeting of a National Research Council committee on American-Soviet relations. The psychologist and political scientist Philip E. Tetlock was 30 years old, by far the most junior committee member. He listened intently as other members discussed Soviet intentions and American policies. Renowned experts delivered authoritative predictions, and Tetlock was struck by how many perfectly contradicted one another and were impervious to counterarguments.

Tetlock decided to put expert political and economic predictions to the test. With the Cold War in full swing, he collected forecasts from 284 highly educated experts who averaged more than 12 years of experience in their specialties. To ensure that the predictions were concrete, experts had to give specific probabilities of future events. Tetlock had to collect enough predictions that he could separate lucky and unlucky streaks from true skill. The project lasted 20 years, and comprised 82,361 probability estimates about the future.

The result: The experts were, by and large, horrific forecasters. Their areas of specialty, years of experience, and (for some) access to classified information made no difference. They were bad at short-term forecasting and bad at long-term forecasting. They were bad at forecasting in every domain. When experts declared that future events were impossible or nearly impossible, 15 percent of them occurred nonetheless. When they declared events to be a sure thing, more than one-quarter of them failed to transpire. As the Danish proverb warns, “It is difficult to make predictions, especially about the future.”

Even faced with their results, many experts never admitted systematic flaws in their judgment. When they missed wildly, it was a near miss; if just one little thing had gone differently, they would have nailed it. “There is often a curiously inverse relationship,” Tetlock concluded, “between how well forecasters thought they were doing and how well they did.”

Early predictions in Tetlock’s research pertained to the future of the Soviet Union. Some experts (usually liberals) saw Mikhail Gorbachev as an earnest reformer who would be able to change the Soviet Union and keep it intact for a while, and other experts (usually conservatives) felt that the Soviet Union was immune to reform and losing legitimacy. Both sides were partly right and partly wrong. Gorbachev did bring real reform, opening the Soviet Union to the world and empowering citizens. But those reforms unleashed pent-up forces in the republics outside Russia, where the system had lost legitimacy. The forces blew the Soviet Union apart. Both camps of experts were blindsided by the swift demise of the U.S.S.R.

One subgroup of scholars, however, did manage to see more of what was coming. Unlike Ehrlich and Simon, they were not vested in a single discipline. They took from each argument and integrated apparently contradictory worldviews. They agreed that Gorbachev was a real reformer *and* that the Soviet Union had lost legitimacy outside Russia. A few of those integrators saw that the end of the Soviet Union was close at hand and that real reforms would be the catalyst.

The integrators outperformed their colleagues in pretty much every way, but especially trounced them on long-term predictions. Eventually, Tetlock bestowed nicknames (borrowed from the philosopher Isaiah Berlin) on the experts he’d observed: The highly specialized hedgehogs knew “one big thing,” while the integrator foxes knew “many little things.”

Hedgehogs are deeply and tightly focused. Some have spent their career studying one problem. Like Ehrlich and Simon, they fashion tidy theories of how the world works based on observations through the single lens of their specialty. Foxes, meanwhile, “draw from an eclectic array of traditions, and accept ambiguity and contradiction,” Tetlock wrote. Where hedgehogs represent narrowness, foxes embody breadth.

Incredibly, the hedgehogs performed especially poorly on long-term predictions within their specialty. They got worse as they accumulated experience and credentials in their field. The more information they had to work with, the more easily they could fit any story into their worldview.

Unfortunately, the world’s most prominent specialists are rarely held accountable for their predictions, so we continue to rely on them even when their track records make clear that we should not. One study compiled a

decade of annual dollar-to-euro exchange-rate predictions made by 22 international banks: Barclays, Citigroup, JPMorgan Chase, and others. Each year, every bank predicted the end-of-year exchange rate. The banks missed every single change of direction in the exchange rate. In six of the 10 years, the true exchange rate fell outside the *entire range* of all 22 bank forecasts.

In 2005, TETLOCK published his results, and they caught the attention of the Intelligence Advanced Research Projects Activity, or IARPA, a government organization that supports research on the U.S. intelligence community's most difficult challenges. In 2011, IARPA launched a four-year prediction tournament in which five researcher-led teams competed. Each team could recruit, train, and experiment however it saw fit. Predictions were due at 9 a.m. every day. The questions were hard: *Will a European Union member withdraw by a target date? Will the Nikkei close above 9,500?*

Tetlock, along with his wife and collaborator, the psychologist Barbara Mellers, ran a team named the Good Judgment Project. Rather than recruit decorated experts, they issued an open call for volunteers. After a simple screening, they invited 3,200 people to start forecasting. Among those, they identified a small group of the foxiest forecasters—bright people with extremely wide-ranging interests and unusually expansive reading habits, but no particular relevant background—and weighted team forecasts toward their predictions. They destroyed the competition.

Tetlock and Mellers found that not only were the best forecasters foxy as individuals, but they tended to have qualities that made them particularly effective collaborators. They were “curious about, well, really everything,” as one of the top forecasters told me. They crossed disciplines, and viewed their teammates as sources for learning, rather than peers to be convinced. When those foxes were later grouped into much smaller teams—12 members each—they became even more accurate. They outperformed—by a lot—a group of experienced intelligence analysts with access to classified data.

One forecast discussion involved a team trying to predict the highest single-day close for the exchange rate between the Ukrainian hryvnia and the U.S. dollar during an extremely volatile stretch in 2014. Would the rate be less than 10 hryvnia to a dollar, between 10 and 13, or more than 13? The discussion started with a team member offering percentages for each possibility, and sharing an *Economist* article. Another team member chimed in with historical data he'd found online, a Bloomberg link, and a bet that the rate would land between 10 and 13. A third teammate was convinced by the second's argument. A fourth shared information about the dire state of Ukrainian finances, which he feared would devalue the hryvnia. A fifth noted that the United Nations Security Council was considering sending peacekeepers to the region, which he believed would buoy the currency.

Two days later, a team member with experience in finance saw that the hryvnia was strengthening amid events he'd thought would surely weaken it. He informed his teammates that this was exactly the opposite of what he'd expected, and that they should take it as a sign of something wrong in his understanding. (Tetlock told me that, when making an argument, foxes often use the word *however*, while hedgehogs favor *moreover*.) The team members finally homed in on “between 10 and 13” as the heavy favorite, and they were correct.

In Tetlock's 20-year study, both the broad foxes and the narrow hedgehogs were quick to let a successful prediction reinforce their beliefs. But when an outcome took them by surprise, foxes were much more likely to adjust their ideas. Hedgehogs barely budged. Some made authoritative predictions that turned out to be wildly wrong—then updated their theories *in the wrong direction*. They became even more convinced of the original beliefs that had led them astray. The best forecasters, by contrast, view their own ideas as hypotheses in need of

testing. If they make a bet and lose, they embrace the logic of a loss just as they would the reinforcement of a win. This is called, in a word, *learning*.

This article is adapted from David Epstein's book Range: Why Generalists Triumph in a Specialized World.

Our thoughts

Confirmation bias besets us all. However, here are 3 steps to successful investing:

- 1: Dispel the notion that you, or your advisor has to be able to predict the future. **"I'm neither smart enough nor dumb enough to forecast the future."** - Mike Nash
- 2: Adopt a systematic approach with strong academic backing. **"To break from our all too human tendencies to avoid losses even when it is disadvantageous to do so, chase performance, and perceive patterns where there are none, we must find an investment strategy that removes subjective, human decision making from the process and relies instead on smart, empirically proven systematic strategies. ...we can become wise by realizing just how unwise we truly are."** - James O'Shaughnessy, from the 4th edition of *What Works on Wall Street*
- 3: Stick with it. **"Far more money has been lost by investors preparing for corrections, or trying to anticipate corrections, than has been lost in corrections themselves."** - Peter Lynch