Can You Predict the Future in Investment?

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Really scientific (i.e. entirely dependable) forecasting in the economic field is a logical impossibility.

— Ben Graham¹

Philosophers love talking about past, present, future. In investment, they're not only conceptually interesting but also practically important: (1) past is all you know with certainty, (2) present is what you can control, (3) future is what'll determine your results.

If we simplify, to pick a stock, you only need to: (1) look at the past records of the company, (2) predict the future of its business,² (3) if good, wait for a cheap price.

Company's past records are very, very important because they're the *facts* that you know with certainty so far. But if the past looks good, you can't simply extrapolate it into the future by assuming the future will resemble the past. The future is largely unpredictable — history is full of examples that nobody could predict the upcoming events that soon changed everything.³

However, in investment, you're forced to predict the future. If you say you know nothing about the future, then you would do nothing. You can't lose money this way,⁴ but you can't make money either.

It's a dilemma: on the one hand, the future is uncertain and very, very prone to errors if you try to predict it; on the other hand, (in investment) you have to predict it.

No perfect solution exists. Investment isn't an exact science — nobody knows the perfect, foolproof way to do it. The best you can do is to try to improve your odds.

The key question is: How far ahead into the future do you predict? There're two kinds of prediction you can make on the future: short-term and long-term. Keynes gave great insights on short-term prediction, i.e. speculation.

¹ Security Analysis, Second (1940) Edition, Chapter LII.

 2 Because a stock isn't a number (i.e. price) that fluctuates randomly; there's a company behind it with a business, i.e. what it does to make money.

³ Or people believed they could predict and control them — but sooner or later — events would get out of everyone's control.

⁴ Actually, you can because of inflation.

Keynes: Psychology of Short-term Speculation

Keynes said⁵ that it's tempting to believe short-term prediction is easier — when predicting a company's business in the long run, you would feel unconfident and fearful because too many things could happen in such a long period, so you feel "safer" with short-term predictions. In addition, the stock market's liquidity encourages short-term trades so you can change your mind anytime in short-term "investment."

As a result, stock daily price mostly reflects people's short-term expectations, dominated by the *mass psychology* of the crowd, i.e. their *hopes of profit* and *fears of loss*. The expectation can change suddenly, violently after events that make no sense rationally.

Speculator's goal isn't to figure out companies with attractive long-term values in the future, but to beat the rest of the crowd by acting faster. They push the stock price higher and higher, hoping they could get out before the crash and take money from other speculators. It's like the game where everyone keeps passing a bomb to the next one until the time is up, and whoever holds it last would lose. And everyone believes "It won't be me."⁶ Another analogy is a newspaper competition where a judge needs to pick photos that are also considered the prettiest by other judges. The goal is not to pick the prettiest photos in his own view, but to predict what other judges would also pick. In other words, the game is to try to guess "what average opinion expects the average opinion to be."

This game is not only childish, but also isn't working — it'll most likely end up with small profits in the short run but disasters in the long run.⁷ It's motivated by, of course, human's *gambling instincts* for easy, quick profits and *animal spirits* of craving for actions.

Keynes concluded pessimistically that short-term speculators play a larger role in the market than long-term investors. It isn't surprising given he wrote it in the depths of the Great Depression. His solution was a macroeconomic one: taxing short-term trades more. But for individual investors, it isn't too useful. Luckily, Graham offered his ideas.

Graham: Margin-of-Safety and Stable-Business Principle

Graham's general principle is: we need to predict the future, but we can't turn ourselves into prophets; we need to base our decisions on *facts* and *sound reasoning*.

⁵ General Theory, Chapter 12.

⁶ Or if you prefer Buffett's analogy: speculators are like Cinderella at the party — knowing if they continue to stay (i.e. paying high price for speculative stocks), the disastrous outcome will arrive (i.e. the crash). They all plan to leave before the clock strikes, but they can't resist staying a little longer because they *hate to miss the profit.* However, they have one disadvantage compared to Cinderella: there's no clock.

 $^7\,\mbox{As}$ Ben Franklin said, "Bad gain is true loss."

Graham recognized the danger of predicting the future. If you have to choose between (1) predicting the future with absolute certainty and (2) not predicting the future enough, (1) is more dangerous. Proportionally speaking, people make far more investment mistakes by predicting the future with too much confidence than not trying to predict the future and then "missing the bus." It's in our human nature that we have a strong desire to predict the future — look at how many prophets, fortune-tellers, astrologers every civilization has produced in history, and their modern versions today. Thus, predicting the future with excessive confidence is the greater of two evils.

Then, how to *protect* yourself from the errors in predicting the future? Graham's idea is to reduce the investment outcome's dependency on your prediction of the future by (1) counterbalancing the risk from the future with *margin of safety* and (2) choosing stable businesses.

(1) You can reduce the potential loss if you were wrong about your prediction on the future through the *price* you pay. When you buy a stock, if the price is lower than its *intrinsic value*, i.e. the business value justified by facts and reasoning,⁸ by a wide margin, then even later the business turns out to be worse than what you predicted — as long as not disastrously worse — the loss of principal is limited. That way, you have a margin of safety.

(2) How can you improve the odds of predicting the future correctly? It's simple: predicting what's more predictable, i.e. focusing on companies with businesses that are less subjective to changes in the future. Or in Buffett's words, *absence of change* is investors' friend.

Overall, Graham held a pessimistic view on the future: the future is what you should *guard against*, not *profit from*. It might sound subjective. Was it due to Graham's painful experience during the Great Depression or his temperament⁹? You never know. But Graham had objective reasons: (1) The past is all the facts we know for sure; the future is what we don't know and have to guess. It's just logical to weigh more on what we know with certainty. (2) Averaged out, optimism leads to more harm in investment than pessimism.¹⁰

But why is predicting the *absence* of change more likely to be right than predicting the *arrival* of change? Betting on the absence of change can also go wrong — many, many companies that were once considered absolutely safe (i.e. with an indestructible moat) are dead now, destroyed by the arrival of change — big economic or technological forces.¹¹

 $^{\rm 8}\,{\rm How}$ to estimate intrinsic value is, of course, the hardest part.

⁹ You might say Graham, a lover of Virgil, showed a sense of Virgilian pessimism in this view.

¹⁰ Of course, neither optimism nor pessimism works; you need to be objective. But pessimism is the lesser of two evils — excessive risk-taking causes far more damage and stupidity than excessive risk aversion.

¹¹ i.e. creative destruction.

I think Graham would, of course, admit this fact.¹² But then ask: What's more likely: (1) a company with a stable past will remain stable or (2) a company whose future is subject to many changes and uncertainties will turn out to follow the change you predict? (2) sounds tempting given human's *wishful thinking, overoptimistic tendency, excessive self-confidence*; but averaged out, (1) is more likely in reality. Therefore, it's safer to bet on a stable and already-great business to maintain its greatness than to bet on a company with an uncertain future to turn great as you predicted.

Graham's ideas are what should be taught to most people because it's far, far more important to avoid making big mistakes than to try to catch miracles, both in investment and life. It should be the *intellectual framework* of sound investment.

Munger and Buffett: Knowing What You're Doing

Graham assumed you have an average amount of knowledge and confidence. However, the problem is *competition*. If a company's business is already great and is likely to remain great, then it would be obvious to others too. They would also buy it and then the stock would become expensive, and it's no longer clear if it's attractive given the high price. Obviously great businesses are rarely cheap.

Differently put, investment is a game where you can only do well if you think *independently*. Merely following what others are doing wouldn't give you above-average results, as Buffett warned: "What the wise do in the beginning, fools do in the end." Graham's method could work in his time largely because it wasn't what most people were doing — security (stock) analysis through facts and numbers was rare.¹³ In addition, it was the time when the market just got out of the Great Depression, so most people were still afraid of stocks, making them unreasonably cheap. Today, security analysis is no longer uncommon and the low-hanging fruits have gone.

In other words, you can only win big if you're right when most people are wrong. For example: (1) When most people don't believe the business will be great, you see the potential and you're right; when most people believe the business will be great, you see the risk and you're right. (2) When most people overreact to short-term bad news, you think they'll be fixable and you're right; when most people overreact to short-term good news, you think they won't matter or last and you're right. (3) When most people are paralyzed by the depression of the bear market, you overcome the fear and you're right; when most people go crazy

¹² It's impossible that Graham didn't recognize the obvious fact that nothing lasts forever in the (business) world. In *Intelligent Investor* Chapter 20, when he introduced "margin of safety" — his most important idea — he opened the chapter with the following words: "In the old legend the wise men finally boiled down the history of mortal affairs into the single phrase, 'This too will pass.'"

¹³ Company information wasn't easily obtainable at that time, so most people speculated. about the bull market, you resist the temptation and you're right.

The key is to *be right*. So Munger and Buffett's idea is to know what you're doing, i.e. to become an expert who understands the company's business with deep insights that most people don't have. Thus, if you're really confident about what you're doing,¹⁴ it makes no sense to dogmatically insist you can't bet on a company that hasn't had great records to become great — if you know a lot about the company and are confident about its economic future. Similarly, it makes no sense to mindlessly hold on to a stable and currently-great business — if you think certain big forces will destroy it.

What matters ultimately is how much you know about the business and how confident you're about your judgment on its future.

You also need to *calibrate* your confidence. Some businesses are naturally harder to predict, i.e. businesses that are intensely competitive, fast-moving, heavily subject to future conditions or human factors, etc. Even if you know a lot about them, it doesn't necessarily mean you can be certain enough that you're right.

Like in any field, to become an expert, you need to *learn* and *think* a lot. You have to know lots of business facts, both quantitatively and qualitatively. Investment knowledge is detailed, piecemeal; easy generalization is dangerous. And you need to keep thinking continually, like a scientist trying to solve a hard problem. If you're lucky, you might have a few insights.

If you want to gain deep understandings that most people don't have, then you can't know everything about everything. So you wouldn't have an opinion on every stock — you don't need to. But when you do, it'd better be right. The same goes for making decisions: you should make fewer decisions; but when you do, you need to make sure you're very, very likely to be right.

And if you *really* know what you're doing, it makes no sense to overdiversify. You should bet heavily when you're confident because it's very, very rare when most people, including many experts, are wrong, but you're right because you either know more or overcome emotions.

Obviously, *patience* is absolutely necessary. Since great opportunity is very, very rare, you'll *do nothing* most of the time. So you need a peculiar combination of temperaments: waiting patiently for a long, long time — as in Buffett's case, only making one decision every 5

¹⁴ Caution: it would be dangerous to imitate Munger and Buffett if you don't know enough, i.e. imitating their confidence without their knowledge and skill. years — but when the truly great opportunity comes, act decisively and aggressively. It isn't different from doing anything else in life.

Munger and Buffett's recipe — gaining deep insights into the business, waiting with almost inhuman patience, betting heavily when the truly great opportunity comes — isn't for everyone. You need to be an expert. It's hard, like doing any great work. It must be — if only so few can do.¹⁵

The flip side is: if you don't know enough about a company's business to predict its future confidently, it's much better to admit it than to fool yourself. Then move on to the next consideration. Or if you aren't certain enough about any company or don't want to spend time learning and thinking, buy an index fund, and be content with its results.

Short Term vs. Long Term

Having briefly listened to what great investors said about predicting investment future, what pattern can we find? They might differ on the specifics, but they clearly share one thing: focusing on the long term. Why? Because the long term is more predictable through skill.

Speculators will forever argue the short-term future is more predictable for whatever reasons. They believe they can do well in the psychological game of trying to guess "what average opinion expects the average opinion to be." But it's delusional to believe, in the long run, the odds in this game will be favorable. The outcome is determined by too many causes that each could make a big impact, subject to too many human factors that can change suddenly, violently. Even if speculators believe they could guess it, they would also need to act faster than others.¹⁶ It's a game dominated by guesswork and luck rather than skill and effort. It's exactly gambling disguised as "investment."

On the other hand, in the long-term game, short-term fluctuations don't matter. You can ignore the daily noise in the market, and focus on what'll determine the long-term value of the company's business. In other words, instead of guessing the mass psychology, you can focus on the economic value that the company's business will generate in the long run, i.e. its intrinsic value. Most importantly, intrinsic value is independent of what people wish to believe, making it more predictable through facts and reasoning. It's what matters in the long run because the price of a stock will eventually converge to its intrinsic value no matter what speculators wish to believe in the short run.

¹⁵ But many people believe the opposite because Munger and Buffett make what they do *look* easy by explaining deep insights with plain words (which is only what experts can do) and humors.

¹⁶ Today, even if you can act faster than most people, it's impossible to be quicker than computers. Graham summed it up succinctly: "In the short term, the market is a voting machine; in the long term, it's a weighing machine."

Thus, it's easier to predict the weighing part, i.e. the economic value and potential of the company's business — through facts, reasoning, analysis, hard work — than to try to guess the voting part, i.e. "what average opinion expects the average opinion to be."¹⁷ It's like natural phenomena are more predictable than human behaviors — if you study nature carefully.

Playing long-term games, however, is unpopular, either in investment or anywhere else. It's boring compared to fun, exciting, immediately rewarding short-term games. It takes both inborn temperaments and self-cultivated virtues to resist the gambling instincts for easy, quick profits and suppress the animal spirits of craving for actions.

Luck vs. Skill

The need to make judgments about the future isn't unique to investment. Every decision we make in life requires us to form some expectations about the future. And no matter how confident we are, we can't be 100% certain — chance and luck will always impact the results. Therefore, investment, like life, is always a game where both luck and skill matter. However, you want to minimize the role luck plays. Graham had an analogy: investment is like playing a piano duet with Fortune, but *you* want to lead rather than letting Her lead.¹⁸

Investment is also like playing cards. Although luck plays a role — even a big role — the best you can do is to control what's up to you and accept what isn't up to you. The hands you receive will largely impact your results, but there's nothing you can do about it. When you get bad hands, which isn't up to you, the right thing to do isn't to complain or give up. Instead, you should focus on *playing well with whatever hands you have to deal with*, which is up to you. What matters ultimately isn't how much you win or lose, but rather how much you've improved from whatever you were given at the beginning.

Similarly, in investment, you can't completely control the results because chance and luck matter. However, you can try to minimize the role that chance and luck play and try to maximize the role that your skill and judgment play — this is the best you can do and how you should evaluate yourself.¹⁹ That's the right way to look at investment. And life too. ¹⁷ Of course, one of the biggest risks in estimating the long-term economic value is that the driving force you rely on can change, and those forces can depend on human factors, e.g. customer taste. But averaged out, business-related human factors change much slower than the crowd's short-term feelings, and are more predictable by analysis.

¹⁸ Security Analysis, Second (1940) Edition, Chapter I.

¹⁹ Of course, you can't attribute your results to luck vs. skill in a clear-cut way. But you shouldn't fool yourself.