



## How We Assess Risk

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### Dear Investors,

There is far more glamour in trying to understand how a company can become extraordinarily successful than in investigating everything that could go wrong. Estimating upside potential is also usually less demanding. The “success case” is often presented in polished investor presentations and sophisticated corporate events. Meanwhile, business fragilities and strategic risks tend to be pushed into the background.

As unexciting as they may seem, risks should be the primary focus of a prudent investor. Avoiding significant capital losses in inherently uncertain investments is a necessary condition for achieving strong returns over a lifetime, across multiple investment cycles.

Properly managing risk is both more important and more difficult than identifying high-return opportunities. For this reason, most of the time we dedicate to developing a new investment thesis is spent mapping potential downside scenarios and estimating losses under adverse conditions.

In what follows, we outline some of the principles that guide our risk analysis process.

### The Nature of Risk in Equity Investing

The main challenge in dealing with risk in equities is how abstract and subjective the topic can be. In theory, one could estimate the expected loss from a given event by multiplying its probability of occurrence by the negative impact it would have on the company’s value. In practice, however, mapping all possible adverse events is difficult, reliable data to estimate their probabilities is rarely available, and their potential impact is highly uncertain.

Properly identifying risks requires a combination of knowledge from past cases and the creativity to imagine what could happen in the future—even events that have never occurred before. There are countless paths to failure, and while it is impossible to map them exhaustively, identifying the most relevant threats is an achievable goal.

The probability of each event and its potential impact on the company’s value are almost always estimated with incomplete information, supplemented by a significant degree of

subjective judgment. In most cases, it is not possible to achieve precision beyond broad classifications such as high, medium, or low probability.

Time also plays an important role in risk assessment. The longer the time horizon, the greater the likelihood that latent risks will materialize. For example, the probability of someone tripping on any given day is low, but the probability of tripping at least once over the next ten years is quite high.

In summary, risk assessment is a loosely defined, complex task carried out with imperfect data. For this reason, it is the most “artistic” aspect of investing—and the most difficult to formalize into a rigid, rule-based framework. The considerations that follow are presented within this context and are not intended to be prescriptive.

### **Durability of Demand**

The first layer of risk to assess is whether the demand served by a business could decline or even disappear, affecting all companies operating in the same sector.

The most obvious reason this can happen is technological change. For example, whale oil was an important product in the 19th century, used as fuel for lamps, as a lubricant, and as a waterproofing agent. Demand for this product eventually disappeared entirely. It was replaced by kerosene—and later by electric lighting—as well as by cheaper and more efficient synthetic lubricants and waterproofing materials.

Regulatory changes can also have an abrupt impact on entire industries. Asbestos roofing materials were widely used for decades in construction, until it became clear that asbestos exposure caused severe health issues among workers involved in its production. Many countries banned the commercialization of asbestos-based products, severely affecting companies specialized in this segment. In Brazil, this was the case with Eternit.

At times, demand declines simply due to shifts in consumer preferences. In the 19th century, top hats and suspenders were common elements of men’s attire; today, they are virtually obsolete. Ex post explanations often emerge to rationalize changes in fashion trends, but anticipating such shifts in advance is extremely difficult.

Broader consumption patterns may also evolve due to demographic changes. For instance, demand for children’s products is likely to decline in regions with low birth rates.

These examples are not exhaustive, but they illustrate the core idea: we must assess how resilient the demand served by a business truly is. If customers disappear, operational excellence and competitive positioning will matter little.

### **Competitive Threat**

The second layer of risk is the possibility that a company is outperformed by its competitors and loses market share within its industry. Addressing this concern requires a critical step: assessing whether the company possesses sustainable competitive

advantages. The most intuitive metaphor for this concept is Warren Buffett's well-known "moat"—the protective barrier surrounding a castle that prevents enemy forces from approaching its walls. Competitive advantages are precisely the factors that prevent rivals from capturing customers and encroaching on a company's market position.

In industries where meaningful competitive advantages are absent, company returns tend to fluctuate around a level that compensates capital at the average return of the sector. A company led by exceptionally talented management may sustain above-average performance for a period of time, but persistent competitive pressure will, sooner or later, erode its position and bring returns back toward the mean.

This makes investments in companies with unusually strong results—but operating in industries without durable competitive advantages—particularly risky, even when it is not possible to pinpoint exactly how the company might lose ground. High returns inevitably attract competition, and there are multiple avenues of attack: a competitor may initiate a price war to gain market share, a slightly superior product may emerge and attract customers, or changes in input costs may temporarily benefit a rival. Without a moat, even a small and opportunistic competitor can breach the defenses and inflict meaningful damage.

When a company has clear and durable competitive advantages, forecasting its performance becomes more reliable, and the probability of a successful investment increases significantly. The risk mitigation provided by a moat is just as important as the pricing power it enables, allowing the company to sustain returns above its cost of capital.

### **Governance Quality and Capital Allocation**

A third layer of risk arises from the potential misallocation of the profits generated by the business. Minority shareholders can only be rewarded in two ways: through dividend distributions or through share price appreciation—which implicitly requires that retained earnings be allocated to investments that the market perceives as value-creating. If operating cash flows are poorly allocated, even strong profits can be entirely squandered, resulting in disappointing investment returns.

There are several forms of capital misallocation. A company may invest excessively in expansion, leading to prolonged underutilized capacity. It may enter new business segments without clear synergies with its core operations. Acquisitions may be made at excessively high prices. Alternatively, cash may simply be retained and invested in low-yield financial assets, delivering returns below shareholder expectations.

Beyond these "legitimate" uses, there are also risks related to governance misconduct. Controlling shareholders may assign themselves executive or board positions with compensation far above market standards, or extract value through related-party transactions. If such practices are sufficiently abusive, they may constitute legal violations—but there is often a gray area in which minority shareholders can be disadvantaged without breaching the letter of the law.

The best way to assess this type of risk is to examine the historical behavior of controlling shareholders and management. Investors should seek capable partners whose interests are aligned with their own.

## **Mispricing Risk**

In addition to risks inherent to the business itself, there are also risks related to the investment decision. The most important of these is overestimating a company's intrinsic value and paying too high a price for its shares, often due to errors of judgment when projecting future results. Below are some of the most common pitfalls.

In industries subject to long cycles, results during favorable phases can appear especially attractive, leading to projections based on above-average revenue and profitability—effectively extrapolating unusually strong conditions as if they were normal. To avoid this mistake, it is essential to analyze the longest possible historical track record. When there are indications of sector cycles, understanding their dynamics and identifying the company's current position within the cycle is critical. The best investment opportunities in such businesses typically arise during downturns, when the market tends to underestimate their intrinsic value and share prices become more attractive.

Another common trap is building an investment thesis around a complex narrative of how the company will improve its performance in the future. While there are cases in which companies genuinely shift to a higher level of profitability—and identifying them early can be highly rewarding—such theses carry significantly more risk than investing in a company that is already undervalued without requiring meaningful changes to justify its price. In theses that depend on “value catalysts,” the simpler the underlying logic, the higher the probability of being correct. Complexity may add intellectual appeal, but the more elements that must align for success, the greater the risk that something will go wrong.

A more subtle mistake is assuming the existence of durable competitive advantages in a business that has delivered strong results for a few years, even when it is not clear how such advantages are sustained. This leads to an underestimation of the true risk and to projections of stability that are unlikely to persist over time. When the company eventually experiences weaker results, the thesis of sustainable advantages may unravel, and the share price may never reach the initially expected level.

To mitigate mispricing risk, we rely on the well-established principle of margin of safety. Even when using reasonably conservative valuation assumptions, we only invest when shares trade at a meaningful discount to our estimate of intrinsic value. This discipline protects us against potential errors in judgment—and when our assumptions prove correct, it enhances the overall return of the investment.

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Some argue that investment risk can be measured by the volatility of stock prices, but we hope this discussion has illustrated how simplistic that view is. Similarly, it is overly simplistic to assume that higher returns can only be achieved by taking on more risk, as

if the market were capable of measuring the risk of each business with precision and consensus.

In practice, two investors can have very different perceptions of risk regarding the same stock, even when working with identical information. The investor whose assessment is closer to reality will have a clear advantage in evaluating the opportunity and, consequently, is more likely to achieve superior returns.

Over the years, we have refined various aspects of our internal processes to ensure greater discipline and improve the quality of the subjective judgments involved in investment analysis. This process of refinement is ongoing. We regularly review our practices, always aiming to achieve superior returns with the lowest possible level of risk for the capital under our management.