Measuring Risk: Objective Science vs. Subjective Opinions

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Part 1: The ERS Approach to Measuring Risk

One of the core differentiators of Equity Risk Sciences (ERS) is our commitment to measuring risk objectively and accurately. Our approach is rooted in data and statistical probability—grounded in evidence, not opinion. We view risk as a measurable aspect of investing, rather than a matter of personal interpretation or belief.

Many investment advisors, understandably, have not had access to the tools or training needed to evaluate risk in this way. As a result, it's not uncommon to hear the belief that risk cannot be measured at all. But often, what's really being expressed is, "I haven't found a way to measure risk, so I assume no one can." This viewpoint highlights a gap in understanding rather than a lack of intelligence or sincerity.

ERS has taken a different path—one informed by decades of research and the development of advanced methodologies that allow us to assess risk in ways that many others have not yet explored. When James Simons, founder of Renaissance Technologies, reported returns of 50% to 100% per year, many were skeptical simply because such performance was outside their frame of reference. In psychology, this response is called "projection"—assuming others are limited in the same ways we are.

The investing industry, at times, has placed more emphasis on marketing narratives than on analytical truth. But the need for a reliable, objective way to assess investment risk has never been more important.

For example, in 2021, the market experienced a surge, followed by a steep decline in 2022. More than 200 stocks fell by over 70%. This wasn't a matter of politics or leadership—it was a reflection of the financial risks embedded in those companies. Our risk models identified the vulnerabilities in advance. Not one of the companies that saw such steep declines had been rated "safe" by our system.

Here's a key takeaway: a stock's price decline does not, in and of itself, prove that the investment was risky—just as a temporary rise doesn't prove it was safe. Risk must be assessed based on the underlying financial realities, not on outcomes alone. At ERS, we are committed to helping investment advisors understand and apply this principle—through data, transparency, and a clear methodology that has proven itself time and again.

Part 2: The Fallacy of Mistaking Luck for Safety

To truly understand risk, it's essential to recognize a commonly overlooked truth: **the absence of a negative outcome does not prove the absence of risk.**

Consider these examples:

- If someone dances on a rooftop during a thunderstorm and doesn't fall, it doesn't mean the situation was safe—it means they were fortunate.

- If someone smokes for decades and never gets cancer, it doesn't mean smoking is harmless—it means they beat the odds.
- If someone buys a stock with no assets, no revenue, and no profits—and it rises dramatically—it doesn't necessarily mean they made a wise investment. It may simply mean they got lucky.

These situations illustrate a larger point: many advisors unknowingly rely on luck, believing that favorable outcomes validate their decisions. But without objective standards for measuring risk, such outcomes can lead to overconfidence and misjudgments. This mindset contributes to the market cycles we've seen time and again—bubbles, crashes, and confusion.

At **Equity Risk Sciences (ERS)**, we take a different approach. Our methodology is grounded in scientific rigor and supported by historical data. We evaluate risk through quantifiable measures: **probability, magnitude, and timing.** This allows us to offer advisors a more reliable and consistent way to assess the potential downside of any investment.

In investing—as in life—understanding risk before outcomes occur is critical. While no model can predict the future with certainty, using objective data can significantly improve decision-making. At ERS, we're committed to helping advisors make smarter, safer choices with tools that are evidence-based and time-tested.

Part 3: Rethinking Risk—Beyond Beta and Volatility

To better serve advisors, we believe it's time to revisit how risk is defined and understood. For years, the investment industry has largely equated risk with **beta** or **volatility**—the degree to which a stock's price moves up and down. While this view has its uses, it offers only a narrow slice of a much bigger picture.

This limited definition often overlooks something more fundamental: the actual financial strength and durability of a company's financial condition. At **Equity Risk Sciences (ERS)**, we believe risk is more accurately understood as the **statistical probability that a stock's price will decline—and whether that decline is likely to be substantial and long-lasting.**

Let's explore that idea through a familiar analogy. Just as no one would argue that cigarette smoking is safe—because decades of data link it to high rates of illness—we must ask a similar question in finance: what is the probability that a company with a $100 billion or even $1 trillion market cap and **no revenue** will generate lasting value? The answer should be grounded in historical evidence and financial analysis—not market optimism alone.

One effective way to approach this is by walking through hypothetical scenarios. Would a rational advisor pay $10 trillion for a company with no revenue? Probably not. How about $1 trillion? $500 billion? The purpose of this exercise is not to criticize—it's to encourage critical thinking and help advisors define clear, consistent standards.

Sometimes we hear, *"This company might be worth $3 trillion, just like Microsoft."* But Microsoft's price reflects its **financial strength and proven earnings over decades**. Price alone is not the same as value—just as paying $1 trillion for a Picasso doesn't ensure it will appreciate further.

That's why we believe it's important to ask deeper questions:

- How much debt is too much?
- How much tangible equity is enough to create financial resilience?
- Does the makeup of that equity—whether cash or physical assets—change a company's risk profile?

Many advisors today rely on qualitative impressions or brand-name endorsements. But few use structured, data-driven, time-tested methods to measure and assess risk. At ERS, we do. We apply consistent standards based on financial fundamentals and historical analysis to help advisors avoid costly mistakes.

Investing, like building any important relationship, requires due diligence. Just as choosing a life partner should involve thoughtfulness and shared values, investing in a stock should be based on clear standards, strong fundamentals and historical evidence to support one's decision.

Part 4: The Critical Differentiator—ERS vs. the Investment Industry

A major factor in our ability to raise capital and deliver value to clients lies not just in the fact that **Equity Risk Sciences (ERS)** is different—but in the fact that we approach investing with a fundamentally better methodology for measuring risk.

To illustrate the idea of comparability, consider three luxury vehicles: BMW, Audi, and Lexus. While each has its distinctions, they are similar in terms of performance, quality, and price. In contrast, when it comes to investment risk analysis, many traditional institutions simply are not comparable to ERS—not because they lack experience, but because they use a fundamentally different (and less effective) framework for evaluating risk.

Many advisors reasonably trust that if a firm like Goldman Sachs or Merrill Lynch values a stock at $600, it must be worth that. However, what is often missing is an understanding of how that value was calculated. At ERS, we believe it's essential to distinguish **opinion from evidence.** We use a different lens—one built on data, historical precedent, and transparent methods.

Our approach is rooted in the belief that a stock's value should reflect a company's ability to generate income for its shareholders. This principle is foundational to sound investing. While it's fair to believe a company might be worth more in the future, it's also important to ask: **based on what evidence?** We've seen many high expectations—particularly in emerging sectors like AI—go unmet. History teaches us to be cautious, to separate enthusiasm from probability.

ERS addresses this by offering a structured, evidence-based framework for measuring the probability of price increases or declines. We openly share the logic and data behind our ratings. This transparency helps advisors make more informed, confident decisions.

The broader industry often focuses on short-term narratives, market sentiment, or comparative pricing. At ERS, we prioritize **historical context, financial fundamentals, and predictive probability.** It's not about guessing better—it's about **measuring better.**

Part 5: The Importance of Comparative Analysis in Valuation

Valuing a company accurately requires more than hope—it requires historical context, relevant comparisons, and a structured, data-driven approach.

Imagine a company with a $100 billion market cap. Some in the investment community may speculate that it could grow to $500 billion, perhaps assigning a 60% chance to that outcome. While optimism is part of investing, **Equity Risk Sciences (ERS)** takes a more evidence-based approach. Rather than relying on arbitrary probabilities, we ask: *How many companies have actually reached and sustained that valuation in the past—and what did they have in common?*

Consider two companies, each valued at $500 billion. One earns $25 billion in profits, and its earnings grow steadily over time. The other has no earnings and negligible revenue. Despite having the same market cap, the risks of these two companies and the probabilities of each of their respective losses are fundamentally **extremely** different. Yet advisors sometimes overlook these differences, comparing them as if they're equally likely to succeed.

At ERS, we use data science and AI to uncover which comparisons are valid and which are not. If an investment advisor expects a company to reach a $1 trillion market cap, we evaluate that possibility by examining all historically similar companies—and their actual outcomes.

Take Avis as an example. At one point, it had a $34 billion enterprise value. But what made it valuable? Was it its price? Or were there concrete fundamentals supporting that valuation? We believe the **price of a stock does not define its worth**. Price reflects what someone previously paid—not necessarily what it's worth today or tomorrow.

ERS stands apart by challenging price-based valuation models. Instead of starting with an assumption about future value, we evaluate a range of possible outcomes and use real data to assess which are most statistically probable. This is how we bring clarity, consistency, and accuracy to investment analysis.

In short, we believe **valuation should be rooted in calculated probability—not wishful thinking**. That's the foundation of our system, and it's what makes ERS a reliable guide in today's often speculative market environment.

Part 6: The Key to Avoiding Losses—Objective Risk Measurement

At **Equity Risk Sciences (ERS)**, our central differentiator is our ability to evaluate the **statistical probability of a stock declining**, based not on trading behavior or market sentiment, but on the company's actual financial fundamentals.

While much of Wall Street continues to rely heavily on measures like **beta**—which track a stock's price fluctuations—our approach focuses on what truly matters: the current financial health of a company and its historic financial trends. We believe that **risk is not about how a stock trades—it's about what's inside the business.**

With detailed analysis of publicly filed financial data, we quantify both the **probability** and **magnitude** of potential price declines. This allows us to offer advisors a rating system that is clear, data-driven, and actionable.

For example, our research on **Medifast (MED)** identified a meaningful decline in revenue growth before the broader market reacted. Our system issued a risk signal when the stock was still trading around $110. Today, it trades near $14. This kind of early signal can make a crucial difference in helping advisors avoid major losses.

Our methodology includes tracking changes in key financial metrics—such as cash flow, debt levels, and revenue trends—and determining whether those changes are statistically significant compared to a company's historical patterns. This approach offers a far more disciplined and reliable risk alert than subjective opinions or market speculation.

ERS offers a systematic way to recognize when a company's financial fundamentals are in early decline before significant losses materialize.

We believe that **the right way to manage risk is objective, measurable, and proactive.** Our system is built to serve fiduciaries and long-term advisors who want to avoid being blindsided by preventable losses. Rather than relying on static strategies like "buy and hold," we offer a dynamic, ongoing assessment of the gap between a stock's current price and its fundamental value.

In a world where markets can change quickly, having a real-time, evidence-based signal is invaluable. ERS provides that—helping protect advisors by identifying risk **before** it becomes loss.