Wall Street Prompt

The Private-Book Risk Prompt

A quant-style risk analysis for portfolios that don't trade

> **How to use it.** Paste everything below into Claude Code along with a list of your own holdings. It works on any private or illiquid book. Swap in your portfolio and adjust the comparables and stress assumptions to fit.

I run a private-equity portfolio and I want to put real quantitative risk analysis on it, the kind public-market desks have used for decades. The obstacle is that almost everything I own is a private company. These positions do not trade, so there is no price history, no return series, and none of the standard risk tools work out of the box. What I want you to do is bridge that gap: build a public-market stand-in for my book, and then run the full analysis on the stand-in so I can finally see my real exposures, my true concentration, and how the portfolio behaves when markets break.

Here is the data I am working with in the attached file, including a list of my holdings with details on each position.

The core idea is to give every private holding a public-market profile based on how it actually behaves, instead of trying to find one public company that supposedly matches it. A debt position in a private company behaves, in risk terms, a lot like high-yield corporate credit. An equity stake in a private company behaves like a smaller, more leveraged version of the public companies in the same sector. So for each holding I want you to assemble a small basket of liquid public proxies that captures its behavior: the relevant sector index for its industry, a small-cap index for the equity-like risk, and a high-yield credit index for the debt-like risk, scaled up or down for how levered the position is. Then weight every holding by how large it is in my portfolio and combine those baskets into a single blended return series. That series is a public-market mirror of my private book, and once it exists, every tool a quant desk relies on will run on it.

With the mirror built, I want you to run the same analysis a public risk team would, and explain each result as you go. Start with factor exposure: regress the mirror's returns on the Fama-French five factors plus momentum, using robust standard errors, and tell me in plain language what the book is genuinely a bet on, how much broad-market risk it carries, and whether it tilts toward small, cheap, or lower-quality companies. Then take concentration seriously: build a correlation matrix across the holdings, run a principal-component analysis, and estimate the effective number of independent bets, so I can see how many real, distinct bets I am making versus how many names I happen to hold, and which positions or sectors end up dominating the risk. Then size the downside with value-at-risk and expected shortfall at the 95th and 99th percentiles, computed a few different ways so I can see how fat the tails really are. Then stress the portfolio: put it through a severe recession in which the equity side takes a deep drawdown amplified by its leverage and the debt side takes a credit-spread and default hit, and walk the whole book down to a stressed value. Separately, read value creation straight from the holdings by comparing what I paid to what each position is worth now, split between the equity and the debt.

Hold yourself to a few standards throughout. Before you compute anything, reconcile the holdings back to the portfolio total and show me that it ties out, because if the inputs do not add up, nothing downstream is trustworthy. Be explicit about every assumption you make, especially which public proxies you picked for each holding and how much leverage you applied, so a skeptical reader could audit the whole chain. Label every figure as either measured, meaning it comes directly from my holdings, or modeled, meaning it comes from the public proxies, and never let a modeled estimate pass itself off as a hard fact. Where the data is too thin to support a number honestly, say so plainly instead of inventing one.

For the output, give me a clean, reconciled risk report rather than a wall of tables. Open with a short summary of the headline numbers. Then take each part in turn, the factor read, the concentration read, the tail and stress numbers, and the value-creation read, and under each one write a sentence or two, in plain English, on what it actually means for how I should think about the portfolio and where I am most exposed. Close with the handful of things that would most sharpen the analysis if I handed you better

inputs next time, such as real leverage figures for each company, specific comparables I would prefer, or a longer history of marks. Keep the tone direct and analytical, the way a risk memo written for an investment committee would read.

Research and educational analysis only. Not investment advice. Anything derived from public comparables is a modeled estimate and should be read as directional, not exact.