



# DEFINING PORTFOLIO RESILIENCE

## A New Risk Management Framework

### A New Risk Management Framework: Exploring Concepts of Portfolio Resilience and Submergence

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#### Anders Reinertsen

Can you share a bit about what your researchers are researching and testing about comprehensive risk management frameworks that may be different from what asset owners have in place today?

#### Dr. Ashby Monk

Look, this is a fascinating moment for asset owners because markets are so turbulent, or at least they have been over the last 12 to 18 months.

When skies are clear, so to speak, you can navigate with eyesight what we would call in the old days, dead reckoning, the ability to look off into the future and make your plans with models that have been reliably tested over 50 years, 70 years in the case of capital asset pricing model and modern portfolio theory.

When skies become cloudy, you need to rely on instruments. You need that instrumentation to know where your portfolio is, what the stresses could be, and the ability to run scenarios and ultimately stress test your portfolio to ensure you meet your objectives. So, the work we're doing at Stanford is really about understanding how to build those instruments for what we call portfolio navigation – know where you are so we can figure out where you need to go.

And ultimately, it's about data management. It's about building sophisticated risk tools on top of that good data. But also, it means bringing in longer horizon risk management, often referred to as E, S and G, the environment, social and governance factors, and bringing them into a comprehensive capability, which we are calling it Stanford portfolio resilience.

#### Anders Reinertsen

Explain portfolio resilience a bit further, please.

#### Dr. Ashby Monk

So, the concept of portfolio resilience, first starts from this observation we had doing, actually the projects down in Australia, where a lot of the super funds down there are in the process of really building out more sophisticated risk management functions. We observed that in order to put in place really professional risk tools, the first thing they do is invest heavily in their data architecture, infrastructure, get the data organized so that the risk analytics that you're sitting on top of that data are credible.

It's the old saying garbage in, garbage out. You don't want garbage out of your risk analytics. So, they invest heavily in their data and then they start to bring in alternative data. This is where the ESG data comes in. And the combination of those three portfolios of activities — environmental, social, governance, data architecture and infrastructure and traditional risk management tools, those things coming together form what we think of as resilience.

Now, resilience in the investment business is quite unique. In other kind of, let's call it, industries and areas of study, resilience means the ability to recover from a shock. The way we often define resilience in the investment business, I would describe more as robustness. So, let's immunize our portfolios, so that when the shock happens, the portfolios don't move.

That is about, you know, we've heard this, you know, let's build risk factors. Let's minimize our tracking error. Let's focus on all-weather style portfolios. And what we are looking at is actually, rather than saying, let's immunize our portfolios to shock, just like you would do with a building for earthquakes, let's think more deeply about how to build portfolios that will rebound after the shock.

And that's where a lot of our research is now trying to document and understand recoveries. So, document them so we can begin to spot how drawdowns and recoveries come together, and then study them so that we can begin to predict in the future what are the profiles of companies that recover quickly. And it won't surprise you to know that those sustainability issues I mentioned earlier, the E, S, and G, those tend to drive recoveries.

So, if you have a smaller environmental footprint and you have an environmental catastrophe, well, your company will be able to rebound faster. That whole concept of drawdown plus recovery, we call that a submergence. And you can almost think of it like a surfer riding a wave. It really doesn't matter to the surfer how far down they go when they wipe out, what matters to the surfer is the ability to get back to the surface and get air. And we think of that as kind of the high watermark or you could call it the goal watermark: Get back to your goal trajectory. And that is this concept of submergence, and it's based on recovery and resilience.

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