Foreword by Nassim Nicholas Taleb

SAFE HAVEN

Investing *for* Financial Storms

Mark Spitznagel

WILEY

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I was burned out from exhaustion, buried in the hail

Poisoned in the bushes an' blown out on the trail

Hunted like a crocodile, ravaged in the corn

"Come in," she said, "I'll give ya shelter from the storm"

Bob Dylan

Foreword

Nassim Nicholas Taleb

SANTA MARINA

In my ancestral village in the Northern Levant, on top of a hill, stands a church dedicated to Santa Marina. Marina is a local saint, though, characteristically, some other traditions claim her—such as Bithynia or other Anatolian provinces of the Eastern Roman Empire.

Marina grew up in a wealthy family, in the fifth century of our era. After the death of her mother, her father decided to turn his back on civil existence and embrace a life of monasticism. His aim was to spend the rest of his life in a cell carved in the rocks, in the Connubium (Qannubin) valley, at the base of Mount Lebanon, about eight miles from my village. Marina insisted on joining him and faked being a boy, Marinos.

About a decade later, after the death of her father, a visiting Roman soldier impregnated the daughter of a local innkeeper and instructed her to accuse the defenseless father Marinos of having committed the deed. The innkeeper's daughter and her family complied, fearing retaliation by the Roman soldiers.

Marina took the blame—yet she did not need a tough litigator to prove her innocence. She refrained from revealing her biological gender, to remain true to her monkhood identity and what she perceived to be the holiness of her mission. So Marina was forced to raise the child, and to make penitence for an act she never committed, she lived for a decade the life of a beggar outside the walls of the monastery.

Marina faced daily contempt from her peers and the local community. Yet she stood firm, never giving into the temptation to reveal the truth.

After she died prematurely, her gender was revealed during the purification rituals. The iniquity of the accusers was exposed posthumously, and she was venerated into Greek Orthodox sainthood.

The story of Hagia Marina shows us another variety of heroism. It is one thing to commit spontaneous grandiose acts of courage, risk one's life for the sake of a grand cause, become a hero in battle, drink the hemlock for the sake of the philosophical death, become a martyr by standing tall while being maimed by lions in the Roman Coliseum. But it is much, much harder to persevere with no promise of vindication, while living the daily grind of humiliation by one's peers. Acute pain goes away; dull pain is vastly harder to bear, and vastly more heroic.

SPITZ

I have known Mark Spitznagel for long enough (more than two decades) to remember that he was once, briefly, a vegetarian, perhaps after reading Herman Hesse's *Siddhartha* in which the protagonist claims: “I can think, I can wait, I can fast.” My suggestion to follow the Greek Orthodox fast, where one is vegan two-thirds of the year (and aggressively carnivore on the other third, mostly Sundays and holidays), failed to convince. It seemed too much of a compromise.

He finds ways to furtively inflict his musical tastes on his coworkers (Mahler, mainly, with performances by von Karajan) and in the early days, as in a ritual, the conversations used to start and end with Karl Popper and central (Black Swan) asymmetries in the scientific method. There is this insistence that we are not in the business of trading, but partaking of an intellectual enterprise, that is, both applying proper inference and probability theory to the business world and, without any modesty, improving these fields according to feedback from markets. And there is all this German terminology, such as *Gedankenexperiment*. I suspect that there was a nonrandom geography of origin for the authors and topics that have invade the office: prewar Vienna and its *Weltanschauung*.

Spitz has always been hardheaded; perhaps a good excuse is that it came with a remarkable clarity of mind. I must reveal that while I am far more diplomatic and less obstinate in person than I am in print, he is the exact reverse, though he hides it remarkably well to outsiders, say journalists and other suckers. He even managed to fool the author Malcolm Gladwell, who covered us in the *New Yorker,* into thinking that he would be one breaking up a fight at a bar while I would be one to initiate it.

The atmosphere of the office has been playfully unique. Visitors are usually confused by the sprawl of mathematical equations on the board, thinking our main edge is only mathematical. No. Both Mark and I were pit traders before doing quantitative stuff. While our work has been based on detecting mathematical flaws in existing finance models, our edge has been linked to having been in the pit and understanding the centrality of calibration, fine-tuning, execution, orderflow, and transaction costs.

Remarkably, people who have skin in the game, that is, self-made successful people with their own money at risk (say a retired textile importer or a former shopping center developer), get it right away. On the other hand the neither-this-nor-that MBA in finance with year-end evaluation filed by the personnel department needs a helping hand—they can neither connect to the intuitions nor to the mathematics. At the time when I met Mark, we both were at the intersection of pit trading and novel branches of probability theory (such as Extreme Value Theory), an intersection that at the time (and still, presently) included no more than two persons.

MUTUA MULI

Now what was the dominant idea to emerge?

There are activities with remove payoff and no feedback that are ignored by the common crowd.

With the associated corollary:

Never underestimate the effect of absence of feedback on the unconscious behavior and choices of people.

Mark kept using the example of someone playing piano for a long time with no improvement (that is, hardly capable of performing Chopsticks) yet persevering; then, suddenly, one day, impeccably playing Chopin or Rachmaninoff.

No, it is not related to modern psychology. Psychologists discuss the notion of *deferred payoff* and the inability to delay one's gratification as a hindrance. They hold that people who prefer a dollar now versus two in the future will eventually fare poorly in the course of life. But this is not at all what Spitz's idea is about, since you do not know whether there might be a payoff at the end of the line, and, furthermore, psychologists are shoddy scientists, wrong almost all the time about almost all the things they discuss. The idea that delayed gratification confers some socioeconomic advantage to those who defer was eventually debunked. The real world is a bit different. Under uncertainty, you must consider taking what you can now, since the person offering you two dollars in one year versus one today might be bankrupt then (or serving a jail sentence).

So what this idea is about isn't delayed gratification, but the ability to operate *without* external gratification—or rather, with random gratification. Have the fortitude to live without promises.

Hence the second corollary:

Things that are good but don't look good must have some edge.

The latter point allows she or he who is perseverant and mentally equipped to do the right thing with an endless reservoir of suckers.

Never underestimate people's need to look good in the eyes of others. Scientists and artists, in order to cope with the absence of gratification, had to create such a thing as prizes and prestige journals. These are designed to satisfy the needs of the nonheroics to look good on the occasion. It does not matter if your idea is eventually proved right; there are intermediary steps in between that can be won. So “research” will be eventually gamed into some brand of nonresearch that looks cosmetically like research. You publish in a “prestige” journal and you are done, even if the full idea never materializes in the future. The game creates citation rings and clubs in fields like academic finance and economics (with no tangible feedback) where one can BS endlessly and collect accolades by peers.

For instance, the theory of portfolio construction (or the associated “risk parity”) à la Markowitz requires correlations between assets to be both known and nonrandom. You remove these assumptions and you have no case for portfolio construction (not counting other, vastly more severe flaws, such as ergodicity, discussed in this book). Yet one must have no knowledge of the existence of computer screens and no access to data to avoid noticing that correlations are, if anything, not fixed, changing randomly. People's only excuse for using these models is that other people are using these models.

And you end up with individuals who know practically nothing, but with huge résumés (a few have Nobel Prizes). These citation rings or circular support groups were called *mutua muli* by the ancients: the association of mutually respecting mules.

COST-EFFECTIVE RISK MITIGATION

Most financial and business returns come from rare events—what happens in ordinary times is hardly relevant for the total. Financial models have done just the opposite. A fund miscalled Long Term Capital Management that blew up in 1998 was representative of such decorated *mutua muli* misunderstanding. The Nobel-decorated academics proved in a single month the fakeness of their models. Practically everyone in the 1980s, particularly after the crash of 1987, must have known it was quackery. However, most if not all financial analysts exhibit the clarity of mind of a New York sewer after a long weekend, which explains how the *mutua muli* can take hold of an entire industry.

Indeed the investment world is populated by analysts who, while using patently wrong mathematics, managed to look good and cosmetically sophisticated but eventually harm their clients in the long run. Why? Because, simply, it is OPM (other people's money) they are risking while the returns are theirs—again, absence of *skin in the game*.

Steady returns (continuous ratification) comes along with hiding tail risks. Banks lost more money in two episodes, 1982 and 2008, than they made in the history of banking—but managers are still rich. They claimed that the standard models were showing low risk when they were sitting on barrels of dynamite—so we needed to destroy these models as tools of deception.

This risk transfer is visible in all business activities: corporations end up obeying the financial analyst dictum to avoid tail insurance: in their eyes, a company that can withstand storms can be inferior to one that is fragile to the next slight downturn or rise in interest rates, if the latter's earning per share exceed the former's by a fraction of a penny!

So the tools of modern finance helped create a “rent-seeking” class of people whose interest diverged from those of their clients—and ones who get eventually bailed out by taxpayers.

While the financial rent seekers were clearly the enemies of society, we found actually worse enemies: the imitators.

For, at Universa, Spitz built a structure that tail-hedged portfolios, hence insulated him from the need for delayed random gratification. As introduced (and *formulated*) in *Safe Haven*, risk mitigation needs to be “cost-effective” (i.e., it should raise your wealth), and to do that it needs to mitigate the risks that matter, not the risks that don't.

It was the birth of *tail risk hedging* as an investable asset class. Tail risk hedging removed the effect of the nasty Black Swan on portfolios; cost-effective tail risk hedging obliterated all the other forms of risk mitigation. Accordingly, the idea grew on people and a new category was born. This led to a legion of imitators—those very same *mutua muli* persons who had previously been fooled by modern finance tools, finding a new thing to sell.

Universa proved the following: not only is there no substitute to tail risk hedging, but, when it comes to tail risk hedging, simply—as per the boast in the Porsche advertisement—there is *no* substitute.

For when you go from a principle to execution, things are much more complicated: the output is simple to the outsider, the process is hard seen from the inside. Indeed, it takes years of study and practice, not counting natural edges and understanding of the payoffs and probabilistic mechanisms.

I said earlier that Mark's edge came from pit trading and a natural (noncontrived) understanding of the mathematics of tails. Not quite. His edge has been largely behavioral, and my description of hardheaded was an understatement. Perhaps the most undervalued attribute for humans is dogged, obsessive, boring discipline: in more than two decades, I never saw him once deviate a micro-inch from a given protocol.

This is his monumental *f*** you* to the investment industry.

Part One
What Comes First