

WILEY FINANCE

# Winning at Risk

*Strategies to go Beyond Basel*

ANNETTA CORTEZ

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## **WILEY FINANCE SERIES**

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*To my loving, patient, and ever supportive family.*

# Foreword

**E**very ten years or so, after another financial crisis, we relearn the importance of risk management. The recent global financial crisis made us sit up once again and take notice. Moreover, it required us to concede that we were not very well prepared.

In hindsight, it seems clear that we had relied far too much on models, simple assumptions about liquidity, and processes. But our models, our assumptions, and our processes were clearly not up to the task.

Following the crisis, we learned a great deal. We learned that we need to understand the role of governance, incentive structures, information technology, and internal controls. I would add these to this list of crucial lessons we learned from the crisis:

1. Get the right people from across the firm to the table to discuss risk and establish a common language around risk.
2. Maintain a healthy skepticism regarding models.
3. Understand the value of stress testing.
4. Develop a culture that supports the fundamentals and eyes return with an expectation of the appropriate level of risk.

One of the key lessons we have learned is that the basics of risk management have not essentially changed. While it might seem that the world has changed dramatically and that the traditional risk management approaches no longer apply, we discover through each crisis and failure that the basics still do apply. We need to be skeptical when we see outsized returns against risk. It is easy to get excited about high growth, but we need to be cautious—anything growing too fast is likely to be a weed!

*Winning at Risk* presents the basics of risk management in a frank, clear fashion that allows senior management and boards to understand and act on core factors that lead to success. Annetta Cortez goes beyond measurement to present a holistic framework for risk management. She explores the difficulties and benefits of a robust ERM program. She clearly points out a path for ensuring that risk management is more than a department or function but a culture, an integrated strategy for running a business—especially when the



business is a financial institution. She also shows how risk management can help organizations generate real value, without falling into the traps that lead us to crisis.

This comprehensive book provides an excellent foundation for senior executives who are rebuilding their businesses and preparing for the next rounds of global competition. Reading this book will help them understand the regulatory frameworks and generate better returns over the long term. Ideally, it also will help them avoid some of the mistakes of the recent past.

Ken Phelan  
May, 2011

# Preface

**W**e learn in Finance 101 that profits rise in proportion to risk. To make any reasonable money, we need to take risks. That goes for any business but is particularly true of financial institutions. Banks and other financial institutions effectively put money in the hands of others and hope it comes back with excess returns.

This is the ultimate in risk-taking. Banks are betting that the individuals and companies to whom they lend capital will earn enough money to pay back their loans. Insurers are betting that certain events won't happen. Put in those terms, the financial services industry seems hardly better than a trip to Las Vegas.

But if you're planning a trip to a casino—and are planning not to lose your shirt—you might want to prepare by finding out which games provide the best chances to win and learning how to play them. You might even buy an instructional book or DVD. You wouldn't just show up at the casino unprepared and hope for the best. Or would you?

Over the years, we have seen successive changes in regulation and sweeping improvements in risk management capabilities across most institutions in most countries. Nevertheless, we still manage to have crises and individual catastrophic events. Every time this happens, the market cries that the risk models must have been wrong.

In reality, this is rarely the case and certainly not the crux of the story. If the risk is being modeled at all properly, most models will be sufficiently predictive to warn that a real problem is brewing. Most will even be able to pinpoint the sector or instrument that will be the root cause. But no model can predict timing—if they did, all of those Ph.D. modelers would be sitting on a beach sipping rum drinks. That's where vigilance, discipline, and governance take over.

The stark reality is that financial institutions too often get lax. They believe they've made an adequate investment in risk management and that, somehow, "everything will be fine." What happens next? Governance relaxes, investment in risk management declines, and overall institutional interest in the topic dries up.



The irony of the regulatory push is exactly this: It forces many institutions to make large initial investments then lulls them into a false sense of security. What's worse, many recent regulations, such as Basel II, were devised as trade-offs between improved practices and lower capital levels. So what happens when the institutional rigor over those practices wanes?

If you're reading this book, chances are that you're concerned enough to care. Maybe you've had a run-in with the local regulator, maybe your team is planning for the next big implementation, or maybe you're one of the lucky ones who think everything is under control because your risk managers have convinced you that everything is OK.

Or maybe you have some of those same Ph.D. modelers who can boast that they predicted the last crash or big event (unlikely, or they wouldn't still need to be working.) If you're in this latter camp, then you have all the more reason to be truly scared.

In any event, this book will help to sift through the noise and cut to the chase. You will find out what's important, what's not, and learn how to deal with the key risk management issues facing financial institutions in a globalized economy.

A key thing to remember when reading this book is that risk management is the offspring of two parents: basic management principles and statistical science. None of the core concepts of risk management are complex.

That being said, many people will try to convince you that you need a Ph.D. to understand risk management. That is simply not true. Yes, there are advanced risk management applications requiring sophisticated quantitative skills. But understanding the basics of risk management requires no more than knowledge of multiplication and division. Anyone with a high school education will do just fine with this book. Don't let the math scare you off. I wrote this book because I want to demystify risk management, and I promise not to intentionally confuse you with a lot of arcane or irrelevant details.

Most of the concepts discussed in this book can even be applied as provided. Some types of risk models, particularly those used to determine exact pricing formulas and capital measurement, will require levels of rigor and sophistication beyond the scope of this book. In general, however, the broad approaches outlined here will improve your overall understanding of risk and should help you make better business decisions.

Not infrequently, too much complexity can be a bad thing. Broadly speaking, the 80/20 rule applies to risk management in the same way it applies to practically everything else in business. It's important to remember this fundamental fact of life, especially as organizations grow more complex. There will be times when you will need to pare back some of the complexity and resort to simpler frameworks or analyses to achieve sufficient

transparency. That's OK. Most of the time, the gain in trust and clarity outweighs the loss of accuracy.

Here's a story from my own experience that illustrates my point:

I was working with a client firm on pricing strategy, and I needed a high-level estimate of economic capital for each product segment. The firm had not yet developed measures of its own, so I used a simple Excel-based model to generate a quick approximation. The whole exercise took slightly more than a week; I spent most of the time gathering data. What I did not know, however, was that the firm's finance team was in the process of implementing their own capability—due to be implemented that very week. They had already invested a significant amount of time and money building a more robust model. Their model generated roughly the same results as mine. The situation was embarrassing, to say the least.

I'm not advocating the use of "quick and dirty" models; the model I built would never have been suitable for day-to-day use, but the moral of this story is that you don't always have to spend huge sums of money building fancy and complex risk models when a simpler version may suffice. The 80/20 rule does apply and something closer to that point may be the best place to start. The reason you build models is to identify risks so they can be managed before bad things start happening.

Putting it bluntly, it's more important to have a simple working model that will set off alarms than it is to build a highly complex prototype that just sits there. In many cases, identifying a risk is more important than measuring it. If you know the risk is out there, you can take steps to manage it. If you need to measure it down to the hundredth decimal place, you can do that later.

Generally speaking, companies are brought down by the risks they do not see. A truly robust risk management strategy focuses as much on monitoring as on measuring.

# Acknowledgments

I'd like to thank all of the people who helped me pull this book together: Ed, for bringing the gang together; Mike, for injecting humor, wit, and his great experience and skill; Tim Burgard; Stacey Rivera; Natasha Andrews-Noel; and all the folks at Wiley who kindly and patiently pulled this project through to the end.

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# Introduction

## **SEARCHING FOR A SOLUTION**

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Holistic. Comprehensive. Multi-disciplinary. Science-based.

If these terms aren't part of your risk and capital management strategy, you and your organization might be heading for trouble.

Navigating the waters of risk and capital management in today's environment can be intensely challenging. If you are a senior manager or executive with risk management responsibilities, but you have not been formally trained as a risk management professional, beware. Risk management doesn't lend itself to "do-it-yourself" approaches. You can't pick up the essentials by watching an instructional video on the ride from the airport to your next meeting. You can't delegate it to your assistant. You really need to understand it.

More and more we are seeing regulators, legislators, and the press turning to senior executives and board members and expecting surprising levels of depth and articulation regarding risk management in general and the details of how it plays out in their own firms. What's worse is that this level of depth is expected at a time when regulations are more complex than ever, and growing in both size and complexity every day, while as global markets display the highest level of sustained volatility ever experienced in history, while as shareholders are crying for relief and a source of earnings growth, and as the press is putting intense scrutiny on the response to every action and continues to heat up the fervor around all that is wrong.

Sadly, amidst all of this, it is surprisingly difficult to find a single reliable source of information that provides the answers and advice you need, when you need them. Internal risk management teams are notoriously siloed and specialized. Many risk management professionals have strong skills and capabilities, but relatively few have the perspective and business experience required to see the "big picture" as it plays out across the incredibly complex landscape of risk management. Consider the variables: regulation, internal measurement, policy, organization, business strategy, and multiple risk classes. Only a handful of risk managers have the abilities and

experience necessary to discern the materiality and relative weights of these issues. What is an executive to do?

I wrote this book to help you, the busy executive, sort through the complexities and eliminate some of the noise. I've tried to bring a practical perspective to understanding what is important, where to place focus, and how to use the best of risk and capital capabilities to the institution's advantage.

As a risk and capital management expert, I've seen what makes companies succeed and what makes them fail. I've served as an executive within large corporations and worked as a consultant. I've helped the best and the worst, picked up after crashed economies and collapsed institutions, and have also made a lot of money for my clients. I have literally worked literally all over the world with financial institutions, central banks, and regulators on every continent except Antarctica—at the board level and shoulder to shoulder with analysts and across every major risk class. I know what goes on, where the skeletons are hidden, and where the opportunities lie. The purpose of this book is sharing my knowledge with you, so you can avoid some of the mistakes that have been made in the past.

When it comes to understanding what makes winners and losers, the answers are remarkably simple. Most business failures are less about what institutions did and more about what they didn't do—what they didn't measure, what they didn't monitor, and what they didn't resolve . . . until it was too late.

Winning strategies are about taking the resources and information at hand and leveraging them into smarter, better, faster business decisions that keep you ahead of the competition.

Whether you want to invest in building leveraged capabilities or you are just worried about managing your downside, it's about proactive management and continuous improvement. Your risk and capital management strategy is an essential component of your overall business strategy. It's never a good idea to ignore risk. In today's turbulent global economy, ignoring or downplaying the impact of risk is a recipe for disaster.

## **WHY MANAGE RISK?**

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Considering all the pressures, demands, and challenges of the global economy, is it reasonable to expect companies to invest additional resources in risk management strategies? Does it make sense to do more than the absolute minimum? Is risk management a commodity? Can it be outsourced? Why does risk need to be actively managed? Is managing risk as pointless as trying to manage the weather?