

NC STATE UNIVERSITY

COLLEGE OF
MANAGEMENT



ERM

ENTERPRISE RISK
MANAGEMENT
INITIATIVE

PRESENTS

AMY WOODS BRINKLEY
GLOBAL RISK EXECUTIVE, BANK OF AMERICA

Bank of America 

COLLEGE OF MANAGEMENT

Innovation. Technology. Management. Educating Leaders for a Global Economy.

North Carolina State University's College of Management is providing internationally recognized thought leadership on risk management issues facing today's global enterprise. Through the College's Enterprise Risk Management Initiative (the ERM Initiative), NC State is providing leadership on enterprise risk management through three primary areas of focus: outreach to business professionals, research extending knowledge and understanding of ERM issues, and graduate and undergraduate business education for the next generation of executives.

We believe our center of ERM excellence is unique among others in higher education. Bank of America Foundation's recent commitment of \$1 million to support our efforts provides significant validation of the importance of NC State's role in enterprise risk management.

In addition to Bank of America's generous financial support, the College has benefited greatly from the time and energy of several of the bank's executive leadership team. Recently, Amy Woods Brinkley, Global Risk Executive, Bank of America, was the keynote speaker at the College's 2005 Graduate Symposium. Ms. Brinkley's comments included thought-provoking challenges for business school leadership in educating the next generation of executives on the difficulties of balancing risk and reward to reach objectives.



The ERM Initiative at NC State is providing this monograph to share her insights about risk management with others. For further information, please visit the ERM Initiative web site at www.erm.ncsu.edu.

Mark Beasley
ERM Initiative Director



ENTERPRISE RISK MANAGEMENT INITIATIVE

NORTH CAROLINA STATE UNIVERSITY'S COLLEGE OF MANAGEMENT ENTERPRISE RISK MANAGEMENT INITIATIVE (THE ERM INITIATIVE) PROVIDES LEADERSHIP IN THE MANAGEMENT OF ENTITY-WIDE RISKS FOR BOARDS OF DIRECTORS, SENIOR EXECUTIVES, AND OTHER STAKEHOLDERS SEEKING TO PRESERVE AND ENHANCE ENTITY VALUE.

Current economic conditions and recent corporate-related scandals continue to heighten awareness and interest in developing effective methods for identifying, assessing, and managing enterprise-wide risks. Recent regulatory calls look to audit committees and/or boards to take explicit responsibilities for "risk management," including substantially increased public disclosure of enterprise risks to various stakeholders. While most businesses have some focus on risk management, many observers note that the process is often ad hoc in nature, with inconsistent methodologies used to track and manage various risk exposures. In these environments, typically little, if any, analysis of the interrelationships of risk silos occurs. Leadership in ERM processes is needed. NC State's ERM Initiative is striving to contribute through outreach, research and education.

KNUCKLE-BONES, HURRICANES AND THE BEST JOB YOU'LL EVER HAVE



AMY WOODS BRINKLEY
GLOBAL RISK EXECUTIVE



COLLEGE OF MANAGEMENT GRADUATE
SYMPOSIUM, NC STATE UNIVERSITY
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It's great to be here with you and an honor to be a part of such an important conference. On a personal level, I appreciate your inviting a Tar Heel to be on your podium. More important, as a representative of Bank of America, we value our long relationship with North Carolina State and its sister schools across the university system.

When Dean Weiss' predecessor, Dean Jon Bartley, and Mark Beasley presented the idea for the Enterprise Risk Management Initiative, we knew it was a good charitable investment. It's clear the College of Management "gets it" when it comes to understanding the importance of managing risks – and rewards – in the broadest sense.

We don't intend to be passive investors. We believe in accountability. So, we look forward to working with you to produce results...so that more businesses... more business leaders...and more promising business students...get better at managing all kinds of risks.

One of the realities our two institutions share is that business schools, like business itself, get a regular dose of public attention and feedback. For instance, earlier this year in the *Harvard Business Review*, two consultants and professors took note that business education today is far more professional and of far higher quality in the last 50 years. That's the good news.

At the same time, the authors raised questions about the relevance of the curriculum being taught at many B-schools today. Then, when Dean Jeffrey Garten of the Yale School of Management stepped down in June, he told the New York Times that business schools need to focus more on their primary responsibility

of developing business people who “will not only be greater leaders of their companies but also make a much broader contribution to the world economy and society at large.” Others have looked at the recent wave of cases of corporate fraud and mismanagement and they have raised tough questions about whether business schools are emphasizing business ethics as much (if not more) than accounting or economics.

I think these are all the right questions...but I am not going to pretend I have all the answers...because there are no easy answers. Having served as a member of the Board of Visitors of that other school in Chapel Hill, I have the utmost respect for the challenge of both teaching and learning the knowledge and skills that will be necessary to compete in the 21st century. (As a mother of two teenagers, I have an added interest in the outcomes.) Finding these answers is one of the main reasons Bank of America invests in education at all levels.

But there is one thing that I am certain about. It's something I've known intuitively for years but have seen even more clearly in just the most recent stage in my career. Whatever direction you take after business school...whatever profession you choose...whatever shape your career takes...I'm convinced the most important job, the most vital management skill you will ever have is learning to balance risk and reward to reach your objectives.

I THINK ALL BUSINESS PEOPLE
MUST AT LEAST UNDERSTAND THE
DISCIPLINE OF MANAGING RISK.

Now, you may be thinking “Well, that’s exactly what you’d expect a chief risk officer to say.” But it’s really a conclusion that is the sum of 27 years of different and fulfilling management experiences.

I think all business people must at least understand the discipline of managing risk – if not actually carry the title of risk manager at some point. (And, if you are really good at it, we want you to work for Bank of America.) But wherever you go...whatever you do...understanding how to balance risk and reward makes you and your organization better.

Think about it this way: At the end of the day, business is about one thing, and that’s growth. As part of growth, business contributes a number of vitally important things. Business serves customers. Business provides employment. Business pays taxes. Business serves society through commercial advancements, new products and services that make life a little easier. And business re-invests in communities through volunteerism and charitable giving.

At times, momentum may vary. But, if a business doesn’t ultimately grow, it doesn’t attract capital. In the end, if a business doesn’t grow, it dies. The way any business grows is by taking the right risks in the right ways with integrity and getting paid for it. Effective risk management helps enable results that are consistent and sustainable. So, very simply, the objective of business is growth

THE UNPRECEDENTED VELOCITY AND COMPLEXITY OF GLOBAL COMPETITION TODAY MAKES UNDERSTANDING RISK MORE IMPORTANT AND MORE CHALLENGING THAN EVER.

and the fulcrum of growth is risk. The unprecedented velocity and complexity of global competition today makes understanding risk more important and more challenging than ever.

You business students are lucky. I have wonderful memories of my days in school, though I realize a number of you are also working. But while you are here, this experience affords each of you a chance to think and to learn – and to learn how to think.

It's the part about learning how to think that really matters. In fact, you could even think of learning to manage risk as the liberal arts of business education. What do I mean by that? The study of liberal arts is, of course, not a set curriculum. It is the study of a range of disciplines – history, literature, languages, religion, philosophy and so on...resulting in the ability to put it all together as a way of thinking about the world...past, present and future.

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In fact, someone once wrote: “To expect the unexpected shows a thoroughly modern intellect.” Expecting the unexpected is a pretty good summary of managing risk, isn't it? Well, the person who wrote that was Oscar Wilde. And he was an Irish poet and dramatist.

As the liberal arts of business, risk management calls on the same ability to understand multiple disciplines and apply them as a way of thinking. So a good risk

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manager needs to understand accounting and economics, sales and marketing, technology and operations, finance and human resources, communications and

– these days – a good bit about the law. These areas must be understood NOT just in their silos...but with the ability to connect the dots and fill in the gaps...to see issues, challenges and opportunities before they occur...in order to achieve the outcome you want instead of the one you failed to anticipate or prevent.

We call them the liberal arts because a mind that is ‘liberated’ – that is to say not captive of any particular discipline – can be the most powerful and productive mind. The same goes in business.

Good risk management is not just a department down the hall. It's a way of doing business. It's the ability to identify and understand the intended and unintended consequences of the entire institution's actions and events, tactics

and strategies. It's a continuous activity and, in part, the role and responsibility of every member of the team.

In fact, as I thought about this point, I realized how important this broad sense of accountability for managing risk has become to our life together as a nation. Take, for example, the issue of national security. Since 9-11, it has significantly increased the regulatory obligation on banks as part of the fight against terrorism. Banks cannot push back and say that's the government's job. It's our obligation to share the load. And the same is true for us as individual citizens and how we play our increased role – including being more alert...and being patient with airport security checks.

To bring all this to life...let's take a look at how risk management plays out in a couple of ways. First, this fall's hurricanes present an opportunity to learn – or re-learn – some important lessons. Second, I'll share a few thoughts about two books I've been leafing through... and what they can tell us about the possibilities, and the limitations, of how far we can reasonably expect to take our ability to manage risks of all types.

YOU CANNOT ALWAYS PREVENT
THE EVENT...BUT YOU CAN
PREVENT THE DISASTER.

So, let's focus for a moment on what we can learn about managing risk from the last two months in the life of our nation. Managing events like acts of nature is a subset of managing the broader array of risks that a big company, a nation or a university faces any day of the week. Most of what we call 'events' occur without much if any warning – whether they are acts of nature, accidents or systems failures. The key is preparedness.

So, the first principle is that you cannot always prevent the event...but you can prevent the disaster.

With the exception of three states, every inch of the coastline in the continental U.S. is part

PREPARATION IS THE ONE CONTROLLABLE
DIFFERENCE BETWEEN AN EVENT AND A DISASTER.

of the Bank of America franchise. Those three states are Alabama, Mississippi and Louisiana, which meant that we did not take a direct hit with Katrina. But that still leaves us facing multiple storms every year. So event readiness has by necessity become a core competency for our company.

And preparation is the one controllable difference between an event and a disaster.

Event management professionals use two terms to describe an institution's state of readiness for events. The first is that an institution can be 'immune' to an event, that is, to have completely guarded against it. If you can't be immune,

the alternative is a goal of being highly 'resilient' – which means the ability to bounce back quickly.

Institutions with exposure to any significant risk must be one or the other. So, where immunity is not possible, we strive to become resilient because there are some events that simply cannot be prevented. At Bank of America, for example, we think about issues or events as being either known, unknown or unknowable. We work to identify what can be known, and we continuously work to move what is currently unknown into the realm of the known. But we live with the fact that some things are simply unknowable.

WE THINK ABOUT ISSUES OR
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UNKNOWN OR UNKNOWABLE.

The second principle is when an event does occur, people come first. When you've been through a crisis, whether it's a natural disaster, a man-made disaster or something like a market event, what you

learn pretty quickly is that nothing is more important than your people.

At Bank of America, managers in the line of an event like a hurricane understand their first duty is to find their teammates even if it means physically going to search for them in cases where communications are down. And when your people know that you care – that you truly care for them and for their families – they are able to focus on their jobs and their customers, whether they are helping deal with a crisis or it's business as usual.

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The third principle can be summed up as a version of what Congressman Tip O'Neill meant when he said that "All politics are local". In managing risk day-to-day, or responding to an event or crisis, your front line team – the team that is on the ground – is the difference between success and failure.

The first part of this principle is, not surprisingly, about leadership. The best qualities of a leader in times of crisis are, in fact, the qualities you want to develop for any circumstance. Qualities like accountability, decisiveness and the ability to keep a level head.

You also want a leader who is candid and straightforward. Or, as my teammate who headed the Rita recovery effort put it: "You don't want someone who tries to put lipstick on a pig." (Can you tell he is a southerner?) For those of you who don't speak southern, that means you want your leaders to tell it like it is...without trying to dress up an obviously bad situation.

Another key to succeeding at the local level is the importance of building relationships. If an organization is not out there building trust and teamwork in its community, if it is not imbedded in the life of its neighborhoods, your chances of building effective partnerships in a crisis are slim.

For example, when the Rita evacuees were moved to the Houston Astrodome, we became part of a network of public, private, government and non-profit partners that transformed a sports arena into a small city almost overnight. While others were putting in place medical care facilities, social services and life safety support for the evacuees, our associates built an on-site bank and our volunteers went to work in other ways.

There is no way we could have succeeded if those partnerships had not been built long before Rita was nothing more than a soft breeze on some far away shore.

EFFECTIVE RISK MANAGEMENT CALLS FOR ACTIONS AND COMMITMENTS THAT TAKE PLACE OUTSIDE THE CONTEXT OF A GIVEN EVENT.

I could go on and on with other lessons. But my point in focusing on these principles is to underscore that effective risk management calls for actions and commitments that take place outside the context of a given event.

And when we understand that preparation is the difference between an event and a disaster...when we put our people and their families first...when we develop leaders and partnerships that perform in times of normalcy and crisis...when we do all these things, we stand ready for whatever may come.

As a last area of focus, I thought I would pull a couple of points from two books I have had on my reading pile. I suppose one of the most successful business books in years is Thomas Friedman's book, *The World is Flat*. It is described as a book about strategy or globalization. But I think that it also demonstrates risk management at its highest level. Given how Friedman connects the dots and thinks across disciplines, you wonder whether he was a liberal arts major.

Friedman demonstrates the ability to take a very broad view of global business. He highlights ten key trends he says have flattened the world. They include things like the fall of the Berlin Wall, the explosion in cellular infrastructure, offshoring and outsourcing and global supply chain management.

The book has had such an impact because of how he puts these trends together in a way no one else has. Friedman says, these trends threaten to undercut America's remaining competitive advantages...and create for all of us a very loud wake-up call about the skills the rising generation will need to compete.

What's also notable is that these trends are very new, converging for the most part within the last five years. It is the jarringly recent aspects of what Friedman observes that puts his book in such stark contrast to the other book I've been dipping into. It's titled *Against the Gods, The Remarkable Story of Risk*, and written by Peter Bernstein.

In contrast to Friedman and his five-year summation, *Against the Gods* looks back over the last 3,500 years. It traces how mankind has sought to tame risk through a deeper understanding of the laws of probabilities.

As it turns out, the roots of risk management go back to a game of chance called Knuckle-bone. It was the earliest version of what we know as shooting dice. That's right, for better or worse, we learned to calculate probability – and from that to manage risk – out of humanity's innate urge to gamble.

AT BANK OF AMERICA, WE APPLY
THE LAWS OF PROBABILITY TO
MANY OF THE RISKS WE FACE.

From Knuckle-bone, over the next few centuries came the invention of numbering systems tied to early forms of commerce. Later, in the 1600s, came the advent of insurance underwriting, as insurers tried

to put a value on the probability that sea-faring commercial ships would avoid bad weather – and pirates – to reach their markets. In the 1800s probability theory was used in early genetics research. In the 1900s, people like John Maynard Keynes used probability theory to alter the rules of economics.

At Bank of America, we apply the laws of probability to many of the risks we face. Probability theory lies at the heart of how we use derivatives and other sophisticated financial tools to hedge or spread financial risk.

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It informs how we set goals for the number of successful customer interactions without a failure. Outside banking, computer hardware and software manufacturers use probability calculations to do things like gauge the speed of how quickly computer viruses adapt to improve their processes and stay ahead of the threat. As you can guess, *Against the Gods* is a great book if you love math. But it's the final two conclusions the author draws that I wanted to end on – because they deal with the possibilities and the limits of humanity and the tools we invent.

The first conclusion is this: Over the centuries, mankind has, in the author's words, "transformed the perception of risk from chance of loss into opportunity for gain...from helplessness to choice." That's a powerful, and empowering, statement, isn't it? For you students, think about all of the mysteries – in business and other aspects of the human endeavor – that will be unlocked in your lifetime. What an exciting and an enormous opportunity.

The author's second major conclusion concerns the job of all types of leaders to understand the tools and techniques we have...and, just as important, their limitations.

Bernstein writes:

"Nothing is more soothing or more persuasive than the computer screen, with its imposing array of numbers, glowing colors and elegantly structured graphs. As we stare at the passing show, we become so absorbed that we tend to forget that

the computer only answers questions; it does not ask them.”

He goes on to say: “Those who live only by the numbers may find that the computer has simply replaced the oracles....”

The point is this: You students are NOT here to learn how to produce impressive Powerpoint presentations and spreadsheets that make you look smart...(and help you make good grades)...so you can go get a great job or promotion. You are here to learn how to think. So instill that discipline while you are here...and then make it a lifelong pursuit. If you do, you will be prepared for whatever risks and rewards come your way.

YOU ARE HERE TO LEARN HOW TO THINK...IF YOU DO, YOU WILL BE PREPARED FOR WHATEVER RISK AND REWARDS COME YOUR WAY.

All of us at Bank of America look for more great things out of the Enterprise Risk Management Initiative...and out of each of you.

Thank you for the chance to be here.

ERM Roundtables: *The ERM Initiative hosts regular ERM Roundtables designed to bring executives with risk management responsibilities together to dialogue about emerging issues affecting ERM implementation. Since February 2004, the ERM Initiative has hosted sixteen ERM Roundtables featuring business professionals, including Chief Risk Officers, Chief Financial Officers, Board of Director members, and other risk management experts. Links to prior ERM Roundtable presentations are available on the ERM Initiative web site:*

WWW.ERM.NCSU.EDU

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North Carolina State University's College of Management Enterprise Risk Management Initiative provides leadership in the management of entity-wide risks for boards of directors, senior executives, and other stakeholders seeking to preserve and enhance entity value. Current economic conditions and recent corporate-related scandals continue to heighten awareness and interest in developing effective methods for identifying, assessing, and managing enterprise-wide risks. NC State's ERM Initiative is striving to contribute through outreach, research and education.

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