## ERM Standards of Practice for Bankers
## Dr. Bob Mark

**Friday, April 20, 2012: 9:45 a.m.**
**Thurgood Marshall Ballroom West**
**(Washington Marriott Wardman Park)**

**Moderator: Bob Wolf, Staff Partner- SOA/CAS/CIA JRMS**

**Panelists: Dave and Bob**
**-Dave Ingram, Executive Vice President**
**Willis Re Inc**
**-Robert Mark, Managing Partner & CEO**
**Black Diamond Risk Enterprises Inc.**





## The Banking Risk Management (BRM) Community does not have ERM Standards of Practice (SOPs).

**The International Organization for Standardization has provided principles and generic guidelines on Risk Management (ISO 3100:2009).**

**The ISO 3100 family was not developed for a particular industry group or profession.**

**Most professions have a Standard of Practice (e.g. actuaries, accountants, CFAs , physicians, teachers, etc).**

## The BRM Community does not have ERM SOPs at the individual level.

**Bankers have adopted a variety of approaches to benchmarking the quality of their risk management….**

**that can be translated into a scorecard…**

**which in turn can be compared to a "best practice" desired threshold goal score…**

**but bankers have not established ERM Standards of Practice (SOP) for Risk Mangers (BRM ERM SOPs) at the individual level**





## Bankers have adopted a variety of approaches to Benchmarking the Quality of their Risk Management…

## ... that can be translated into a scorecard…

| ERM Scorecard | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Dimension** | **Description** | **Poor (1)** | **Fair (2)** | **Good (3)** | **Very Good (4)** | **Excellent (5)** | **Weight (Hi, Med, Low)** |
| **Policy** | How well is risk information disclosed internally and externally (on a drill-down and firm-wide basis)? | | | | | | |
| | How well is risk management integrated into strategic planning process | | | | | | |
| | How well is risk mgmt integrated into compensation process? | | | | | | |
| | How well is the statement of risk appetite and/or tolerance communicated | | | | | | |
| **Methodology** | How well is risk and EC measured for a Business Unit? | | | | | | |
| | How well do is risk and EC measured firm-wide? | | | | | | |
| | How well is risk and EC stress tested? | | | | | | |
| | How well is risk adjusted performance measured? | | | | | | |
| **Infrastructure** | How knowledgeable and experienced are the risk staff ? | | | | | | |
| | How well equiped are management and the board to assess risk firm-wide? | | | | | | |
| | How sophisticated( reliable, accurate & timely) are the risk systems | | | | | | |
| | What is the quality of data available to assess frequency and severity of risk? | | | | | | |



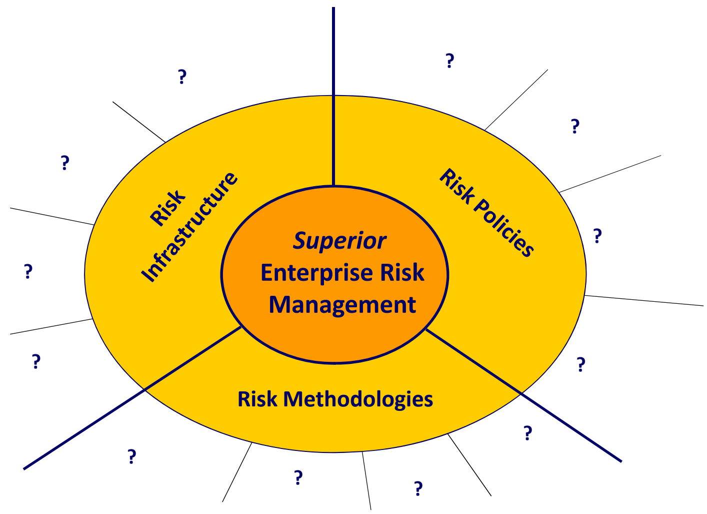
## …which in turn can be compared to a desired threshold "best practice" goal score…

| ERM Scorecard | | | | | | |
|---|---|---|---|---|---|---|
| **Dimension** | **Poor** | **Fair** | **Good** | **Very Good** | **Excellent** | ***Total** |
| **Policies** | 9 | 16 | 12 | 6 | 0 | 43 |
| **Methodology** | 9 | 6 | 10 | 14 | 3 | 42 |
| **Infrastructure** | 6 | 7 | 17 | 9 | 3 | 42 |
| **Grand Total** | **24** | **29** | **39** | **29** | **6** | **127** |
| **Grand Total %** | **19%** | **23%** | **31%** | **23%** | **5%** | **100%** |

| ERM Scorecard | | | | | | |
|---|---|---|---|---|---|---|
| **Dimension** | **Poor** | **Fair** | **Good** | **Very Good** | **Excellent** | **Total** |
| **Policies** | 21% | 37% | 28% | 14% | 0% | 100% |
| **Methodology** | 21% | 14% | 23% | 33% | 7% | 100% |
| **Infrastructure** | 14% | 16% | 40% | 21% | 7% | 100% |
| **Grand Total %** | **19%** | **23%** | **31%** | **23%** | **5%** | **100%** |

Note: An overall single score is compared to a desired threshold

…but Bankers have not established ERM SOPs at the individual level.








## The bank risk management (BRM) community should explore :

-If BRM ERM SOPs at the individual level would add value?
-How to create BRM ERM SOPs?
-How to collaborate and learn from other standard setting efforts {e.g. The effort of the Actuarial ERM Task Force} on common risk management issues {e.g. Economic Capital (EC)}?
-If a standard setting body for BRM ERM SOPs should be created ?
-If a standard setting body for BRM ERM SOPs should be designed along a similar structure to what has already been accomplished by other standard setting bodies {e.g. the Actuarial Standard Board}

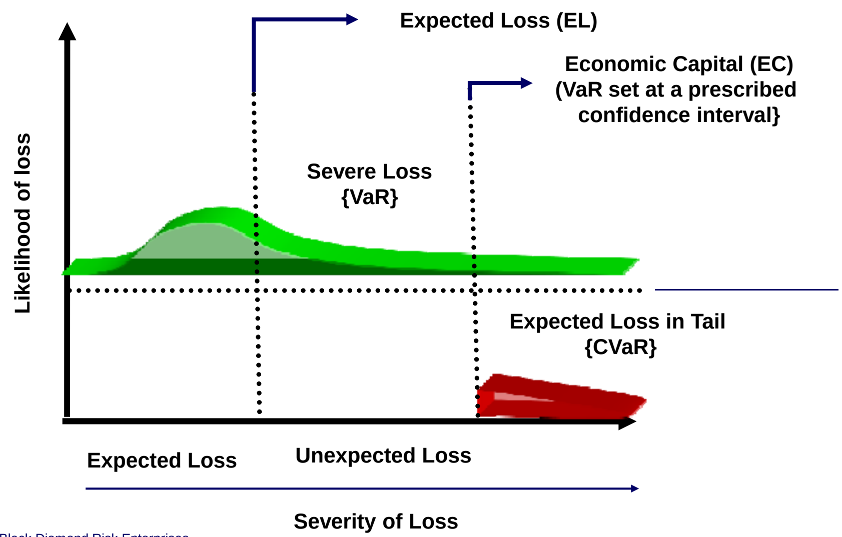
## Creating BRM ERM SOPs can benefit from the work done by the Actuarial ERM Task Force.

- **Example: Substitute "BRM" for the words "actuarial/actuaries" below.**
- **{Source : David Ingram Slides from 2012 ERM Symposium)**

- Standards are a true sign of a profession.
- Defines what can be considered true actuarial professional work.
- Standards address work of the individual actuary.
- Provide Guidance to Actuaries and Employers of actuaries.
- Basis for Disciplinary Process.
- Basis for Professional Opinions.
  - Tied to regulatory requirements in some situations.
  - Provides a way for actuaries to communicate when they are being asked to deviate from normal practices.
  - Example cited : Economic Capital (EC) & EC Model {The actuary should disclose any known limitations of the EC model including an assessment of the potential impact of these limitations on model results and their use}.

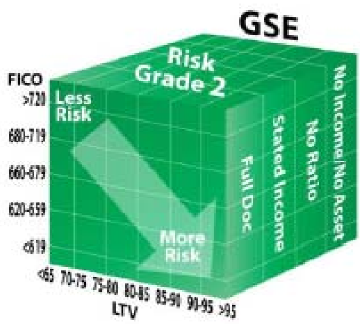


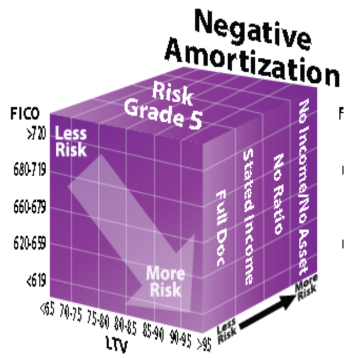

## Example :Calculating EC based on VaR or CVaR (Note : CVaR is the expected loss in tail).



## Example (continued): EC for a Mortgage.

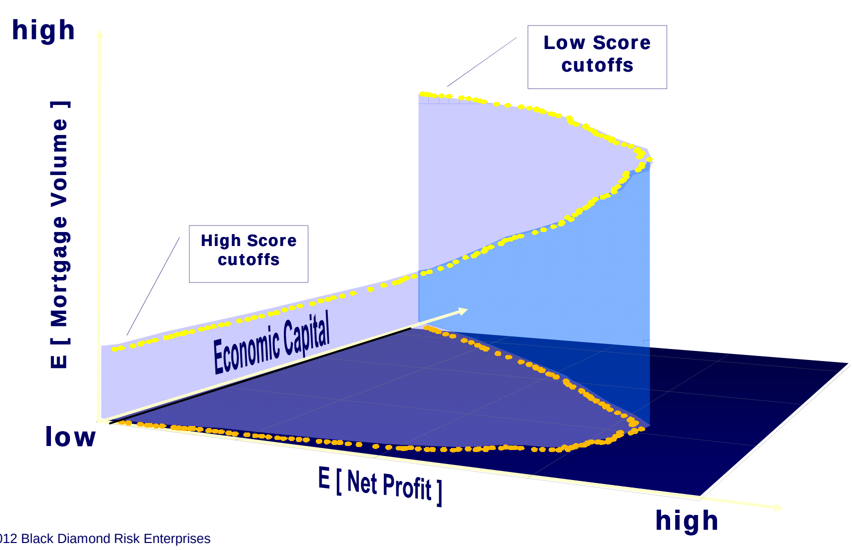
Constructing measures of Economic Capital (EC) within and between product types such as between Negative Amortization Mortgages (say Risk Grade 5) vs. GSE type Mortgages (say Risk Grade 2).






## Example (continued) : Constructing an efficient frontier to optimally make market share vs. EC tradeoff decisions.



## Example : Rewarding Increased Lending Volume (Reference WAMU Article on Mortgage Practices)

# Washington Mutual cited as rewarding risky loans

By James Sterngold, Carter Dougherty and Donal Griffin
BLOOMBERG NEWS

Washington Mutual Inc., once the largest U.S. thrift, rewarded bankers for overcharging customers on subprime mortgages and selling the worst-performing loans to investors, a Senate panel has concluded.

The lender gave its top producers free trips to places like Hawaii and the Bahamas in return for increasing mortgage volume, even as performance of the loans deteriorated, according to the Senate Permanent Subcommittee on Investigations report on the financial crisis.

"Loan officers and processors were paid primarily on volume, not primarily on the quality of their loans, and were paid more for issuing higher-risk loans," the panel found. "Loan officers and mortgage brokers were also paid more when they got borrowers to pay higher interest rates, even if the borrower qualified for a lower rate – a practice that enriched WaMu in the short term, but made defaults more likely."

The report of more than 600 pages, released Wednesday, is based on internal documents and testimony from executives and regulators. The subcommittee concludes that the primary regulator, the Office of Thrift Supervision, identified hundreds of the lender's failings without taking effective action and impeded the Federal Deposit Insurance Corp. from ordering corrective steps.

Kerry Killinger, the former chief executive officer of Washington Mutual, and another executive were sued by the FDIC last month. They were accused of taking extreme risks with the bank's mortgage portfolio, causing billions of dollars in losses. Barry Kaplan, Killinger's attorney, declined to comment about the Senate report.

The "troubling compensation practices went right to the top," the panel found. Killinger received a $15 million severance payment in 2008 "when he was asked to leave the bank that failed under his management," according to the report.

The lender was sold to JPMorgan Chase & Co. in September 2008 as it collapsed. "The activities described in the subcommittee staff's report obviously took place before we purchased Washington Mutual's assets," Joseph Evangelisti, a spokesman for JPMorgan, said Wednesday.

Washington Mutual, which had $300 billion of assets and 2,300 branches when it collapsed, began a strategy of emphasizing high-risk loans in 2004, the subcommittee said. The panel found that the bank's efforts to boost loan volume involved fraud.

"Management was provided with compelling evidence of deficient lending practices in internal e-mails, audit reports, and reviews," the panel said. "Internal reviews of WaMu's loan centers, for example, described 'extensive fraud' from employees 'willfully' circumventing bank policy."

An internal audit of a Washington Mutual subprime subsidiary in 2005 identified predatory lending practices and found that staff sometimes failed to provide proper documentation. The review of early-default cases found that fraud should have been "easily detected," the panel said.

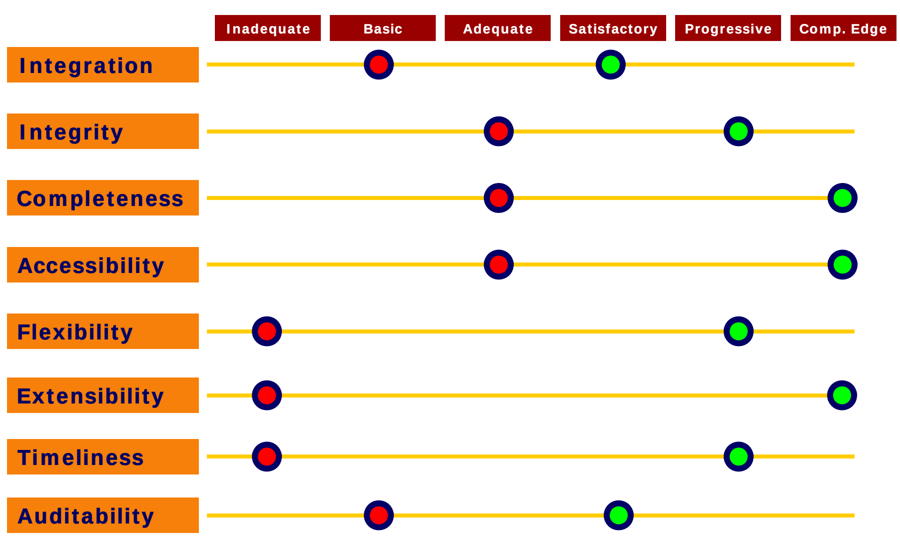
WaMu officers who had responsibility for loan quality tried to reject some loan applications, and found that their decisions were sometimes overridden, according to the report.

Diane Kosch, a quality-assurance officer in Dublin, told the panel about enormous pressure to keep up with loan volume. "Often, when she tried to stop the approval of a loan that did not meet quality standards, it would be referred to management and approved anyway."

Washington Mutual's mortgages and mortgage-backed securities were among the worst-performing in the industry, the panel found. That prompted some investors to complain.



## *Example (continued) : Upgrading quality of data to compute EC for a mortgage.*



## ERM SOPs are integral to a Chartered BRM program (Quote by Shaun Bond-CRO BMO China)

**Goal: if a CRO receives a resume from a chartered BRM then the hiring manger wants to be confident of four things:**
**(1) that the person has successfully completed a relatively rigorous and current curriculum,**
**(2) that the person understands and has formally agreed to comply with a set of** ERM SOPs **(containing industry and ethical principles) and,**
**(3) that there is an on-going continuing education component so knowledge doesn't become stale, and**
**(4) practical on-the-job and relevant experience is accounted for and recognized as part of the chartered program.**





## Premise :Establishing ERM SOPs at the individual level is an important step forward

**Need to answer basic questions such as:**

**if a BRM signs off on a risk model (say an EC model) based on a BRM ERM SOP then what is the value add?**

**if an Actuary signs off on a risk model (say an EC model) based on an ERM SOP then what is the value add? (note : should examine and learn from from work of the Actuarial ERM Task Force)**

**What are the differences if an Actuary (based on an ERM SOP) or a RM (without an ERM SOP) signs off on a risk model (say on an EC model):**
**-in a bank ?**
**-in an insurance company?**

**Welcome your comments during and post the conference. (BobMarK@BlackDiamondRisk.com)**

**APPENDIX**
**DATA LEVERAGE STANDARDS**
**(DATA QUALITY DISCUSSION CONTINUED)**





**EXAMPLE: DATA QUALITY STANDARDS**
**A "GOODNESS OF FIT" INFORMATION LOSS CHARACTERISTIC**
**FOR DATA COMPRESSION / DATA AGGREGATION PROCESSES**

**Data Leverage Example: Weighted-Average Coupon calculation on a pool of loans (e.g. mortgages)**

One WAC pool of 4 loans, in a *single 100-basis point coupon bin*

| | Loan Balance | Loan Rate | Par Interest | WAC Interest | WAC-Par Interest | *Distance* \|ABS\| |
|---|---|---|---|---|---|---|
| 1 | 400000 | 4.900% | 19600 | 17840 | -1760 | 1760 |
| 2 | 600000 | 4.800% | 28800 | 26760 | -2040 | 2040 |
| 3 | 400000 | 4.200% | 16800 | 17840 | 1040 | 1040 |
| 4 | 600000 | 4.000% | 24000 | 26760 | 2760 | 2760 |
| | 2000000 | **4.460%** | 89200 | 89200 | | |
| | | WAC | | | | **7600** |
| | **2000000** | | | **89200** | | **8.520%** |

**Source**: Chapter on "Banking Activities in the Real Economy", by Dr. Robert Mark and Jefferson Braswell in the forthcoming *Handbook of Financial Risk Information*.

(to be published by Cambridge University Press)

## EXAMPLE: DATA QUALITY STANDARDS
## A "GOODNESS OF FIT" INFORMATION LOSS CHARACTERISTIC FOR DATA COMPRESSION / DATA AGGREGATION PROCESSES

**Data Leverage Example( continued): Weighted-Average Coupon calculation on a pool of loans (Mortgages)**

Two WAC pools of the same loans, in *50-basis point coupon bins*

| | Loan Balance | Loan Rate | Par Interest | WAC Interest | WAC-Par Interest | *Distance* \|ABS\| |
|---|---|---|---|---|---|---|
| 1 | 400000 | 4.900% | 19600 | 19360 | -240 | 240 |
| 2 | 600000 | 4.800% | 28800 | 29040 | 240 | 240 |
| | 1000000 | **4.840%** WAC | 48400 | 48400 | | |
| 3 | 400000 | 4.200% | 16800 | 16320 | -480 | 480 |
| 4 | 600000 | 4.000% | 24000 | 24480 | 480 | 480 |
| | 1000000 | **4.080%** WAC | 40800 | 40800 | | **1440** |
| | **2000000** | | | **89200** | | **1.614%** |

**Source**: Chapter on "Banking Activities in the Real Economy", by Dr. Robert Mark and Jefferson Braswell in the forthcoming *Handbook of Financial Risk Information*.

(to be published by Cambridge University Press)





## Bio of Dr. Robert M. Mark bobmark@blackdiamondrisk.com

**Dr. Robert M. Mark is a Founding Partner of Black Diamond Risk which provides corporate governance, risk management consulting, risk software tools and transaction services. Dr. Mark is also the Founding Executive Director of the Masters of Financial Engineering Program at the UCLA Anderson School of Management. He serves on several boards as well as on Checkpoint's Investment Committee .He was awarded the Financial Risk Manager of the Year by the Global Association of Risk Professionals (GARP). He is on the Executive Committee and Treasurer of the Board for the Professional Risk Managers' International Association (PRMIA)**

**Prior to his current position, he was the Senior Executive Vice-President and Chief Risk Officer (CRO) at the Canadian Imperial Bank of Commerce (CIBC). Dr. Mark was a member of the Management Committee. His global responsibility covered all credit, market, and operating risks for all of CIBC as well as for its subsidiaries. Prior to his CRO position, Dr. Mark was the Corporate Treasurer at CIBC.**

**Prior to CIBC, he was the partner in charge of the Financial Risk Management Consulting practice at Coopers & Lybrand (C&L). The Risk Management Practice and C&L advised clients on risk management issues and were directed toward financial institutions and multi-national corporations. This specialty area also coordinated the delivery of the firm's accounting, tax, control, and litigation services to provide clients with integrated and comprehensive risk management solutions and opportunities.**

**Prior to his position at C&L, he was a managing director in the Asia, Europe, and Capital Markets Group (AECM) at Chemical Bank. His responsibilities within AECM encompassed risk management, asset/liability management, research (quantitative analysis), strategic planning and analytical systems. He served on the Senior Credit Committee of the Bank. Before he joined Chemical Bank, he was a senior officer at Marine Midland Bank/Hong Kong Shanghai Bank (HKSB) where he headed the technical analysis trading group within the Capital Markets Sector.**

**He earned his Ph.D., with a dissertation in options pricing, from New York University's Graduate School of Engineering and Science, graduating first in his class. Subsequently, he received an Advanced Professional Certificate (APC) in accounting from NYU's Stern Graduate School of Business, and is a graduate of the Harvard Business School Advanced Management Program. He is an Adjunct Professor and co-author of Risk Management (McGraw-Hill), published in 2001 as well as a co –author of The Essentials of Risk Management (McGraw Hill) published in 2006. Dr. Mark served on the board of ISDA as well as the Chairperson of the National Asset/Liability Management Association (NALMA).**