



GARP Buy Side Risk Managers Forum – Risk Principles for Asset Managers

ERM Symposium

June 11, 2015

Moderator:

Mark C. Abbott, PRM, FRM
Head of Quantitative Risk Management
Guardian Life

Panel:

Kenneth J. Winston
Chief Risk Officer
Western Asset Management Company

Enrique Dick
Director, Head of US Risk
Allianz Global Investors US

Kevin W. Brennan, CPA
Head of Enterprise Risk Management
Western Asset Management Company

1996 Risk Standards

Risk Standards Working Group

Suzanne Brenner, The Rockefeller Foundation

Kevin Byrne, The Equitable Companies Inc.

Christopher J. Campisano, Xerox Corporation

Mary Cottrill, CalPERS

Michael deMarco, GTE Investment Management Corp.

Jon Lukomnik, Comptroller Office, City of New York

Richard Rose, San Diego Cty Employees' Retirement Assoc.

David Russ, Pacific Telesis Group

James D. Seymour, The Common Fund

Kathy Wassmann, R.R. Donnelley & Sons Co.

Gregory T. Williamson, Amoco Corporation

Technical Advisors & Coordinators

Tanya Styblo Beder, Capital Market Risk Advisors, Inc.

Maarten L. Nederlof, Capital Market Risk Advisors, Inc.

Risk Standards Working Group

The Working Group

Suzanne Brenner
Associate Director of Investments
The Rockefeller Foundation

Kevin Byrne
Vice President & Treasurer
The Equitable Companies Inc.

Christopher J. Campisano, CFA
Manager, Trust Investments
Xerox Corporation

Mary Cottrill, CFA
Principal Investment Officer
CalPERS

Michael deMarco
Director, Risk Management
GTE Investment Management Corp.

Jon Lukomnik
Deputy Comptroller for Pensions
City of New York
Office of the Comptroller

Richard Rose
Chief Investment Officer
San Diego County Employees'
Retirement Association

David Russ
Director, Investment Management
Pacific Telesis Group

James D. Seymour
Vice President
The Common Fund

Kathy Wassmann
Manager, Trust Investments
R.R. Donnelley & Sons Co.

Gregory T. Williamson
Investment Manager
Amoco Corporation

Technical Advisors & Coordinators

Capital Market Risk Advisors, Inc.

RISK STANDARDS FOR INSTITUTIONAL INVESTMENT MANAGERS AND INSTITUTIONAL INVESTORS

Copyright © 1996 S. Brenner, K. Byrne, C. Campisano, M. Cottrill, M. deMarco, J. Lukomnik, R. Rose, D. Russ, J. Seymour, K. Wassmann, G. Williamson, Capital Market Risk Advisors, Inc., The Risk Standards for Institutional Investment Managers and Institutional Investors ("Risk Standards") may be reproduced on condition that said reproductions are not sold or otherwise reproduced for profit, and on condition that these Risk Standards are reproduced in their entirety, including this notice and all accompanying disclaimers. All other rights reserved.

The Risk Standards are provided as is, and the Risk Standards Working Group ("RSWG"), the Comment Group and the Technical Advisors make no representation as to their completeness or appropriateness or whether all of the Risk Standards are required by any particular institutions, and are not liable for the results of their application in any situation. Members of the RSWG and the Comment Group have acted as individuals and the content of this document does not necessarily reflect the views or risk management practices of their respective institutions or affiliations.

1996 Risk Standards

The Comment Group included:

Roger Clarke

Ray Dalio

Ron Dembo

Jeff Gundlach

Bob Kopprasch

Rob Litterman

Andrew Lo

Chuck Lucas

Desmond Mac Intyre

Virginia Parker

Tom Philips

Blu Putnam

Bill Sharpe

Elisa Spain

Jay Vivian

Arnold Wood

Jeffery V. Bailey
Director, Employee Benefit Investments
Dayton Hudson Corporation

J. Carter Beese, Jr.
Vice Chairman
Alex Brown International

Afsaneh Mashayekhi Beschloss
Director, Pension Department
The World Bank Group

Gordon E. Dickinson
Senior Vice President
Callan Associates, Inc.

Nancy C. Everett, CFA
Deputy Chief Investment Officer
Virginia Retirement System

Stephen C. Fan
President
Fan Asset Management

Don Fehrs
Director of Fixed Income, Risk Management and Special Situations
Investment Office
University of Notre Dame

William C. Fletcher, CFA
President
Independence Investment Associates, Inc.

Alan D. Biller
President
Alan D. Biller & Associates, Inc.

Robert E. Butler
Regulatory Compliance Consulting Group
Price Waterhouse LLP

Charles T. Connell
Vice President
Chase Manhattan Bank

Roger G. Clarke
Chairman
Analytic•TSA Global Asset Management

Jeffrey E. Gundlach
Group Managing Director
Trust Company of the West

Robert W. Harless
Manager, Structured Products
Lotsoff Capital Management

W. Van Harlow III
Director, Investment Research & Analysis
Fidelity Investments

Gary B. Helms
Vice President for Investments
The University of Chicago

Robert W. Kopprasch
Managing Director
Smith Barney Capital Management

Ian D. Lanoff
Principal
Groom and Nordberg

Raymond P. Dalio
Chairman
Bridgewater Associates, Inc.

William L. Dawson
Senior Vice President, Chief Risk & Compliance Officer
Mellon Trust

Patrick de Saint-Aignan
Managing Director
Morgan Stanley & Co., Inc.

Ron S. Dembo
President & CEO
Algorithmics, Inc.

Charles M. Lucas
Director, Market Risk Management
American International Group, Inc.

Desmond Mac Intyre
Director, Risk Management
General Motors Investment Management Corporation

Katherine Busboom Magrath, CFA
Partner & Chief Investment Officer
ValueQuest, Ltd.

Howard L. Margolin
Partner
Arthur Andersen

Harry S. Marmor
Principal
William M. Mercer Limited

Chris H. Fuller
Vice President
Alliance Capital Management Corporation

Betsy Glaeser
Director, Capital Markets Group
Deloitte & Touche

Frederick L.A. Grauer
Chairman
BZW Barclays Global Investors

Orim Graves
Vice President
Segal Advisors

Richard A. Pike
President
RP Consulting Group, Inc.

William H.S. Preece, Jr.
Director, Retirement Funds
Abbott Laboratories

Bluford H. Putnam
Managing Director, Chief Strategist
Bankers Trust Company

Richard H. Redding
Vice President, Index Products Marketing
Chicago Mercantile Exchange

Craig Scholl
Asset Allocation Manager
Hewlett-Packard Company

Ronald Layard-Liesching
Partner & Director of Research
Pareto Partners

Robert B. Litterman
Partner
Goldman, Sachs & Co.

Andrew W. Lo
Harris & Harris Group Professor
MIT Sloan School of Management

Charles A. Service
Vice President, Capital Management and Trust Investments
Unisys Corporation

Frederick Settlemeyer
Senior Vice President
Mellon Trust

William Sharpe
STANCO 25 Professor of Finance
Stanford University

Elisa K. Spain
Senior Vice President
The Northern Trust Company

Casey J. Sylla
Chief Investment Officer
Allstate Insurance Company

Thomas Szczesny
Senior Vice President
The Bank of New York

James F. Muzzy
Managing Director
Pacific Investment Management Company

Julie O'Donnell
Director, Private Transactions
Ameritech

Virginia R. Parker
President
Parker Global Strategies

Thomas K. Phillips
Managing Director
Rogers, Casey & Associates, Inc.

Martin E. Titus, Jr.
Principal
KPMG Peat Marwick LLP

Francis H. Trainer, Jr.
Senior Vice President
Sanford C. Bernstein & Co., Inc.

R.L. (Jay) Vivian, CFA
Director of Risk Management
IBM Retirement Funds

Ashbel C. Williams, Jr.
President
Schroder Wertheim Investment Services, Inc.

Arnold S. Wood
President
Martingale Asset Management

Contents

I. Management

II. Measurement

III. Oversight

Foreword	3
Working Group and Comment Group Members	5
Introduction	8
The Risk Standards	
Summary	9
I. Management	
1. Acknowledgment of fiduciary responsibility	12
2. Approved written policies, definitions, guidelines and investment documentation	13
3. Independent risk oversight, checks and balances, written procedures and controls	14
4. Clearly defined organizational structure and key roles	15
5. Consistent application of risk policies	16
6. Adequate education, systems and resources, back-up and disaster recovery plans	16
7. Identification and understanding of key risks	17
8. Setting risk limits	18
9. Routine reporting, exception reporting and escalation procedures	19
II. Measurement	
10. Valuation procedures	20
11. Valuation reconciliation, bid/offer adjustments and overrides	21
12. Risk measurement and risk/return attribution analysis	22
13. Risk-adjusted return measures	23
14. Stress testing	24
15. Back testing	25
16. Assessing model risk	25
III. Oversight	
17. Due diligence, policy compliance and guideline monitoring	27
18. Comparison of Manager strategies to compensation and investment activity	27
19. Independent review of methodologies, models and systems	28
20. Review process for new activities	29

2008 Risk Principles

The Working Group

David Martin, AllianceBernstein L.P.
Kenneth Winston, Morgan Stanley Investment Mgmt.
Mark C. Abbott, Guardian Life
Sarah Collins, The Dreyfus Corporation
Bennett Golub, BlackRock, Inc.
Jacques Longestaey, Putnam Investments
Barbara Lucas, Capital Market Risk Advisors
Thomas Madden, Federated Investment Advisory Cos.
Erwin Martens, TIAA-CREF
Charles Massare, Jr., Lord, Abbett & Co. LLC
Philip Hausken, Northern Trust Global Investments
Leslie Rahl, Capital Market Risk Advisors
Abe Riazati, Evergreen Investments
Jacob Rosengarten, Goldman Sachs Asset Management
Theresa Schnepf, JP Morgan Asset Management
Mike Thorfinnson, TD Asset Management
Terry Watson, Barclays Global Investors
Abraham L. Wons, Wellington Management Company

Co-Chairmen

David Martin
Sr. Vice President/Chief Risk Officer
AllianceBernstein L.P.

Kenneth Winston
Managing Director/Chief Risk Officer
Morgan Stanley Investment Management

The Working Group

Mark C. Abbott, FRM
Managing Director, Quantitative Risk Management
Guardian Life

Sarah Collins
Sr. Risk Management Officer
The Dreyfus Corporation

Bennett Golub
Managing Director and Head of Risk and Quantitative Analysis
BlackRock, Inc.

Jacques Longestaey
Managing Director, Head of Risk Management
Putnam Investments

Barbara Lucas
Partner
Capital Market Risk Advisors

Thomas Madden
Vice Chairman
Federated Investment Advisory Companies

Erwin Martens
Executive Vice President, Risk Management
TIAA-CREF

Charles Massare, Jr.
Partner, Director of Quantitative Research & Risk Management
Lord, Abbett & Co. LLC

Philip Hausken
Vice President, Head of Risk and Compliance
Northern Trust Global Investments

Leslie Rahl
President
Capital Market Risk Advisors

Abe Riazati
Managing Director, Head of Investment Risk
Evergreen Investments

Jacob Rosengarten
Managing Director
Goldman Sachs Asset Management

Theresa Schnepf
Managing Director, Risk Management
JP Morgan Asset Management

Mike Thorfinnson
Chief Operating Officer and Chief Risk Officer
TD Asset Management

Terry Watson
Global Head, Compliance Director
Barclays Global Investors

Abraham L. Wons
Director, Operational Risk Management
Wellington Management Company

RISK PRINCIPLES FOR ASSET MANAGERS

February 25, 2008

Prepared by

**Buy Side Risk Managers Forum
and
Capital Market Risk Advisors**

Copyright © 2008 Buy Side Risk Managers Forum and Capital Market Risk Advisors, Inc. The Risk Principles for Asset Managers may be reproduced on condition that said reproductions are not sold or otherwise reproduced for profit, and on condition that these Risk Principles are produced in their entirety, including this notice and all accompanying disclaimers. All other rights reserved.

2008 Risk Principles

- 1. Introduction
- 2. What is Risk
- 3. What is Risk Management
- 4. Summary of Risk Principles
- 5. Governance Principles
- 6. Investment Risk Principles
- 7. Operational Risk Principles

TABLE OF CONTENTS

1.	INTRODUCTION	5
1.1	Changing Risks Require Changes in Risk Management.	5
1.2	Understanding the Relationship Between Risk and Reward Enhances All Aspects of the Asset Management Business	6
1.3	Each Asset Manager Must Consider Risk From Its Own Perspective.	7
2.	WHAT IS RISK?	8
3.	WHAT IS RISK MANAGEMENT?	8
4.	SUMMARY OF THE RISK PRINCIPLES	9
5.	GOVERNANCE PRINCIPLES	10
5.1	Effective Risk Governance is an Important Component of Effective Risk Management	10
5.2	Segregation of Functions Provides a Key Check and Balance.	11
5.3	Understanding and Managing Risk is Everyone’s Responsibility.	12
5.4	Independence of Control Groups From the Line Organization is a Good Check and Balance	13
5.5	Independent Risk Management is an Important Control	13
5.6	Acknowledging and Understanding Fiduciary Responsibilities is Crucial to Managing Risk	14
5.7	Senior Management’s Establishment of a Risk Conscious Culture is a Component of Effective Risk Management	14
5.8	Written Policies, Procedures, Ethics Codes, Guidelines and Documentation Should be Clear, Unambiguous and Achievable. Say What You Do and Do What You Say	15
5.9	Formal Exception and Escalation Procedures are Important	15
5.10	Reputation Risk is a Critical Factor in Asset Management Businesses and Must be Carefully Managed.	15
5.11	Employee Education is Critical to a Risk Conscious Culture.	16

2008 Risk Principles

(Continued)

- 1. Introduction
- 2. What is Risk
- 3. What is Risk Management
- 4. Summary of Risk Principles
- 5. Governance Principles
- 6. Investment Risk Principles
- 7. Operational Risk Principles

5.12	It is Important to Determine and Track Firm Risk Tolerance	16
5.13	Consideration Should be Given to the Risk, Compliance, Operations, Legal, and Systems Risks Posed by New Products and Strategies Prior to Launch	16
6.	INVESTMENT RISK PRINCIPLES	17
6.1	Investment Performance Should be Measured and Monitored	17
6.2	Investment Risk Should be Measured and Monitored	18
6.3	Liquidity Risk Should be Measured and Monitored	18
6.4	Concentration Risk Needs to be Tracked and Understood.....	19
6.5	Risks Attributable to Leverage Should be Tracked and Understood	19
6.6	Client Risk Tolerances and Expectations Should be Known and Monitored	19
6.7	Valuation Methodologies Should be Fair and Consistent	20
6.8	The Use of Various Statistical Tools and Avoidance of Over-Reliance on Any Single Statistical Tool is Desirable.....	21
6.9	Stress Testing is an Important Tool in Analyzing Risk.....	21
6.10	Capacity Should Be Taken Into Consideration in Accepting New Investments and Allocating Opportunities Among Existing Investors	21
6.11	Issuer and Counterparty Credit Risk Should be Tracked and Managed on an Aggregate Basis	22
7.	OPERATIONAL RISK PRINCIPLES	23
7.1	Operational Risk Should be Measured and Monitored	23
7.2	Adequate Systems, Processes and Resources are an Integral Part of Risk Management	23
7.3	Spreadsheet and other End-User Tool Risk Should be Reduced and/or Controlled to the Greatest Extent Possible.....	24
7.4	Model Risk Should be Identified and Controlled	24
7.5	Adequate Backup and Disaster Recovery is Critical.....	25
7.6	Effective Records Management is Becoming Increasingly Crucial	25
7.7	Effective System Security is Necessary to Protect the Interests of Employees and Clients	26
7.8	Risk Pertaining to Subadvisors, Custodians and Outsourced Service Providers Should be Managed.....	27

2015 Risk Principles - Update In Progress

2015 Update Focused On:

- **Governance Principles**

- Risk principles relating to organizational structure, and oversight mechanisms. It addresses the importance of independent controls, segregation of functions, senior management involvement in risk management and oversight and adoption of appropriate policies and procedures

- **Investment Risk Principles**

- Risk principles relating to the need for various risk controls at the portfolio level. It addresses market risk, liquidity risk, leverage, valuations and other aspects of investment risk

- **Operational Risk Principles**

- Risk principles relating to various types of risks that occur in the ordinary course of business and in disasters. It addresses the importance of identifying, assessing, and monitoring these risks, putting in place adequate systems and minimizing manual processes, managing counterparty credit risk, and assuring business continuity in a disaster.

Meeting on June 26th to Finalize Updates to Risk Principles



GARP Buy Side Risk Managers Forum – Investment Risk Principles

ERM Symposium

June 11, 2015

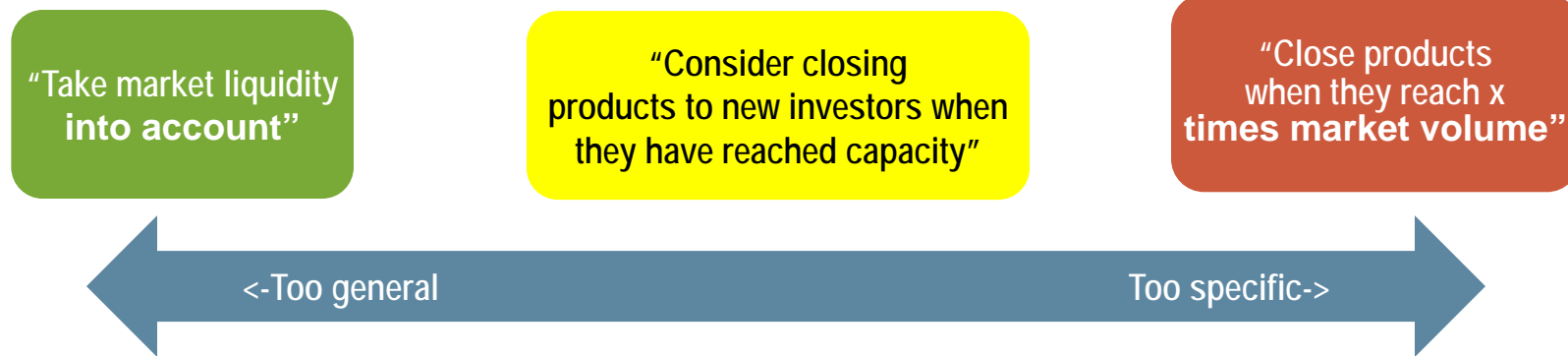
Kenneth J. Winston
Chief Risk Officer
Western Asset Management Company

Buy Side Risk Managers Forum (BSRMF)

- **Founded in 2003 by Ken Winston (then at OppenheimerFunds) and Sarah Collins (then at Dreyfus)**
- **Brought together chief risk officers and heads of risk from 30 large asset management firms (Fidelity, Vanguard, Blackrock, Putnam, Federated, Goldman, Morgan Stanley, JP Morgan, OppenheimerFunds, Wellington, TD, Dreyfus, etc.)**
 - There were many risk management groups for banks, insurers, and others – but none for asset managers
- **Originally intended to produce a standards document for the industry, but that's a lot of work!**
 - Instead, the group met twice a year in New York or Boston and discussed issues of interest to large asset managers
 - Discussions focused about 60% on managing investment risk (market and credit risk); 40% on enterprise and operational risk
- **Merged with GARP (Global Association of Risk Professionals) in 2013**
- **GARP Buy Side Risk Managers Forum**
http://www.garp.org/#!/buy_side_risk_managers_forum/
- **2008 Risk Principles link** <http://bit.ly/1BWkJpg>

Creating a principles document

- Decision to create a principles document in 2006
 - Hired Capital Market Risk Advisors (CMRA) to help with polling, editing, writing
 - Still a lot of work!
- Threading the needle between overly general and overly prescriptive



- Not all members of the BSRMF signed the 2008 document (17 did)
- Then there was a global financial crisis
- Current climate may push for a degree of precision and certainty that is not realistic
- Important to stress diligence and adherence to fiduciary duty without guaranteeing an outcome

Investment risk principles

- **Background:** Asset managers are fiduciaries investing money that belongs to their clients. Client money is kept in a custodian bank and is generally not commingled with the asset manager's own money. The asset manager is paid a fee to make good investment decisions on behalf of the client.
1. Client Risk Tolerances and Expectations Should be Known, Communicated, and Monitored
 2. Investment Risk Should be Estimated and Monitored
 3. Investment Performance Should be Measured and Monitored
 4. Liquidity and Capacity Risk Should be Estimated and Monitored
"...managers should regularly assess the product's ability to obtain and provide appropriate liquidity and should limit the product's size if necessary."
 5. Concentration Risk Needs to be Tracked and Understood
 6. Risks Attributable to Leverage Should be Tracked and Understood

Investment risk principles, continued

7. Valuation Methodologies Should be Fair and Consistent
8. Stress Testing is an Important Tool in Analyzing Risk
9. Issuer and Counterparty Credit Risk Should be Estimated and Managed



GARP Buy Side Risk Managers Forum – Operational Risk Principles

ERM Symposium

June 11, 2015

Enrique Dick
Director, Head of US Risk
Allianz Global Investors US

Risk Principles for Asset Managers – Operational Risk

Recording of Operational Events

- Events with financial impact and near misses
- Internal as well as external events
- Include events from outsourced services and sub-advisory relationships
- Consider developing an operational events database

Risk and Control Assessments

- Top-down and a bottom-up approach to identifying and prioritizing risks
- Monitor remediation of any identified issues
- Strong consideration to IT related controls
- Consider conducting controls testing

Key Risk Indicators

- Should allow to measure the effectiveness of key controls
- Effective implementation requires a structured approach, with metrics derived from the Risk Assessment and a process that includes thresholds for monitoring and escalation

Operational Risk Quantification

- Allows quantification of operational risks
- Two approaches:
 - a) use operational risk event data or
 - b) scenario based approach



GARP Buy Side Risk Managers Forum – Governance Principles

ERM Symposium

June 11, 2015

Kevin W. Brennan
Head of Enterprise Risk Management
Western Asset Management Company

Components of Governance

Governance provides the foundation for the effective oversight of risk management activities

Decision making structures and issue escalation procedures provide the needed infrastructure

Tone at the Top & Mutual Understanding

- Whether you take a consultative or prescriptive the approach will depend upon the organization's ownership structure, size, complexity and culture
- Definitions of risk and risk tolerances should be mutually agreed upon

Organizational Structure

- Risk management must have access to senior management
- Segregation of duties
- Risk Management roles and responsibilities should be clearly defined and governance supported by written policies and procedures

Reporting & Escalation

- Risk reporting should inform decision-making
- Escalation should follow the natural flow of information

Principles of Governance

Framework

- Common understanding of the methods used and metrics measured
- Applied uniformly across the enterprise
- Clearly defined terminology

Segregation of Functions

- Appropriate checks and balances
- Segregation of duties between investment decision makers, risk management and operational support functions
- Segregation of control functions from line functions

Roles & Responsibilities

- Clearly defined roles and responsibilities:
 - risk and assessment; and,
 - control and identification mitigation within risk tolerances
- Policies and procedures, code of ethics, guidelines and escalation procedures should be clear, unambiguous, accessible and achievable

Culture

- Risk conscious culture:
 - risks are well-understood
 - tolerances are clearly defined; and,
 - risk / return trade-offs are considered

Principles of Governance

Independence of Risk Management

- Risk management function must be independent
- A skilled Chief Risk Officer provides leadership and an independent view on:
 - evolving practices
 - whether risk is being taken intelligently and strategically with a reasonable expectation of being rewarded

Measurement and Reporting

- Meaningful and actionable reporting is a continual improvement effort
- Risk Reporting should be tailored to the audience
- Mutual agreement is not expected or required, but the risk manager's role as an objective observer includes effective communication to peers

Proprietary Investment Management

- Certain activities require special risk governance when the asset manager's assets are exposed to investment risk.
- Conflict Avoidance
 - Proprietary versus client investment activities to provide transparency, accountability and control
 - Clearly defined allocations of profit and loss

GARP Buy Side Risk Managers Forum

http://www.garp.org/#!/buy_side_risk_managers_forum/

2008 Risk Principles

<http://bit.ly/1BWkJpg>



GARP Buy Side Risk Managers Forum – Risk Principles for Asset Managers

ERM Symposium

June 11, 2015

Moderator:

Mark C. Abbott, PRM, FRM
Head of Quantitative Risk Management
Guardian Life

Panel:

Kenneth J. Winston
Chief Risk Officer
Western Asset Management Company

Enrique Dick
Director, Head of US Risk
Allianz Global Investors US

Kevin W. Brennan, CPA
Head of Enterprise Risk Management
Western Asset Management Company



GARP Buy Side Risk Managers Forum –
Risk Principles for Asset Managers

ERM Symposium

June 11, 2015