

ORSA in an ERM Framework

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Learning Objectives

1. Define ORSA and describe the sections of the ORSA Summary Report
2. Identify existing ERM strategies and related reports to leverage for an ORSA Summary Report
3. Explain how the ORSA Summary Report will be reviewed by various Stakeholders
4. Evaluation of actuarial and financial models
5. Organize company information into sections of the ORSA Summary Report



Health Plan Risk Categories

Operational <ul style="list-style-type: none"> • Enrollment and Effectuation • Premium Billing and Delinquency • Post-enrollment service fulfillment • Claims Adjudication • Appeals & Grievances • Care Coordination Programs and ACOs (PCMH) 	Financial <ul style="list-style-type: none"> • Forecasting, Budgeting and Actuarial Analysis • Medical / Disease Cost Management • Subsidy / Cost Sharing Management • Medical Loss Ratio • Model Audit Rule • Utilization Management 	People / Culture <ul style="list-style-type: none"> • Talent Risk Management • Call Center and Customer Service • Marketing, Member Outreach • Prospective Member Engagement • Aging Workforce • Resource Allocation 	External <ul style="list-style-type: none"> • HEDIS Quality Reporting • Value-Based Networks • Medical & Care Management • Self-Insured Groups • Broker Appointments • Third-Party Relationships • Aging Population • Insurance Commissions
Strategic <ul style="list-style-type: none"> • Financial Goals and Strategy • Provider Incentive Programs (Shared Savings) • Competition • Plan Development • Membership Retention Strategy 	IT / Technology <ul style="list-style-type: none"> • Operations, Data and Change Management • Systems Development • Cyber Security • Contingency Planning • Health Information Exchange • Disaster Recovery 	Quality and Safety <ul style="list-style-type: none"> • Provider Quality Incentive Programs • Disease / Care Management • Long Term Health HEDIS Reporting • Quality Improvement Strategy • Star Rating 	Regulatory & Compliance <ul style="list-style-type: none"> • Model Audit Rule (MAR) • HIPAA & HITECH • First Tier, Downstream, and Related Entities • Enrollment & Subsidy Reconciliation Reporting • ORSA • Network Adequacy • Accreditation

Crossing all of these risk categories is the reputational risk to the health system

ORSA & ERM

U.S. Definition



What is ERM?

- Multiple definitions
 - CAS/SOA: The discipline by which an enterprise **assesses, controls, exploits, finances, and monitors** risk from all sources for the purpose of increasing the enterprise's short- and long-term value to its stakeholders
 - COSO: A process, effected by an entity's **board of directors**, management and other personnel, applied in strategic setting and **across the enterprise**, designed to identify potential events that may affect the entity, and **manage risks to be within its risk appetite**, to provide reasonable assurance regarding the achievement of entity objectives
- Goals are to improve management's ability to
 - Identify, evaluate, and quantify risks
 - Understand complex interactions between risks
 - Identify both known risks and unknown or emerging risks
 - Achieve appropriate risk and return tradeoff according to its values and goals

Actuarial View of ERM Framework

Source: American Academy of Actuaries, March 2013 "Insurance Enterprise Risk Management Practices"

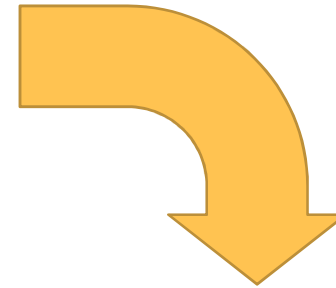
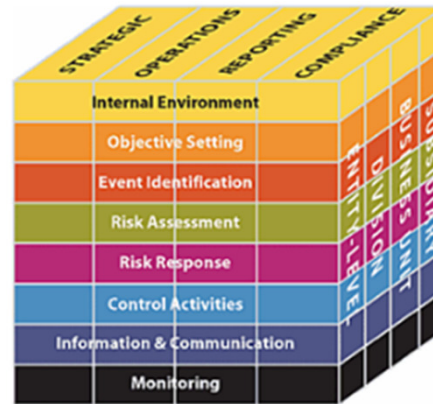


COSO View of ERM Framework

2004: ERM was represented in a cube.

June 2017: ERM guidance based on 20 principles

Source: Committee of Sponsoring Organizations of the Treadway Commission, June 2017, "Enterprise Risk Management Integrating with Strategy and Performance"



Governance & Culture

1. Exercises Board Risk Oversight
2. Establishes Operating Structures
3. Defines Desired Culture
4. Demonstrates Commitment to Core Values
5. Attracts, Develops, and Retains Capable Individuals



Strategy & Objective-Setting

6. Analyzes Business Context
7. Defines Risk Appetite
8. Evaluates Alternative Strategies
9. Formulates Business Objectives



Performance

10. Identifies Risk
11. Assesses Severity of Risk
12. Prioritizes Risks
13. Implements Risk Responses
14. Develops Portfolio View



Review & Revision

15. Assesses Substantial Change
16. Reviews Risk and Performance
17. Pursues Improvement in Enterprise Risk Management



Information, Communication, & Reporting

18. Leverages Information and Technology
19. Communicates Risk Information
20. Reports on Risk, Culture, and Performance

ERM Framework

NAIC

1. Risk Culture and Governance
2. Risk Identification and Prioritization
3. Risk Appetite, Tolerances, and Limits
4. Risk Management and Controls
5. Risk Reporting and Communication

COSO

1. Governance and Culture
2. Strategy and Objective-Setting
3. Performance
4. Review and Revision
5. Information, Communication, and Reporting

What is ORSA?

- Own Risk and Solvency Assessment (ORSA) is an internal assessment of the risks associated with an insurer's current business plan over the planning time horizon and the sufficiency of capital resources to support those risks.
- NAIC #505: Risk Management and Own Risk and Solvency Assessment Model Act
 - 49 of 50 states have adopted
 - Two Goals:
 1. To foster an effective level of ERM for all insurers
 2. To provide a group-level perspective on risk and capital
 - Requirements:
 1. Conduct an ORSA at least once per year to assess the adequacy of its risk management framework, current and likely future solvency position
 2. Document the ORSA process and results
 3. File an ORSA Summary Report

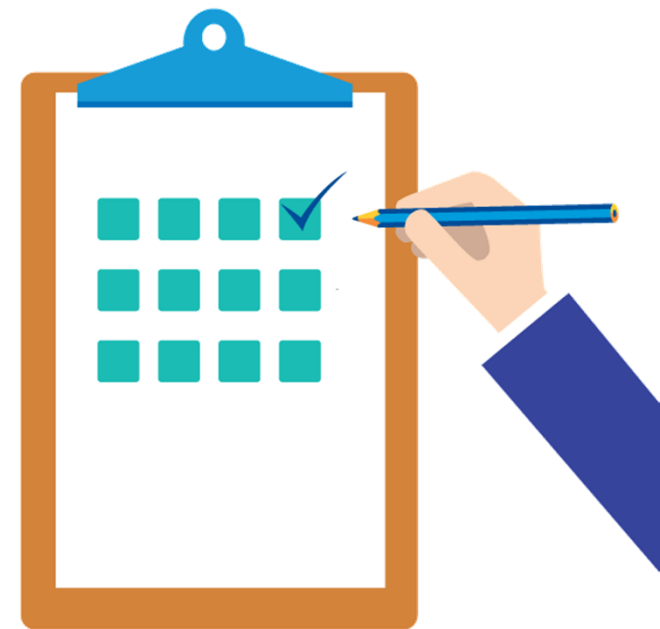
ORSA Exemption

- ✓ The insurer should file an ORSA Summary Report if they do not qualify for exemption

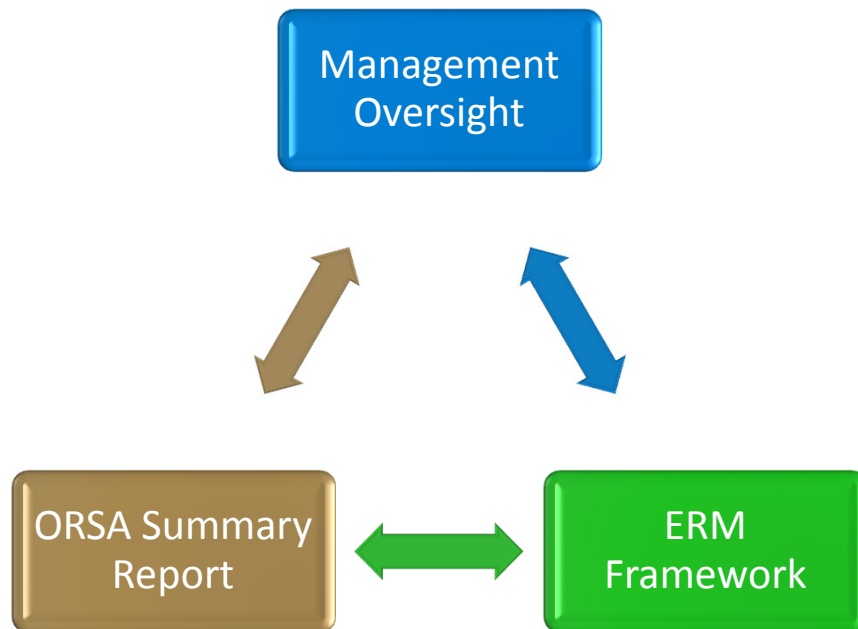
An insurer is exempt from filing an ORSA Summary Report if:

1. Individual insurer's annual direct written and assumed premium is less than \$500 million*
2. The insurance group's annual direct written and assumed premium is less than \$1 billion*

*Excludes premiums reinsured with the Federal Crop Insurance Corporation and Federal Flood Program.



How do ORSA and ERM fit together?



- ✓ **ERM Framework is an iterative process defined by Management**

- ✓ Identifies, Evaluates, Manages, & Monitors risk
- ✓ Defines Risk Appetite, Risk Tolerance, Risk Limits

- ✓ **ORSA Summary Report documents:**

- ✓ ERM Framework
- ✓ Management's self-assessment of risk

- ✓ **Management's Oversight defines:**

- ✓ ERM Framework components
- ✓ Company's risks and solvency assessment
- ✓ Chief Risk Officer

Note: For a first-year audit of a health plan, consider reviews focused on documentation of plan design, benefits administration, and enrollment.

PAYOR RISK FRAMEWORK						
	STRATEGY and GOVERNANCE	PLAN MANAGEMENT	ENROLLMENT and ELIGIBILITY	CLAIMS PROCESSING and PAYMENTS	OPERATIONS MANAGEMENT	FINANCIAL MANAGEMENT
REGULATORY COMPLIANCE	Marketing and Communications Strategy	Plan Development Strategy	Membership Retention and Growth Strategy	Claims Strategy	Operations, Data and Change Management Strategy	Financial Goals and Strategy
	External Dependency	Market Conduct Analysis and Implementation Strategy	Enrollment, Payment and Effectuation	Benefits Setup, Testing and QA	Testing processes, piloting, assessments	Forecasting, Budgeting and Actuarial Analysis
	Infrastructure and Hardware Scalability	Pricing and Premium Analysis	Premium Billing and Delinquency	Pharmacy (PBM) Integration	Call Center and Customer Service	Accounts Payable and Expense Management
	Provider Network and Contracting	Rating Changes	Post-enrollment service fulfillment	First Pass and Claims Adjudication	Talent Risk Management	Model Audit Rule (MAR), MLR and Financial Analysis
	Broker Appointments	Certification - Qualified Health Plans	Coverage Determination	Fraud and Special Investigations	Medical and Care Management	3Rs - Reinsurance, Risk Adjustment, Risk Corridor
	Third-Party Relationships (ex. Pharmacy, Dental)	Filing and Submission Management	Enrollment Changes and Renewals	Claims Payment	Program and Project Management	Subsidy / Cost Sharing Management and Reporting
	Vendor Interfaces and Data Integration	Provider Quality Incentive Programs	Broker Commissions	Denials, Appeals and Grievances	Contingency Planning	Vendor Management and Oversight
	Regulatory Compliance Metrics and Reporting	Marketing, Member Outreach and Follow-up	Enrollment and Subsidy Reconciliation Reporting	Claims Reporting	Change Management and Reporting	Financial and Performance Measure Reporting
IT SECURITY AND GENERAL COMPUTER CONTROLS						
DATA PRIVACY, INTEGRITY AND SECURITY						

Disclaimer: The Payor Risk Taxonomy is provided for illustrative purposes only. Health plans should consider potential risks in addition to the risks identified in the table above. Healthcare risks may change depending upon the regulatory environment and market competition/distribution fluctuations among other reasons.

ORSA Summary Report



General Guidance

- NAIC guidance manual, December 2017
- Depth, detail and length of the summary report is expected to vary by company
- Content should be consistent with ERM information reported
 - Health insurers tend to demonstrate less mature ERM frameworks than life insurers
 - Include an assessment of ERM framework maturity
- International insurers could satisfy U.S. ORSA requirements by filing non-U.S. ORSA
- Reports in subsequent years should include a summary of material changes from prior year



ORSA Summary Report

Description of ERM Framework

- Demonstrate how ERM Framework principles are considered in the formulation and execution of the firm's business strategy
- Show the link between the risk management process, capital management, and the business plan
- Identify material risks

Assessment of Risk Exposure

- Outline the approach for quantitative and qualitative measurements of risk exposure for each material risk category
- Each material risk should be assessed under normal and stressed conditions

Group Risk Capital and Prospective Solvency Assessment

- Overlay the qualitative elements of the firm's risk management policy with the quantitative measures of risk exposure to determine capital needed to manage its business and over a multi-year (2-5) business cycle
- Methods and assumptions must be clearly defined
- Specify method to meet capital requirements

ORSA Summary Report – Section 1

Risk Culture and Governance

- Governance structure that clearly defines and articulates roles, responsibilities and accountabilities
- Demonstrate consistent risk-based decision making

Risk Identification and Prioritization

- Risk management function is responsible for ensuring that the risk identification and prioritization process is appropriate and functioning properly
- Examples: risk register, process to identify emerging risks, prioritization criteria

Risk Appetite, Tolerances, and Limits

- A formal risk appetite statement, and associated risk tolerances and limits are foundational elements of risk management for an insurer
- Consider how the risk appetite statement ensures alignment with risk strategy by the board of directors

Risk Management and Controls

- Managing risk is an ongoing ERM activity, operating at many levels within the organization
- Examples: 3 lines of defense, internal controls (financial and operational), breaches occurred and actions taken during reporting period

Risk Reporting and Communication

- Provides key constituents with transparency into the risk-management processes and facilitate active, informal decisions on risk-taking and management
- Examples: risk dashboard, management reporting package, feedback loops

ORSA Summary Report – Section 2



**Quantitative
measure of risk
exposures**
**Methods and
assumptions used**

**Stress tests or
complex stochastic
analyses**
**Methodology used
for testing**



**Risk affecting
balance sheet,
income statement
and cash flows**



**Likelihood / impact
of each material
risk**

**Comparison against
risk tolerance and
limits**



**RBC
Economic Capital
Rating Agency
Other views of
capital**



**Impact of stresses
on capital**

ORSA Summary Report – Section 3



Capital aligned to security
standard or risk appetite



Risk capital vs. available capital
Identify additional sources of capital to
cover any shortfalls



Definition of solvency &
accounting basis
Include rationale for selection



Time horizon of risk exposure
Changes to the risk profile over
the time horizon



Risks modeled & measurement matrix
Assess each material risk
Describe model validation



Aggregation and diversification
benefits
Describe method used

Considerations for Calculations

- Section 2
 - Quantifiable vs Unquantifiable Risks
 - Stress Tests vs Stochastic Tests
 - Management Action integrated into Risk Quantification
 - Emerging Risks
- Section 3
 - Diversification Benefit from risk interaction
 - Solvency Assessment
- **Calculations rely on modeling.**

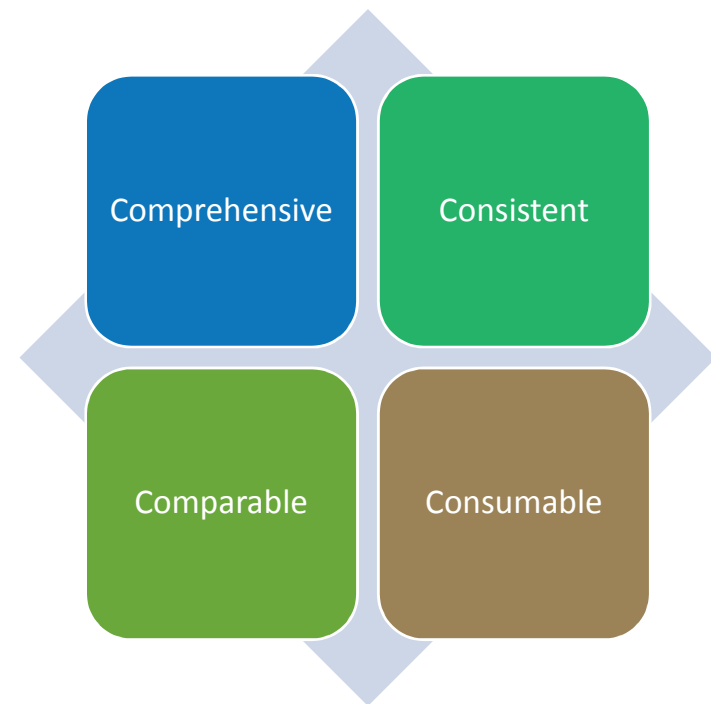


ORSA Report Evaluation



ORSA Report Evaluation

- Provide a **comprehensive** view of your company's risk profile:
 - Risk Factor Coverage
 - Source of Risk
 - Observed Risk in Financials
- Maintain **consistency** across all 3 sections
- From one year to the next, your ORSA should be **consistent** and **comparable**.
 - Risks added or removed year over year should be explained
- ORSA reports from similar companies may be **compared** by regulators
- The ORSA report should be **consumable** by various stakeholders

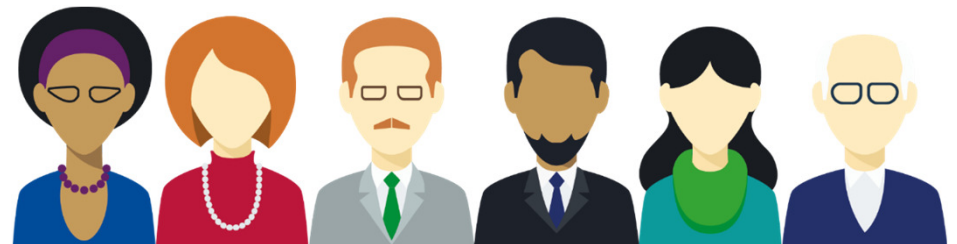


Regulatory Reviews

- ORSA Report is reviewed annually
 - Other regulatory examinations are 3-5 years apart
 - Expected to facilitate more open and regular dialogue between regulators and insurers
- Aggregate Insurance Sector Viewpoint
 - Even though ORSA is specific to your company, regulators consider a broader perspective
 - Regulators may employ benchmarking to regulatory and rating agency models to test reasonableness or ORSA summary report
 - Example: Individual Long Term Care insurers vs. Group Medical Benefits insurers
- The maturity of the ERM framework is considered
 - The robustness of the ERM process impacts the scrutiny given by examiners
 - Weak ERM practices may result in more extensive review
- Appropriateness of stress testing and assumptions

Reviews by the Board of Directors

- ✓ ORSA Summary Report is **required** to be provided to the Board of Directors
- ✓ Board members ORSA Summary Report expectations
 - Risk Appetite aligns with strategic initiatives
 - Include both upside risk and downside risk
 - Consistent with management reporting and strategic plan
 - Enterprise-wide risk, not legal entity risk
 - ORSA Summary Report can be validated
 - Board's self-assessment
 - Senior Management
 - Internal Audit
 - Outside Experts



ORSA and A.M. Best Reporting Overlap

✓ 69% of insurers subject to the ORSA Model Act are also rated by A.M. Best

ORSA SUMMARY REPORT

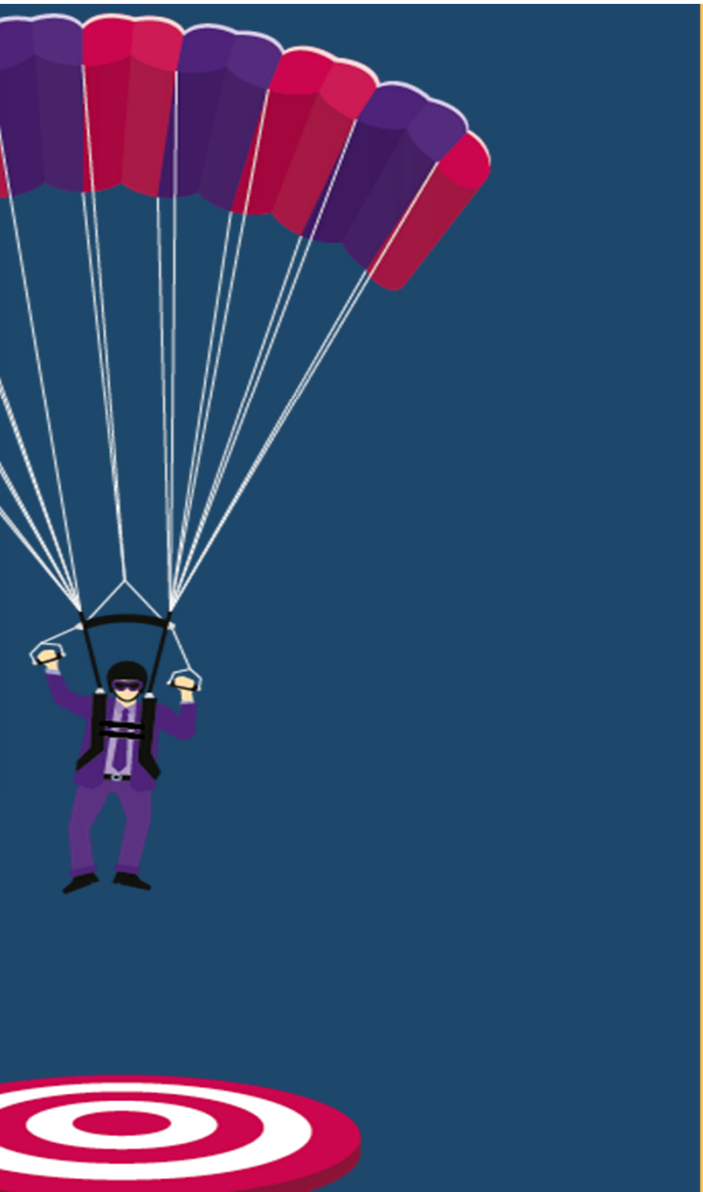
- Description of ERM Framework
 - Formal statement of risk appetite, tolerance, and limits
 - Risk culture and governance
- Insurer Assessment of Risk Exposures
 - Qualitative and quantitative assessment
 - Regulatory and economic view of capital
 - Uses stress tests or stochastic analyses to consider impact on capital
- Group Risk Capital & Prospective Solvency Assessment
 - Determine financial resources to support current and future business

A.M. BEST REPORTING COMPONENTS

- Business Profile Assessment
 - Assessment of degree of risk inherent in firm's operations
 - Key business profile tests
- Balance Sheet Strength Assessment
 - Measures exposure to operating and financial practices
 - Regulatory and macroeconomic conditions
 - Tests include Best's Capital Adequacy Ratio and analysis of cash flow and liquidity
- Operating Performance Assessment
 - Analysis of stability and sustainability of earnings

Calculations & Modeling





“The markets can stay irrational longer than you can stay solvent.”

— John Maynard Keynes

“Depressions catch the mistakes that the auditors miss.”

— John Kenneth Galbreath

“It’s not what you have to do that’s difficult, it’s when and where you have to do it that’s the challenge.”

— Skydiver’s Manual

Guide for Modeling

- Is the phenomenon being modeled:
 - predictable vs. unpredictable?
 - bounded vs. unbounded?
 - stable vs. unstable?
- Do the assumptions appropriately model the phenomena?
- How are the assumptions and the model tested?
- What are the circumstances that cause it to fail?

Modeling Paradigms

MEDIOCRISTAN

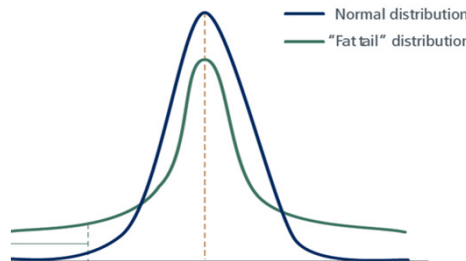
*NORMAL DISTRIBUTION (BELL CURVE):
Predictable, Bounded, Stable*

- Assume the average weight of a random sample of 1,000 U. S. citizens is 150 lbs
- Add the world's heaviest person to this sample — 500 lbs
- New average weight of these 1,001 people is virtually unchanged at 150.35 lbs

EXTREMISTAN

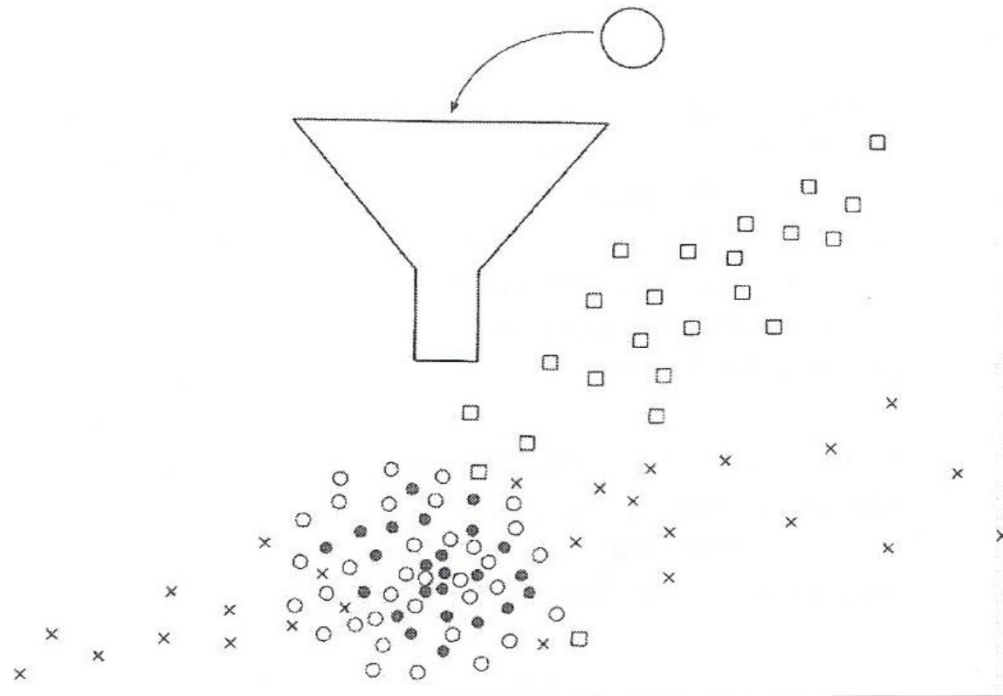
*SKEWED BEHAVIOR (FAT TAIL): Unpredictable,
Unbounded, Unstable*

- Assume the average net worth of a random sample of 1,000 U. S. citizens is \$100,000
- Add Bill Gates to this sample — \$100 billion
- New average net worth of these 1,001 people is now 1,000 times greater at \$100 million



Model Accuracy, Precision and Tolerance

- Rule 1
- Rule 2
- x Rule 3
- Rule 4



Model Characteristics

Model Type		Examples	Considerations
Predictable	Bounded	Normal Distribution	Does the model use the right equations?
	Unbounded	Financial Markets	Does the model use all available data and beyond?
	Finite	Life Expectancy	Does the model automatically project the current trend or recognize established limits?
Stable within Tolerance		Products & Processes	Can model refinements improve accuracy and precision?

Weaknesses of Financial Models

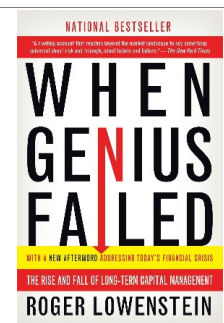
- Rely on normal distribution
- Assume stability
- Model long-term average, instead of actual daily, market performance
 - Nikkei fell 80% from 1989 – 2008
 - Nikkei & DJIA fell 50% in 18 months 2007-2009
 - Leverage, cash flow, risk of ruin
- Ceilings and floors — Arbitrary or unproven limits of key factors such as inflation and interest rates
- Do not account for contagion



Source: <https://www.macrotrends.net/2593/nikkei-225-index-historical-chart-data>

Flawed Models that Failed

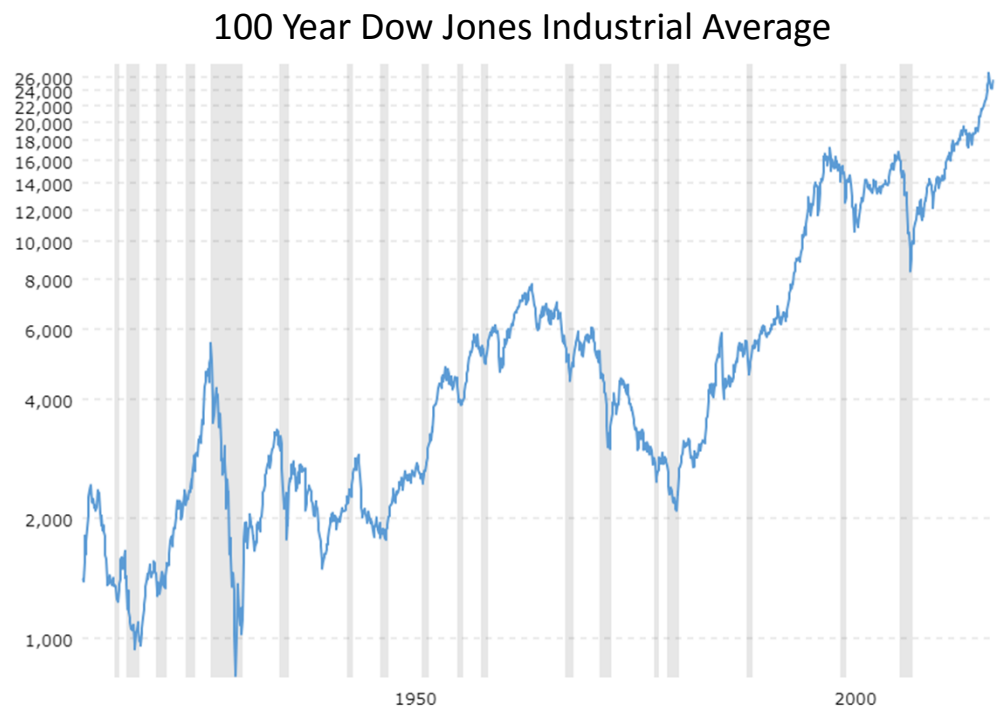
- Long-Term Capital Management (LTCM)
 - Black-Scholes Option Pricing Model (1997 Nobel Prize)
 - Limited back-testing of data
 - Too highly leveraged
- GICs and VUL policies assumed interest rate floors of 4%
- LTC products used disability insurance lapse assumptions
- FASB 106 and GASB 45 Retirees Health Liability Calculations assumed 5% medical cost inflation



Model Testing and Limitations

Back-test models with all available historical data

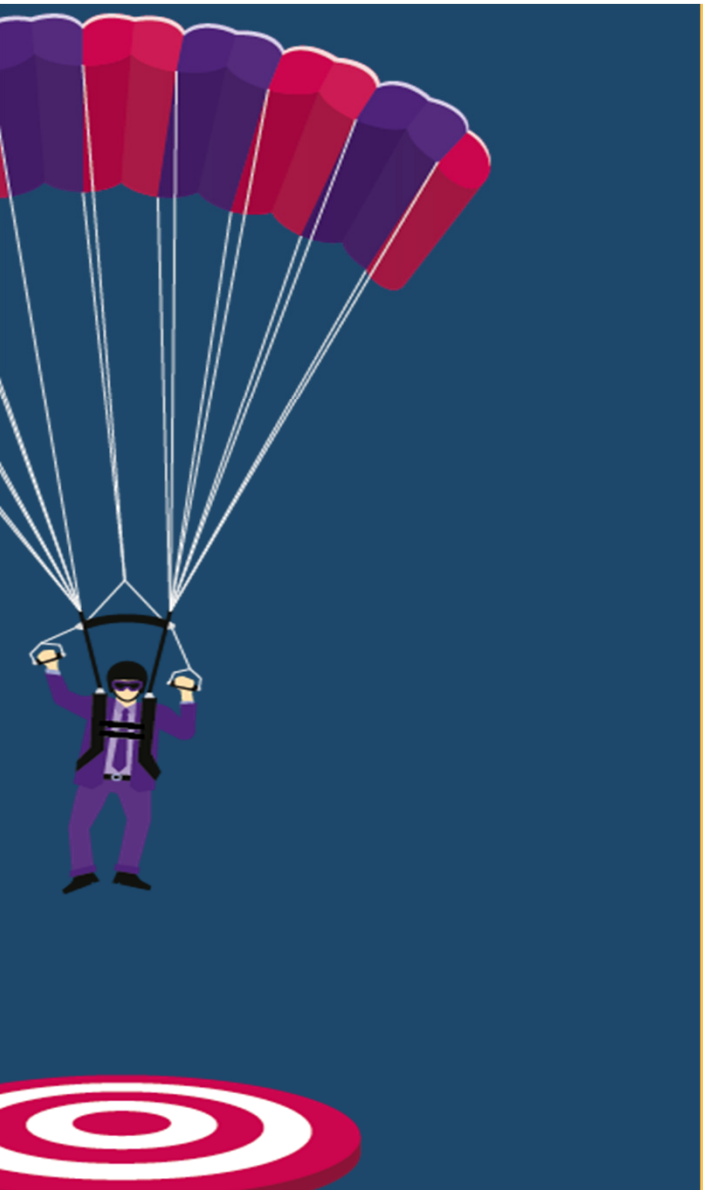
- 12 years of market data
- 120 years of market data
- 3,000 years of interest rates
- Back-testing only provides support, not assurance
- Reverse-stress testing: determine what will cause model to fail



Source: <https://www.macrotrends.net/1319/dow-jones-100-year-historical-chart>

Recap: Model Testing & Evaluation

- ☐ Is the phenomenon predictable, bounded, stable?
- ☐ Does the model use the best or proper equation?
- ☐ Does the model replicate daily experience or averages?
- ☐ Does the model rely on arbitrary or untested limits?
- ☐ Does the model use actual experience or proxy data?
- ☐ Does the model define reasonable tolerances?
- ☐ Have all available data been used to back-test the model?
- ☐ What circumstances cause the model to fail?



“A chance is what you take before thinking about it. A calculated risk is what you take after you have evaluated all the possible factors and properly quantified the risk.”

“A superior skydiver uses his superior judgment to avoid situations where he must demonstrate his superior skill.”

“Better to be safe on the ground wishing you were up in the air, than to be up in the air wishing you were safe on the ground.”

— Skydiver’s Manual

ORSA Process in Action

- ORSA is not an additional task you have to do
- ORSA describes what you are already doing
- The ORSA report merely answers the question:
 - How well have you been doing it?
- Deficiencies in risk management are indicated by the degree to which your ORSA report:
 - Is deemed inadequate
 - Does not represent the way you actually manage risk



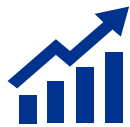
Case Studies



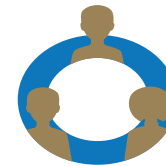
Case Study – 1st ORSA Report

Consider which of these items can be used in a Company's 1st ORSA Summary Report.
What section of the report should they be included?

Company's RAIL
(Risks Assessed In a
List) document



A.M. Best's Capital
Adequacy Ratio
Analysis



SOX Narratives
detailing risk
limits



Audit Committee
Reports

Company's risk
analysis report
from external
consultant



IT Upgrade in
response to past
Data Breach



Economic Capital Model
used in pricing new
products



Senior
Management Risk
Dashboard



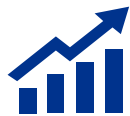
Model Change
Control
Procedures

Case Study – 2nd ORSA Report

This year: Formal ERM program developed and CRO hired; Internal controls updated to mitigate top 2 risks based on recommendation from external consultant; IT upgrade completed successfully.

How does your 2nd ORSA summary report change from the 1st?

Company's RAIL
(Risks Assessed In a
List) document



A.M. Best's Capital
Adequacy Ratio
Analysis



SOX Narratives
detailing risk
limits



Audit Committee
Reports

Company's risk
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IT Upgrade in
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Economic Capital Model
used in pricing new
products



Senior
Management Risk
Dashboard



Model Change
Control
Procedures

Risks: Premium Delay

- Quantifiable risk — large — potentially unbounded
 - May or must provide coverage and pay claims in absence of premiums
 - Federal government shutdown — TRICARE
 - State Revenue shortfall & Inadequate rates — Medicaid
- Complicating Issues
 - Are you legally required to pay claims?
 - How will your actions affect your relationship with the govt. entity?
 - Can you raise necessary short-term capital, and at what cost?
 - What is your risk tolerance/exit point?
 - Will you take the required action at the predetermined time?



Risks: IT Data Breach



- Unquantifiable risk with no upper-bound
 - Potentially unlimited HIPAA fines per instance
 - Bitcoin ransomware payments
 - Cost of free credit monitoring
 - Loss of goodwill, customer trust and investor confidence
- Factors to consider
 - Trade-off between data access/flow and ability to operate
 - Policies and procedures for
 - Physical access to data room
 - VPN and FTP security
 - Password resets

Questions?



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