



## **Where to Begin? How to Conduct a Financial Risk Assessment in Your Organization**

**Chris Mandel**

**President & Managing Consultant**

**Excellence in Risk Management, LLC**

**Soubhagya Parija**

**Chief Risk Officer (former)**

**FirstEnergy/New York Power Authority**

## Agenda

- 1) Overview and Introductions
- 2) The importance of financial risk assessment
- 3) Risk taxonomy for public entities
- 4) Assessment steps
- 5) Tools and techniques
- 6) Completing the picture
- 7) Risk Assessment tool review
- 8) Q&A/Discussion

## Session Objectives

- Understand the financial risk landscape for public entities.
- Learn practical steps to assess and mitigate financial risks.
- Explore tools and frameworks for effective financial risk assessment.

## Why Financial Risk Assessment Matters

- Unique characteristics of public sector financial risk:
  - Revenue dependence on taxes, grants, and appropriations.
  - Political influences and regulatory compliance.
  - Impact on essential services and community trust.
- Consequences of inadequate assessment:
  - Budget shortfalls, credit downgrades, service disruptions.
- Recent real-world examples of financial mismanagement in public entities.

## Financial Risks & Losses in Public Entities

- Market & Derivative Risk: Orange County, California (1994)
- Credit & Structural Economic Risk: Detroit, Michigan (2013)
- Combined Market, Governance, and Fraud Risk: Jefferson County, Alabama (2011)
- Long-Term Liability Risk: The Public Pension Crisis (Ongoing)

## Core Risk Assessment Elements

**Risk Identification:** What can happen, when, where and why

**Risk Analysis:** Assessing controls, likelihood and consequences; determine risk level

**Risk Evaluation:** Compare criteria; set priorities; consider appetite, risk scores, tolerances and acceptability

## 9 Steps in Financial Risk Assessment

1. **Scope & objectives** (tie to budget/treasury/debt/grants decisions).
2. **Assemble facts** (policies, budget book, debt profile, investment holdings, grant inventory, audit history).
3. **Identify risks** (taxonomy-based workshops + data scans).
4. **Analyze, evaluate & prioritize** (likelihood/impact with scales suited to public orgs; add velocity & scenario elements).

## Financial Assessment Steps (con't)

5. **Stress test** (revenues, rates, liquidity).
6. **Treat risk** (mitigate or exploit)
7. **Define KRIs & thresholds** (link to policy triggers).
8. **Report & act** (risk register, dashboards, management actions, governance cadence).
9. **Review & iterate** (lessons learned, post-audit feedback, rating-agency signals).



## Examples of Financial Fraud KRIs

- **Transaction-Based KRIs**
  - Unusual Transaction Volume Spike — % increase in high-value transactions vs. baseline; Threshold: >50% increase
  - High-Risk Transaction Ratio — % of transactions flagged as high-risk (cross-border, non-3D-secure); Threshold: >5% of total transactions
- **Account Activity KRIs**
  - Account Takeover (ATO) Red Flags — failed login attempts followed by password reset; Threshold: >3 attempts/hour
  - New Payee Fraud — % of first-time payments exceeding customer's average; Threshold: >30% higher than usual
- **Behavioral & System KRIs**
  - Customer Fraud Complaints — number of fraud-related complaints per 1,000 transactions; Threshold: >2 complaints/1k transactions
  - Suspicious IP Access — % of logins from VPNs/TOR or unusual locations; Threshold: >2% of sessions

## **Risk Identification involves recognizing & recording risks using a variety of techniques**

Brainstorming

Checklists, such  
as regulations  
and standards

Interviews and  
self-assessment

Facilitated  
workshops

Risk  
questionnaires  
and risk surveys

Focus groups

Expert  
elicitation

Benchmarking

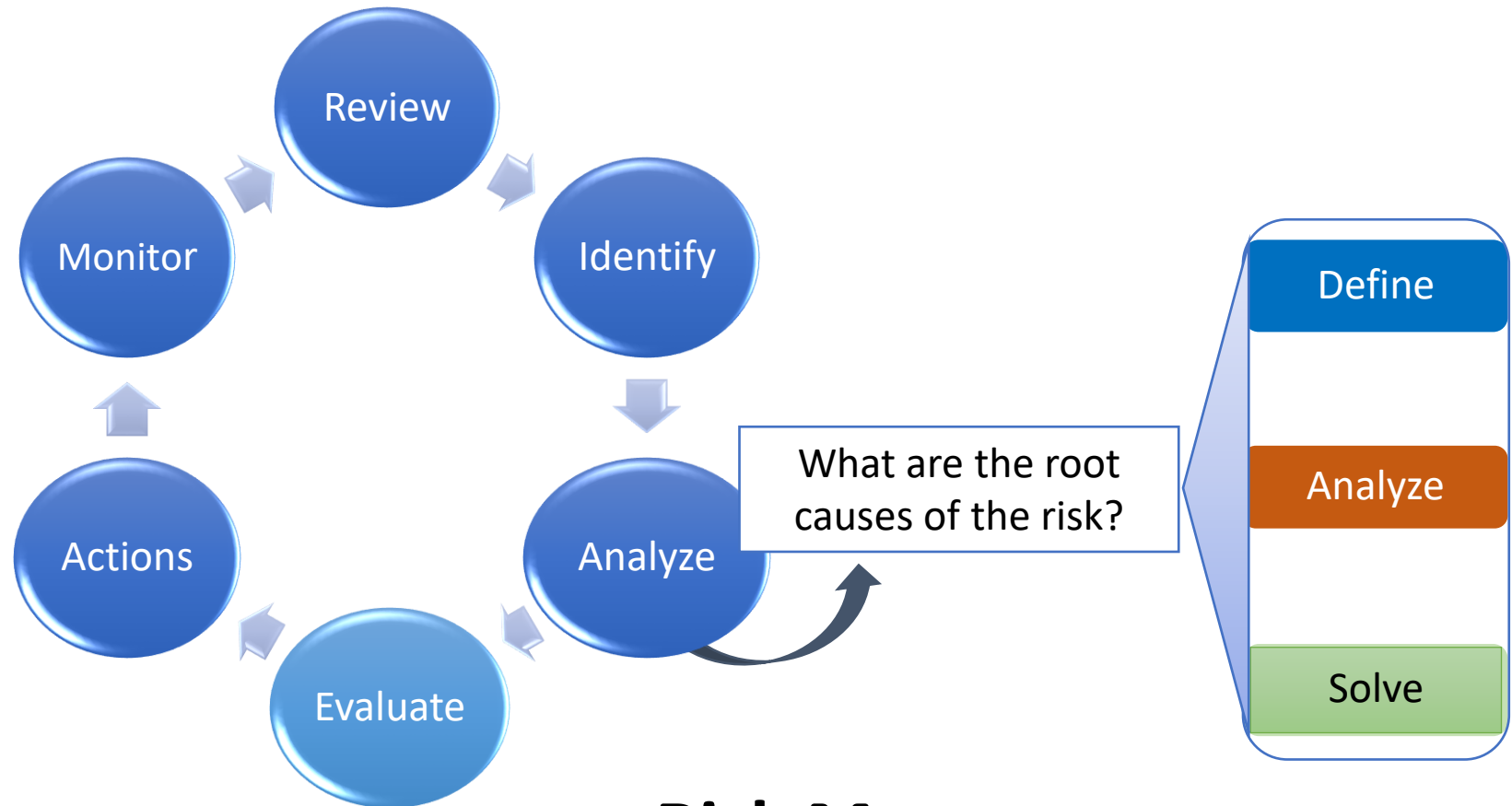
## PE Financial Risk Taxonomy

- **Budget & revenue risk:** Elastic vs. inelastic revenues; recession sensitivity; timing/collection risk; earmark rigidity.
- **Liquidity & reserves risk:** Cash-flow timing; reserve policy sufficiency; access to cash.
- **Investment & treasury risk:** pension risk, market/duration risk; concentration; collateralization.
- **Debt & interest-rate risk:** Variable-rates; swap exposure; bank facility renewal risk; covenant risk; tender/remarketing risk.

## Financial PE Risk Taxonomy (cont'd)

- **IT System Risk:** Impact on financial accuracy and reliability
- **Long-term liabilities:** Pension risk; amortization policy; funded status volatility.
- **Grants compliance risk:** internal controls; evolving OMB Compliance Supplement focus areas, CFR requirements.
- **Fraud & payments risk:** Vendor/ACH change fraud; segregation of duties; reconciliation gaps.
- **Insurance & catastrophe financing:** Deductibles/retentions adequacy; physical risks; disaster cost coverage.

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## Risk Management Analysis

## Risk Management Analysis

### Approaches

- Qualitative
- Quantitative
- Hybrid and multimethod

### Specific Methods

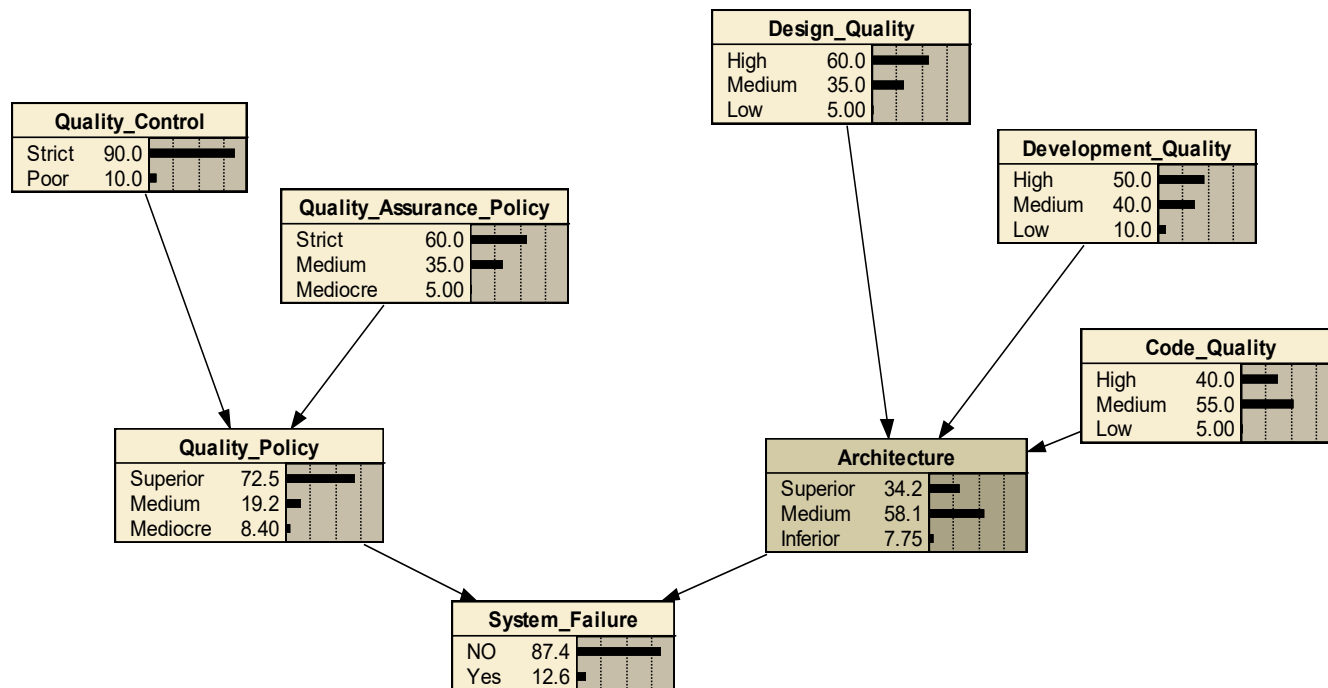
- Scenario analysis
- SWOT
- Value chain analysis
- System design review
- Process analysis
- Business Impact Analysis
- Gap analysis
- Influence analysis
- Monte Carlo analysis

Qualitative	Quantitative	Root Cause	Decision Models
PEST Analysis	Expert Elicitation	Five Whys	Decision Tree
Force Field Analysis (Pros/Cons)	Simulation Modeling	Cause and Effect (Fishbone)	Rational choice influencers
	Predictive Modeling	Concept Fan	Decision quality
	Probability Tree	HAZWOP (Bow Tie)	
	Dependent Probability Tree	FMEA	
		FMECA	

## Assessment Tools and Techniques

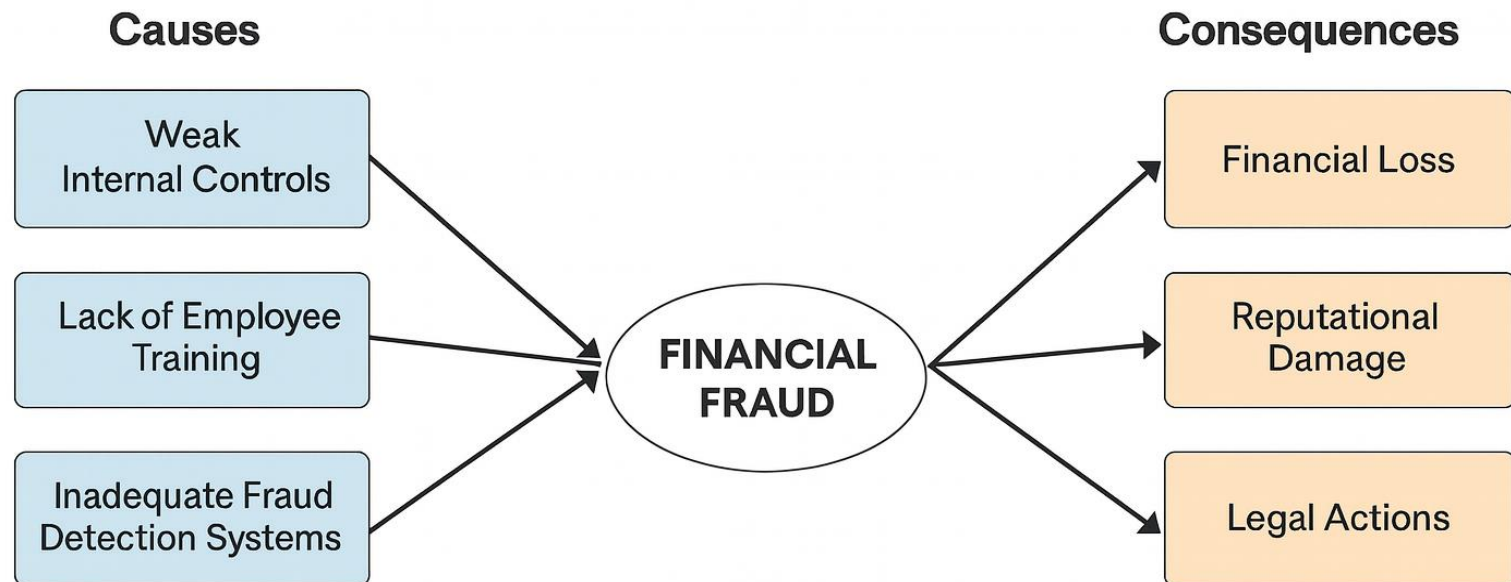
- Risk Registers tailored for financial risk.
- Key Risk Indicators (KRIs) for monitoring fiscal health.
- Technology and analytics tools.
- RMIS/ERM software in the public sector.
- Use of dashboards for real-time risk monitoring.
- Compliance frameworks.
- GASB standards and implications.
- GFOA best practices for financial risk management.

## Example of a Bayes Net for IT Systems Risk





## Bow-Tie Diagram for Financial Fraud Risk



## RISK EVALUATION MEASURES

### Qualitative

- ❑ **Likelihood:** The frequency, relative frequency, or probability
- ❑ **Severity:** The impact of the consequence (may be expressed in multiple terms: financial, human, reputation, property, ability to continue operations, etc.)
- ❑ **Timing:** Speed to onset (velocity), when the event/trend occurs (trigger), how long it lasts (duration)
- ❑ **Vulnerability:** susceptibility related to the entity's preparedness, agility, and adaptability

### Quantitative

- ❑ **Expected value:** Mean, mode, or median for forecasts, budgets
- ❑ **Variability:** Range, standard deviation, and probability distribution
- ❑ **Ratios:** How much of one thing there is compared to another thing.

THESE APPROACHES TO ANALYSIS ENABLE PRIORITIZATION

## Other Qualitative Considerations

Capacity

Controllability

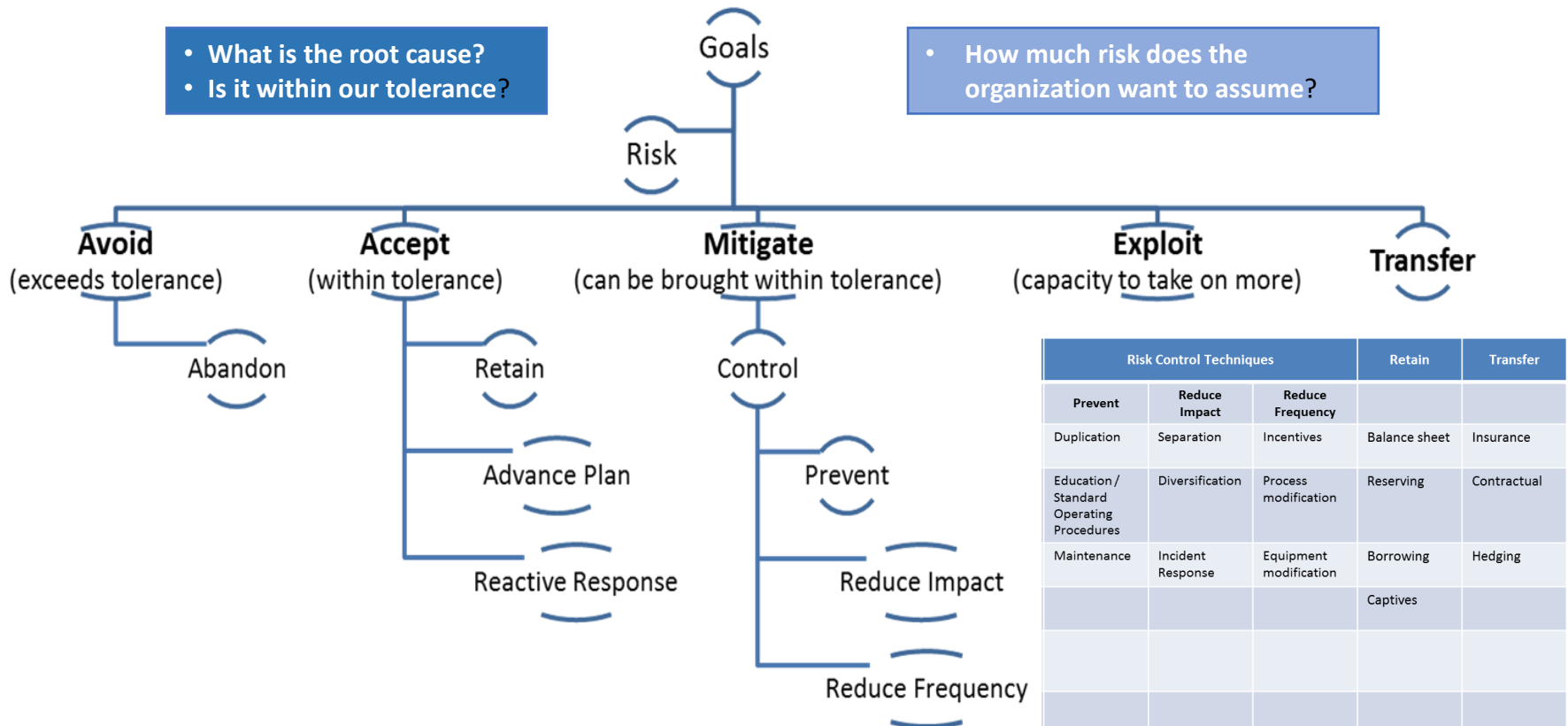
Visibility (for  
monitoring)

Interdependencies

Readiness

Degree of  
confidence

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## Risk Response

## Completing the Picture

**Once response/treatment decisions are implemented:**

- Monitoring
- Reporting
- Review
- Ensuring an accurate, current risk profile

## Financial Risk Assessment Tool

1. Governance & Oversight
2. Budgeting & Revenue Risks
3. Expenditure & Cost Management Risks
4. Cash Flow & Liquidity Risks
5. Debt & Financing Risks

## Financial Risk Assessment Tool

6. Investment Risks
7. Fraud, Compliance, and Internal Control Risks
8. External Environment Risks
9. Reporting & Transparency
10. Overall Risk Management Practices

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## Financial Risk Assessment Checklist

### FINANCIAL RISK ASSESSMENT CHECKLIST

SCORING					
Section	Sub-Item	Yes (2)	Partial (1)	No (0)	Section Score
1. Governance & Oversight	A. Clearly defined financial governance structure	0		0	
	B. Roles and responsibilities documented and assigned			0	
	C. Regular reporting of risk exposures to governing board			0	
	D. Internal controls and audits reviewed annually			0	
	E. Compliance with laws and accounting standards (GASB, GAAP)			0	
2. Budgeting & Revenue Risks	A. Clearly defined financial governance structure			0	
	B. Impact of downturns/revenue shortfalls evaluated			0	
	C. Revenue sources diversified			0	
	D. Dependency on one-time funding monitored			0	
	E. Budget assumptions stress-tested (best/base/worst case)			0	



## Key Takeaways

- While all risks have financial outcomes, effective management of the financials are fundamental to a successful organization
- In that financial exposure belongs significantly to the finance team, it can be challenging to convince them that we have a place at their table
- While most of the financial exposures of PE's are similar to other orgs, a few are unique and of particular importance
- Getting financial risk assessment done well and fully incorporated into your risk analysis, is critical to have a complete view of the org's risk profile.
- Learn from historical failures and don't let the issues fester
- Use KRIs effectively as early warning indicators before the risk actually manifests.

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Q&A



**DISCUSSION**

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## Contact information

**Chris Mandel, RF, RIMS-CRMP**  
**President and Managing Consultant**  
**Excellence in Risk Management, LLC**

**Asst Professor of the ERM Practice**  
**Embry-Riddle Aeronautical University**

[ExcelinRisk@gmail.com](mailto:ExcelinRisk@gmail.com)



## Contact information

**Soubhagya Parija MA(Econ), MBA (Fin)**

**Former Chief Risk Officer – FirstEnergy/NYPA**

**ERM Advisor to Presidio Trust**

**Adjunct Professor – CRO Program, GMU**

**[soupar@gmail.com](mailto:soupar@gmail.com)**

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**Appendix**

## Completing the Picture

### Mitigation Strategies

- Policy-based controls: reserve policies, debt limits.
- Contingency planning: revenue diversification, cost containment.
- Internal controls & monitoring mechanisms.
- Alignment with Enterprise Risk Management (ERM) strategy and framework:
- Linking financial risk to strategic objectives.
- Populating & monitoring the risk profile

## What Sets Public Entities Apart?

- **Purpose & accountability:** Mission/service delivery & legal stewardship over profitability; heightened transparency & public scrutiny.
- **Reporting & standards:** **GASB** standards; fund accounting; budgetary reporting & compliance (e.g., single audit) vs. FASB/SEC world.
- **Constraints:** Balanced-budget/appropriations rules; public procurement laws; open records; statutory debt limits; voter approvals in some jurisdictions.
- **Revenue mix & restrictions:** Taxes, fees, grants, intergovernmental transfers; restricted revenues; earmarks.
- **Stakeholders:** Governing boards, bondholders/rating agencies, auditors, oversight bodies, media, taxpayers.

***Implication:** Risk appetite & tolerances must reflect statutory/constitutional limits, restricted funds, and public trust—not just financial performance.*

## When to use Quantitative Assessment?

- Precision is required for a particular decision
- Metrics are used to measure success in the organization
- Your “risk story” cannot effectively be told without it
- Tackling a complex or “game changer” initiative
- Underlying or historical data are readily available
- A risk is well defined or understood
- There is general agreement on underlying assumptions
- A single risk may drive the organization’s objectives

**Financial Risks Naturally Lend Themselves to Quantification**