



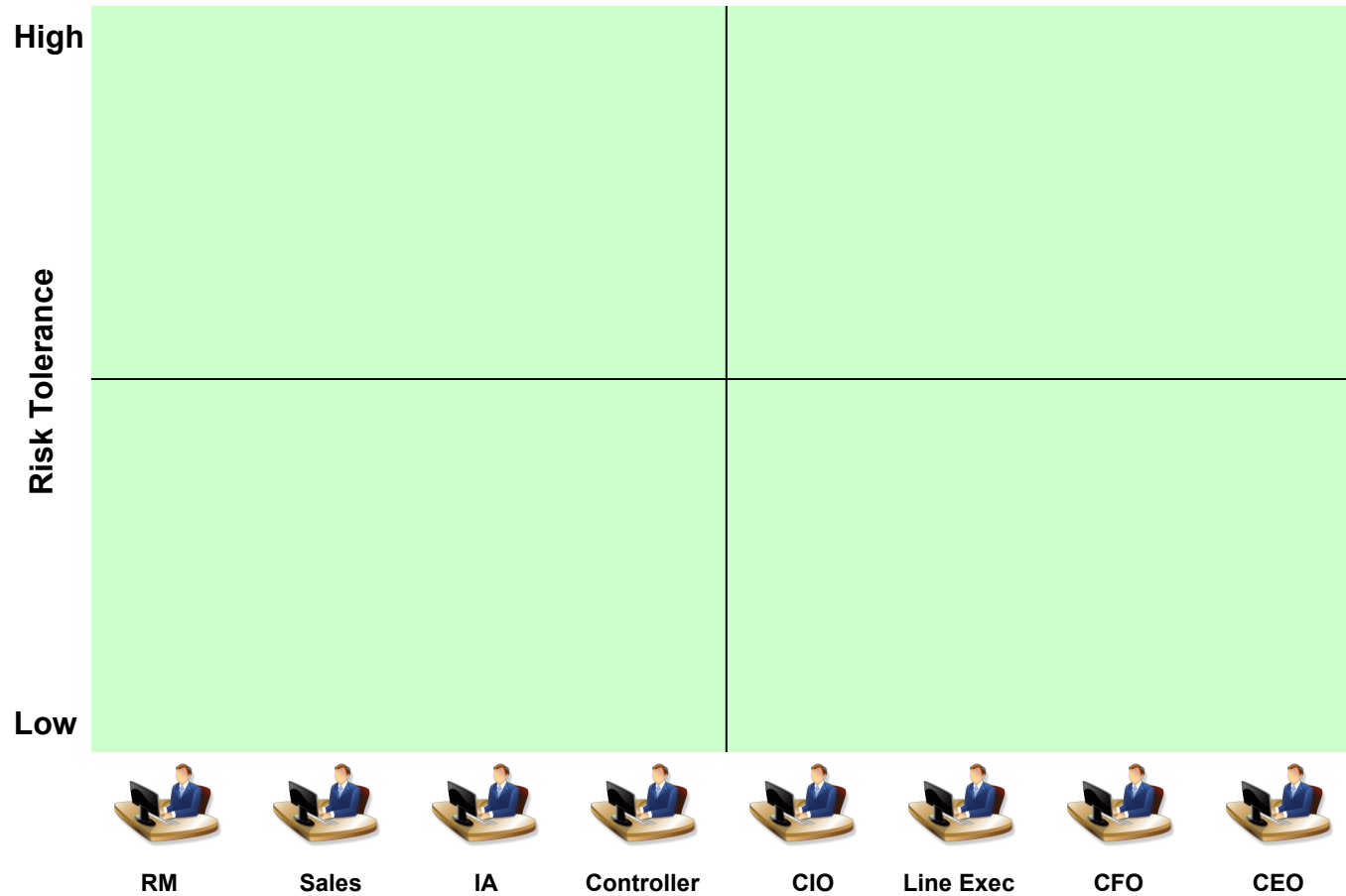
Proudly Presents...

How to Determine the Total Cost of Risk

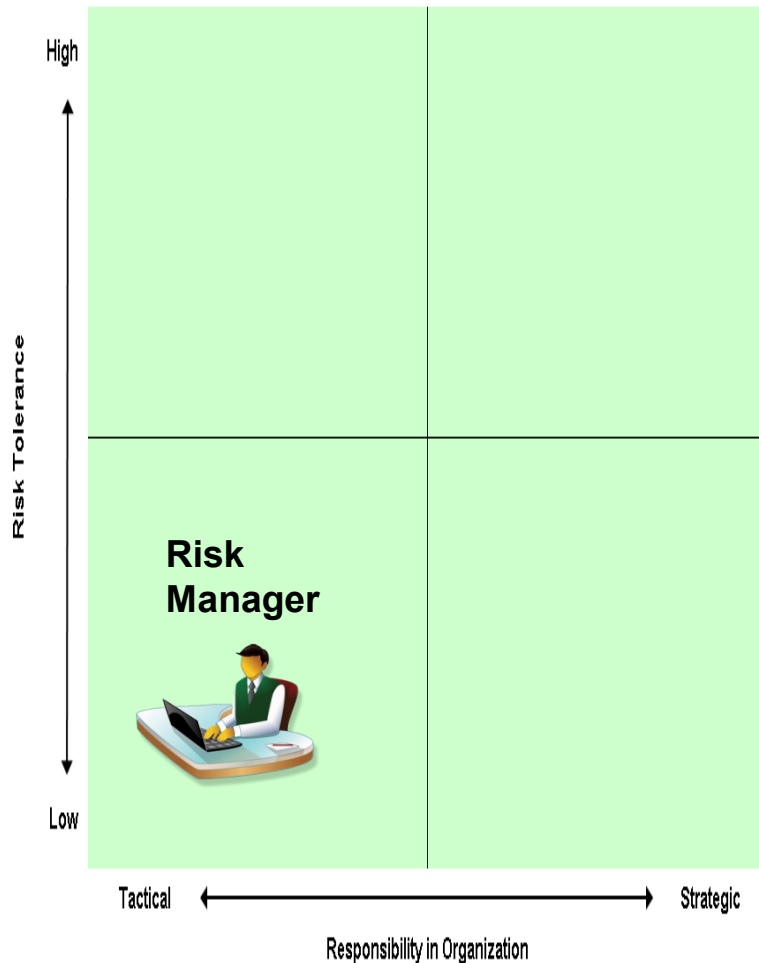
Agenda

- Discuss the risk manager's role in defining the risk tolerance of the organization
- Understand how a risk manager can use the Total Cost of Risk metric
- Understanding the volatility in your Total Cost of Risk
- Practical ways of utilizing your risk tolerance in order to make insurance purchasing decisions which optimize TCOR
- Case Study: Linamar Corporation

Risk Tolerance Perceptions



Focusing on the Downside of Risk



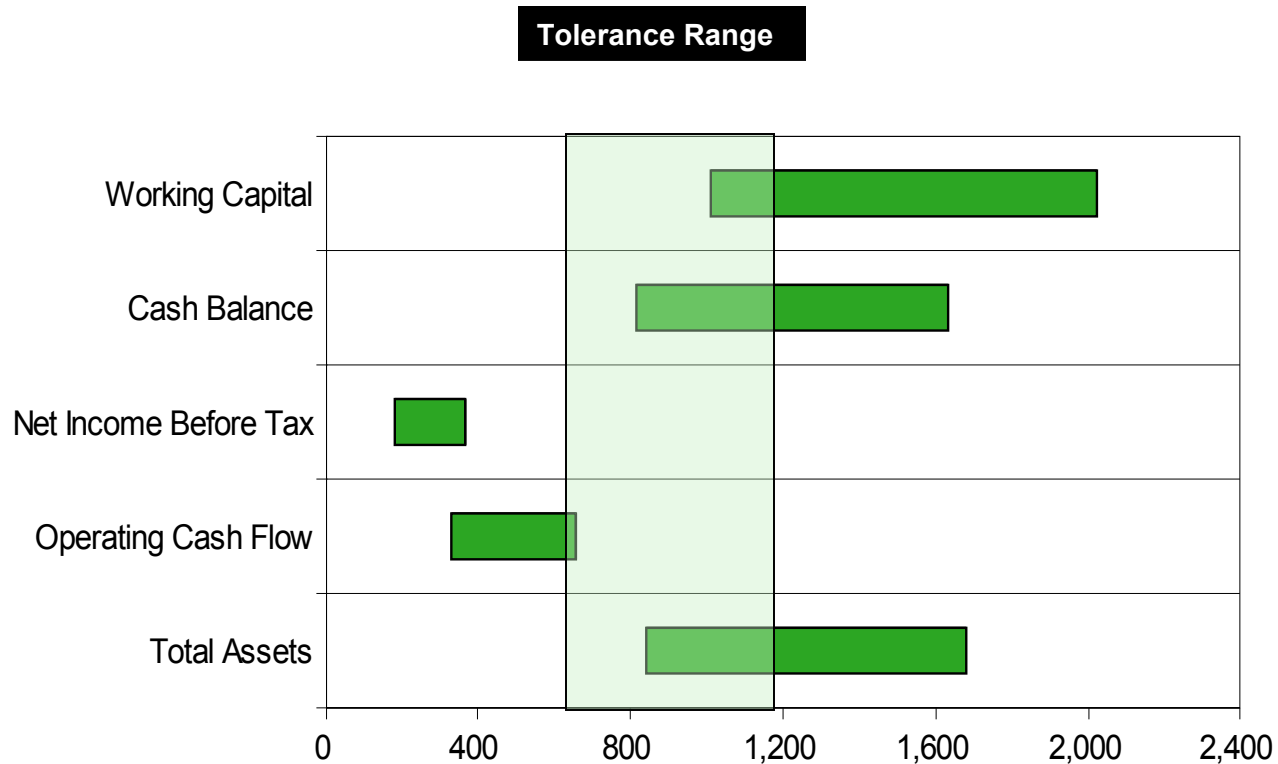
- Risk managers are among the most risk-averse professionals in the organization, perhaps because we focus on the downside of the risk

- Brokers
- Consultants
- Insurers
- Career concerns

How to Measure Risk Tolerance?

- **Willingness vs. Ability to assume risk**
- **Materiality = Ability**
- **Headroom:**
 - Financial framework
 - Key performance indicators
 - Borrowing covenants

ABC Risk Tolerance Calculation

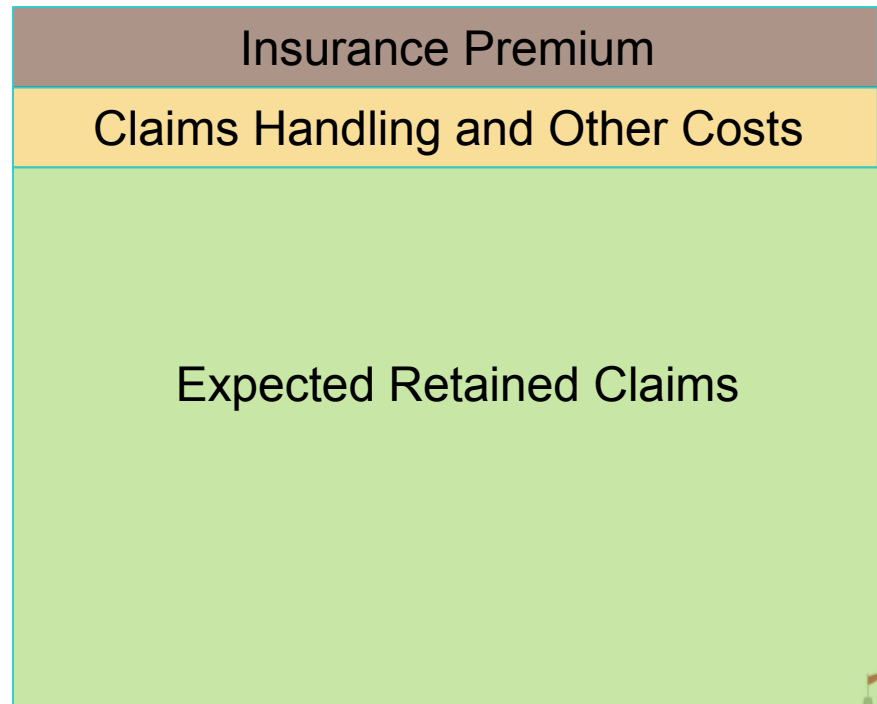


Total Cost of Risk

- **Traditional Definition:**
 - + **Expected Self-Insured Losses**
 - + **Expenses**
 - + **Insurance Premium**
 - = **TCOR**
- **Missing Links:**
 - 1) **Volatility in Expected Losses**
 - 2) **Relationship to Risk Tolerance**

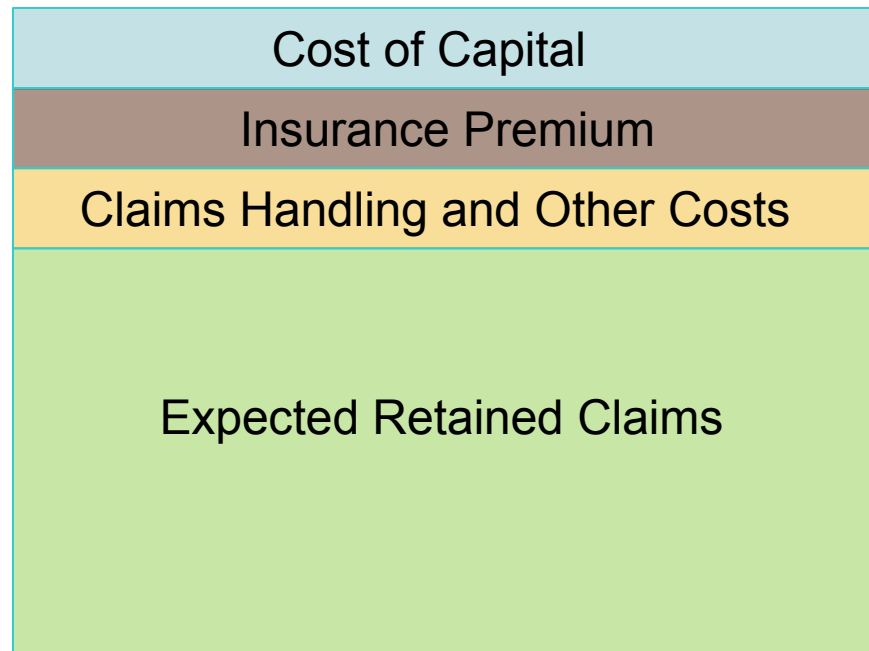
Total Cost of Risk

- TCOR is a framework to think about the overall cost of insurable risks
- People use TCOR
 - To provide their organization with a 'budgeted' loss amount for the corporate risk management department
 - To evaluate the tradeoff in costs of various insurance and expense options
 - To benchmark how well their RM department is performing compared to peers



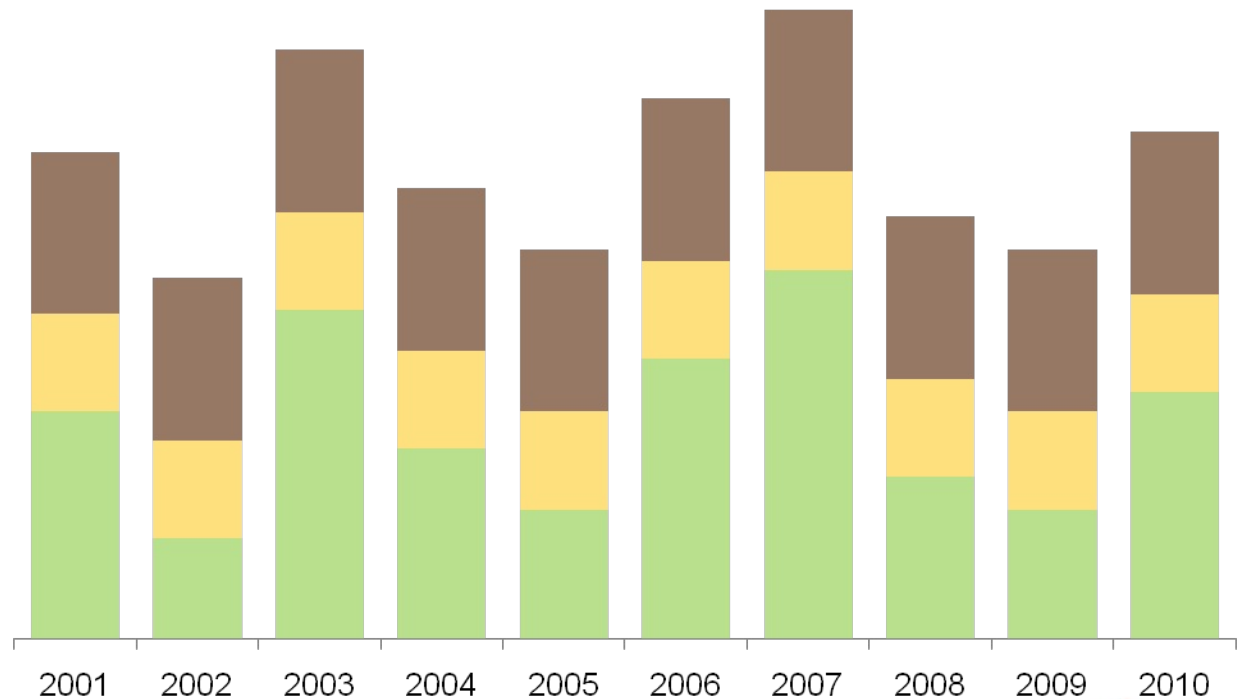
Total Cost of Risk

- But if we are talking about the Total Cost of Risk, we should also consider the Cost of Capital
- If a company makes the decision to assume more risk, presumably the company must hold more capital than it would otherwise hold



Total Cost of Risk

- As risk managers, we don't usually explicitly include the Cost of Capital in TCOR, because it is not a number that flows through a profit and loss statement
- Instead we consider the *volatility* of the TCOR



External Loss Data: Severity by Jurisdiction

Highest Settlements

- 1) California
- 2) New York
- 3) Florida
- 4) Texas
- 5) Illinois

Lowest Settlements

- 46) Vermont
- 47) Alaska
- 48) South Dakota
- 49) Wyoming
- 50) North Dakota

Source: 2008 US Tort Liability Index; Pacific Research Institute

External Loss Data: Frequency by Jurisdiction

Highest Frequency

- 1) Illinois
- 2) Florida
- 3) New Jersey
- 4) New York
- 5) Texas

Lowest Frequency

- 46) Hawaii
- 47) New Hampshire
- 48) Alaska
- 49) North Dakota
- 50) Tennessee

Source: 2008 US Tort Liability Index; Pacific Research Institute

Canadianize External Loss Data

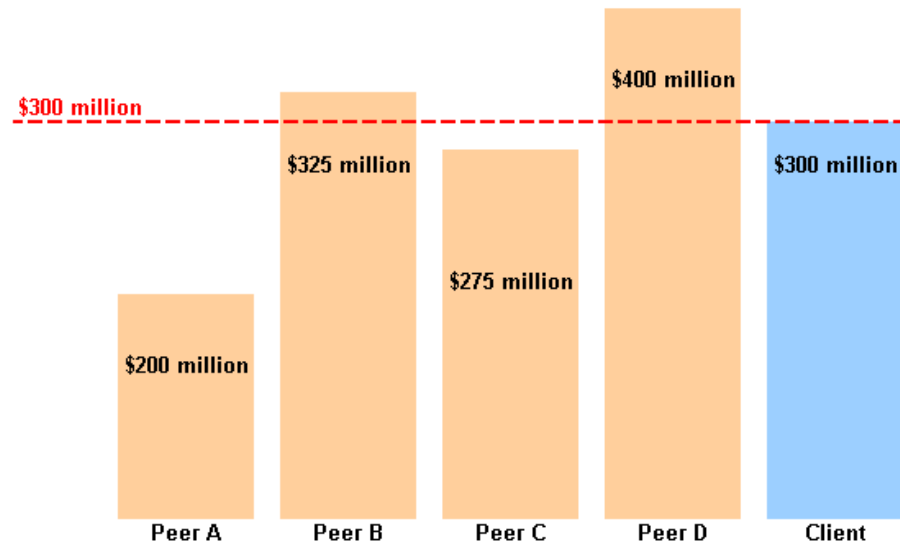
- **Frequency / severity spread state by state is dramatic**
- **Understand the degree by which legal environment changes state by state**
- **Change in individual state ranking changes over time (trend in many states is down)**
- **Intuitively Canada is comparable to bottom third of US state rankings for both frequency & severity**
- **To the degree empirical data is available, experience supports this assumption**

Traditional Benchmarking

- The traditional broker approach to determining appropriate D&O limits is to survey the historical limits purchased by companies of similar size. Although this approach is simple to automate and execute, it is not the optimal way to demonstrate that appropriate limits are in place.

Total Limits Purchased

Sample client's \$300 million limits appear in line with peer level of protection



Integro's Analytical Approach

Integro instead performs an analysis of the appropriate levels of D&O limits relative to the risk that directors are assuming. We ask:

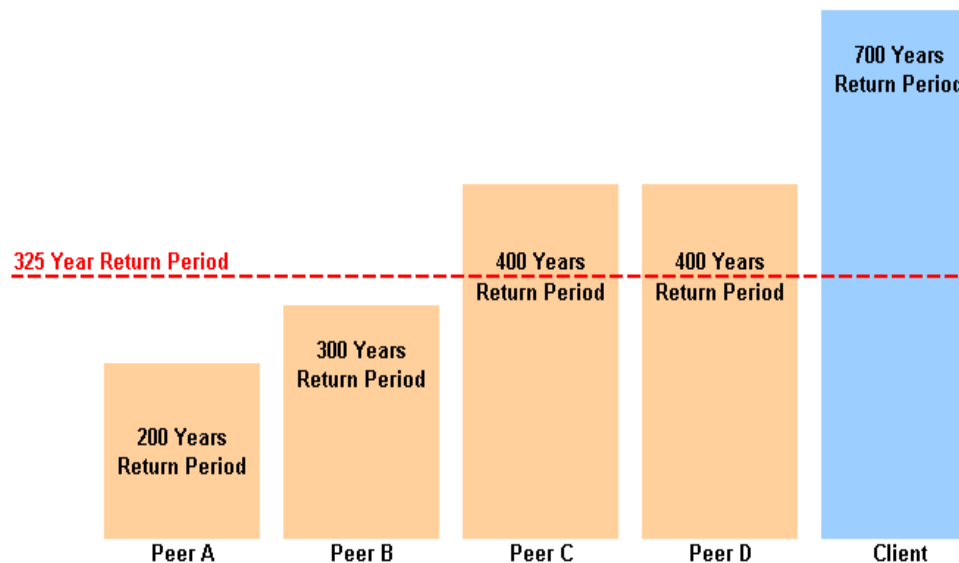
“What is the probability that your directors will suffer a claim and not be indemnified by either their company or its insurer?”

Our model calculates this probability based on the risk characteristics of the company, its financial strength in the event of a claim, and the size and structure of its insurance program.

Probability of a Non-indemnified Loss to a Director/Officer

In this example we calculate a 1-in-700 probability that the Sample Client's directors will not be indemnified by either their company or the insurer. We call this the 700 year return period

Its peer group purchases similar limits, but provide much less protection to their directors, perhaps because they are at higher risk of D&O claims or are at higher risk of bankruptcy.



Areas of Underwriting Concern

As part of our risk analysis, we diagnose areas that underwriters may focus their attention

The output of this analysis is used in two ways:

- In preparation for our submission
- As an input to our D&O Predictive Model

Business Activities

Product/Supplier Concentration

Customer Concentration

Restructuring or Writedowns

Financial Restatements

Merger and Acquisition Activity

Earnings Guidance

Corporate Actions

Corporate Governance

Board / Management Changes

Shareholder Concentration

Shareholder Proposals

Controls Weakness

Executive Compensation

Share Trading

Analyst Coverage

Regulatory Actions

Listing Actions

Share Price Volatility

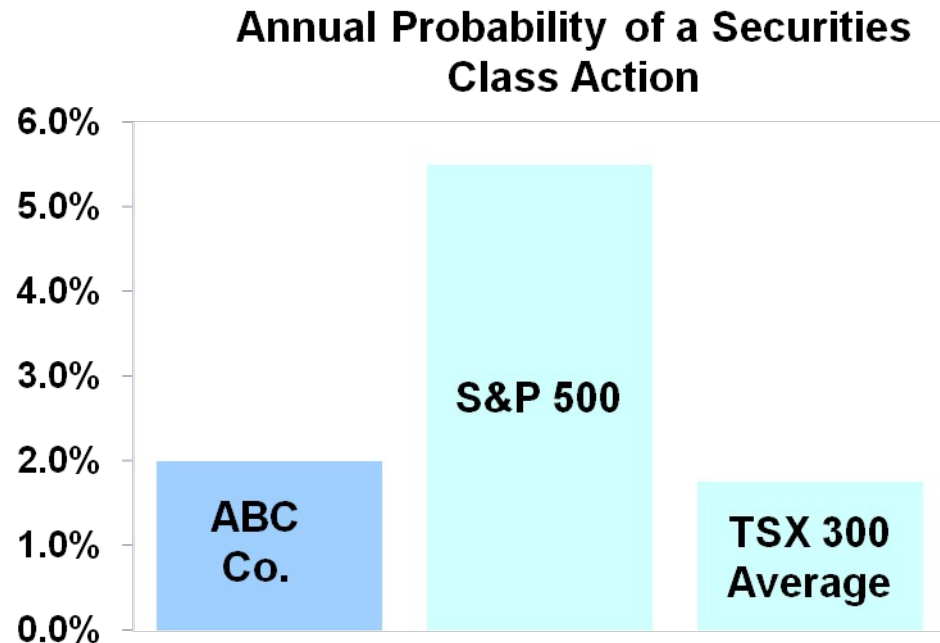
Liquidity

Insider Trading

ABC's Susceptibility to D&O Claims

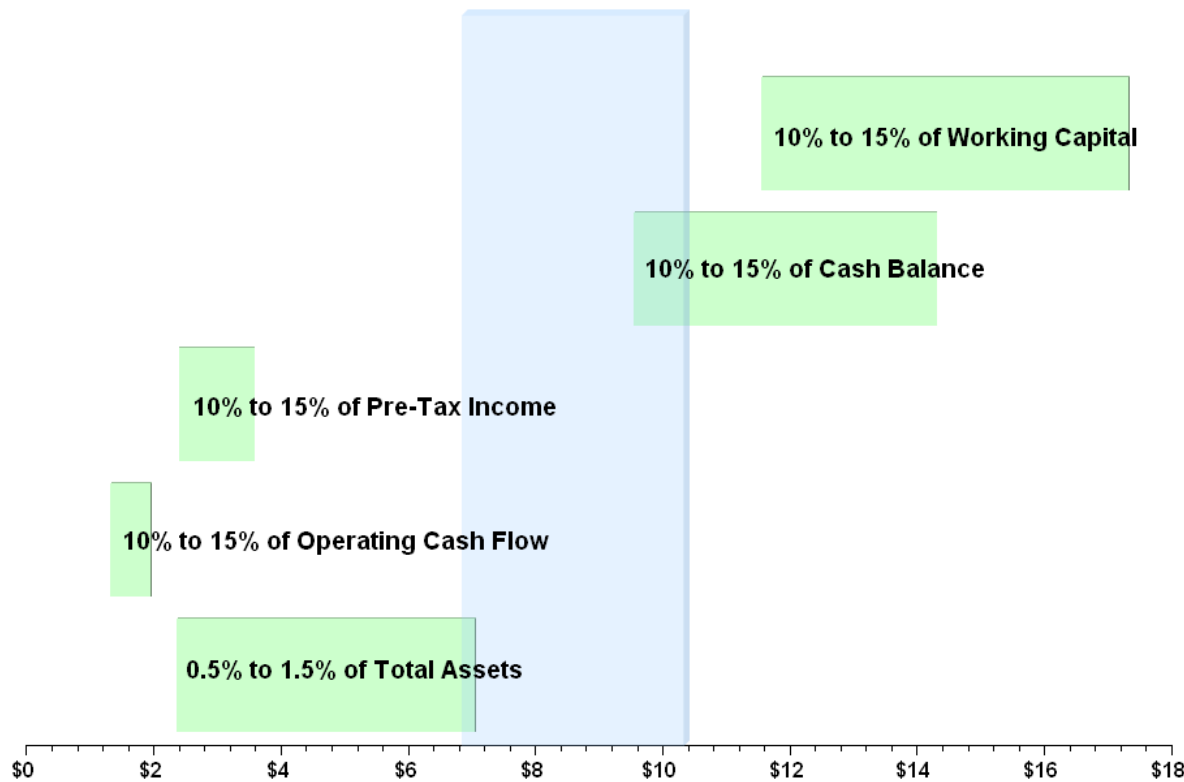
Based on ABC's risk characteristics, we believe it is at slightly higher risk of D&O claims in the next 12 months than a typical TSX 300 company

- We calculate a 2.0% probability that a securities class action will be filed against ABC or its Directors and Officers in the next 12 months.



Step 1: Balance Sheet Perspective

We estimate ABC's risk tolerance for balance sheet losses at about \$9 million



- Risk tolerance is a term we use to denote the pre-tax net of insurance D&O balance sheet loss that is acceptable to a company's stakeholders at a 100-year return period.
- This number is estimated according to techniques often used by auditors to determine materiality

Step 1: Balance Sheet Perspective

With \$54 million of Side ABC limits, ABC may be able to tolerate any loss within a 100 year return period

•Based on ABC's risk characteristics, we model all possible claims outcomes, including both optimistic and pessimistic scenarios.

•\$54 million of Side ABC limits would result in \$9 million net of insurance recoveries, in line with our estimated risk tolerance based on the assumptions in the previous slide

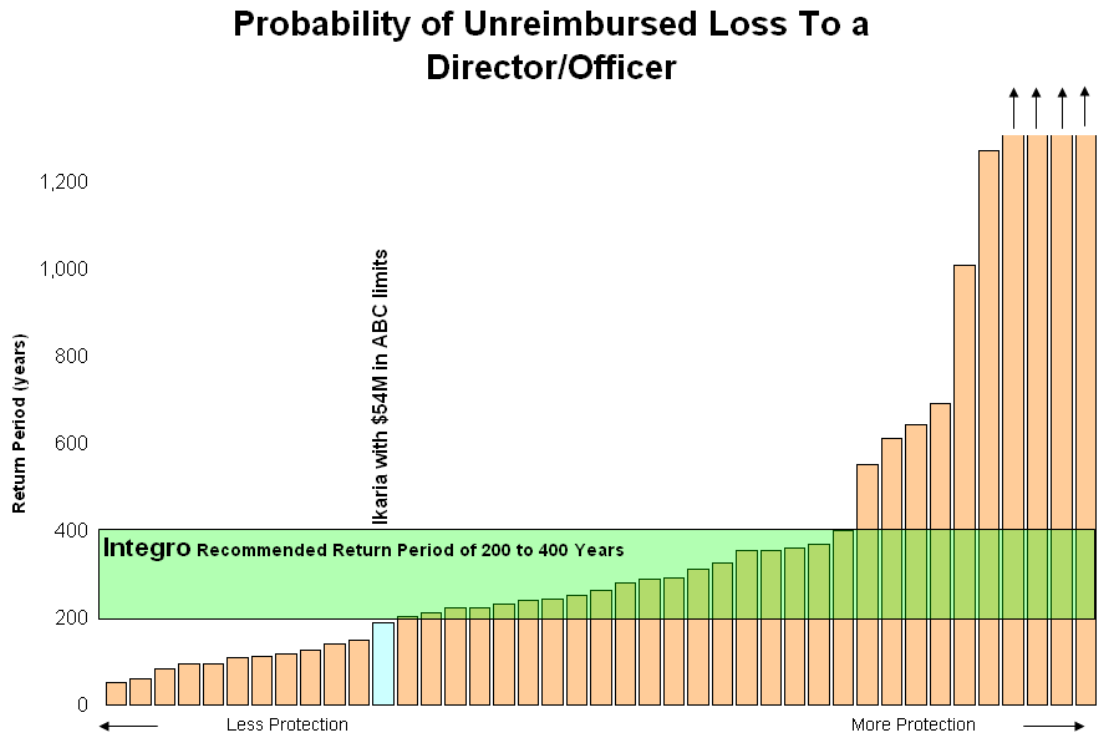
All Modeled Scenarios

Percentile	Return Period	D&O Losses ¹
80.00%	5 years	-
90.00%	10 years	2,000,000
95.00%	20 years	16,000,000
96.00%	25 years	21,000,000
96.67%	30 years	25,000,000
97.50%	40 years	33,000,000
98.00%	50 years	39,000,000
99.00%	100 years	63,000,000
99.50%	200 years	90,000,000
99.80%	500 years	130,000,000
99.90%	1000 years	164,000,000

¹Ground up Side A/B losses, gross of insurance

Step 2: The Director / Officer Perspective

- The second step in our process is to determine whether \$54 million of ABC limits is sufficient protection for directors and officers.
- This exhibit calculates the likelihood of an out of pocket claim to directors and officers.
- According to our model, the level of protection provided to directors and officers varies with:
 - Ikaria's risk of incurring D&O claims
 - Ikaria's financial strength, which makes it unlikely that it will fail to reimburse a director for a claim
 - Limits purchased by Ikaria
- We recommend providing protection to the 200 to 400 year level, in line with the average of other publicly traded companies
- \$54 million of ABC limits provides for an unreimbursed loss to a director at the 192 year return period, more often than our recommended range.

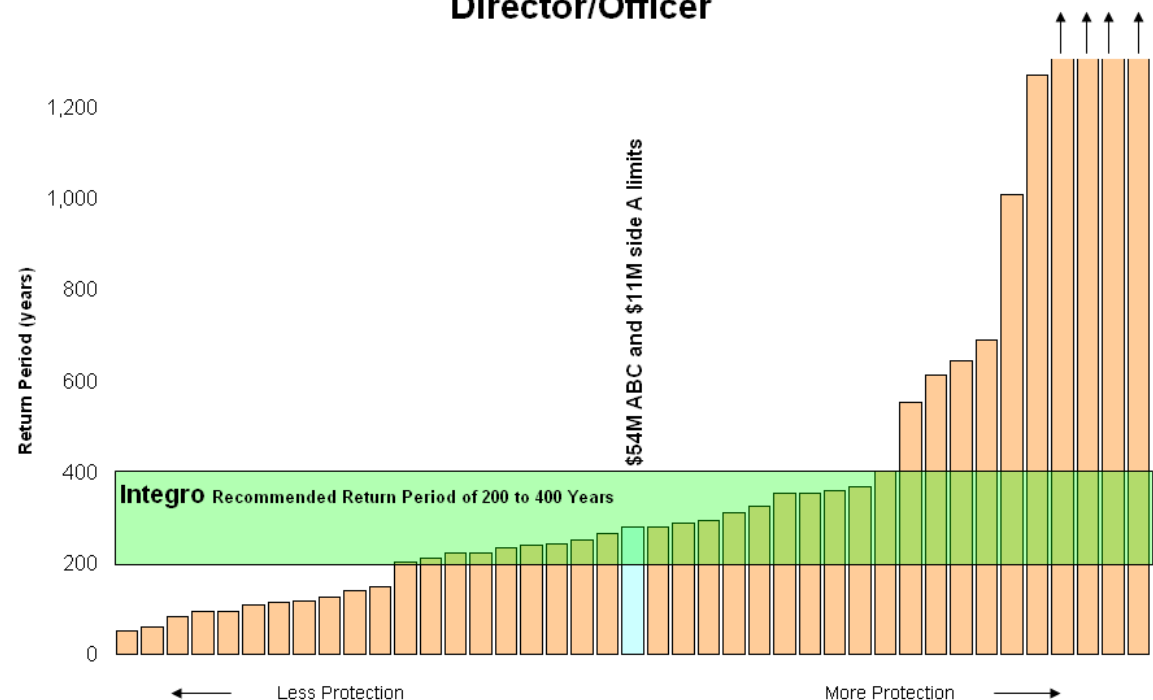


Summary of Results

We recommend \$55 million of Side ABC limits and \$10 million of Side A/DIC limits to provide a minimum recommended level of protection from both the balance sheet and director/officer perspectives

- Our model indicated that \$54 million of side ABC limits provides less than the typical recommended level of protection to directors and officers. As such we recommend purchasing additional side A/DIC limits.
- According to our model, \$54 million of side ABC and an additional \$11 million of side A/DIC provides protection to directors and officers at the 278 year return period, in line with other publicly traded companies.
- We recommend Ikaria purchase a minimum of \$65 million in total limits, of which \$55 million is Side ABC and \$10 million is side A /DIC.

Probability of Unreimbursed Loss To a Director/Officer



Linamar: Global Powerhouse in Diversified Manufacturing

2010 Sales: \$2,229 million

Automotive (Manufacturing and Driveline Groups) \$1.82 Bill



Linamar

PRECISION PRODUCTS



**Industrial, Commercial Vehicle
and Energy (ICE Group) \$300 Mill**

MOBILE PRODUCTS



**Access & Consumer Products
(Skyjack Group) \$111 Mill**

A Diversified Manufacturing Company Powering Vehicles, Motion, Work and Lives

Vehicle Markets

2011 Q1 YTD Sales \$575 million / 2010 Sales \$1,963 million

PRECISION PRODUCTS

AUTOMOTIVE - 2010 Sales: \$1,579m

2011 YTD Sales: \$477m ↑30%



Car
Xover
SUV
Light Truck

COMMERCIAL VEHICLES - 2010 Sales: \$381m

2011 YTD Sales: \$97m ↑26%



Off Road Vehicle
Medium Duty Vehicle (on Road) Bus, Fire Truck etc.
Heavy Duty (On Road) Transport Truck

RECREATIONAL - 2010 Sales: \$2m

2011 YTD Sales: \$1m ↑228%



Marine
RV
Motorcycle, Scooter

Energy & Heavy Machining Markets

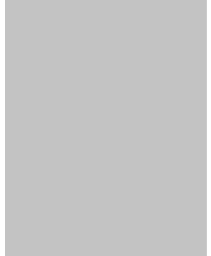
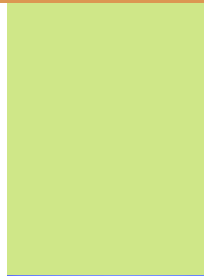
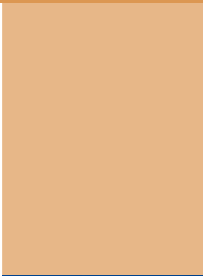
2011 Q1 YTD Sales \$16 million / 2010 Sales \$59 million

PRECISION PRODUCTS

Energy

2010 Sales: \$40m

2011 YTD Sales: \$11m ↓20%

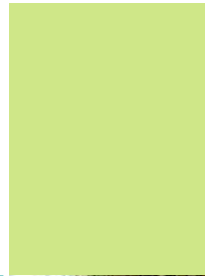


Power Generation
Wind Generation
Solar
Nuclear
Oil & Gas Drilling

Heavy Machining

2010 Sales: \$19m

2011 YTD Sales: \$5m ↓12%



Aerospace
Defense
Rail

Industrial & Consumer Product Markets & Capabilities

2011 Q1 YTD Sales \$84 million / 2010 Sales \$208 million

MOBILE PRODUCTS

ACCESS - 2010 Sales: \$112m

2011 YTD Sales: \$54m

↑147%



Boom

Scissor Lift

Telehandler



INDUSTRIAL/CONSTRUCTION AGRICULTURAL/TURF

2010 Sales: \$88m

2011 YTD Sales: \$28m ↑34%



Fabricated Assemblies
Custom Built Units
Combine Heads
Other Agricultural
Assemblies



CONSUMER PRODUCTS

2010 Sales: \$8m 2011 YTD Sales: \$2m ↓35%



Electric Lawnmowers



Electric Motors



Utility Trailers



Linamar: Global Presence

May 2011

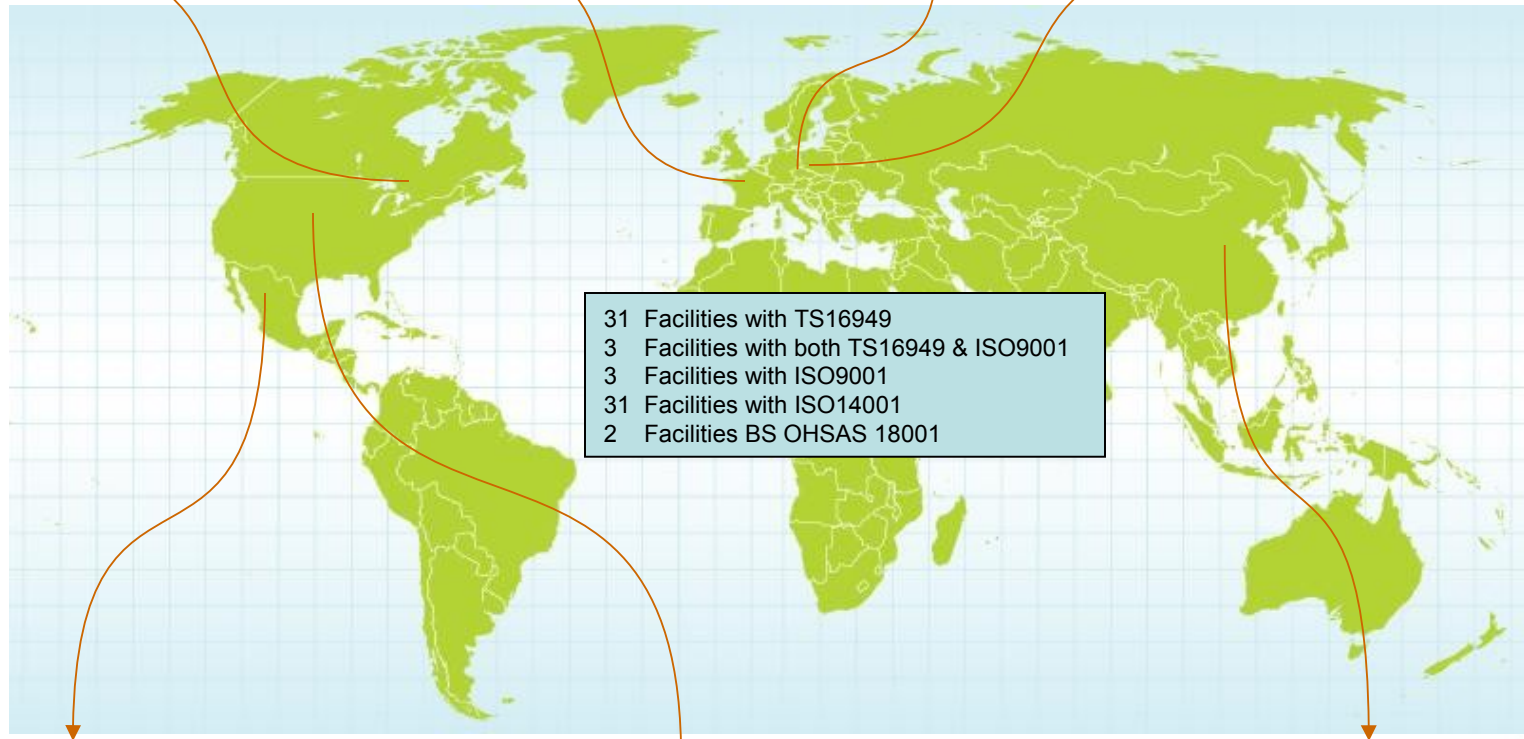
Manufacturing Facilities (39); Sales Offices (13); Technology Development Centres (5); Employees (14,242)

Manufacturing Facilities (23)
CANADA

Manufacturing Facilities (3)
FRANCE

Manufacturing Facilities (3)
HUNGARY

Manufacturing Facilities (2)
GERMANY

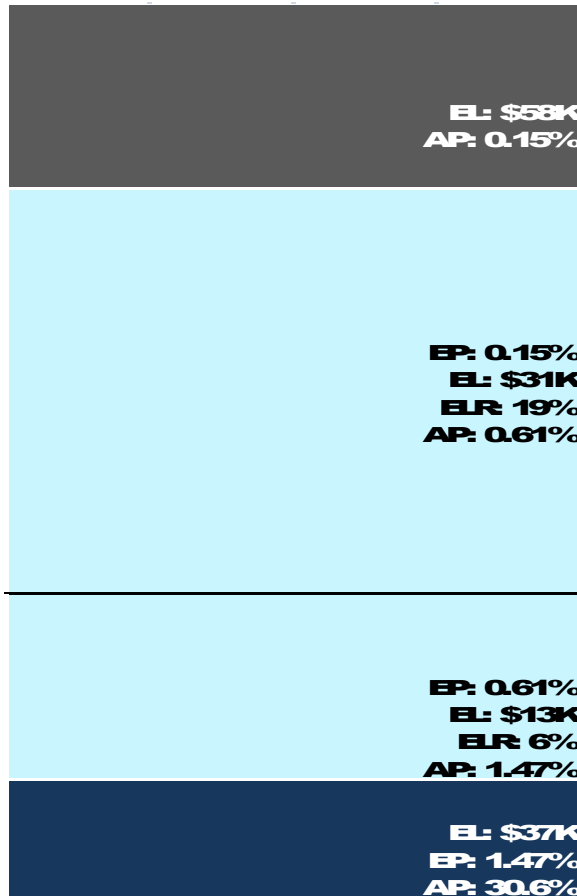


Manufacturing Facilities (4)
MEXICO

Manufacturing Facilities (3)
USA

Manufacturing Facilities (1)
CHINA

Linamar: GL Modeling Results



EP: Exhaustion Probability
EL: Expected Losses
ELR: Expected Loss Ratio
AP: Attachment Probability

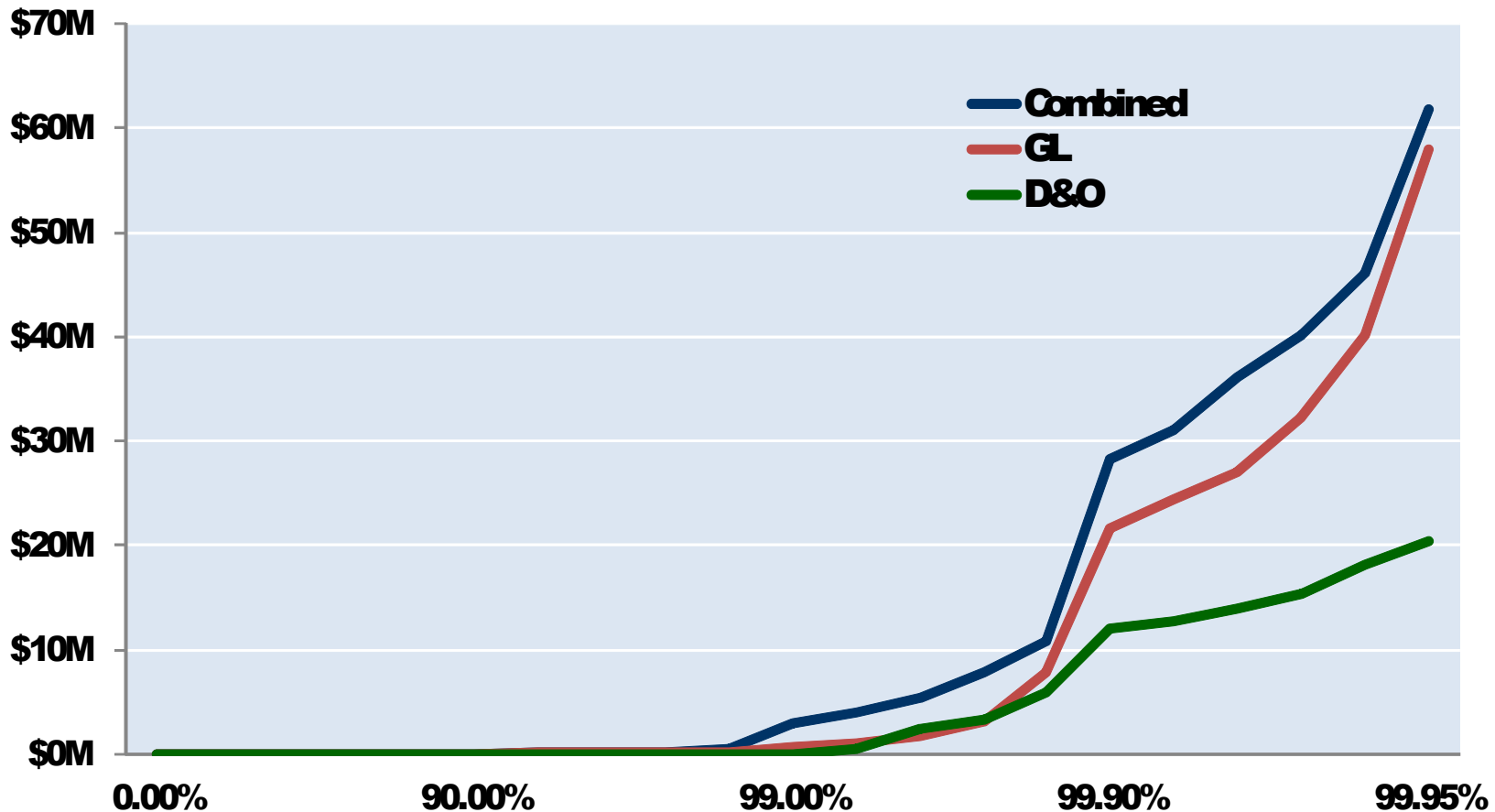
Linamar: D&O Modeling Results



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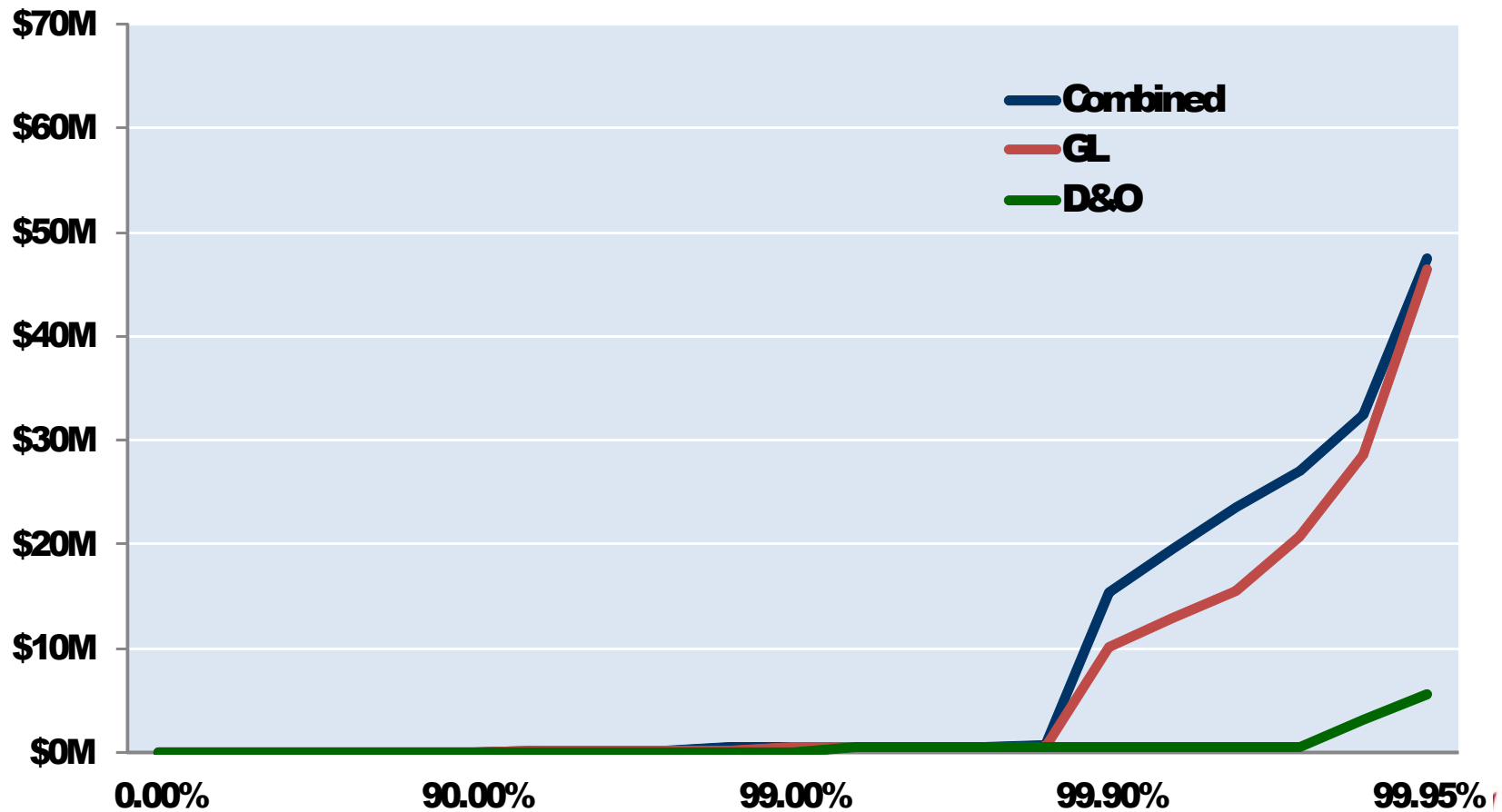
Linamar: Range of Outcomes

Gross (Prior to Insurance)



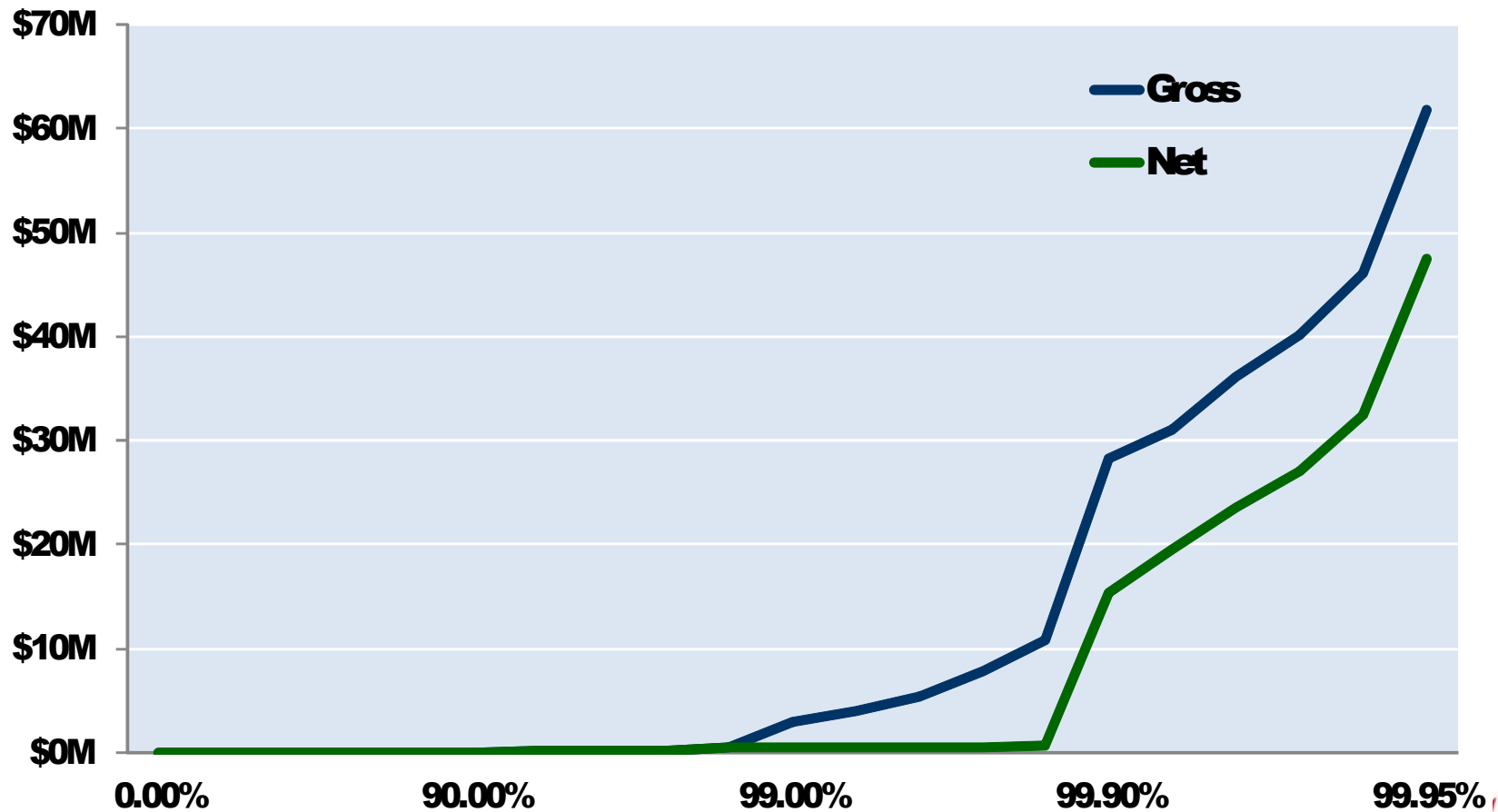
Linamar: Range of Outcomes

Net of Insurance



Linamar: Range of Outcomes

Gross vs. Net of Insurance



Thank you for attending the
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