



PRIMA INSTITUTE 2023

Total Cost of Risk: Understanding and Application



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Learning Objectives

1. Define Total Cost of Risk
2. Identify and discuss TCOR Components
3. Examine ways to optimize and utilize TCOR
4. Examine ways to control TCOR

What gets measured.....



.....gets managed.



What is Total Cost of Risk

Total Cost of Risk (TCOR) is an objective, quantitative method to calculate total cost of risk and **measure** risk management **performance**

Total Cost of Risk

TCOR and Insurability — Example Risk Universe

Political	Business	Economic	People	Financial	Natural
Government / Legislation	Compensation	Cost Inflation	Succession Planning	Foreign Exchange / Commodity	Weather (Storm / Flood)
Public Opinion	Demand Failure	Global Economy	Health & Safety	Capital Availability	Climate Change
Environmental Change	Safety Standards	Local Economy	Labor Relations	Interest Rates	Earthquake / Volcano / Tsunami
War / Terrorism / Riots	Premature Obsolescence	Crime	Human Error	Insolvency / Credit Risk	Fire / Explosion

Wholly Insurable

Significantly Insurable

Significantly not Insurable

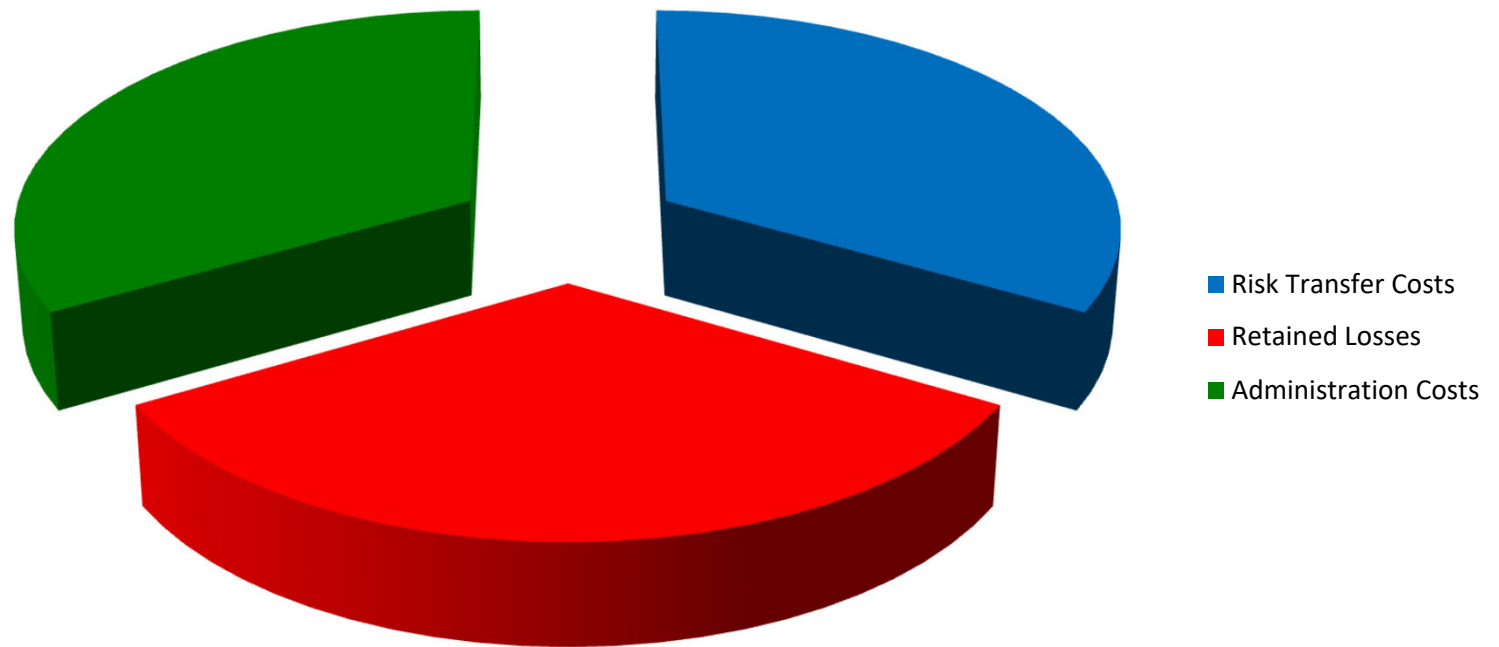
Not Insurable

Total Cost of Risk

- Think total cost of **insurable** risk



2. Identify and discuss TCOR components



TCOR Components



1. Risk transfer costs

- Policy Premiums
- Taxes
- Fees
- Retail broker commission
- Wholesale broker commission

TCOR Components



2. Cost of retained losses

- Costs within deductible
- Costs within retention
- Costs for self-insured (bare) losses
- Uninsured losses

TCOR Components



3. Administrative Costs

- Internal Costs
- External Costs

Internal Costs

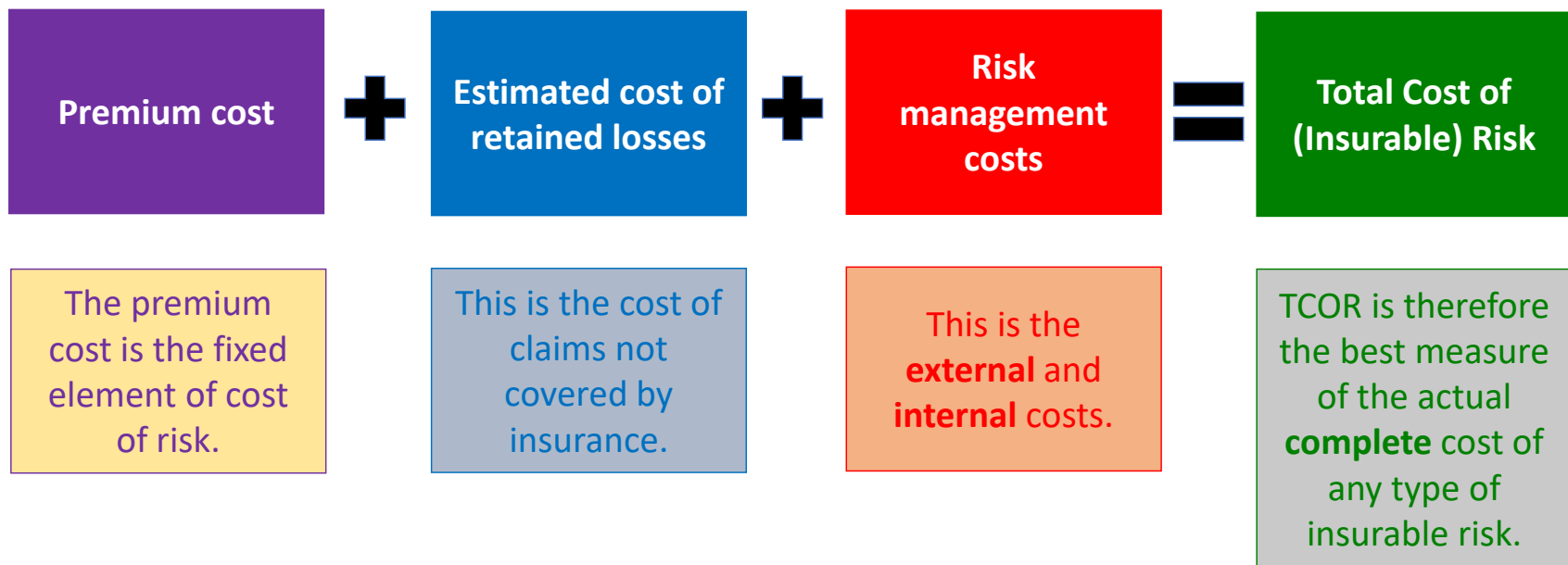


- Risk Management Payroll
- Benefits
- Loss of Productivity
- Risk Control Activities
 - Training
 - Signage
 - Safety Equipment
 - Inspections

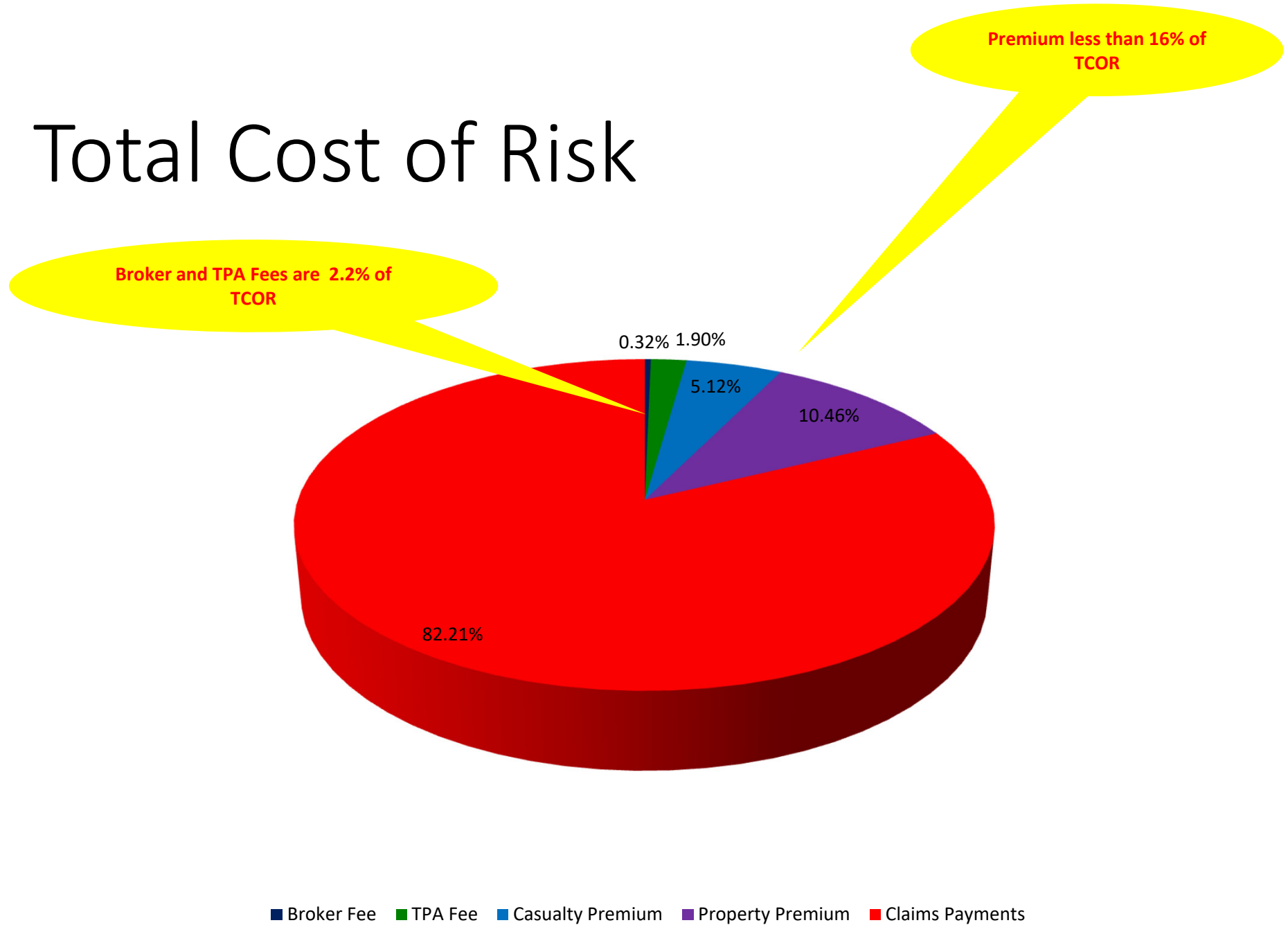
Consultants
Process Exclusive Risk Control Expertise Ergonomics Auditor Opinion
Attorneys Skills
External Costs
Claims Advice Knowledge Improvement
Third Party Administrator Professional
Insurance Broker

Why is TCOR Important?

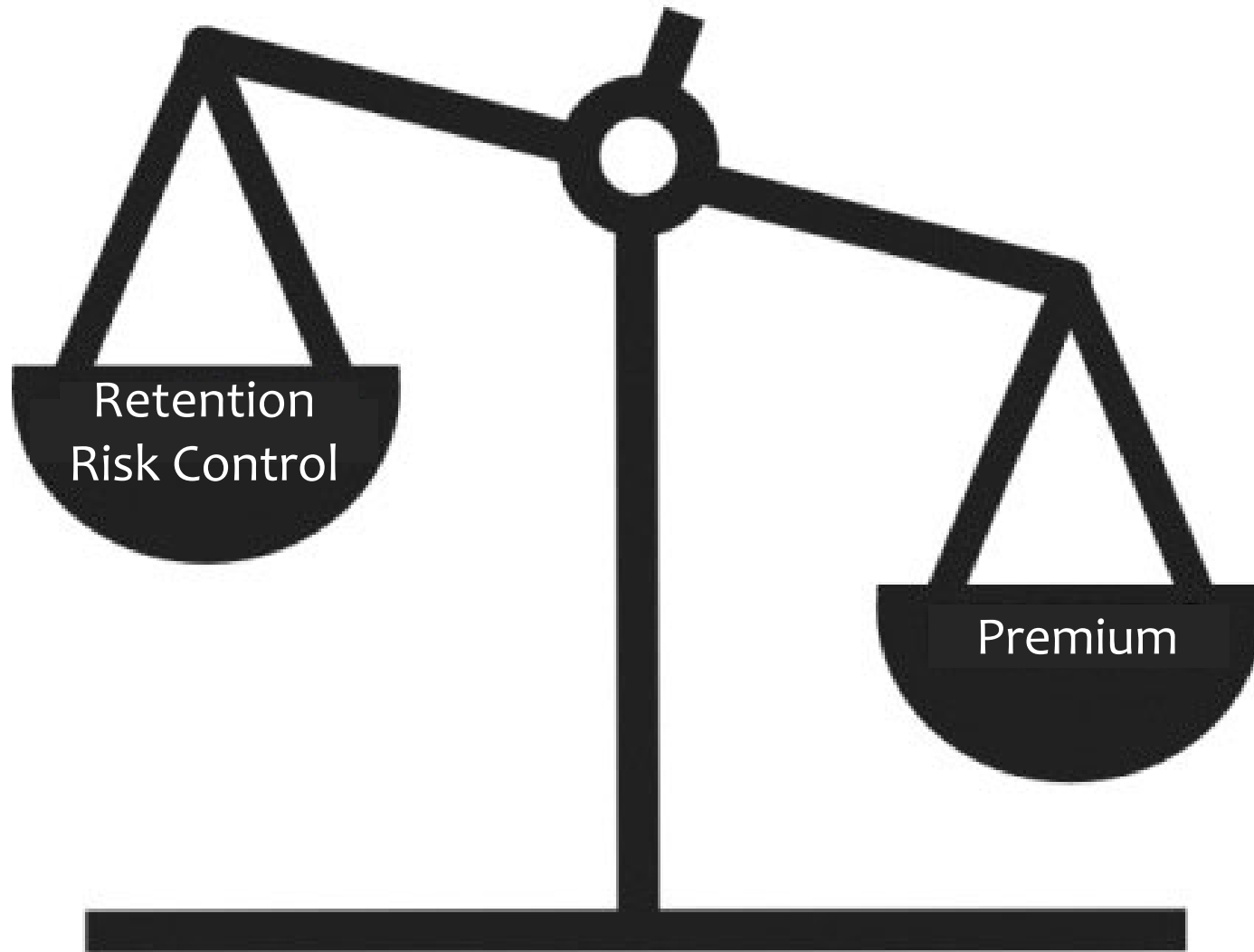
TCOR is the best measure of the actual cost of risk and a better risk management Key Performance Indicator (KPI) than premium cost



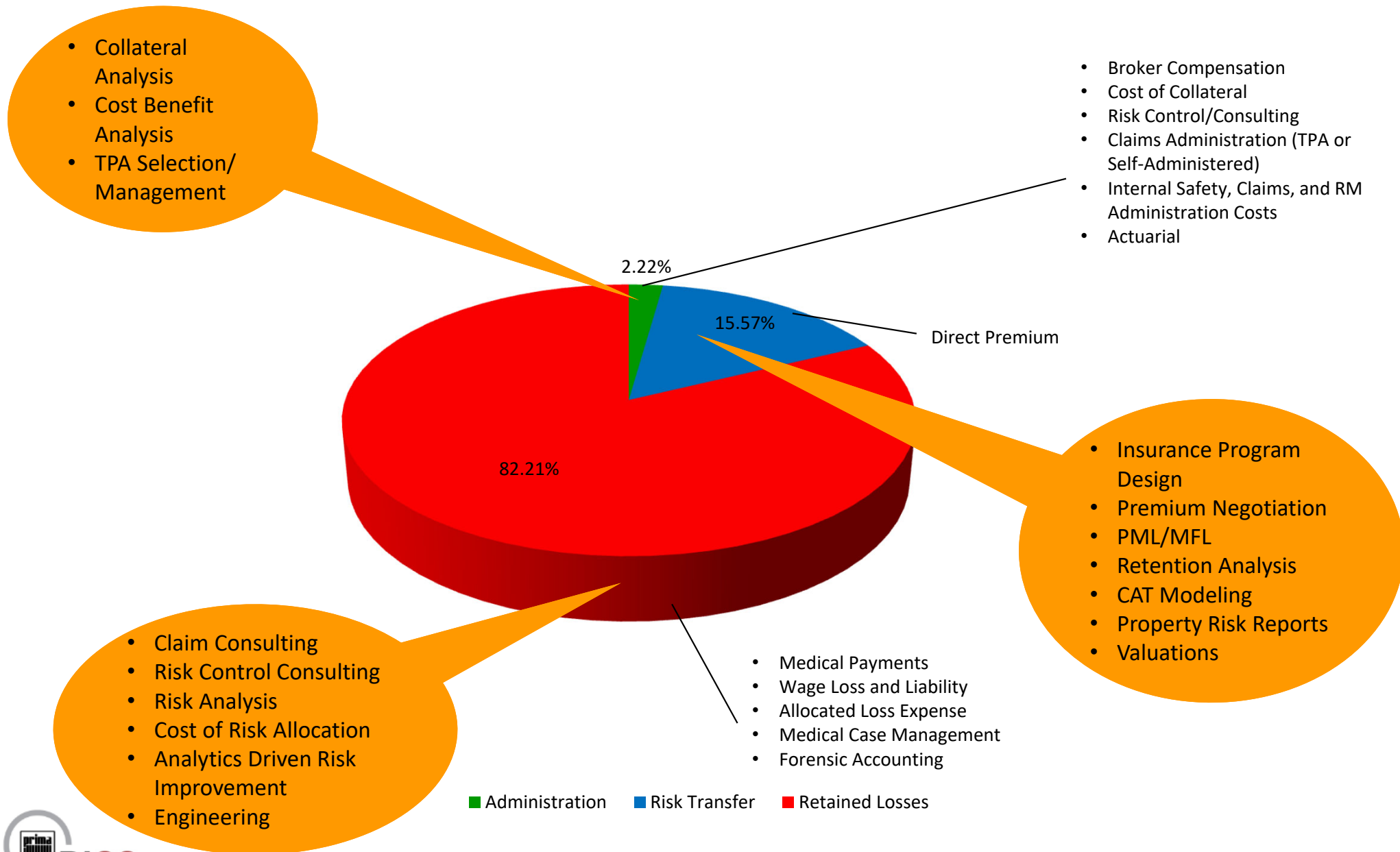
Total Cost of Risk



3. Optimizing and utilizing TCOR



Optimizing TCOR



Utilizing TCOR-Retention Decision

[CLIENT]				
Total Cost of Risk Analysis at Various Limits and Self-Insured Retentions				
Line Item	Option I	Option II	Option III	Option IV
WC Limit	\$10,000,000	Statutory	Statutory	Statutory
Self-Insured Retention Option	\$1,500,000	\$1,500,000	\$1,250,000	\$1,000,000
Premiums Payable to Loss Fund	\$5,606,217	\$5,713,181	\$5,690,089	\$5,761,673
Underwriting Expenses				
a. Losses and LAE Insured	\$5,535,000	\$5,535,000	\$5,452,000	\$5,370,000
b. Excess insurance	\$179,508	\$286,472	\$346,380	\$499,964
Miscellaneous Other Fees & Expenses:	\$466,709	\$466,709	\$466,709	\$466,709

- Options II, III, and IV include statutory limits. Option I does not account for catastrophic losses that may exceed WC limits.

Utilizing TCOR-Retention Decision

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- Retention Options vary.
- Premium savings at higher retentions.
- Miscellaneous Expenses do not change regardless of limit and SIR chosen.

Utilizing TCOR-Retention Decision

c. Claims administration fees
Unallocated attorney's fees
d. Broker fees
c. Taxes and assessments
Loss Control
Risk analyst expenses
c. TPA managed care expenses
Administrative support
Accounting fees
Actuarial fees
Plan administration fees
e. Audit Fees
Other expenses
f. TPA audit fees

\$82,000 @ \$1.25m SIR
\$165,000 @ \$1.5m SIR

(\$153,584) @ \$1.25m SIR
(\$213,493) @ \$1.5m SIR

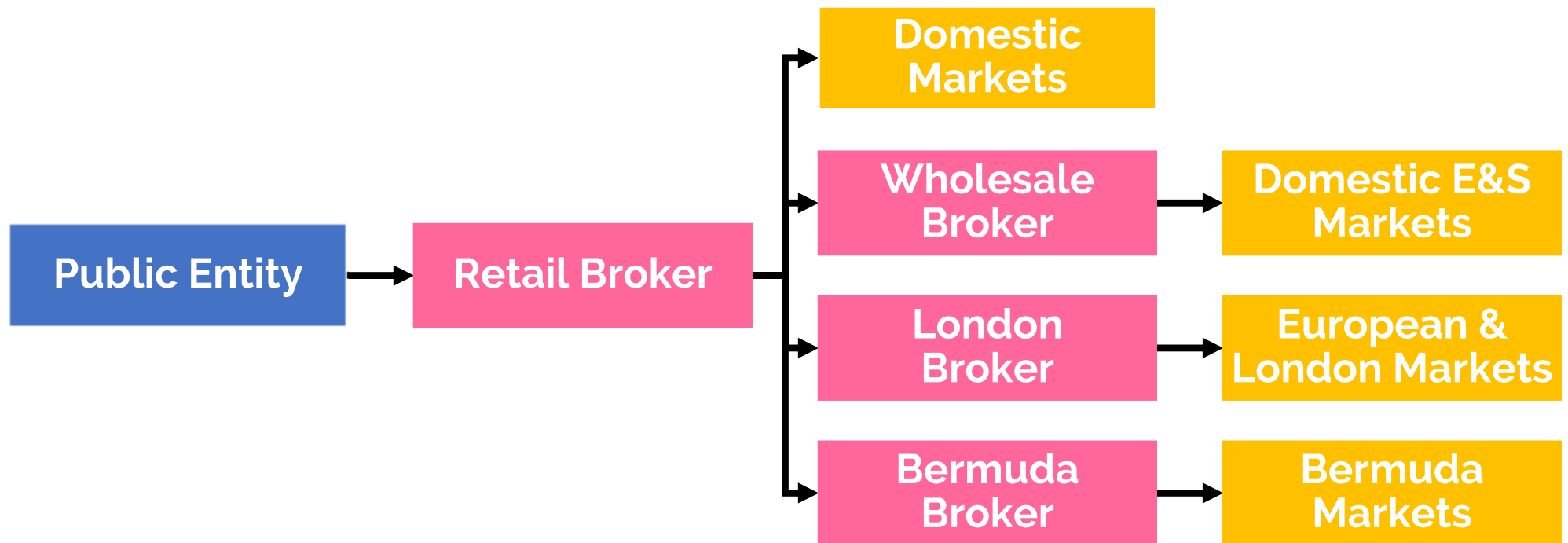
\$71,584 higher @ \$1.m SIR
\$23,092 higher @ \$1.5m SIR

Utilizing TCOR-Retention Decision

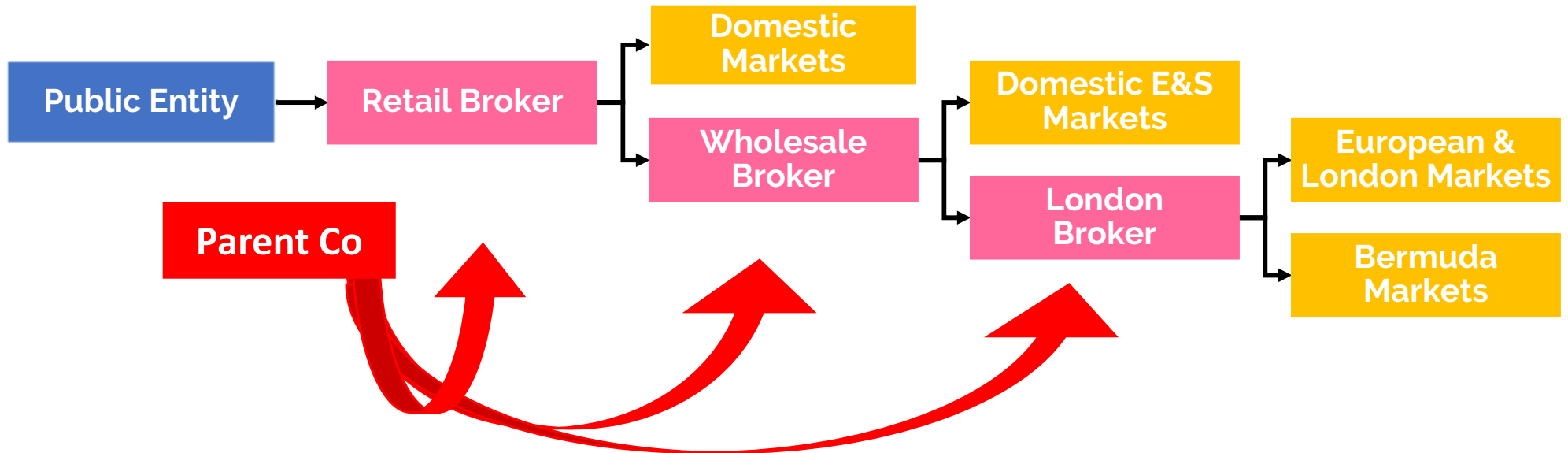
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- Expected Losses at higher retentions based on client's own loss data.
- Premium savings at higher retentions.
- Premiums to be paid into reserve fund were calculated by actuaries based on different retentions less investment income.

Utilizing TCOR—Market Access



Utilizing TCOR—Market Access



Utilizing TCOR—Market Access

Prior Broker Fee \$ 65,000

Cyber Premium \$ 805,000

Owned Domestic Intermediary 7.5% \$ 52,500

Owned London Broker 7.5% \$ 52,500

Broker Total Compensation \$ 170,000

New Broker Fee \$ 75,000

Cyber Premium \$ 752,500

~~Domestic Intermediary~~ 0.0% ~~\$ ———~~

Owned London Broker 7.5% \$ 52,500

Broker Total Compensation \$ 127,500

Premium Savings -6.98%

Program Savings -4.94%

Utilizing TCOR – Broker Selection

	Broker A	Broker B	Broker C
Proposed Fee	\$100,000	\$65,000	\$90,000
Qualifications - 30%	28	27	20
Experience - 20%	18	17	14
Approach/Plan - 25%	24	20	18
References - 15%	14	14	15
Technical Score	84	78	52
Cost - 10%	0	10	5
Total Score	84	88	57

	Broker A	Broker B
Loss Control		
Recommendations	√	
SOV improvements	√	
Direct Market Access	√	
Owned Intermediary*	NA	√
Property Premium	\$1,000,000	\$1,100,000
Total Cost of Risk - Property	\$1,100,000	\$1,165,000
Total Broker Compensation	\$100,000	\$175,000

*standard intermediary compensation ranges from 5-10%. 10% was used in this example..

TCOR - Valuations

Location Name	State	Country	Wind Tier/Hazard	Total Property & BI Values (\$)	TIV per Sq. Ft.	Construction Class (ISO)	Occupancy Type	Year Built Format: YYYY	# of Stories	Square Footage	Fire Sprinklers (Yes or No Only)	Construction Quality	Cladding Type
Elementary	LA	USA	Tier 1	\$ 8,237,478	\$ 147	Masonry Noncombustible	Education	1958	1	49,663	No	Average	Brick veneer
Elementary	LA	USA	Tier 1	\$ 12,158,254	\$ 147	Masonry Noncombustible	Education	1958	1	73,301	No	Average	Brick veneer
Elementary	LA	USA	Tier 1	\$ 3,081,819	\$ 147	Masonry Noncombustible	Education	1981	1	18,580	No	Average	Brick veneer
Elementary	LA	USA	Tier 1	\$ 8,502,037	\$ 147	Non-Combustible	Education	1981	1	51,258	Yes	Average	Brick veneer
Elementary	LA	USA	Tier 1	\$ 15,286,349	\$ 147	Masonry Noncombustible	Education	1999	1	92,160	Yes	Average	Brick veneer
Elementary	LA	USA	Tier 1	\$ 15,425,678	\$ 147	Masonry Noncombustible	Education	2002	1	93,000	Yes	Average	Brick veneer
Elementary	LA	USA	Tier 1	\$ 7,758,314	\$ 307	Masonry Noncombustible	Education	2020	1	24,938	No	Average	Brick veneer
High School	LA	USA	Tier 1	\$ 28,762,918	\$ 147	Masonry Noncombustible	Education	1960	2	173,409	No	Average	Brick veneer
High School	LA	USA	Tier 1	\$ 79,612,000	\$ 293	Joisted Masonry	Education	2017	3	257,000	Yes	Average	Brick veneer
Middle School	LA	USA	Tier 1	\$ 8,634,233	\$ 147	Masonry Noncombustible	Education	1927	2	52,055	No	Average	Brick veneer
Middle School	LA	USA	Tier 1	\$ 16,332,973	\$ 147	Masonry Noncombustible	Education	1981	1	98,470	No	Average	Brick veneer

Margin Clause = 110%

\$3,081,819 reported value

\$3,390,000 insurance reimbursement

\$5,704,060 = true replacement cost value

\$2,314,060 Cost to the Insured

4. Examine ways to control TCOR



Controlling TCOR - Reduce



- Safety
- Risk Control
- Engineering
- Loss Drivers
 - MVA
 - Material Handling
 - Slip/Falls

Controlling TCOR - Reduce



- Claims Management
 - Require 1st reports of incidents to Risk
 - Contact injured employee
 - Create/manage return to work program
 - Oversee and manage TPA
 - Provide claims training
 - Conduct employee survey
 - Choose physicians panel
 - Claim audits

Controlling TCOR



- Transfer
 - Contractual
 - Insurance

Controlling TCOR



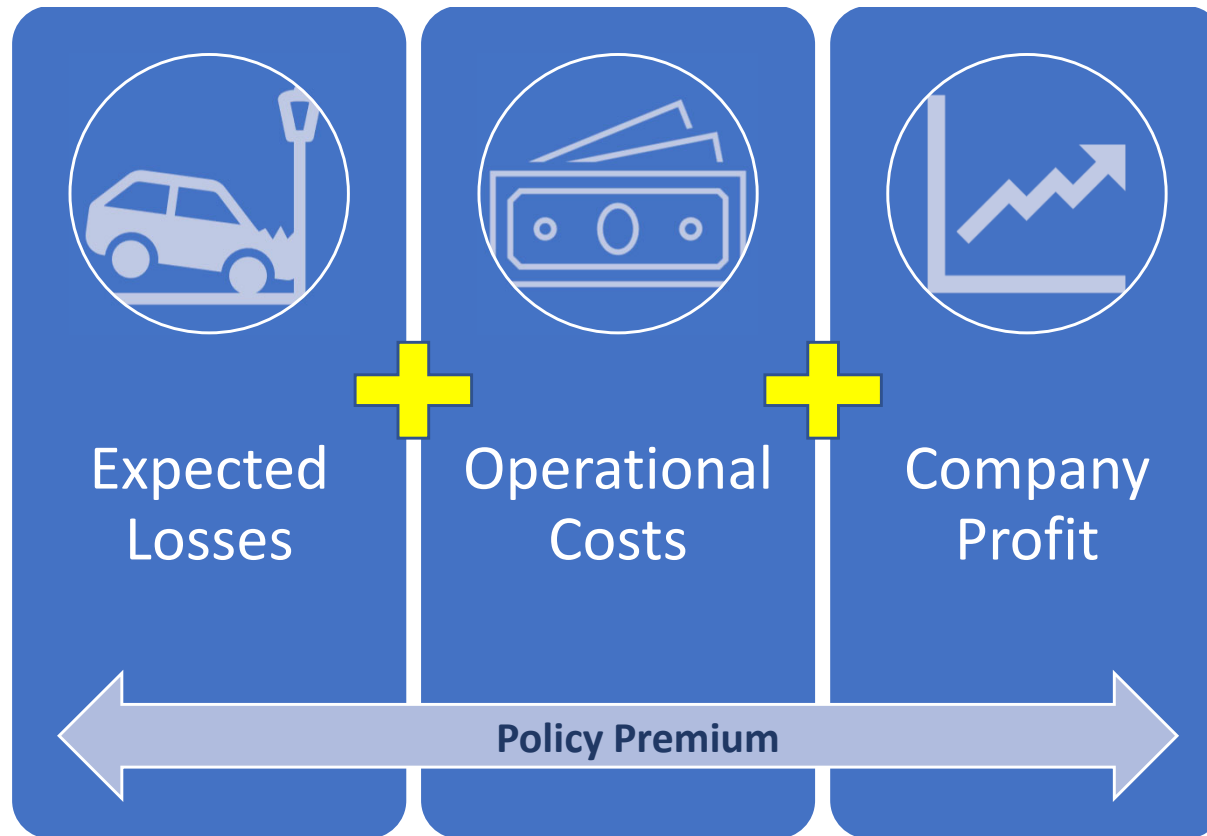
- Assumption
 - Self insurance
 - Retentions
 - High deductibles

Strong Risk Finance Program



- Risk appetite
- Insure v. Self-Insure
- Sufficient Limits
- Retention/Deductible
- Address unique exposures
- Accurate information
- Partner with the right carriers

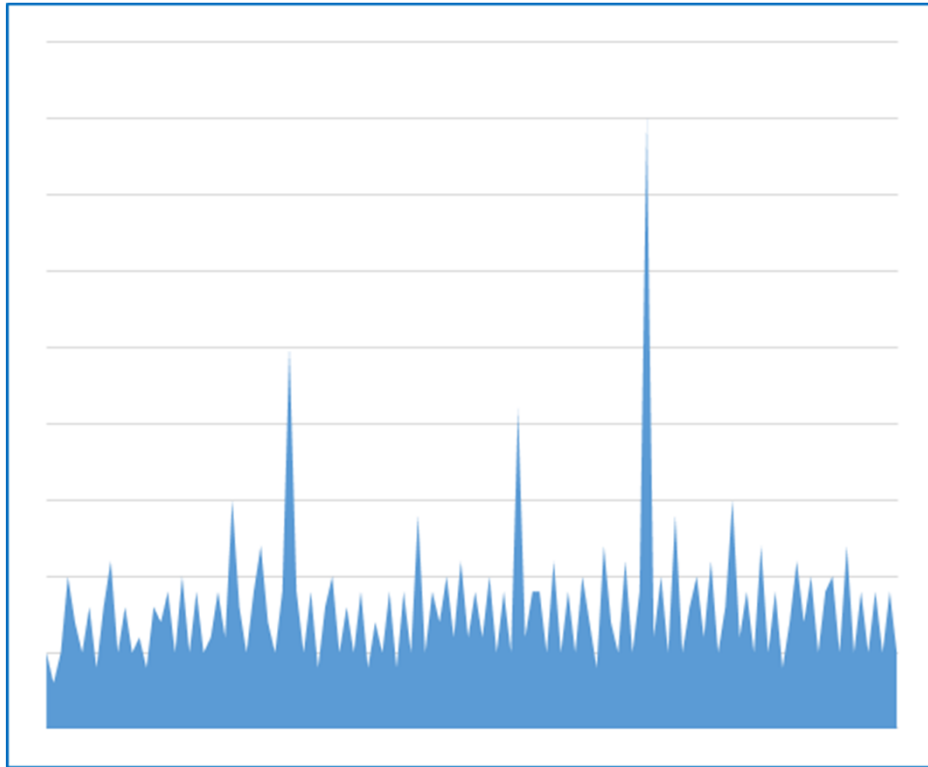
Premium Calculation



Controlling TCOR

Understanding how risk of loss profiles vary by class

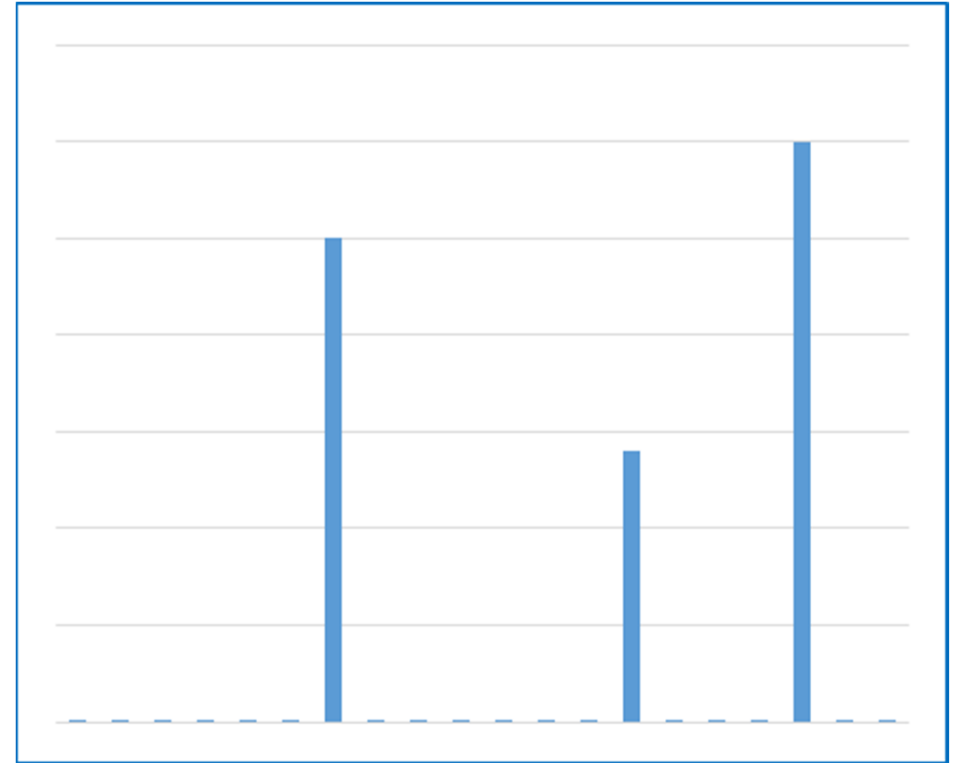
helps determine how to use insurance as a financial solution



2017 2018 2019 2020 2021

High Frequency / Infrequent Severity

- General Liability
- Workers Compensation / Employers Liability
- Fleet/Auto
- Travel



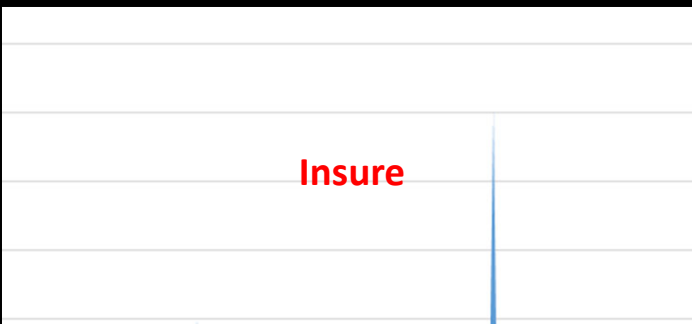
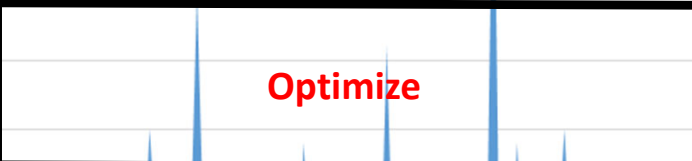


2017 2018 2019 2020 2021

Low Frequency / Infrequent Severity

- Cyber Liability
- Professional Liability
- Property damage / business interruption
- Crime
- Public Officials / Directors & Officer's
- Employment Practices Liability

Controlling TCOR

Typical risk financing and insurance program structuring

Retention/Transfer	Loss Experience	TCOR Metric
Insurance	 Insure	Premium
Insurance	 Optimize	Premium/Retained Losses
Entity Retention	 Retain	Retained Losses
Department Retention		Retained Losses

Learning Objectives - Summary

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Questions?



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