Current Actuarial Issues in Captive Insurance

Commitment Beyond Numbers

Robert J. Walling III, FCAS, MAAA, CERA
Derek W. Freihaut, FCAS, MAAA
October 26, 2017
About the Presenters

**Robert J. Walling III, FCAS, MAAA, CERA**
- B.S. Secondary Math Education – Miami University 1987
- Fellow of Casualty Actuarial Society (FCAS)
  - CAS Board of Directors
- Principal, Pinnacle Actuarial Resources, Inc.
- 2017 Captive Power 50

**Derek W. Freihaut, FCAS, MAAA**
- B.S. Mathematics, Economics – Rose Hulman Institute of Technology
- Fellow of Casualty Actuarial Society (FCAS)
- Member of American Academy of Actuaries’ (AAA) Committee on Property and Liability Financial Reporting (COPLFR)
- Principal, Pinnacle Actuarial Resources, Inc.
Overview

- Introductions
- Background
- Risk Transfer
- Risk Distribution
- Actuarially Reasonable Premiums
  - Reasonableness Tests
  - Market Comparable
  - Total Cost of Risk (TCoR)
Background – Captives Continue to Grow

Source: Business Insurance – March 2017
Background – Growth Despite Headwinds

• June 2013 – Denial of Deductions for Foster Dunhill captives
• February 2015 – 831(b) Captives Added to IRS “Dirty Dozen” (Three years and counting)
• August 2015 - Convictions against Foster Dunhill promoters
• May 2016 – Caylor vs. Commissioner heard
• August 2016 – Wilson vs. Commissioner heard
• November 2016 – IRS Notice 2016-66 naming some 831(b) transactions as “Transactions of Interest”
• April 2017 – Promoter and Material Advisor documents due
• July 2017 – Additional convictions in Foster Dunhill
• August 2017 – US Tax Court rules against Avrahami Captive
• October 2017 – Celia Clark announces closing
Background - Avrahami

• KEY – Insurance deductions were disallowed:
  – “The absence of risk distribution is enough to sink (the captive).”
  – Because the captive insurance company failed to have risk distribution
  – Because the reinsurance company providing unrelated risk failed to be a bona fide insurance company

• Lots of additional concerns
  – Reinsurer not formed for legitimate nontax reasons
  – Circular flow of funds/lack of liquid assets to pay claims
  – Coverage forms (e.g. Exclusions, Insurable Risks)
  – Premiums were “grossly excessive” and tried to hit “target premium”
  – Relationship between commercial and captive premiums
  – Errors in premium calculations
Background - What makes a captive insurance company an insurance company?

- Insurable Risk
- Risk Transfer
- Risk Distribution
- Commonly Accepted Notions of Insurance
  - Formed for a Non-Tax Reason
  - Non-circular Flow of Funds
  - Entity Faces Actual and Insurable Risk
  - Policies were Arm’s Length Contracts
  - Actuarially Determined Premiums
  - Market Comparable Coverages/Premiums
  - Regulatory Controls and Minimum Statutory Requirements
  - Capitalization
  - Pay Claims
Insurance Risk and Coverage Forms

• Insurable Risk
  – Accidental/fortuitous loss (not controllable)
  – Definite time, place and cause of loss
  – Calculable loss amount

• Policy Forms
  – Clarity is a point of emphasis (what’s covered, how are damages computed, etc.)
  – Exclusions
    • Need to be appropriate (e.g., Terrorism for Phoenix risk excluding events in city of more than 1M)
  – Should address potential moral and morale hazards
  – Coverages should not overlap or pricing should be adjusted
Risk Transfer

• History of case law
• Reinsurance risk transfer has been codified in accounting standards (FASB 113 and SSAP 62)
  – While accounting standards for reinsurance contracts are not always applicable in a captive setting, reinsurance risk transfer testing can help understand what is required
• Risk Transfer
  – Looks at the arrangement from the perspective of the insured (i.e., has a risk faced by the insured been transferred)
  – Must involve shifting of “insurance risk” (timing and amount)
  – Did the contract shift a real risk that the enterprise faced?
  – Must involve a reasonable chance of a significant loss to the insurer
Risk Distribution

- Risk Distribution
  - Must spread and diversify loss potential
  - Internal Risk Distribution
    - Brother-Sister Model
    - Sufficient Statistically Independent Risk Units (Exposures)
  - Unrelated Risk
Source of Unrelated Risk – Can be provided by participating in a Risk Pool. Risk Pools are designed to exchange your risk with others seeking un-related risk.
Risk Distribution Via Unrelated Risk Risk Distribution Via Unrelated Risk

Operating Business A

Operating Business A's Captive

Operating Business C

Operating Business C's Captive

Operating Business B

Operating Business B's Captive

Operating Business D

Operating Business D's Captive

Insurance Provider ("Pool")
**Source of Unrelated Risk** – Can be provided by Brother-Sister relationship (Humana Model) within the same organization.
Risk Distribution Via Statistically Independent Risks

• Rent-A-Center
  – 14,000 Employees
  – 7,100 Vehicles
  – 2,600 Stores

• Securitas
  – “As a result of the large number of employees, offices, vehicles, and services provided by the U.S. and non-U.S. operating subsidiaries, (Securitas) was exposed to a large pool of statistically independent risk exposures.”

• Risk distribution is a loss exposure issue, not a corporate structure issue.

• It’s also an actuarial issue...
Risk Distribution Via Statistically Independent Risks

- How much of the adverse loss potential of one risk unit needs to be diversified away by the overall insurance program?
- Consider a trucking insurance product with a 10% chance of a $1M loss per truck
- Expected losses are $100,000 per truck
- BUT 10% of the time my losses are $1M (10 times my expected losses)

- If I insure 100 trucks, is this enough risk distribution?
How has the US Tax Court Defined Risk Distribution?

- **Case Law / IRS Guidance**
  - Le Gierse - focused on the number of insured parties
  - Humana - a brother-sister captive model
  - Gulf Oil - stated in dicta that “risk transfer and risk distribution occur only when there are sufficient unrelated risks in the pool for the law of large numbers to operate”
  - Rent-a-Center - more than 64% of risk coming from one subsidiary but sufficient number of statistically independent risks
  - Securitas reinforced the concepts presented in Rent-a-Center, specifically citing the number of employees and insured vehicles

- **Recent shift to exposures**
  - Exposures must produce claims to distribute risk!
Risk Distribution Background

• Problem - No specific measure to determine risk distribution
  – Some IRS guidance - mostly corporate structure
  – Tax courts decision - sometimes inconsistent findings
  – Subjective in nature

• An actuarial measure of risk distribution created by an insurance vehicle should focus on:
  – Pool of statistically independent risk exposures
  – The reduction in the variability between expected losses and actual losses as a result of aggregating these risks
Potential Risk Distribution Measures

• Criteria for evaluating tests
  – One side preferable (no speculative risk)
  – Transparency - easy to explain
    • Think lawyers and judges
  – Acceptability
  – Less open to manipulation
Pinnacle’s NEW Risk Distribution Measure

- Over the past year, Pinnacle has worked to develop an actuarial model for determining if risk distribution is present
- Article submitted to *Journal of Insurance Regulation* and *Variance*
- Introduces metric for actuarial assessment of risk distribution
- Currently being used in new single parent captive formations that have sufficient level of statistically independent risk units
- We have scheduled a Special Invitation Webinar on November 9th with the authors to walk through the new model.
Actuarially Sound Premiums

- CAS Statement of Principles Regarding Property and Casualty Insurance Ratemaking
- Primary Guidance for Actuaries in P&C Premium Determination

Four Principles

- Principle 1: A rate is an estimate of the expected value of future costs.
- Principle 2: A rate provides for all costs associated with the transfer of risk.
- Principle 3: A rate provides for the costs associated with an individual risk transfer.
- Principle 4: A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer.
Actuarially Determined Premiums

• Keys
  – Must be prospective
  – Must reflect all costs of a specific transaction

• “Not excessive, inadequate or unfairly discriminatory” language embedded in many US state insurance regulations

• Therefore, publicly-available commercial insurance rate filings generally already satisfy this standard of being actuarially sound
Market Comparable Premiums

• Many captives rely on an insured’s historical loss experience to determine premiums
  – e.g., workers’ compensation deductible reimbursement
• Low-frequency, high-severity coverages do not use this model
• Use exposure rating (i.e., rate per unit of exposure)
  • Rely on publicly-available rate filings for similar products
    – Already filed and approved in a U.S. domicile
    – Therefore actuarially sound rates
    – Ensure coverage is comparable
    – Adjusted for differences in expenses
Pricing Approaches for Enterprise Risk Coverages

• Market Comparable
  – Examples - Directors & Officers Liability, Employment Practices Liability, Cyber Liability
  – Direct use of publicly-available filings works well

• Closely-related to Commercial Insurance Products
  – Examples - Deductible Reimbursement, Differences in Conditions (DIC), or Excess Coverages
  – Reliance on current commercial premiums and rate filings works well

• No Close Commercial Analog
  – Actuarial methods (e.g., frequency x severity) and reasonable assumptions (non-insurance sources)
Impact of Captive Regulatory Environment

• In U.S. Captive Domiciles, captive regulators either have actuaries on staff or retain consulting actuaries

• Consultants are typically asked to provide actuarial opinions on:
  – “The reasonableness of the methodology and conclusion of the actuarial work”
  – “Projected premiums”
  – “The proposed capital and surplus in relation to coverage, retention and premium”
  – “The adequacy of reinsurance, or the amount and type of reinsurance needed”

• This level of review, by another qualified actuary, adds a second actuary forming an opinion on the actuarial soundness of a captive’s premiums and a level of additional regulatory scrutiny
Reasonableness Tests

• Premium as % of Limit
  – If the % is too high, there should be claims experience
  – Rate on Line
  – Return Period - Limit / Premium - Number of years of premium needed to fund one limits loss

• Commercial Insurance Premiums vs. Captive Premiums
  – Avrahami went from $90K in commercial premium to $1.3M in a year
  – Could this be due to changes in enterprise risk management and risk financing strategies? (new insurance/captive advisors?)
  – Some businesses finance all P&C insurance in captives
  – One size does not fit all
  – Important test for Deductible Reimbursement and DIC coverages
Reasonableness Tests

• Captive Premium to Insured Revenue
  – Is there some ceiling amount of a business’ total revenues that can/should be used to fund potential insurable loss events?
  – What factors (e.g., industry, geography, revenue size) could influence this percentage?
  – Could two businesses in the same industry, facing identical risks, and of the same size make complete different risk management and risk financing decisions based on risk appetite?

• Same type of metric can be computed using total insurance premiums (Commercial plus Captive(s))

• Leads to Total Cost of Risk
Total Cost of Risk

• Total Cost of Risk (TCoR)
  – “The cost of insurance, plus the costs of the losses that are retained and the administrative costs of the risk management department.” (RIMS Benchmark Survey)
  – Several major TCoR surveys and analytic tools (e.g., RIMS, Marsh)
  – Some industry risk assessment tools develop TCoR estimates as part of their work products to inform captive pricing
  – Varies greatly by:
    • Industry (e.g., Technology or Healthcare for Cyber)
    • Size (Walmart vs. a small local grocery/retailer)
    • Geography (NYC vs. Iowa)
  – Any assessment of TCoR needs to reflect these differences
Future Trends???

• More Tax Court Rulings
  – Some with similar facts and findings
  – Others with far better facts and (hopefully) better findings
  – State Tax Court actions
  – More certainty

• “Draining the Pools” Using Internal Loss Distribution

• Coverage Diversification
  – More High-Frequency/Low-Severity coverages
  – WC, APD, Property Deductibles and Retentions
  – Medical Stop-Loss/Benefits

• Scrutiny of Pricing Models

• Continued Innovation and Premium Growth
Questions
Join Us for the Next APEX Webinar

Workers’ Compensation Trends

Join Pinnacle Consulting Actuaries Tim Mosler and Jing Liu as they review recent financial results, explore loss drivers and discuss the emerging issues that lie ahead for the workers’ compensation industry.
Final Notes

• We’d like your feedback and suggestions
  • Please complete our survey

• For copies of this APEX presentation
  • Visit the Resource Knowledge Center at Pinnacleactuaries.com
Thank You for Your Attention

Robert J. Walling III, FCAS, MAAA, CERA
rwalling@pinnacleactuaries.com
309.807.2320

Derek W. Freihaut, FCAS, MAAA
dfreihaut@pinnacleactuaries.com
309.807.2313