Risk Transfer
General Session Panel Discussion

CAS
Annual Meeting

November 15, 2005

Panelists: Donald Doran, John Purple, Michael Wacek
Moderator: Peter Licht

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Donald Doran

Partner, PricewaterhouseCoopers, LLP

U.S. GAAP Update: Risk Transfer

Risk Transfer

- Restatements
- FASB risk transfer project
- NAIC reinsurance project
- Audit approach

U.S. GAAP Update: Risk Transfer

Numerous Restatements: No intent to transfer risk:

Commitment to make insurer/reinsurer whole

- Additional premium/experience adjustments
- Requirement to purchase additional years' coverage
- Combination of contracts that should be considered separately
- Non-economic terminations
- Circular/round trip transactions involving affiliates or third parties
- Reinsurance with non-consolidated entities
- Oral side agreements
- Existence of other contracts/transactions that effectively negate risk transfer

U.S. GAAP Update: Risk Transfer

Numerous Restatements

To date, restatements relate to intent not to transfer risk

To date, no restatements when:

- contemporaneous documentation
- appropriately modeled for all facts in the agreements (oral or written)
- and judgment made and documented that risk transfer was met

i.e., SEC has not challenged appropriately documented risk transfer analysis

U.S. GAAP Update: Risk Transfer

Why Does Risk Transfer Matter?

Prospective insurance model more favorable than deposit accounting

Impact on key financial indicators:

- Bottom line P/L impacts/shifting among periods
- Lower net premium and net loss captions to ceding company
- Resultant impact on regulatory ratios (e.g., premiums/surplus, loss ratios)
- Higher or lower assumed premium/losses for assuming company depending on reinsurance vs. deposit accounting

U.S. GAAP Update: Risk Transfer

FASB Risk Transfer Project

FASB added project on risk transfer April 2005

Exposure Document 1st Q 2006/ Final document 3rd Q 2006

Why?

- Recent issues surrounding risk transfer for insurance and reinsurance contracts
- No current explicit risk transfer criteria for *direct* contracts
- FAS 113 risk transfer test is subjective; requires judgment
  - Significant insurance risk
  - Reasonable possibility of significant loss
- Some have inappropriately defaulted to “bright line” 10/10 test
- Complex insurance and reinsurance contracts with risk-limiting features
- FAS 113 is all or nothing / pass/fail model

U.S. GAAP Update: Risk Transfer

FASB Risk Transfer Project

Define insurance contracts and insurance risk

- Starting point: IFRS 4, *Insurance Contracts*

Clarify “transfer of significant insurance risk” in insurance/ reinsurance contracts

Retain (but interpret) FAS 113 risk transfer criteria

Explore “simple approaches” for “bifurcating” insurance and deposit elements of a contract

- Get “low hanging fruit”
- But don’t blow up current model

Regulatory Update: Finite Reinsurance

Finite Reinsurance – New Disclosures

- WILL (VERY LIKELY) BE EFFECTIVE FOR 2005
- Applies only to P/C Companies
- Will apply to “finite” reinsurance contracts meeting significance threshold

Required disclosures:

- Contract terms
- Management’s principal objectives/economic purpose
- Aggregate F/S impact
- Same disclosures being proposed for 2005 audited STAT F/S

Regulatory Update: Finite Reinsurance

Finite Reinsurance – CEO/CFO Attestation

- WILL (VERY LIKELY) BE EFFECTIVE FOR 2005
- Applies only to P/C Companies
- "Under penalties of perjury, with respect to all reinsurance contracts which the reporting entity is taking credit on its financial statement, that to the best of their knowledge and belief after diligent inquiry"
- CEO/CFO attest:
  - No written or oral side agreements
  - Risk transfer analysis documented for every contract unless risk transfer is "self evident"
  - Entity complies with SSAP 62
  - Entity has internal controls in place to monitor use of reinsurance and comply with SSAP 62

Regulatory Update: Finite Reinsurance

Finite Reinsurance – Bifurcation of Reinsurance Contracts Proposal

Proposed by NY DOI; comment letters were to be discussed at Fall NAIC Meeting in New Orleans in Kansas City October 25

Contracts subject to proposal are those with any of the following:

- Aggregate loss ratio limits and loss corridors
- Retrospective premium adjustments
- Sliding scale or other commissions that vary based on losses ceded
- Profit sharing formulas
- Commutation clauses allowing ceding company refund of premiums based on experience to date
- Funds are withheld by ceding company

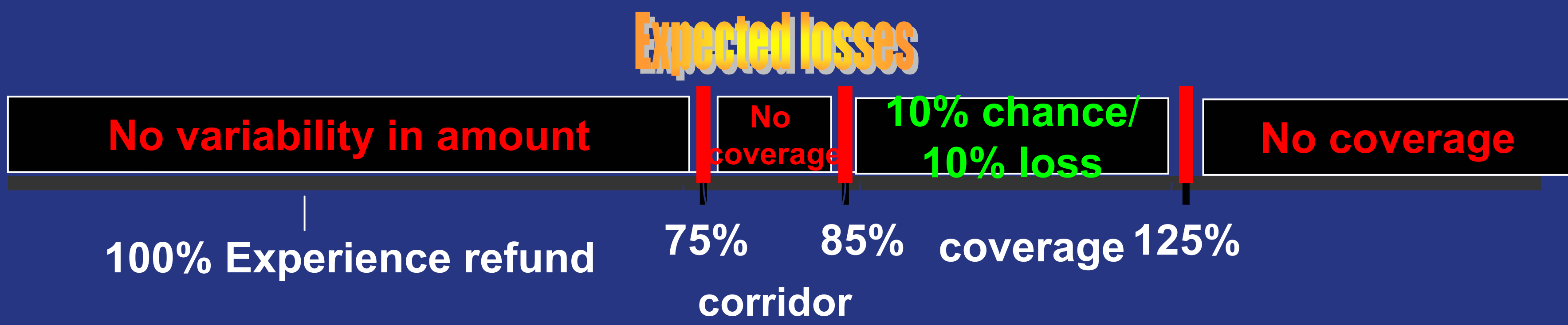
U.S. GAAP/Regulatory Update:
Risk Transfer-Finite Reinsurance Example

In form "Quota share" reinsurance with

- Experience refund
- Corridor with no coverage
- Cap/limit on losses

Impact if entire contract treated as reinsurance:

- Lowers net premium
- Lowers net losses
- Reduces premiums/surplus even though minimal risk transferred
- Statutory: RBC and IRIS ratios impacted
- GAAP: relationship of premium/gross margin distorted



U.S. GAAP Update: Risk Transfer

Auditing reinsurance – focus on the following:

- What are business objectives of transaction?
- Risk transfer analysis performed and documented? (9a and 9b) (rare vanilla cases less robust)
- Impact of transactions on key ratios and financial statement components/ratios
- Assess risk limiting features, no matter what their form
- Determine that contract constitutes the entire agreement between the parties
  - Final contract
  - Oral side agreements
  - Amendments
  - Other related contracts

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John Purple
Chief Actuary, State of Connecticut Insurance Department

NAIC and Risk Transfer

Reaction in Fall and Winter of 2004 to SEC and NY AG investigations of certain finite reinsurance transactions

P&C Reinsurance Study Group

Evaluate current disclosures and accounting treatment

Evaluate risk transfer criteria

Sub Group Referral

P&C Reinsurance Study Group requested assistance from the NAIC's Casualty Actuarial Task Force (CATF)

Identify what risk transfer tests are being used in the industry today

Provide guidance on what the minimum transfer of risk standard should be.

CATF Project

Requested assistance from the American Academy of Actuaries

Help design and compile results of a industry-wide survey

Provide guidance on risk transfer alternatives

Provide recommendations to the Study Group

CATF Project

Survey on current practices in the industry on evaluating and documenting risk transfer

Sent to all P&C companies in the U.S. in June, 2005 with responses due in 30 days

AAA Risk Transfer Subgroup sent request to all casualty actuaries in June, 2005

Asked for suggestions regarding the analysis of risk transfer (four questions)

CATF Project

Survey results compiled and actuaries' submissions reviewed and analyzed by AAA

AAA issued report to CATF on August 26

Available on Academy website

CATF reviewed AAA report and provided response to the P&C Reinsurance Study Group on September 20

Survey Findings

Risk transfer analysis not formalized

No one process to evaluate risk transfer

Considered to be an accounting, not actuarial issue

Wide variety of tests in use

There is no “bright-line” pass/fail mark. Most common starting point is “10/10”

CATF Guidance

Principles-based standard with additional interpretation and guidance provided

“10/10” benchmark is not appropriate for all types of risk, nor is any bright-line indicator

should focus more on the level of risk ceded versus risk assumed

Accounting should follow the economics and intent of the cedant’s contract

CATF Guidance

Safe harbors should be established so that only certain contracts require testing

Different methods for risk transfer testing should be allowed

As contract complexity increases, the necessity of actuarial involvement in analyzing risk transfer increases

NAIC Next Steps

Develop definition of “reasonably self-evident” and/or identify safe harbors

For contracts requiring risk transfer testing, provide testing considerations, e.g., cash flow

Consider requiring actuarial involvement in some areas of risk transfer analysis

NAIC Next Steps

Additional testing and analysis should be performed on proposed methods in the AAA report

Update from P&C Reinsurance Study Group meeting on October 25

Development of AAA Practice Note to provide guidance on models and cash flow considerations as well as FAQ's

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Michael G. Wacek
Chair, CAS Research Working Party on Risk Transfer Testing

Highlights from Recent Paper by CAS Research Working Party on Risk Transfer Testing

"Risk Transfer Testing of Reinsurance Contracts: Analysis and Recommendations"

(Available at CAS Website; to be published in CAS Forum)

CAS Research Working Party on Risk Transfer Testing

Michael Wacek, Chairman (Odyssey Re)
John Aquino (Benfield)
Todd Bault (Sanford Bernstein)
Paul Brehm (Guy Carpenter)
Beth Hansen (Guy Carpenter)
Pierre Laurin (Zurich)
Mark Littmann (PricewaterhouseCoopers)
Karen Pachyn (GE Insurance Solutions)
Debbie Rosenberg (NY State Insurance Department)
David Ruhm (Hartford)
Mark van Zanden (Catlin)

Disclaimer

- Paper is intended as educational document to foster constructive discussion of issues
- Not official position of the CAS
- While read by subcommittee of Reinsurance Research Committee before release, not formally peer reviewed by CORP

Background

Impetus for FAS 113 Risk Transfer Provisions

“The Board concluded that it was necessary to consider the lack of guidance in Statement 60 on recognition issues relating to reinsurance because of the *increasing diversity and complexity of reinsurance arrangements* and the proliferation of *nontraditional reinsurance* contracts.” (Paragraph 40, Appendix A)

Impetus for FAS 113 Risk Transfer Provisions

- While FAS 113 applies to *all* reinsurance transactions, traditional reinsurance contracts were not the focus

- Concern was with “*increasing* diversity and complexity” and “*non-traditional*” reinsurance

- Rules of thumb such as “10-10” test were devised with *non-traditional* contracts in mind

Sarbanes-Oxley and Scandals Have Led to Greater Scrutiny

- There is increasing demand that *all* reinsurance contracts be subjected to testing
- However, if that is done thoughtlessly, many *traditional* reinsurance contracts will appear not to meet risk transfer requirements
- Important to step back and develop a framework that produces consistently reasonable results
- Working Party proposed such a framework that it believes is consistent with the aims of FAS 113

FAS 113 Risk Transfer Requirement

One of 2 conditions must be met:

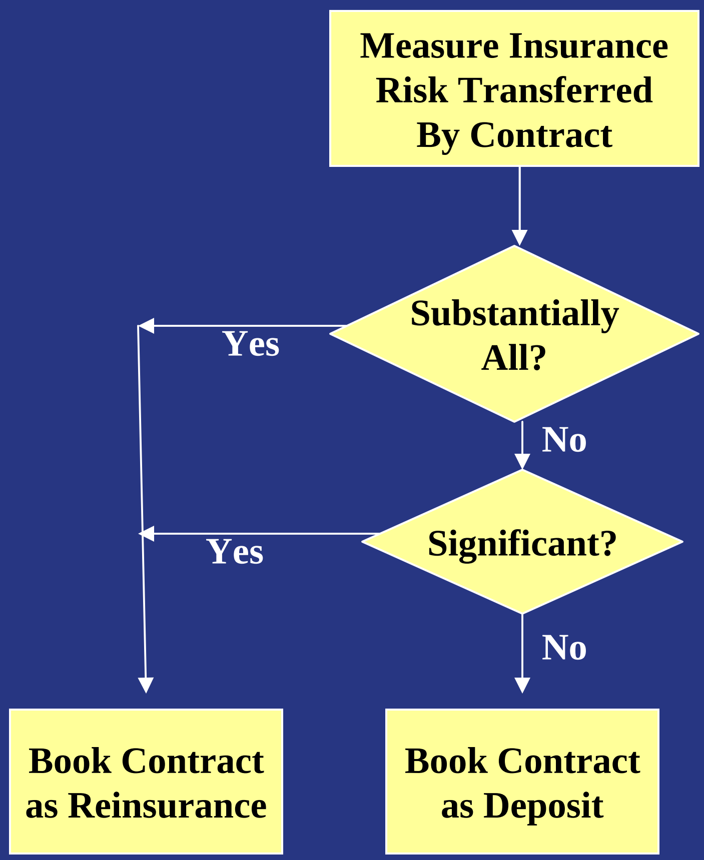
1. Reinsurer has assumed “substantially all” of the underlying insurance risk (Paragraph 11), or

2. Reinsurer has assumed “significant” insurance risk and it must be “reasonably possible” that the reinsurer may realize a “significant” loss from the transaction. (Paragraph 9)

FAS 113 Risk Transfer Requirement

- Normal practice has been to evaluate “significant” first
- Because evaluating “substantially all” is simpler (e.g., does not require full cash flow testing), Working Party proposed reversing order on grounds of work flow efficiency

FAS 113 Risk Transfer Testing Flow Chart



Paper is <u>Not</u> a Critique of FAS 113

- Working party agreed to treat FAS 113 as reasonable risk transfer framework
- Subject to fair interpretation of “substantially all”, “reasonably possible” and “significant”
  - Despite reservations about 1) focus only on reinsurer, and 2) definition of reinsurer loss
- Paper <u>does</u> propose some changes in practice

Evaluating “Substantially All” Risk Transfer Rationale for Paragraph 11

“. . . Applying the ‘reasonable possibility of significant loss’ condition is problematic when the underlying insurance contracts themselves do not result in the reasonable possibility of significant loss to the ceding enterprise.”

(Paragraph 67, Appendix A)

Evaluating “Substantially All” Risk Transfer Rationale for Paragraph 11 (continued)

If reinsurer has assumed substantially all of the underlying insurance risk, then …

“. . . The reinsurer’s economic position is virtually equivalent to having written the insurance contract directly.”

“The risks retained by ceding enterprise are insignificant, so that the reinsurer’s exposure to loss is essentially the same as insurer’s.”

(Paragraph 67, Appendix A)

Evaluating "Substantially All" Risk Transfer

- Working Party concluded that it is appropriate to use same downside risk used in "significance" testing to test whether "substantially all" risk is transferred
- Reinsurer *ERD "*same as" Cedent *ERD* → "Pass"
- Since p.v. effects are same for reinsurer/cedent, OK to use either discounted or undiscounted cash flows. (Compare either ERDs or EUDs.)
- Trival case is prorata contract with flat ceding commission = cedent expense ratio; and no loss ratio cap, corridor, slide, profit commission

Comparing Cedent and Reinsurer Downside Risk

Two Methods Presented in Paper:

- Compare cedent and reinsurer expected U/W deficits (*EUD* or *ERD*)
- Compare cedent and reinsurer U/W margins in U/W loss scenarios
  - Easy to show graphically

Evaluating “Significant” Risk Transfer
The “10-10” Test

- Goal of testing for significant risk is to measure downside risk transferred to reinsurer
- “10% chance of 10% loss” (“10-10” test) common benchmark for significance testing
- Present value U/W result at 90th percentile is a loss ≥ 10% of p.v. premiums ($VaR_{90\%} \geq 10\%$)
- VaR = “value at risk”

Problems with "10-10"

- Not sufficiently discriminating
- Some say "10-10" not stringent enough
  - Some non-traditional contracts "pass" (but should not)
- Some traditional reinsurance contracts do not "pass" (but should)
  - Low freq/high severity (typically XL)
  - High freq/low severity (typically QS)
- Unintended consequences for reinsurance pricing

Problems with "10-10"

Common misperception that contracts that fail "10-10" are "like loans"

- Fact: QS with loss volatility predicted for S&P 500 (σ = VIX) would have "failed" half the time since 1990
- "10-10" Threshold implies a much higher risk content than a loan
- A "loan" would fail "10-10", but not all "10-10" failures are "loans"

Critique of "10-10"
Two Major Shortcomings

- Its focus on loss only at 90th percentile ignores information in the tail
  - It would be better to take account of loss potential in right tail, which can be extreme (e.g. cat XL)
- Its requirement that <u>both</u> probability and loss exceed 10% is arbitrary
  - Why 10%?
  - Why not "5-20", "20-5", etc.?

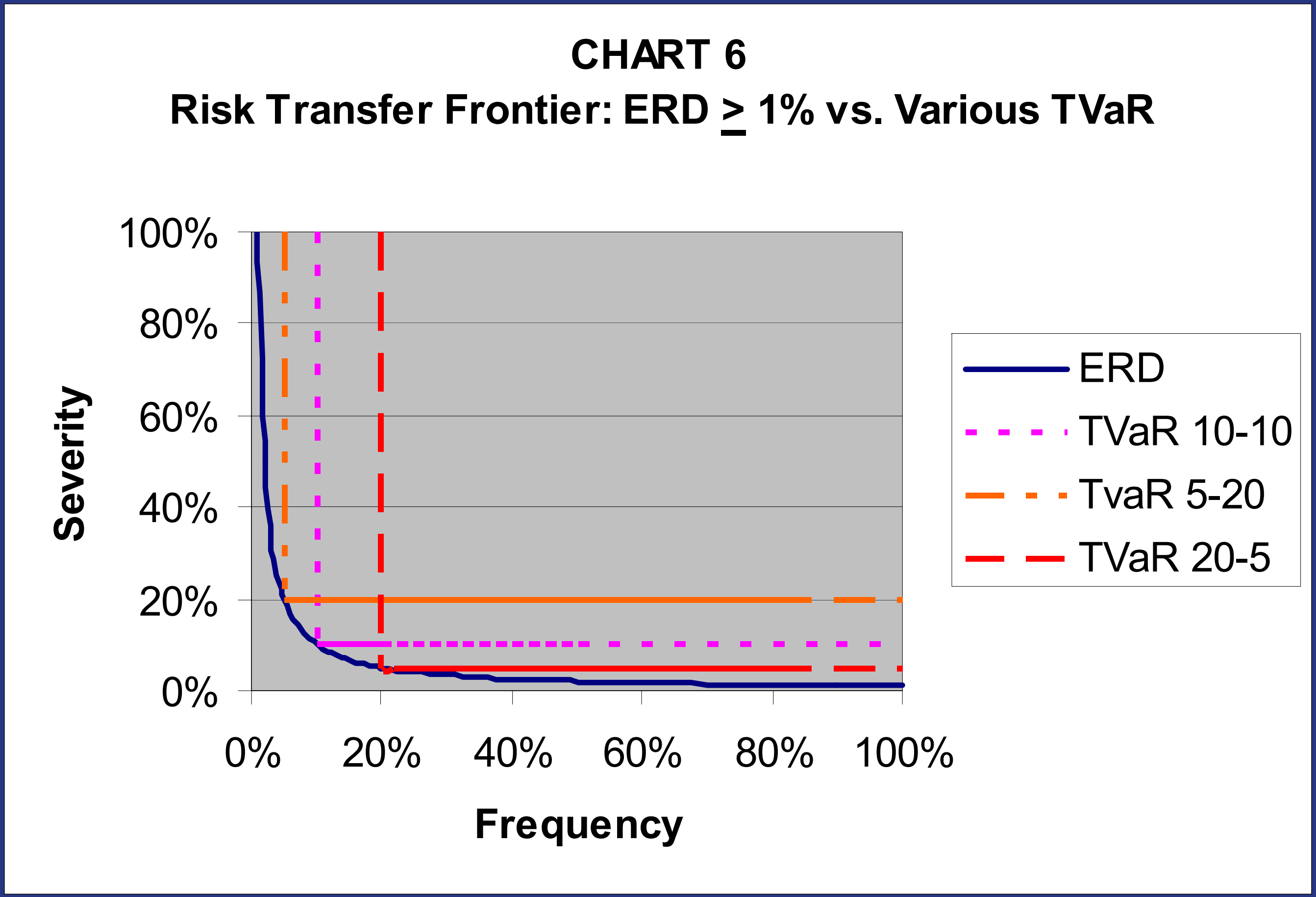
Toward a Better Test for Significant Risk Addressing the First Shortcoming

- Replace $VaR_{90\%}$ with $TVaR_{90\%}$ (TVaR = "tail value at risk")
- $TVaR_{90\%}$ = *mean* severity of p.v. loss at *and beyond* 90^{th} percentile
- $TVaR_{90\%} = Sev_{90\%}$
- TVaR "10-10" implies $TVaR_{90\%} = Sev_{90\%} \geq 10\%$

Toward a Better Test for Significant Risk Addressing the Second Shortcoming

- **Relax requirement that BOTH probability and severity of loss > 10%**
- **Allow TVaR "5-20", TVaR "20-5", etc.**
- **Can generalize in a measure called Expected Reinsurer Deficit *ERD*)**
- ***ERD* reflects frequency and severity in a single measure**
- **Define "significant" risk as *ERD* = Freq(loss) x Sev(loss) $\geq$ A**
- **Paper illustrates A = 1%**
- ***ERD* ≥ A defines a "risk transfer frontier" encompassing a generalized TVaR standard**

Risk Transfer Frontier with *ERD ≥ 1%*



Toward a Better Test for Significant Risk

- *ERD* Test with supplemental minimum downside potential requirement addresses all “10-10” shortcomings
- Much more reasonable results for individual risks, cat XLs, and other traditional reinsurance contracts

Summary

What is an Effective Testing Framework for Risk Transfer?

- Transfer of “Substantially All” Risk
  - Comparison of cedent/reinsurer underwriting downside scenarios
  - Comparison of cedent/reinsurer *EUDs*
- Transfer of “Significant” Risk
  - *ERD* Test
  - *RTD* Test (not discussed here)
- Not “bright line” threshold, but this framework reduces need for ad hoc analysis

Suggested Priorities for Further Research / Action
Engagement with Accounting Profession

- Consensus on Thresholds
  - Difference between “all” and “substantially all”
  - *ERD* ≥ A: What value of A is appropriate? Is 1% OK?
  - Determination of contract categories that do not require individual testing because significance of risk can be demonstrated in advance.
- Other
  - Other methods for testing “substantially all” risk transfer
  - Continued research on methods other than *ERD* (e.g., Wang’s *RTD*)
  - Continued research on methods for dealing with parameter uncertainty

Questions