

OLIVER WYMAN

CAS Ratemaking and Product Management Seminar – March 2010

RR-4

Risk and Return Considerations in Ratemaking

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Who is this guy, and why do I care what he says?

- Curmudgeon
- Fuddy-Duddy
- “Refuses to change with the times”

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Who is this guy, and why do I care what he says?

Other Famous Curmudgeons



Churchill



Marx



Fields



Lebowitz



Mencken



Parker

Who is this guy, and why do I care what he says?

Other Famous Curmudgeons



Dorothy Parker

"This is not a novel to be tossed aside lightly. It should be thrown aside with great force."

"She runs the gamut of emotions from A to B."

Who is this guy, and why do I care what he says?

Other Famous Curmudgeons



Winston Churchill

Lady Astor: "Winston, if I were your wife I'd put poison in your coffee."

Winston: "Nancy, if I were your husband I'd drink it."

Who is this guy, and why do I care what he says?

Other Famous Curmudgeons



W. C. Fields

"A thing worth having is a thing worth cheating for."

"If you can't dazzle them with brilliance, baffle them with bull."

Who is this guy, and why do I care what he says?

Other Famous Curmudgeons



Groucho Marx

"Those are my principles. If you don't like them I have others."

"It isn't necessary to have relatives in Kansas City in order to be unhappy."

Who is this guy, and why do I care what he says?

Other Famous Curmudgeons



Fran Lebowitz

"I've done the calculation and your chances of winning the lottery are identical whether you play or not."

Who is this guy, and why do I care what he says?

- **Other Famous Curmudgeons**



Mencken

“For every complex problem, there is a solution that is simple, neat, and wrong.”

Proper Provision for Profit

- **Regulation largely misguided**

Proper Provision for Profit

- **Regulation largely misguided**
- **Making something more technically challenging does not improve its quality**

Proper Provision for Profit

- "Statistics are like bikinis: what they reveal is suggestive but what they conceal is vital." Aaron Levenstein
- "As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality." Albert Einstein
- "We used to think that if we knew one, we knew two, because one and one are two. We are finding that we must learn a great deal more about 'and'." Sir Arthur Eddington

What is Our Goal?

- CAS Statement of Principles

"The underwriting profit and contingency provisions are the amounts that, when considered with net investment and other income, provide an appropriate total after-tax return."

What is Our Goal?

- Two Issues
 - What's appropriate?
 - How do you measure return?

What is Our Goal?

- What's *appropriate*?
 - CAS *Statement of Principles*
 - Risk charge for “random variation from the **expected costs**” must be “consistent with the cost of capital”
 - Included in underwriting profit provision
 - “Charge for any systematic variation of estimated costs from the **expected costs** ... should be reflected in the ... contingency provision.”
 - **NOTE THAT BOTH REFER TO “EXPECTED COSTS”**

What is Our Goal?

- What's a *return*?
 - Implies measurement against a base
 - Prospective
 - Should reflect opportunity cost
 - Operating flows only, not surplus
 - Risk-free rate of return

What is Our Goal?

- Return on *what*?
 - Economic efficiency - **Assets**
 - Investment efficacy - **Equity**
 - Rate equity - **Sales**

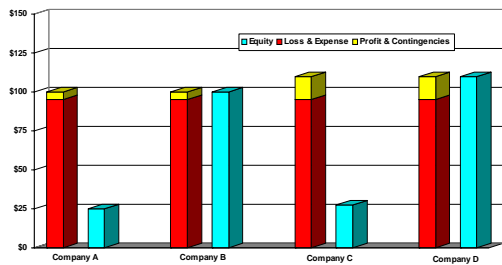
Rate Regulation v. Rate of Return Regulation

- Example:

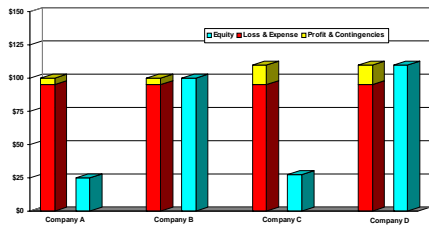
	Co. A	Co. B	Co. C	Co. D
Proposed rate	\$100	\$100	\$110	\$110
Leverage	4:1	1:1	4:1	1:1

Identical product, service, market
Expected loss and expense = \$95

Rate Regulation v. Rate of Return Regulation



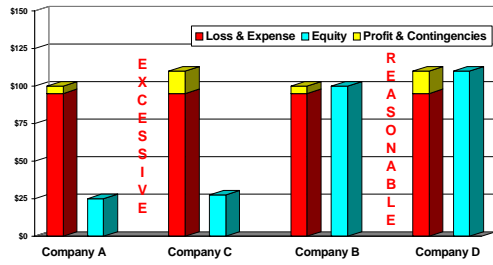
Rate Regulation v. Rate of Return Regulation



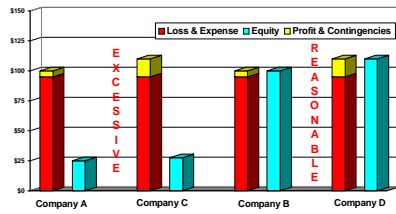
- Rate equity requires that A and B (also C and D) be treated identically

Rate Regulation v. Rate of Return Regulation

- Assume 15% "Appropriate" ROE



Rate Regulation v. Rate of Return Regulation



- One \$100 rate and one \$110 rate are **reasonable**
 - 5.0% ROE and 13.6% ROE
- One \$100 rate and one \$110 rate are **excessive**
 - 20.0% ROE and 54.5% ROE
- Rate regulation subordinated to rate of return regulation

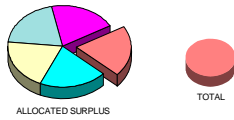
Allocation of equity

- No such thing as Iowa homeowners surplus
 - Entire surplus stands behind every risk



Allocation of equity

- No such thing as lowa homeowners surplus
 - Entire surplus stands behind every risk
- Allocation ignores value of unallocated surplus
 - Treats \$100 million equity company with 1% lowa homeowners same as \$1 million equity lowa homeowners specialist



Allocation of equity

- No such thing as lowa homeowners surplus
 - Entire surplus stands behind every risk
- Allocation ignores value of unallocated surplus
 - Treats \$100 million equity company with 1% lowa homeowners same as \$1 million equity lowa homeowners specialist
- Problems with allocation basis
 - Assignment of investment portfolio
 - Tracking incremental gains/losses in equity by line
 - Problem in case of allocated surplus exhaustion

“Benchmark” or “Normative” Ratios

- Remember H. L. Mencken?

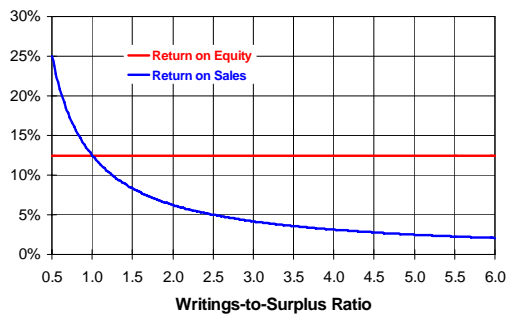


“For every complex problem, there is a solution that is simple, neat, and wrong.”

“Benchmark” or “Normative” Ratios

- Regulators assume or mandate assumed leverage (writings-to-surplus) ratio by line of business
- Example
 - Assume return on equity is 12.5%

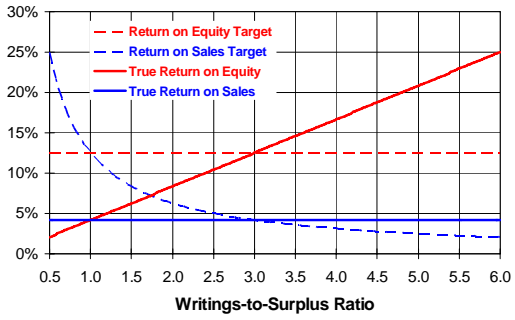
“Benchmark” or “Normative” Ratios



“Benchmark” or “Normative” Ratios

- What happens if we use a “benchmark” risk ratio of 3:1 to allocate surplus to this line

“Benchmark” or “Normative” Ratios



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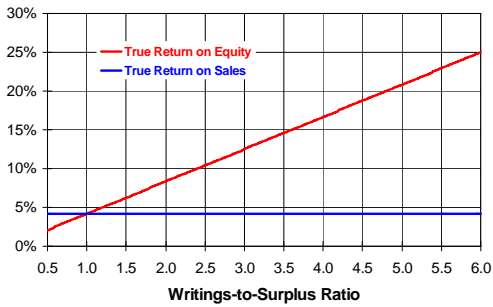
“Benchmark” or “Normative” Ratios

- Let's eliminate the target returns and focus on what really happens

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“Benchmark” or “Normative” Ratios

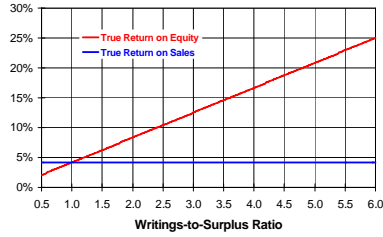


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“Benchmark” or “Normative” Ratios

- Result is a constant 4.17% return on sales
 - Eliminates problems with allocation
 - Does not regulate return on equity



A Few Good Grumps

AARP Magazine By Jon Winokur, November-December 2003

- “The world needs curmudgeons. They refuse to see life through the filter of wishful thinking and are outspoken in their devotion to the harsh realities of life. They protect the rest of us, stumbling about blindly behind our rose-colored glasses, from ourselves.”

Return on Sales

- Understandable to consumer
 - “Markup”
 - Consumer knows premium, unaware of allocated equity
- Simple
 - Premium already “allocated”
- Equitable
- Regulates rates (not rates of return)

What others [might have] said on the issue

- **Either this [idea] is dead or my watch has stopped.**
– Groucho Marx
- **For centuries, [actuaries] have been explaining the unknowable in terms of the-not-worth-knowing.**
– H. L. Mencken
- **The power of accurate observation is commonly called cynicism by those who have not got it.**
– George Bernard Shaw
- **I have never let my schooling interfere with my education.**
– Mark Twain
- **Whenever people agree with me I always feel I must be wrong.**
– Oscar Wilde
