



Teaching Insurance By Being Insurance

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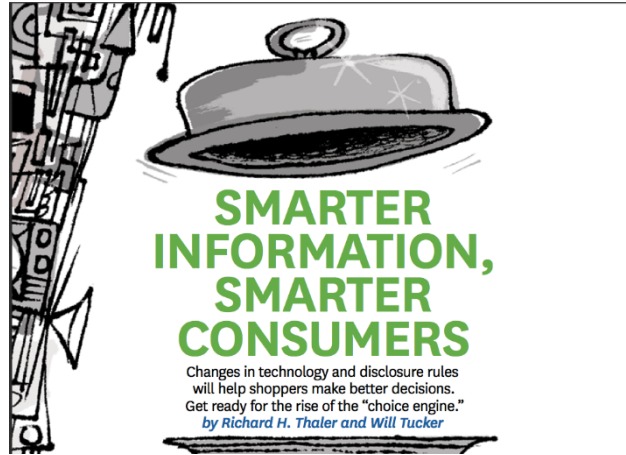
But first, a commercial...



Risk Management and
Insurance

- Preliminary plans for summer 2018...
- Business teachers one-day symposium (offering CE) on RMI and Entrepreneurship
- If you're interested, please share your business card with me today

Why teach insurance?



- Teaches basic life skills
- Makes for better informed consumers
- Risk management and insurance career opportunities never better

If you have an interest in...

**Solving puzzles,
decision making?**

- Be an underwriter!
- Decide who & who not to insure

**Helping others,
investigating?**

- Be a claims adjuster!
- Investigate losses, pay claims

**Running your own
business?**

- Be an agent!
- Sell insurance

Math?

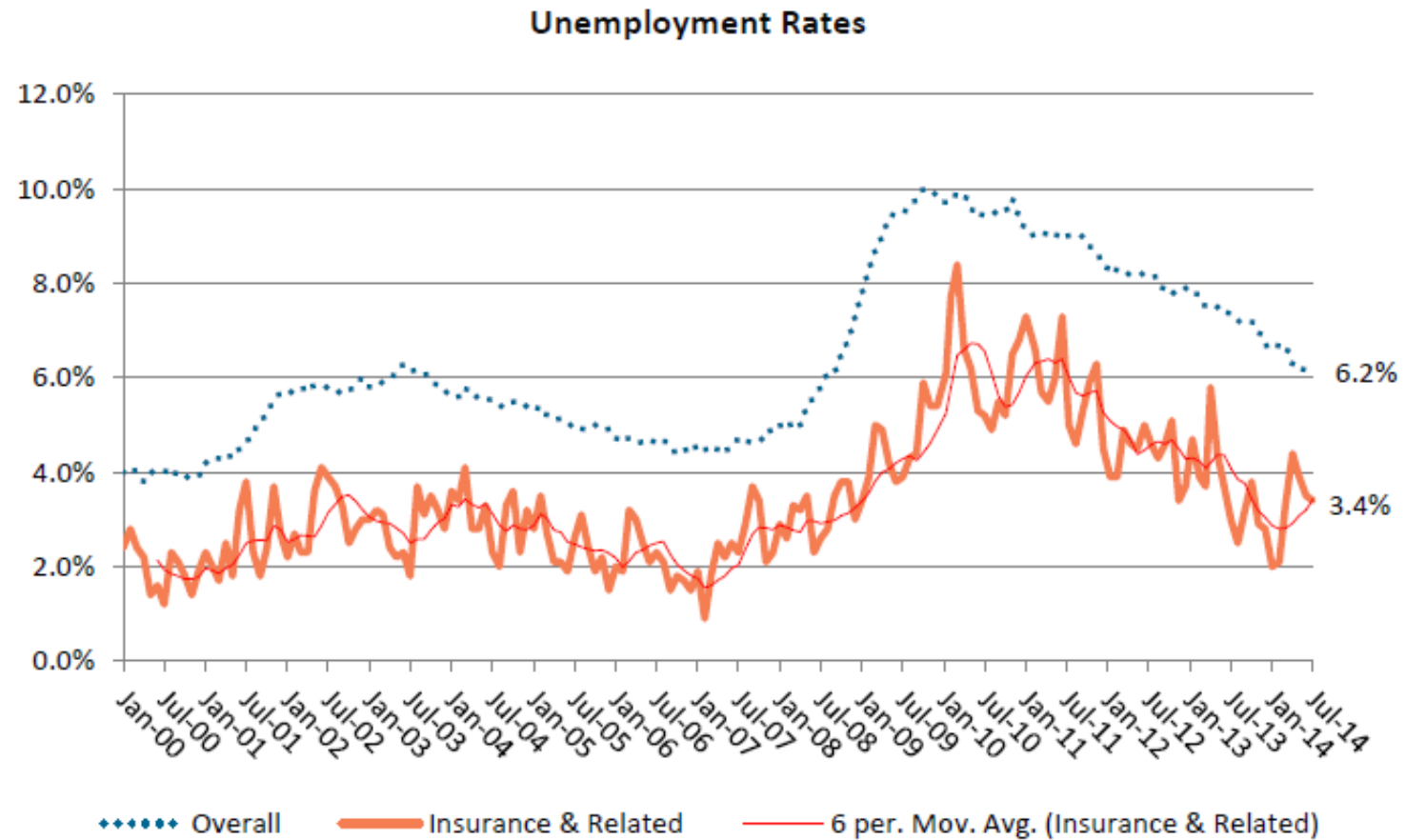
- Be an actuary!
- Gather statistics, calculate rates

***Insurance industry retirements are projected to reach 25% of the workforce by 2018
...new, young professionals are needed to take their places!***

Entry-level Positions	Median Annual Salary National	Median Annual Salary Grand Rapids
Actuary	\$64,865	\$63,645
Agent – Sales	\$47,697	\$46,800
Claims Adjuster I	\$42,611	\$41,810
Loss Control	\$46,135	\$45,267
Risk Analyst I	\$53,486	\$52,480
Underwriter I	\$51,351	\$50,385

Source: www.salary.com, accessed November 14, 2016

The Risk and Insurance industry is an extremely stable employer...



Source: U.S. Bureau of Labor Statistics



Insurance Industry Crisis: 400,000 Positions to Fill by 2020

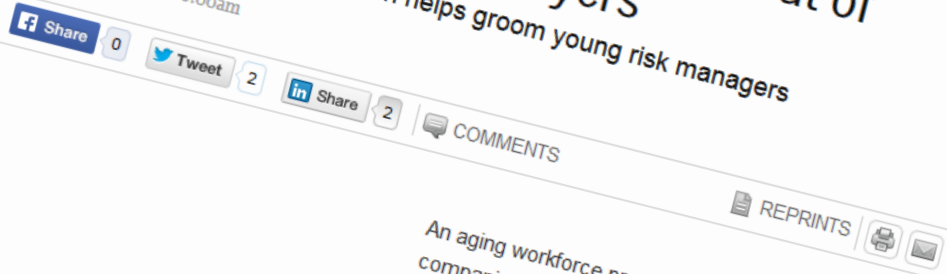
APR 17, 2013 | BY MARK E. RUQUET

SHARE THIS STORY



PHILADELPHIA—The insurance industry is facing a talent crisis.

The baby boomer generation is aging, and by the end of this decade there will be a serious deficit in qualified and experienced individuals to fill the ranks of executives shuffling off to retirement, say experts.



An aging workforce presents strategic risks for companies across various industries and disciplines — including insurance and risk management — as a wave of retiring baby boomers threatens to leave employers facing a “knowledge gap.”

To address the issue, companies are going to have to find ways to keep older workers in place in ways that allow them to mentor younger, less-skilled workers and transfer knowledge to them, while also competing for those younger workers and giving them the skills to learn quickly.

Why use a simulation?

Gamification

- Competitive
- Students love “gaming”

Active Learning

- Students are active
- Hands-on

Modeling

- Predict outcomes
- Explain variations

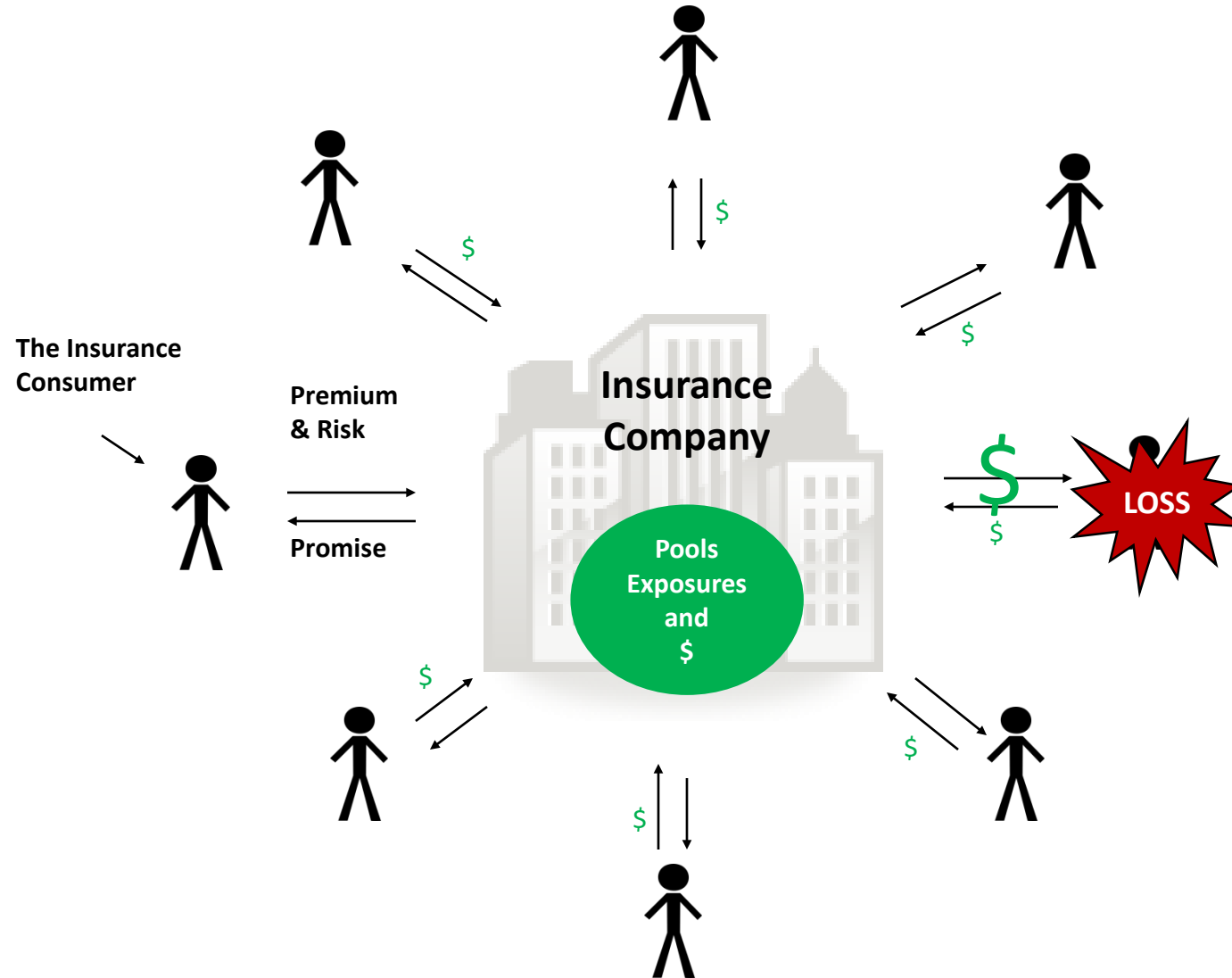
Stimulate Discussion

- Student-student
- Student-instructor

Fun!

- There’s no rule against having fun while learning!

The Insurance Mechanism



Insurance Company Basics

Underwriting Operations:

- Selling
- Underwriting (risk selection)
- Reinsurance
- Loss adjusting

Investment Operations:

- Portfolio allocations
- Risk/return relationships

Insurance Company Basics

“Surplus”:

- Capital plus retained earnings
- Shareholder’s equity
 - The “company’s money”
 - Unearned premiums and loss reserves (liabilities) belong to policyholders
- “Capacity” to write premium is a function of surplus

Surplus is affected by:

- Underwriting profits/losses
- Investment gains/losses

Insurance Company Basics

Selling:

- Advertising (lingering effect)
- Sales promotions (immediate, one-time effect)
- Commission rates
- Loss adjusting

Underwriting:

- Price
- Strictness of risk selection

Insurance Company Basics

Reinsurance:

- Cede premium (and losses) to reinsurer
- Ceding commission can boost surplus
- Consider policy acquisition costs

Investment portfolio:

- Cash v. Bonds v. Stocks
- Aggressiveness of investments
- Transfer costs among allocations

Insurance Company Simulation

Form Teams:

- Name your company
- Elect your CEO
- Other Officers
 - VP of Marketing
 - VP of Underwriting
 - VP of Actuarial
 - VP of Finance & Investments
 - Everyone else is part of the Executive Leadership Team
- Rules and decisions sheets distributed...

Insurance Company Simulation

Starting Point - Balance Sheet:

Cash	\$10,000,000	Loss Reserves	\$20,000,000
Bonds	30,000,000	Unearned Premium Reserves	5,000,000
Stocks	10,000,000		
		Surplus	25,000,000
Total Assets	\$50,000,000	Total Liabilities + Equity	\$50,000,000

Last period, each firm sold 250,000 homeowners policies that produced \$25,000,000 in premiums written. Each firm has the highest financial rating.

Insurance Company Simulation

Rules:

- Beginning price per policy is \$100
- Maximum price change is 10% per round
- Maximum stock-to-surplus ratio is 1.0
- Maximum NPW-to-surplus ratio is 3.0
- Violations (intentional or unintentional) of maximums result in reduced “financial stability rating” which impedes future sales

Insurance Company Simulation

Decisions:

- Advertising expenditures increase sales with a lingering effect
- Sales promotions (bonuses) increase sales only in the current period
- Price per policy has the most powerful effect on sales
 - Higher price, fewer policies sold
 - Lower price, more policies sold
 - Be careful... profitability and surplus also depends on pricing level
- Underwriting strictness
 - 1 = “highly selective, risk averse” to 9 = “very lenient, will write almost anything”

Insurance Company Simulation

Decisions:

– Commissions

- Starting point is \$22 new business and \$11 old business
- Higher commissions = more sales (and more acquisition expense)
- New business commission emphasizes growth, recognizes acquisition costs
- Old business commission emphasizes retention, lower maintenance costs

– Underwriting strictness

- 1 = “highly selective, risk averse” to 9 = “very lenient, will write almost anything”
- Affects loss ratio, market share

Insurance Company Simulation

Decisions:

- Investment Portfolio
 - Allocation among cash, stocks, bonds
 - Must keep at least 3% cash on hand
 - Remember that stock-to-surplus ratio must not exceed 1.0
 - There are transfer costs (1/2 to 1 percent) for shifting allocations
- Stock aggressiveness
 - A = “conservative” (less volatile) to E = “aggressive” (highly volatile)
- Reinsurance (if any)
 - Percent of premium volume ceded to reinsurer
 - Ceding commission is 25% in round one

Insurance Company Simulation

ROUND ONE parameters

- Reinsurance ceding rate is 25%

Debate and submit your ROUND ONE decisions now...

Insurance Company Simulation

While ROUND ONE results are tabulated...

- Script a radio or TV ad for your insurance company
- Be prepared to “perform” it, if asked

Insurance Company Simulation

ROUND ONE stock market performance...

- DJIA rose/fell __%

ROUND ONE top performers...

- One
- Two
- Three

ROUND TWO parameters

- Reinsurance ceding rate is __%

Debate and submit your ROUND TWO decisions now...

Insurance Company Simulation

While ROUND TWO results are tabulated...

- Draft a brief press release on your company results to date and why investors should have faith in your company

Insurance Company Simulation

ROUND TWO stock market performance...

- DJIA rose/fell __%

After ROUND TWO, top performers...

- One
- Two
- Three

ROUND THREE parameters

- Reinsurance ceding rate is __%

Debate and submit your ROUND THREE decisions now...

Insurance Company Simulation

While ROUND THREE results are tabulated...

- Come up with your own “spokesperson/mascot” (e.g., Flo, Mayhem, the gecko) for your company to feature in advertisements. What will their “shtick” be?

Insurance Company Simulation

ROUND THREE stock market performance...

- DJIA rose/fell __%

After ROUND THREE, top performers...

- One
- Two
- Three

ROUND FOUR parameters

- Reinsurance ceding rate is __%

Debate and submit your ROUND FOUR decisions now...

Insurance Company Simulation

While ROUND FOUR results are tabulated...

- Discuss what lessons you've learned from this simulation so far.

Insurance Company Simulation

ROUND FOUR stock market performance...

- DJIA rose/fell __%

After ROUND FOUR, top performers...

- One
- Two
- Three

QUESTIONS?



Thank you for attending!

For more information on Summer 2018 Symposium
or other Ferris State events, please leave me your business card.

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