#### The Actuarial Profess

ing financial sense of the future

### Plenary 6

Recommendations for General Insurer Risk Management Don Mango, FCAS Guy Carpenter, USA 33rd ANNUAL GIRO CONVENTION Hilton Vienna Hotel, Am Stadtpark

#### Recommendations for General Insurer Risk Management:

- 1. Underwriting Capacity Budgeting
- 2. Scenario Planning
- 3. Increased Information Content in Pricing
- 4. Prudency Margins for Reserving
- 5. Benchmark Loss Ratios for Regulation
- 6. Overhead Expense Reserves
- 7. Idle Capacity and Franchise Value

The Actuarial Pr

# 1. Underwriting Capacity

Measure of aggregate ability to
 Must be able to monitor it
 assume obligations
 Drill down and roll up

- Function of many factors: Assets
  - Price adequacy
  - Reserve adequacy Obligation volatility
  - Accumulation and
  - diversification
- Must operate like a budget

- Allocate it

bounds

- Have a finite total amount that is incrementally consumed by underwriting activity
- Portfolio improvement by allotting a total amount with a profit goal, then let local managers trade within those

The Actuarial Pro



- Point-of-sale risk management not forensic
- Beyond just nat cat
- Must demystify the nonlinear mathematics
- Best approximation one can live with given organizational benefits
- Moving beyond modeling sophistication towards improvement of underwriting activities today
- From "capital allocated to"
   → capacity consumed by

The Actuarial Profession making financial sense of the fu

### 2. Scenario Planning

- For most insurers, "The Plan" is a very detailed fictional account of one possible realization that will never come to pass
- Creates "lock-in" and self-fulfilling prophecy, acquires a momentum of its own
- Commitments to "making the numbers" flow up the ownership chain
- Encoded into performance goals and incentive bonus calculations
   Strong organizational incentives to force-fit reality to plan at all
- costsActual price adequacy buried, only to surface later in reserve charges

The Actuarial Profession making financial sense of the fit

## 2. Scenario Planning

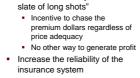
- Even rudimentary multi-scenario planning would be an improvement
- A set of less-detailed, higher-level plans, each for use in one of a selected handful of "market states"
- Example: prices up; price flat; prices down
- Portfolio actions pre-determined
- Desired (and rewarded) behaviors are market state dependent
- Monitoring determines which state we are in
- Plans are executed not fabricated





### 4. Prudency Margins for Reserves

- Explicit, excessive (by historic standards) required reserve margins
  - Based on poor predictability pret track record pric
- Mandated profit (!) release schedule Difficult ramp-up period only
- Steady-state should be like any vesting system



Break out of the cycle of "a

The Actuarial Profession making financial sense of the fi



#### 6. Overhead Expense Reserves

- Insurers are heavy with Intangible Assets Intellectual Capital
   Off balance sheet
  - Experts, proprietary databases, forecasting models, licenses, market relationships, ...
- Represent substantial component of the franchise value of an insurer
- These Capital Assets require capital improvement investments
- They learn all the time
- · Some of what they do today is tied to past or future revenue

The Actuarial Profession making financial sense of the fi

#### 6. Overhead Expense Reserves

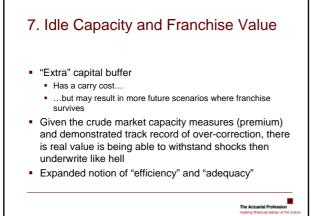
- Matching current year overhead expense with current underwriting period premium violates basic accounting principles
- The need to pay current year overhead may create incentive to chase inadequately priced business (forestalling shortfall)
- Perhaps an overhead provision could temper underwriting cyclicality

The Actuarial Profession making financial sense of the fit

### 7. Idle Capacity and Franchise Value

- Insurer is an inherently unstable equilibrium
   Leverage, opacity, "receive-then-maybe-pay" proposition
- structure → susceptible to over-commitment and "blowing up"
  There is value in stability and persistence, and maybe
- in having buffer capacity that is "unused" or idleFranchise investment is intellectual
- Franchise can disappear in a "jump"





The Actuarial Profession making financial sense of the future

Thank you for your attention

donald.f.mango@guycarp.com