Please indicate the type of organization you work for (please tick one).

- Life insurance company
- P&C company
- Reinsurer
- Consultant
- Other

Please tell us about the types of ALM analytics you produce (please tick all that apply).

- Duration
- Key Rate Durations
- DV01
- Convexity
- The Greeks
- Asset-Liability Efficient Frontier
- Interest rate stress testing beyond CFT
- Analysis of Total Return
- Other

# Panel Topic 1: ALM analytics that incorporate aspects of risk management

Is it enough to just look at duration/convexity?

How should we assess risks in the assets?

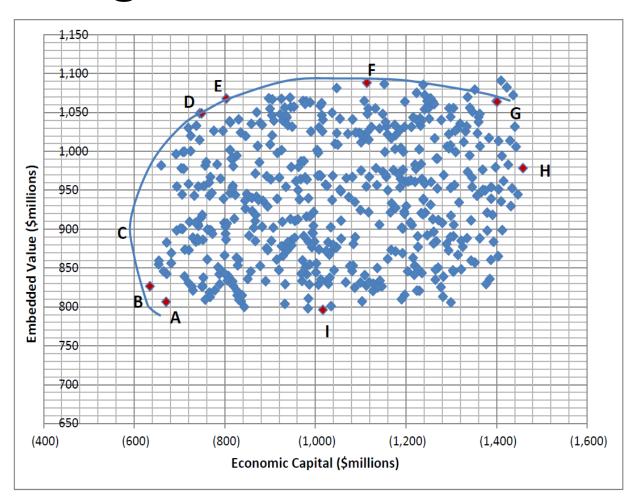
What ALM analytics incorporate aspects of risk management? Are they actively used in practices?

What analytics would be viewed as ERM as opposed to ALM analytics?

### Advanced Analytics for Strategic Asset Allocation

#### Efficient Frontier – captures the strategies that give the highest return for a given level of risk

- Concept can be used as a tool to set strategy where risk is defined in terms of EC, and return in terms of EV \*
- An "enterprise-wide" EC-EV model can capture diversification benefits, in the same way as the traditional use of Efficient Frontiers would (for Strategic Asset Allocation)
- By superimposing a "Utility Curve" you can then derive an optimal strategy given your risk appetite.
- This type of analysis gives us a glimpse as to how ERM can genuinely be used to help make SAA decisions



#### Efficient frontier of new business

<sup>\*</sup> See "Efficient Frontier of New Business", Yuhong "Jason" Xue, presented at 2015 ERM Symposium, June 11-12, 2015, National Harbor MD

Where does ALM fall in the organization structure? (Please tick one.)

- ALM is part of Actuarial
- ALM is part of Investments
- ALM is part of ERM
- ALM is part of Treasury or Finance
- ALM is a separate unit altogether
- Other

What are the responsibilities of your ALM team (please tick all that apply)?

- Duration/Convexity
- The Greeks/Hedging
- Asset-Liability Efficient Frontier
- CFT
- Interest Rate Stress Testing Beyond CFT
- Analysis of Total Return
- Segmentation Analysis
- Credit Risk Analysis
- Other

#### Panel Topic 2: ALM team responsibilities

What are the pros/cons of having ALM part of Actuarial vs. Investments vs. ERM?

Is ALM a subset of ERM?

Should ALM be responsible for CFT?

Should ALM do analytics that go beyond interest rate management?

Are you using more esoteric assets ("Alternatives") to back liabilities? (Please tick all that apply.)

- Private Equity
- Hedge Funds
- Infrastructure
- Timber
- Natural Resources
- Agriculture
- Other

#### Panel Topic 3: Alternative Assets

Why are we looking at Alternatives? Diversification? Yield pick-up? Extend duration? Something else?

What analytics do we need to do to help assess/justify more esoteric assets?

How does ERM look at Alternatives?

How do you handle Alternatives in CFT?

Do you have specific management actions that take place when ALM risk appetite metrics are breached? (Please tick one.)

- Yes, action will automatically take place on a breach
- A breach will create a dialogue rather than specific action
- A blend of action/dialogue it depends upon which limit is breached and by how much
- Something other than the above

## Panel Topic 4: ALM, Risk Appetite, and Risk Mitigation

What are the ALM metrics that are typically part of the company's risk appetite?

Do ERM and ALM collaborate in establishing ALM limits? Should ALM limits be part of the ERM risk appetite/limit framework?

When should an ALM limit breach spark a management action?

What risk mitigation activities and/or instruments are used to bring ALM metrics back to risk appetites and limits?

Are you happy with how ALM analytics are communicated to management (please tick one)?

- Yes, they seem to want the information and work to fully understand it.
- Somewhat, but it is not clear to me that management fully appreciates what is done and how it can be used.
- While management gives lip service to wanting this information, they don't seem to understand it or use it.
- No, management does not see the results so there is not learning happening once the results are available.
- We don't do ALM analysis at the level that has been discussed here.

#### Panel Topic 5: ALM communication

How are ALM analytics communicated? Reports/dashboards?

What works well and what doesn't?

What sort of committees/forums are in place to help with communication?

How can the communication of ALM analytics be improved?

How do you measure the "value add" of ALM? (Please tick one.)

- Versus a benchmark portfolio
- Transfer pricing approach
- Liquidity analysis
- Earnings analysis
- Set specific goals for ALM at start of year and then gauge team performance relative to that
- No, we don't try to assess ALM performance

#### Panel Topic 6: Measuring the Success of ALM

How do you assess the value of ALM work? Similar to ERM? What are the metrics being used?

Is ALM/ERM being brought into strategic decision making?

Should remuneration be linked to ALM metrics?