Practical Implications of Developing and Implementing a Return on Economic Capital Framework

ERM Symposium

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Return on Economic Capital – Process Flow

Stand-Alone Capital by Risk

Stand-Alone Capital by Line

Diversified Capital by Line

Total Corporate Capital

(Diversified)

Other Investments in the Business

Return Methodology

Performance Metrics: Return on Economic Capital

- Historical & Forecast Returns
- Major Product Lines

Distributed Goal-setting based on ROEC

Economic Capital is determined by each risk type by line and aggregated to the enterprise level. ROEC targets are established for each business unit and ROEC is used for portfolio level strategic risk / return optimization.

Enterprise Risk & Return Committee → **Senior Management Discussions** → **Strategic Plan**

Return on Economic Capital – Critical Path Decisions

Issue	Option	Benefits	Concerns
Aggregation approach	Top down	• Holistic integrated scenarios • Ties to enterprise risk appetite principles	• Correlation factors involves judgment • Not directly tied to enterprise Risk Appetite
	Bottom up	• Transparent view of diversification • Can be aligned with BU stand-alone methods / risk tolerances	• Correlation factors involves judgment • Not directly tied to enterprise Risk Appetite
Time horizon	One year	• Aligns with P&C contract length • Similar to outside capital thresholds	• Does not reflect full business cycle • Would understate ALM risk
	Three year or longer	• Reflects impact of business cycle • Aligns with Allstate strategic planning process	• Appropriate for a solvency view of capital, but ignores response actions in the stress view • Has a disproportionate impact on “tail risk”
External benchmark constraints	Minimum benchmark	• Minimum capital amount assigned to all lines • Easy to explain	• Possible overreliance on external benchmarks • Benchmark capital is not aligned with Allstate risks
	Numerator adjustment	• The non economic portion of the external benchmark capital is charged at a lower rate than the required hurdle	• Appropriate charge rate is uncertain, WACC or risk-appetite based
Diversification benefits	Strategic allocation	• Benefits can be aligned with Allstate strategic objectives	• Lack of transparency • Benefits could vary over time
	Formulaic allocation	• Transparency • Stability over time	• Alignment with strategic objectives • Less flexibility for senior management
Income measurement	GAAP	• Used for planning and external reporting	• Does not align with Economic dominator
	Economic / Cash	• Pure income measure, align with dominator	• Difficult to explain • Not used in any existing internal or external reporting

Bottom-Up vs. Top-Down Aggregation Approach

Bottom-Up Approach
Use line of business capital and a correlation matrix informed by output from the enterprise model, industry factors, and judgment

Correlation Assumptions

Business Unit | **Business Unit** | **Business Unit** | **Business Unit**

Business Unit Specific Economic Capital Targets

Pros:
- Transparent and direct calculation of "within line" and "between line" diversification
- Can be aligned with unique BU stand-alone methods / risk tolerances

Cons:
- Development of correlation factors involves judgment as data is limited for some risk
- The Economic Capital target is not directly derived from the enterprise risk appetite

Top-Down Approach
Set enterprise EC based on an enterprise risk appetite and use diversification across lines within the stochastic corporate risk model to allocate capacity to business units

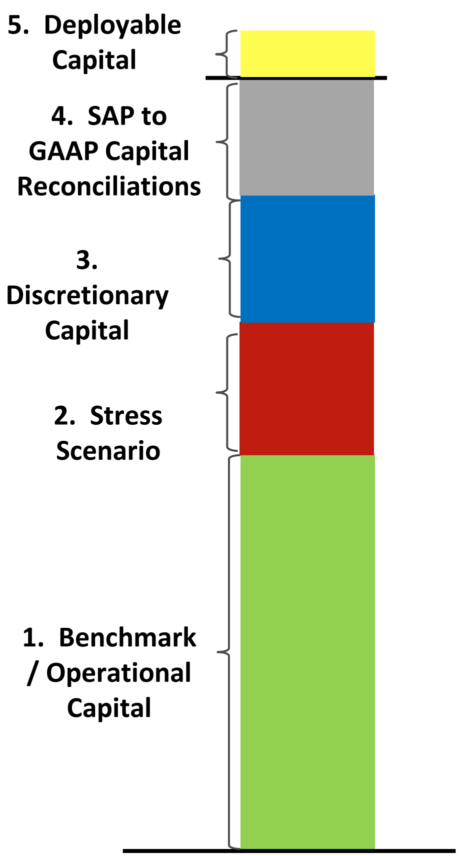
Enterprise Definition of Economic Capital

Business Unit | **Business Unit** | **Business Unit** | **Business Unit**

Pros:
- Holistic integrated scenarios across businesses and investments offer a robust view of Economic Capital if all risks are included one modeling platform
- Ties directly to enterprise risk appetite principles (capital raise, regulatory, rating)

Cons:
- Disconnect between enterprise risk appetite (single risk appetite and time horizon) and specific line of business stand-alone metrics
- Enterprise risk model is not completely integrated across business types due to different Life vs. PC modeling platforms

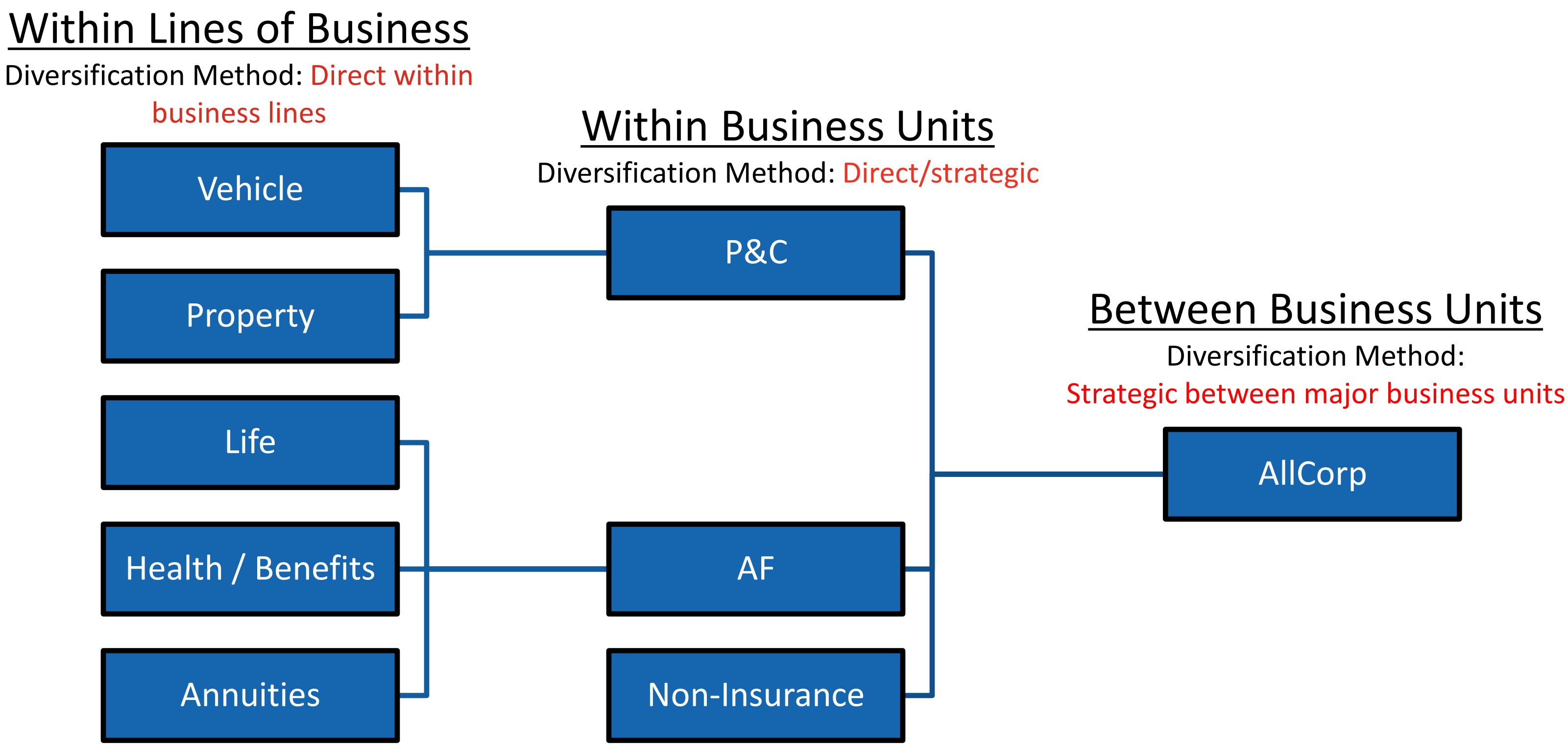
Stratification of Capital Allocated to Business



Description

- Capital available for growth opportunities, M&A activity or stock buybacks
- DAC, Goodwill, Unrealized gains, Hybrid debt, Senior debt, Preferred shares
- Additional capital management considerations
  - Target keyed to Senior Management desired credit rating / regulatory buffer
- Stress capital holdings
  - Reflects volatility of extreme events and unrealized gains / losses
- Capital required to operate each business unit
  - Capital can be required based on underlying risks assumed or regulatory thresholds to operate business
  - Each line with use the appropriate time horizon, confidence intervals, and regulatory benchmarks

Diversification Benefits Overview



- Diversification benefits within individual risk types will stay within that business line
- Senior Management will have the ability to approve the between business unit allocation of diversification benefits and make strategic adjustments if necessary
- The definitions of business units has meaningful impact on the final diversified Economic Capital allocated to those business unit

ROEC - Accounting Basis for Numerator

Selection of accounting basis must balance competing priorities

Be reflective of an economic cash return, but also leverage an existing accounting basis

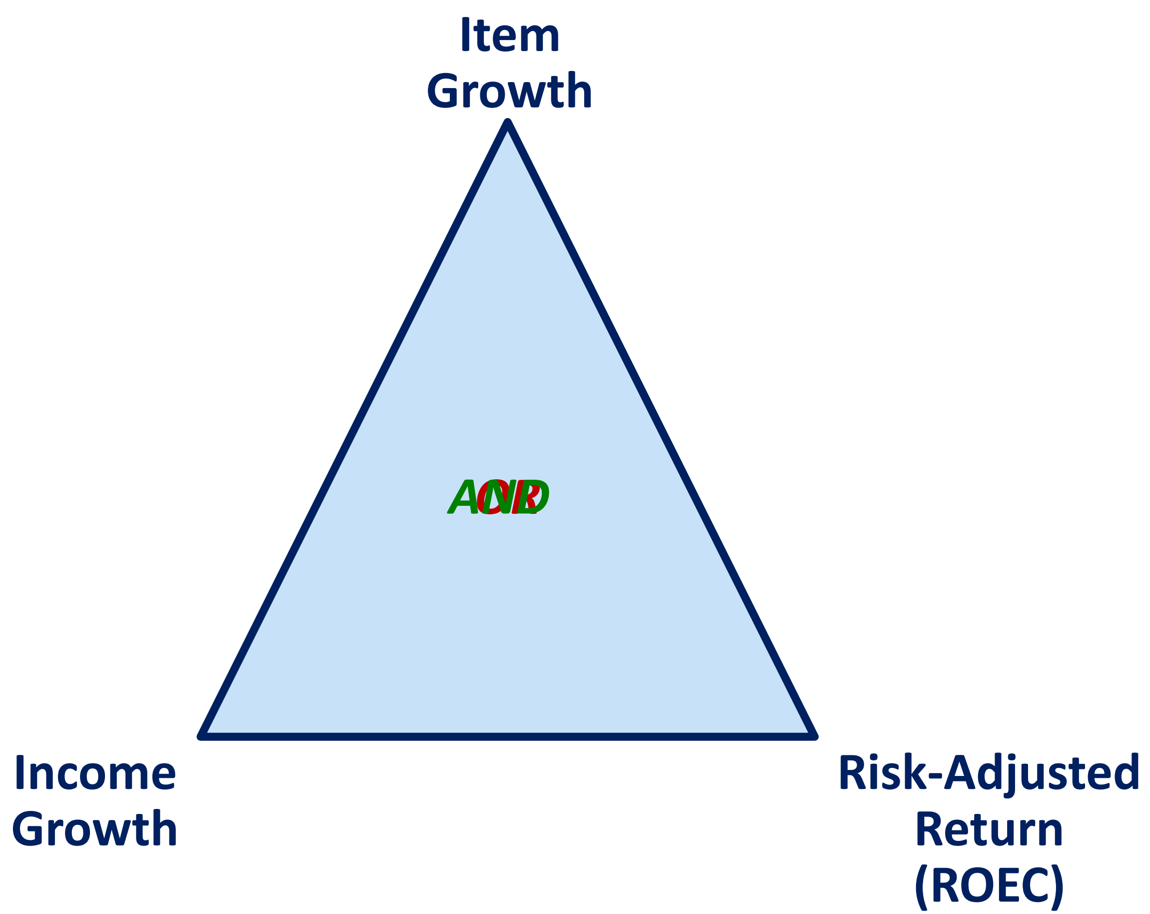
Accounting Basis Starting Point	Economic Cash Return	Leverage Existing Methodology	Alignment with Denominator	Observations
GAAP	▪ Less cash-like, more economic-like basis ▪ Expenses, when adjusted for DAC, close to cash	▪ Countrywide planning basis for most product lines and investments ▪ Primary monthly and quarterly reporting basis for product lines	▪ Economic Capital is based economic valuation of risk and is not directly aligned with GAAP accounting	▪ Adjustment for DAC makes basis more cash-like while retaining economic reserving and pension cost
Statutory	▪ Close to cash for expenses ▪ Statutory life reserving not viewed as economic	▪ Quarterly reported and managed in aggregate ▪ Planned in aggregate	▪ Traditionally has been our primary accounting basis for economic capital	▪ Not an economic view unless pension and life reserving were adjusted
Cash Flow	▪ Cash view, not economic view	▪ No current operational support for cash accounting basis by product	▪ Traditionally has not been our basis for economic capital	▪ Not a balanced approach, would require a significant amount of operational support

ROEC Design Lessons Learned

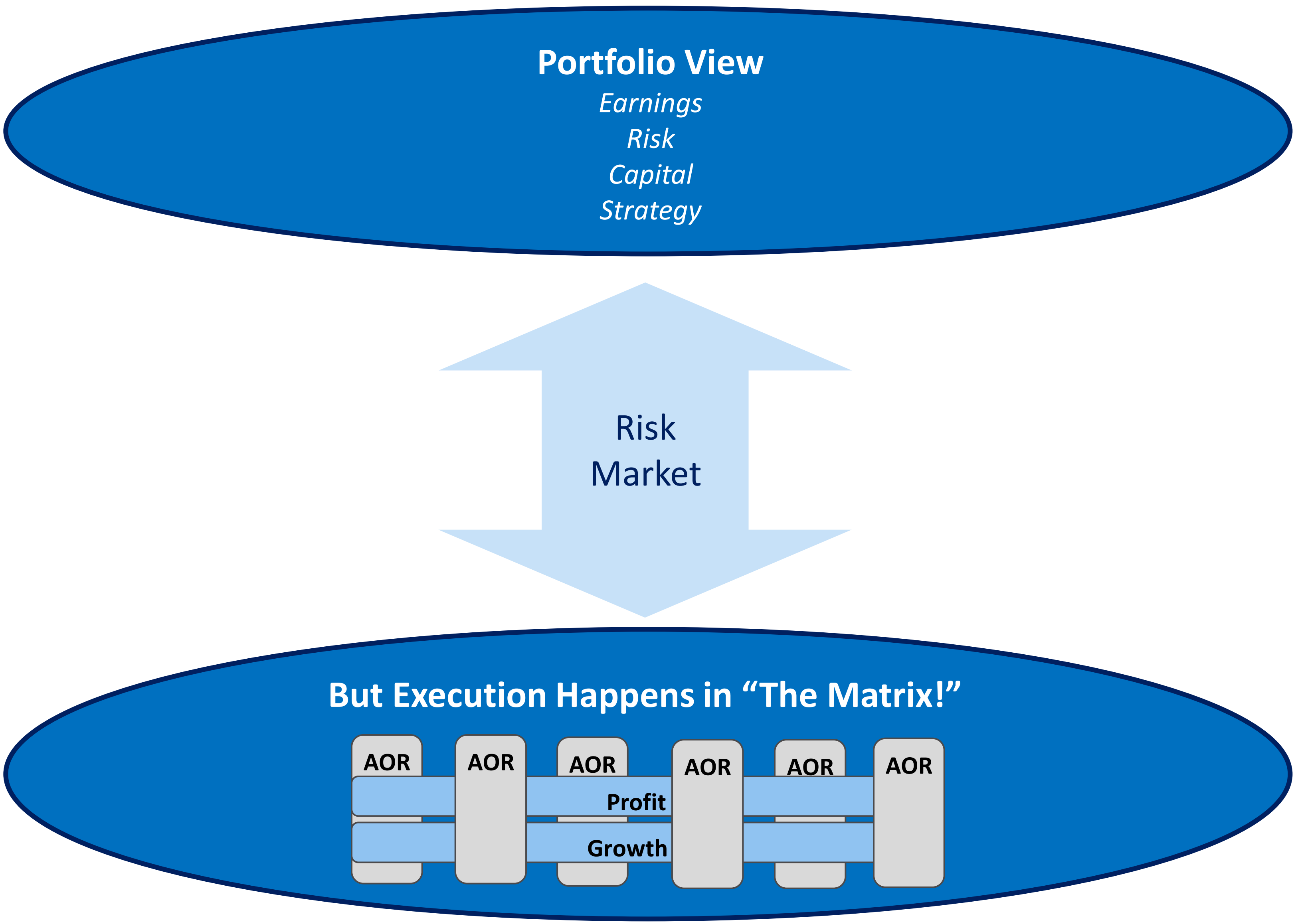
Issue	Decision	Lesson Learned
Time Horizon	Match the time horizon to the product type	• Life and P&C business have very different risk profiles • ALM needs to be assed over a very long time horizon • One year fits bets for P&C and Investment risks
Diversification Benefits	Strategic allocation with suggested “within line” and “between line” amounts	• Within line diversification should stay within the individual line • Senior management wants as much flexibility as possible regarding the allocation of diversification benefits • Benefits can be aligned with Allstate strategic objectives
External benchmark Constraints	Minimum benchmark established for all lines of business Discretionary capital held and allocated to business lines	• Minimum capital amount assigned to all lines • Easy to explain • Recognition of both eternal regulatory thresholds and senior management targeted credit quality metrics
Top down vs bottom up modelling	Bottom up (transition to top down over time)	• Use of different modeling platforms, time horizons, and risk tolerance metrics complicates aggregation
Income measurement	GAAP with adjustments	• GAAP return metrics are commonly used across the organization • The metric must be understandable • Simple “economic” adjustments can be made to GAAP Income

Implementing Economic Capital Framework Within Business

EC Framework Aligns Goal Paradigm



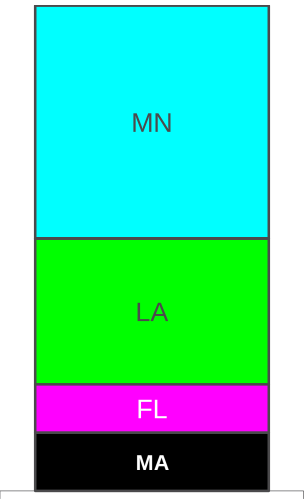
By Understanding How Stuff Gets Done…



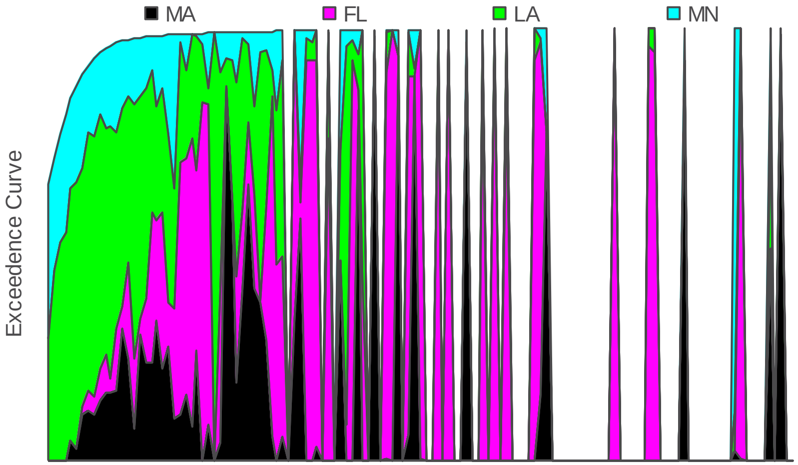
…In Our Illustrative Company…

- $10B Premium
- 4 States
- 2 lines (non-volatile & volatile)

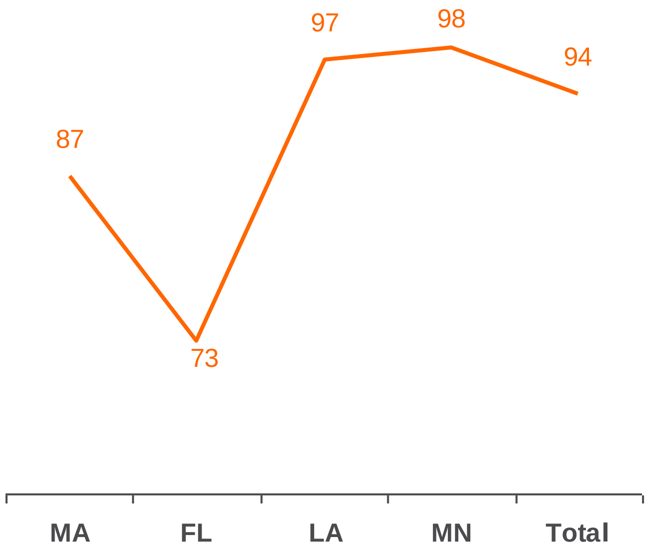
Premium Distribution



Line 2 Risk Profile



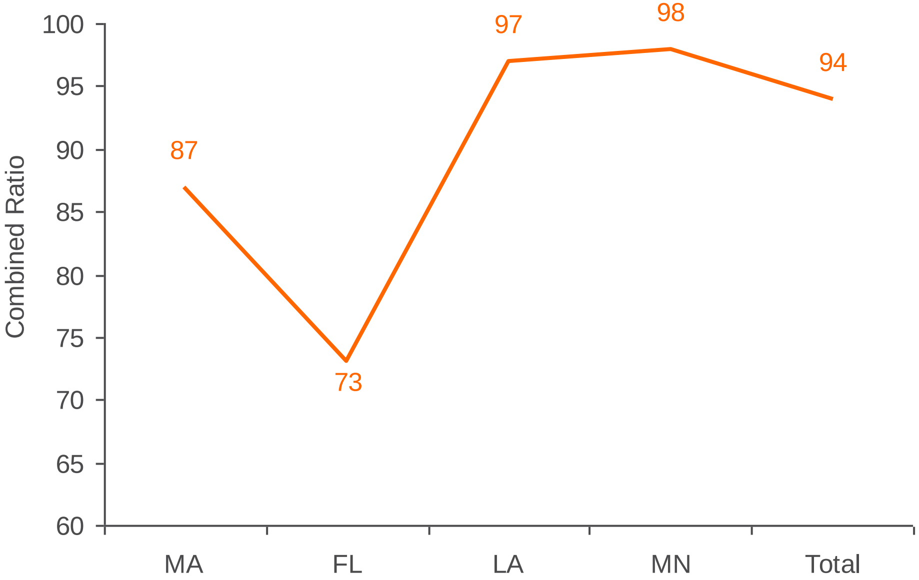
Line 2 Target Combined Ratios



…By Creating the Market Prices For Risk…

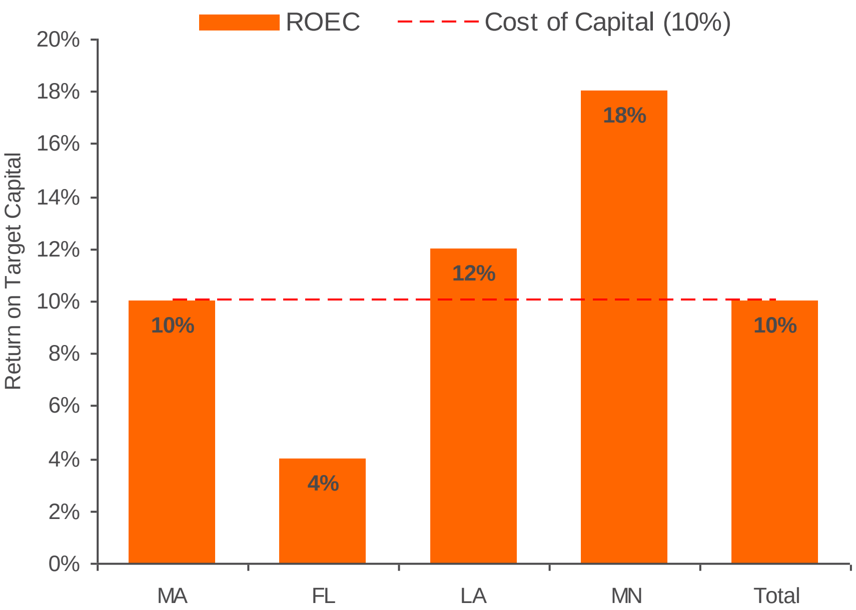
- Target combined ratios are the “price” in our risk market
- Prices send signals
- How would you respond to these signals?

Line 2 Target Combined Ratio



	MA	FL	LA	MN	Total
Actual C/R	88	98	95	93	94

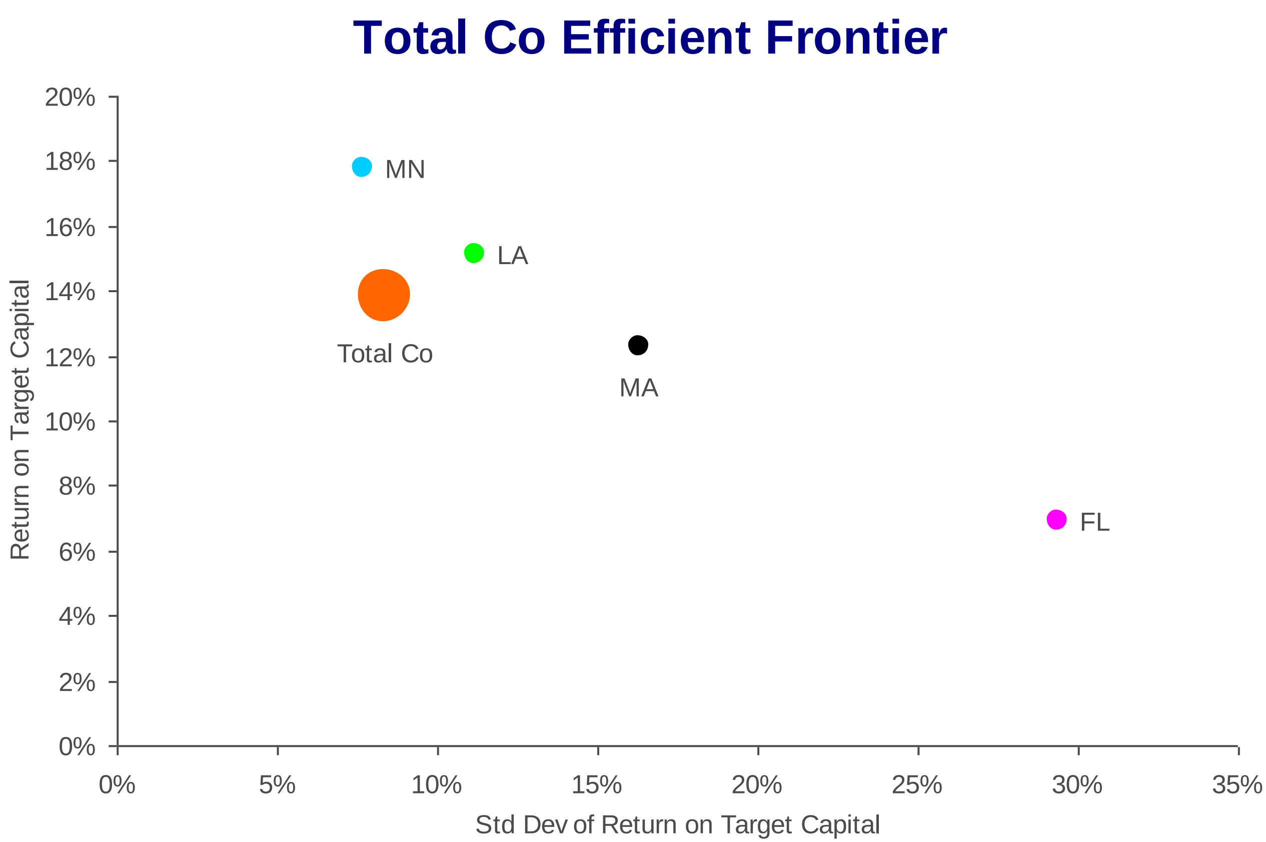
Line 2 Returns



MA	FL	LA	MN	Total
?	Shrink	?	Grow	?

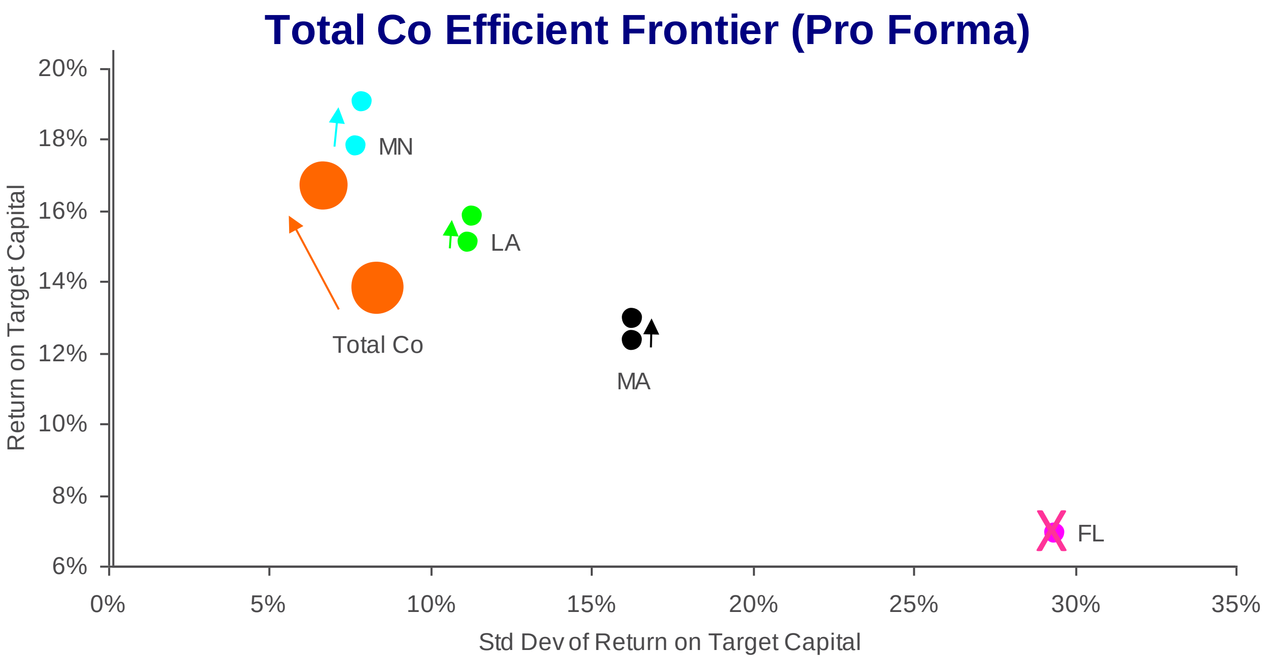
..And Using Them To Optimize the Portfolio…

- Managing as a portfolio requires ability to make trades
  - Profit
  - Growth
  - Return
  - Risk



Optimizing…Round 1

- Diversification has multiple benefits in optimizing portfolio
  - Can make new risks look good
  - Can make existing risks look better
- Risk appetite and current portfolio define possibilities
- Example: Remove FL

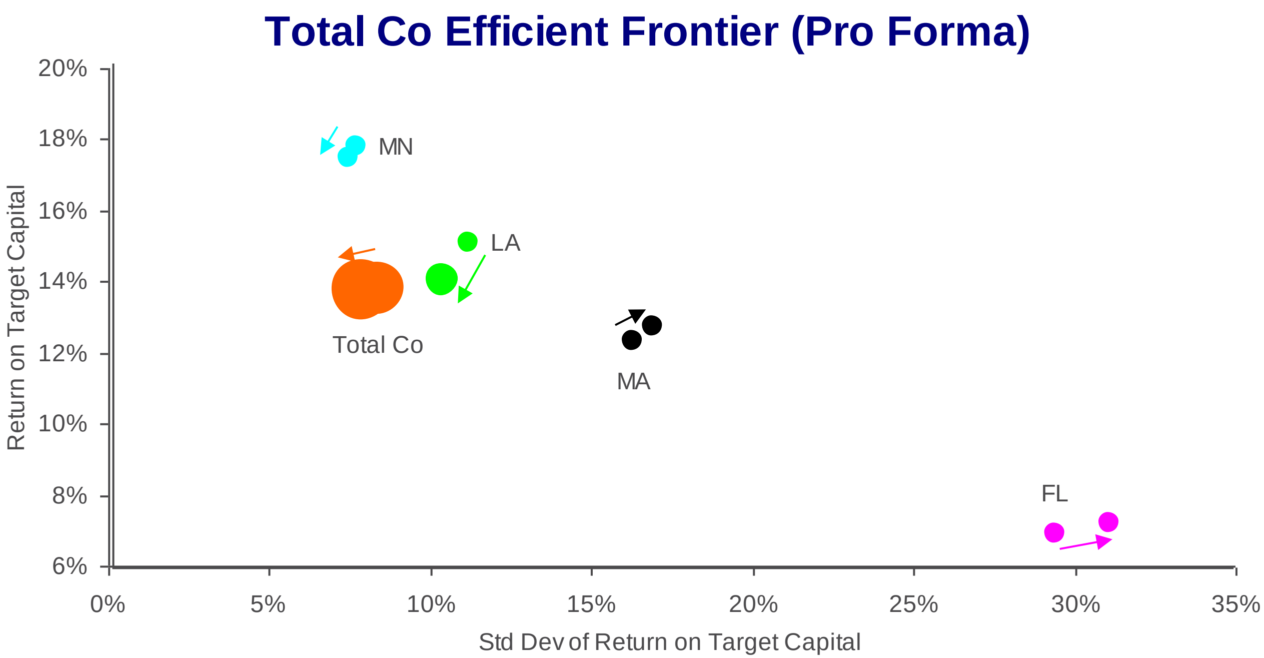


Target Combined Ratio (Base)					
	MA	FL	LA	MN	Total
Line 1	100	100	100	100	100
Line 2	87	73	97	98	94

Target Combined Ratio (Pro Forma)				
MA	FL	LA	MN	Total
100	-	100	100	100
88	-	98	100	97

Optimizing…Round 2

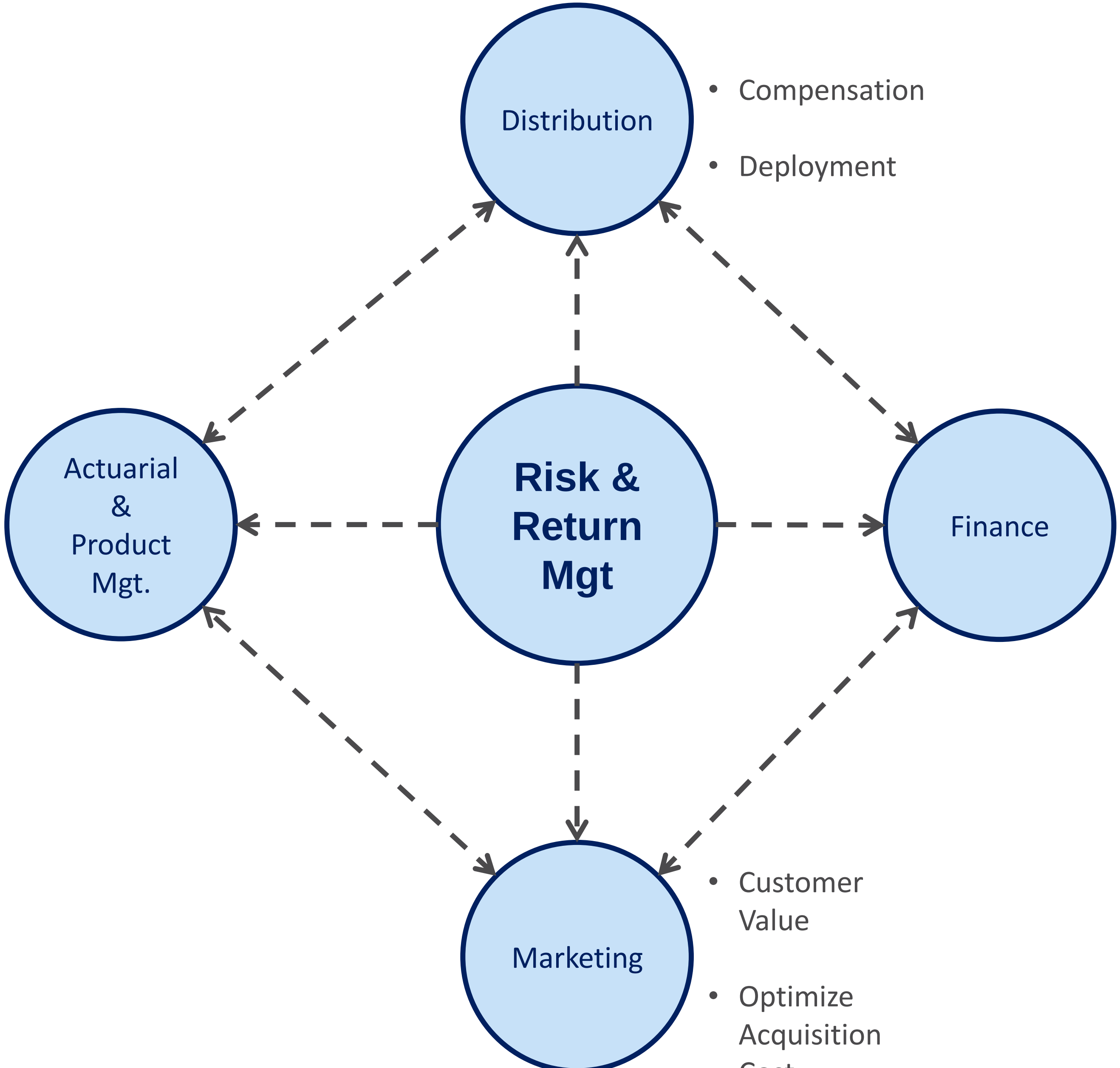
- Example: Increase LA by 50%



Target Combined Ratio (Base)					
	MA	FL	LA	MN	Total
Line 1	100	100	100	100	100
Line 2	87	73	97	98	94

Target Combined Ratio (Pro Forma)				
MA	FL	LA	MN	Total
100	100	100	100	100
88	75	95	98	94

But Optimizing Doesn't Happen on its Own!



- Compensation
- Deployment

- Economic Targets vs. Pricing Targets?
- Product Management

- Performance Measurement
- Planning

- Customer Value
- Optimize Acquisition Cost

Q&A