Special Presentation at the
Gen Re Winter Forum

Best's Credit Rating Methodology (BCRM) & Market Segment Outlooks

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Current Rating Process

Balance Sheet Strength
- BCAR
- Asset Quality
- Cash Flow
- Asset Liquidity
- Financial Lev/Flex
- ALM
- Loss Reserve Model / LRD
- Actuarial Reports

Operating Performance
- STAT/GAAP Statements
- AMB Projections
- SRQ
- QAR
- Company Forecasts

Business Profile
- Benchmarking
- MD&A
- Management Team
- Lines of Business

Enterprise Risk Management
- Growth
- Geographic Spread
- Distribution Channel(s)
- Event Risk
- Reins Program
- Risk Appetite, Tolerance, etc.
- Risk Impact Worksheet
- ICM
- Lift/Drag from Affiliates

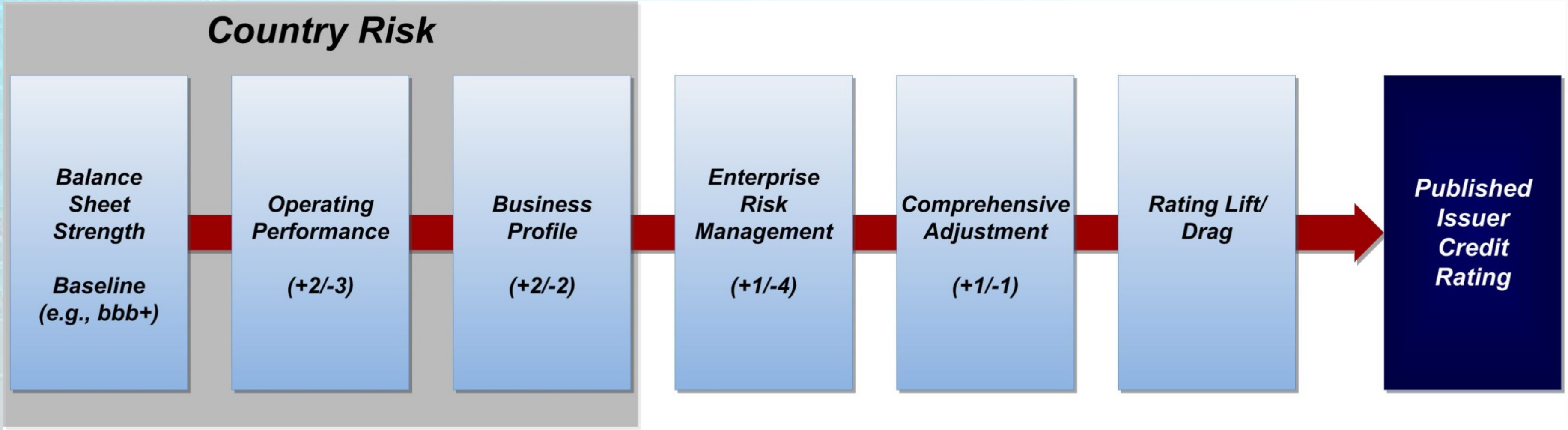
Country Risk

Rating

The Building Block Approach

- The building blocks themselves will remain the same
- Components of the building blocks are currently being reviewed

A.M. Best's Rating Process



Stochastic-Based BCAR

Best's Capital Adequacy Ratio (BCAR) is a comprehensive quantitative tool that evaluates many of the risks to the balance sheet simultaneously and generates an overall estimate of the required level of capital to support those risks and compares it with available capital

BCAR is a key tool in the assessment of balance sheet strength

- Not the sole determinant of Balance Sheet Strength
- Not the sole determinant of the rating

Summary of Changes

- Not intended to change the main risk categories of the models

Goals are to:
– Apply stochastic-based risk factors within the model, with factors generated using stochastic simulations from probability curves & ESG
– Incorporate company-specific detailed data from A.M. Best's Supplemental Rating Questionnaire & financial statements

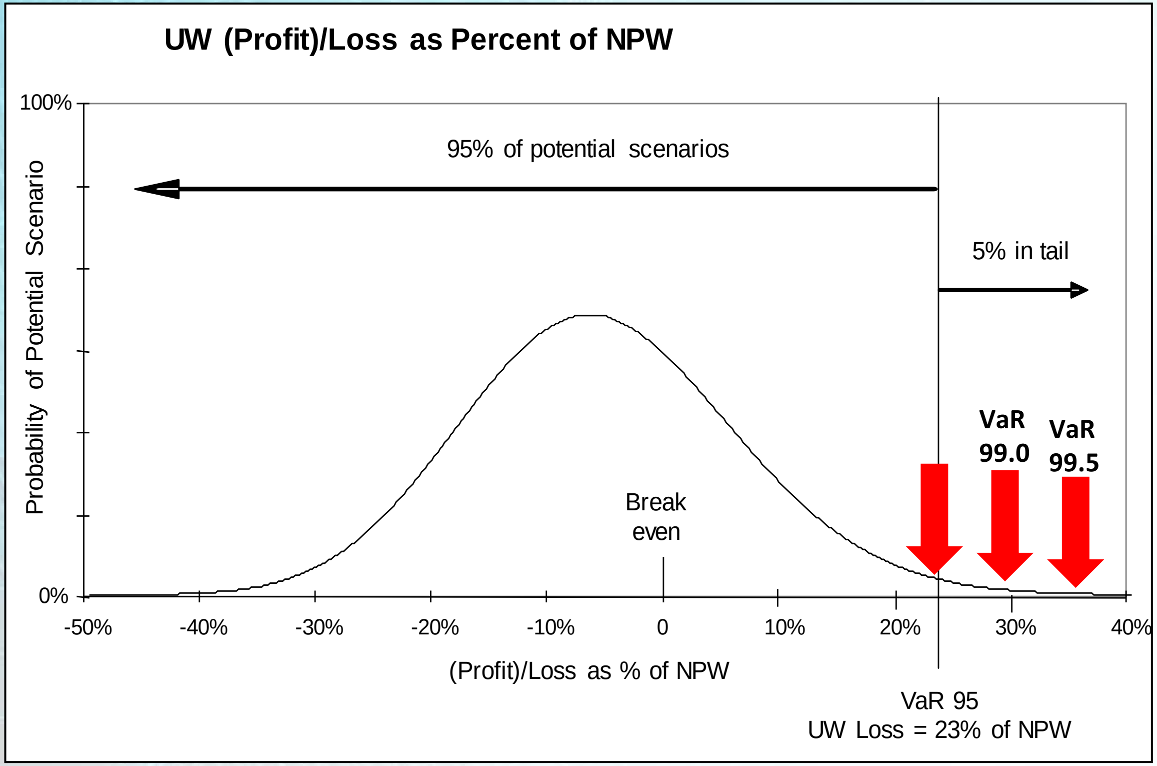
Model Changes

- Using Value at Risk (VaR) metric
  - VaR levels: 95, 99, 99.5, 99.6, 99.8
  - VaR 99.8 is modelled but not included in balance sheet assessment

Return Period (Years)	Annual Probability (%)	Confidence Level (%)
20	5.0	95.0
100	1.0	99.0
200	0.5	99.5
250	0.4	99.6
500	0.2	99.8

Model Changes

- **New Metric – VaR (Value at Risk)**



VaR does not tell us about what's in the tail so we need to look at more than one VaR

Model Changes

- BCAR formula itself is changing

$$\text{BCAR} = \frac{(\text{Available Capital} - \text{Net Required Capital})}{\text{Available Capital}} \times 100$$

- But the core components will remain the same

Stochastic-Based Factors – Economic Scenario Generators

- Does not predict a path the economy will follow but instead produces a collection of possible paths including some that have not yet been observed
- Variables simulated include interest rates, stock market returns, bond defaults and real estate price movements
- No stochastic simulation is done within the BCAR model

Stochastic-Based Factors – Investment Risk

- Bond risk factors are based on ESG-simulated bond defaults
- Charges reflect the ratings and maturity of the company's portfolio

Baseline Charges Developed from ESG-Simulated Bond Defaults

VaR 99					
	1 Year	**3 Year**	**5 Year**	**7 Year**	**10 Year**
aaa	0.00%	0.04%	0.11%	0.16%	0.23%
aa	0.11%	0.44%	0.71%	0.88%	1.02%
a	0.48%	1.43%	2.08%	2.43%	2.69%
bbb	1.15%	3.24%	4.57%	5.34%	5.87%
bb	2.59%	6.99%	9.98%	11.80%	13.30%
b+ to b-	7.07%	17.65%	24.28%	28.09%	30.37%
ccc+ to ccc-	25.06%	44.06%	47.13%	45.51%	41.17%

Stochastic-Based Factors – Investment Risk

- Equity risk factors are based on the S&P 500 & Beta adjusted

Publicly Traded Common Stocks

VaR Confidence Level	Baseline Capital Factor
95.0%	25%
99.0%	38%
99.5%	43%
99.6%	44%
99.8%	48%

- Other investment classes are charged using a mixture of stochastic-based and fixed factors
- Factors adjusted by Country Investment Class (CIC) to capture increased illiquidity and volatility

Stochastic-Based Factors – Interest Rate Risk

- Interest Rate Movements based on ESG

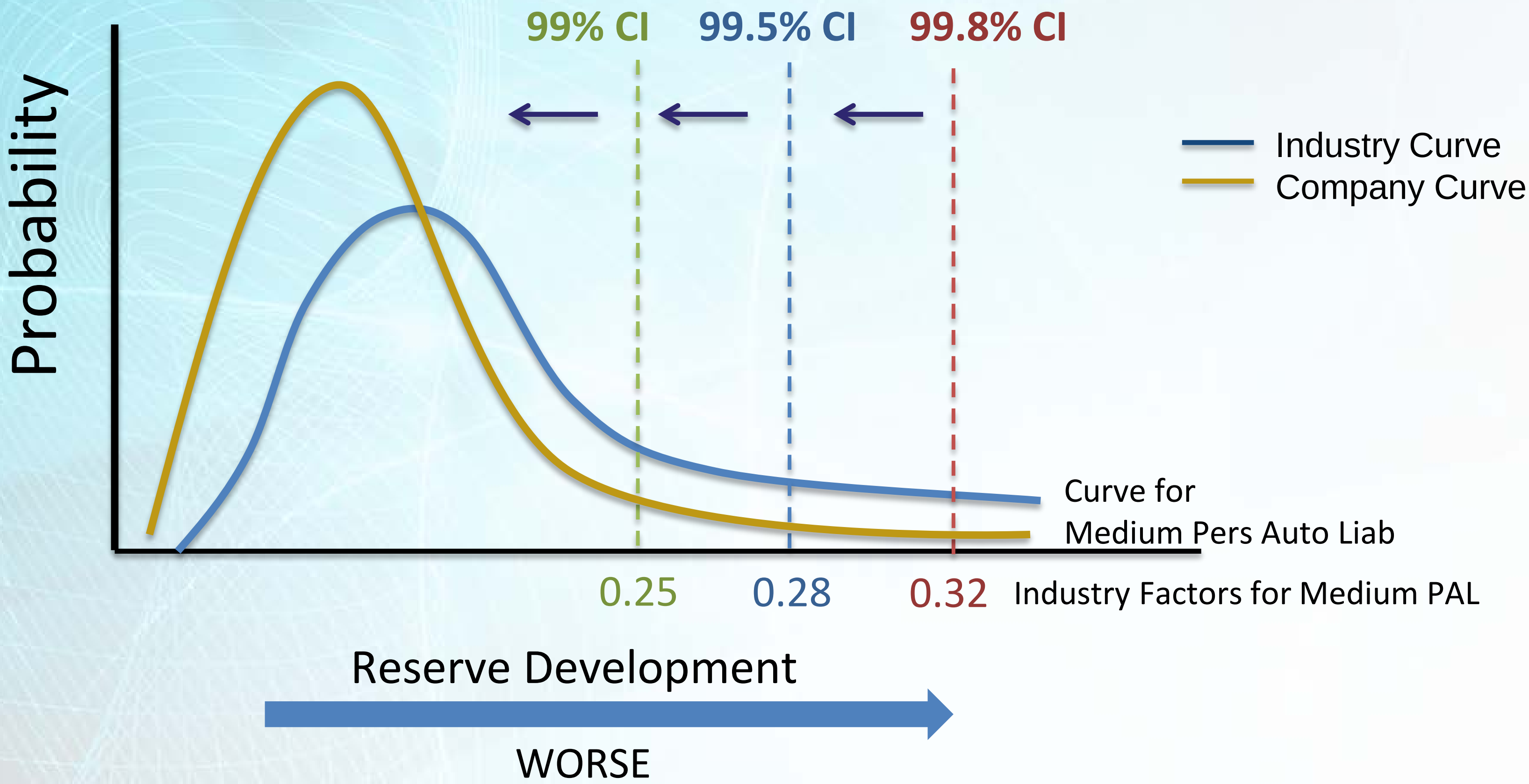
Proposed One Year Rise in Interest Rate					
Current	VaR 95	VaR 99	VaR 99.5	VaR 99.6	VaR 99.8
120 BP	170 BP	240 BP	270 BP	280 BP	290 BP

- For non-life business, risk is driven by a sudden shock event
  - Charge reflects liquidity need using greater of 1/100 all perils per occurrence gross PML and 10% of exposure

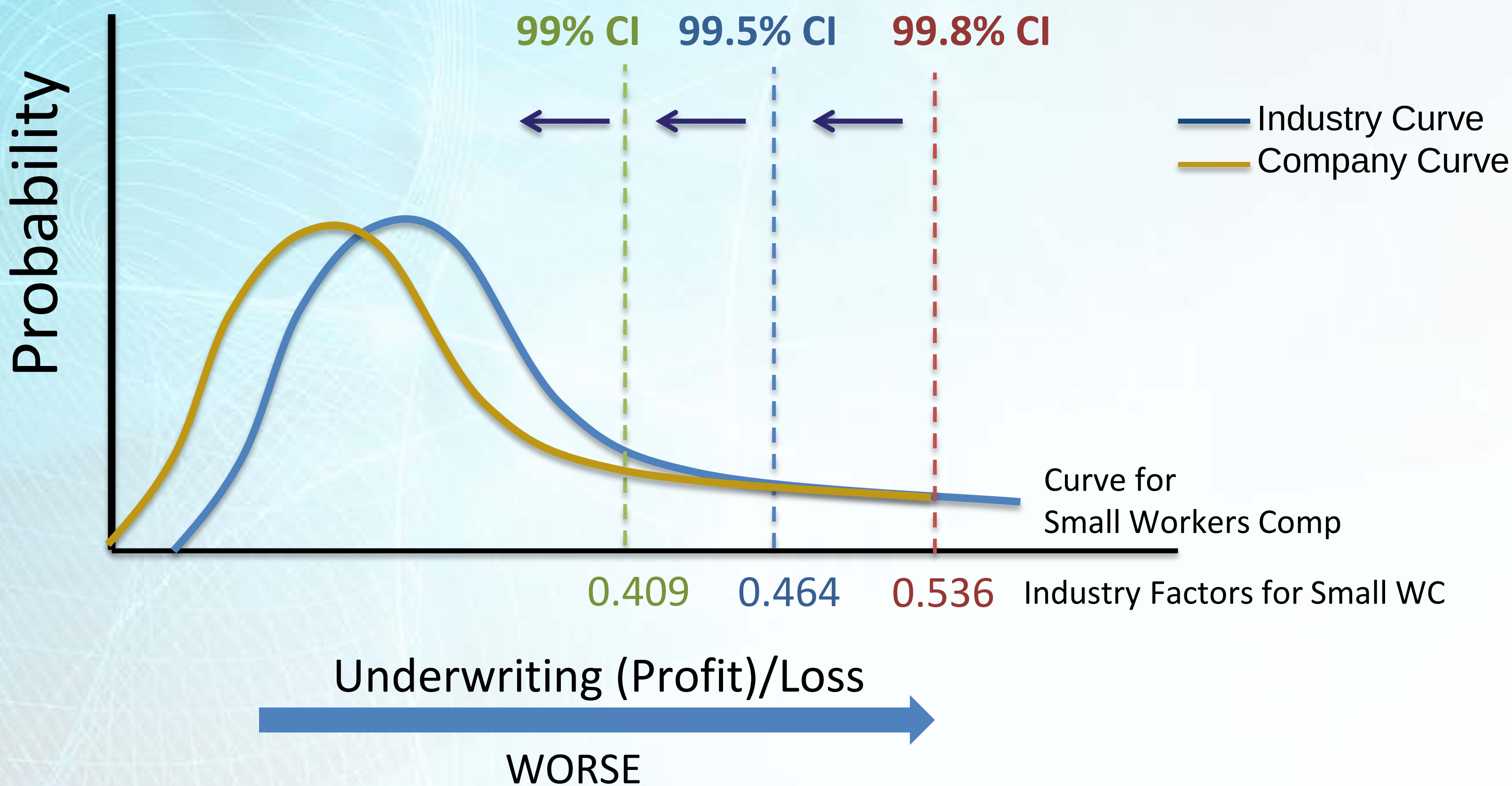
Stochastic-Based Factors – Reinsurance Recoverables

- Use stochastic simulations of reinsurer impairments to create tables of factors (based on a diversified portfolio of reinsurers)
- Charges reflects credit quality and duration of recoverables
- Factors reflect assumed recovery rate and adjustment to present value
- Required capital is still increased for reinsurance dependency

Stochastic-Based Factors – Non-Life Reserve Risk



Stochastic-Based Factors – Non-Life Premium Risk



Model Changes – Catastrophe Risk

- Catastrophe risk as a separate NRC component (B8)
  - Net PMLs (pre-tax)
    - All perils combined per occurrence
  - Included in covariance adjustment
    - More diversification benefit (usually) so lower NRC

$$\text{Net Required Capital} = \sqrt{(B1)^2 + (B2)^2 + (B3)^2 + (.5 * B4)^2 + [(.5 * B4) + (B5)]^2 + (B6)^2 + (B8)^2} + (B7)$$

Changes Under Consideration: Value at Risk (VaR)

- Moving off of the tail
  - Issues of consistency and availability of data globally
  - Removing 99.8 and 99.9 and including tail events in ERM discussion
- Adding 99.6 VaR

Confidence Level (%)	BCAR	Implied Balance Sheet Strength
99.6	> BUFFER + at 99.6	Strongest
99.6	> BUFFER at 99.6	Very Strong
99.5	> 0 at 99.5 & ≤ at 99.6	Strong
99	> 0 at 99 & ≤ 0 at 99.5	Adequate
95	> 0 at 95 & ≤ at 99	Weak
95	≤ at 95	Very Weak

The Building Block Approach (Example)

A.M. Best's Rating Process

Country Risk

Balance Sheet Strength	Operating Performance	Business Profile	Enterprise Risk Management	Comprehensive Adjustment	Rating Lift/ Drag	Published Issuer Credit Rating
Baseline	*"Strong" (+1)*	*"Favorable" (+1)*	*"Adequate" (+0)*	*"None" (+0)*	*"N/A" (+0)*	
bbb+	**a-**	**a**	**a**	**a**	**a**	

Rating recommendation of "a"

Segment Outlook – Personal Lines

Headwinds	Tailwinds
Auto combined ratios above break-even	Excess capital
Auto frequency & severity pressures	Overall underwriting profits achieved
Declining reserve releases	Favorable reinsurance pricing
Low levels of investment income	Rate increases taken in Auto
Normalized levels of catastrophes	Strong Property performance
	Advanced pricing segmentation

Balance sheets are strong and well supportive of current ratings. Performance, profile and ERM are largely in line with expectations. Maintain stable outlook.

Segment Outlook – Commercial Lines

Headwinds	Tailwinds
Intensifying price competition	Abundance of capital
Decreasing reserve releases	Conservative investment profile
Low investment yields	Adequate ERM
Normalized catastrophe losses	Modest increase in interest rates
Unusual level of non-cat large losses	Favorable reinsurance pricing
Elevated severity in Commercial Auto	

Market leaders posting good results. Some market following companies feeling pressure from declining rates, emerging loss trends and low investment yields. Maintain negative outlook.

Thank You