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## Session 64PD: Reinsurance as a Capital Management Tool

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# Reinsurance as a Capital Management Tool

## 2017 Valuation Actuary Symposium

### Session #64

August 29, 2017

**David J Weinsier, FSA, MAAA**

# Trends & Challenges

## Trends

- Reinsurance vs Bank solutions
- PBR impact on viability of financing new business
- Most recent deals used to replace existing financing
- Surplus relief transactions
- AG 33 deals
- Certified reinsurer status
- Longevity deals

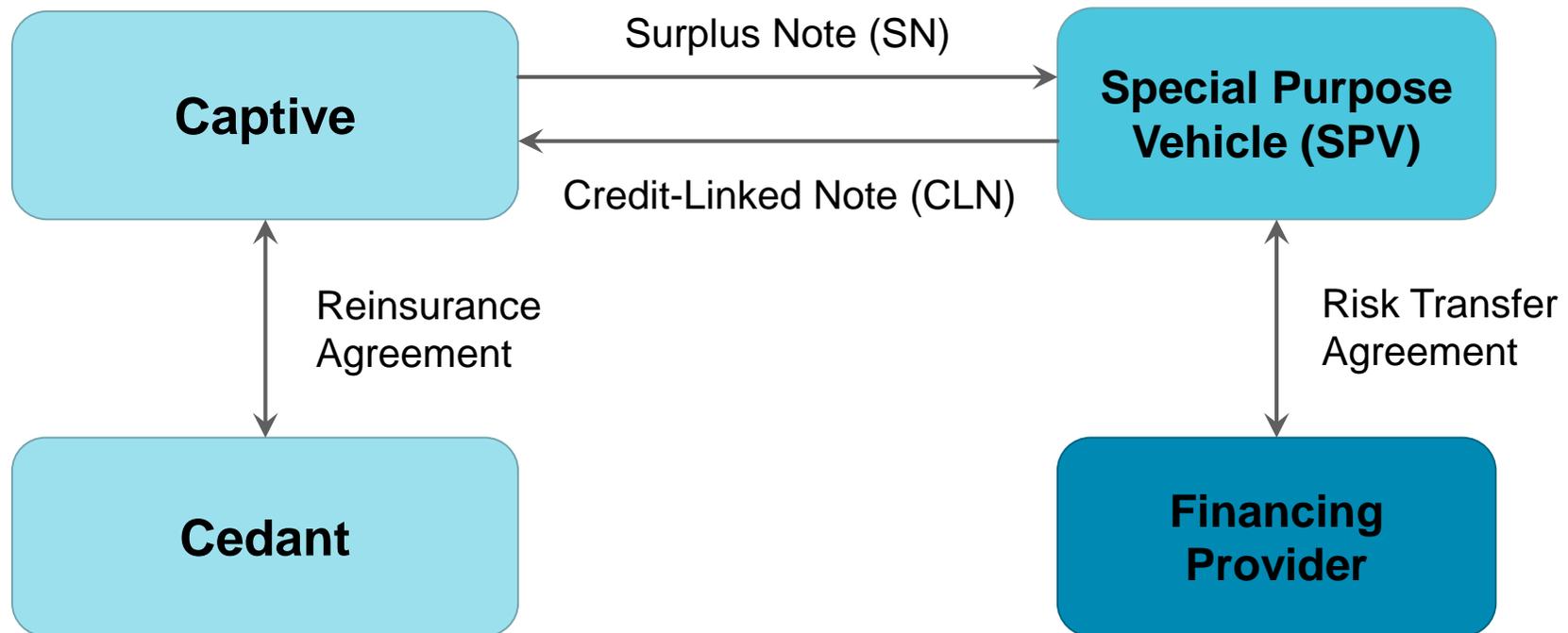
## Challenges

- Transactions compliant with AG 48 and PBR
- Regulator approval

# Pre-AG 48 Redundant Reserve Financing

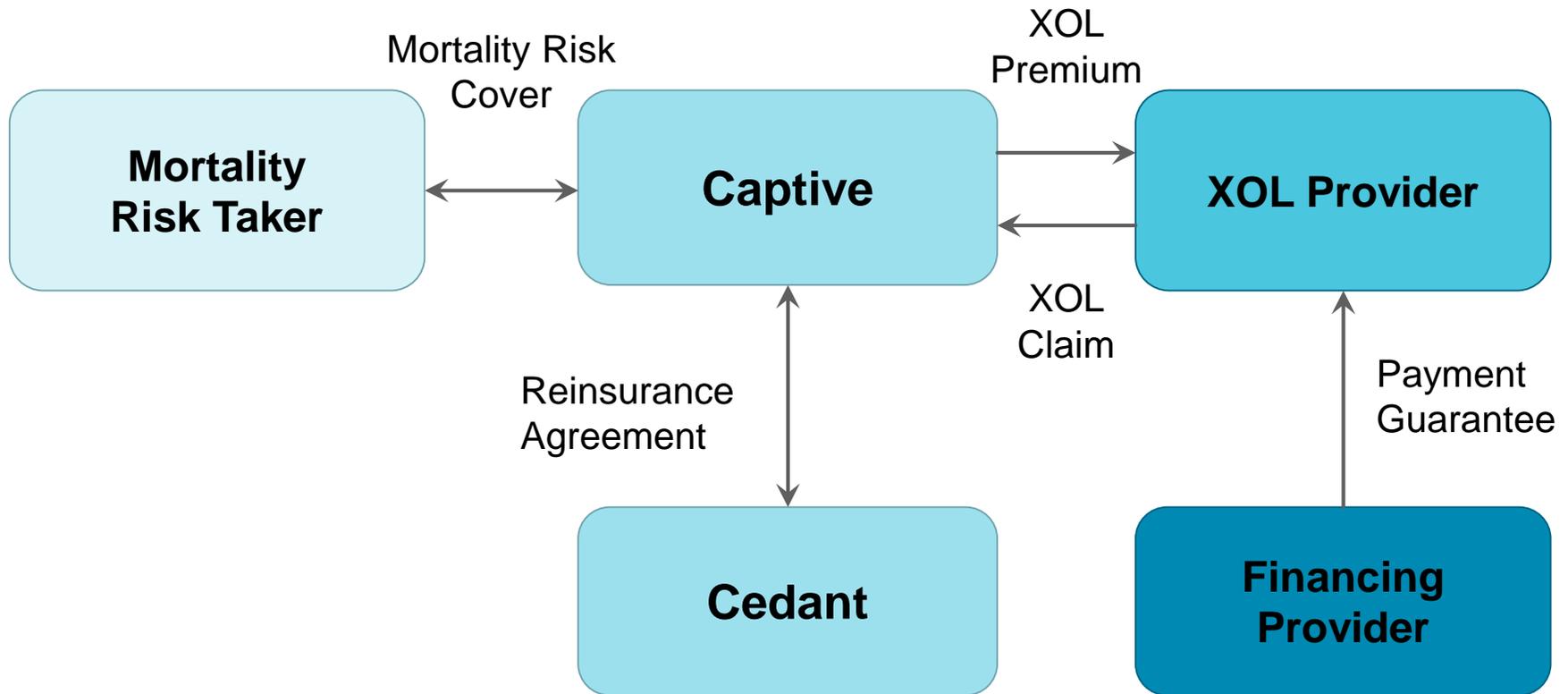
Area	Benefit
Product pricing	<ul style="list-style-type: none"><li data-bbox="516 382 1842 458">▪ Enables insurers to achieve debt-like financing costs for redundant term and universal life reserves</li><li data-bbox="516 468 1842 551">▪ Enhances insurers' ability to pass on favorable economics through competitive product features</li></ul>
Capital management	<ul style="list-style-type: none"><li data-bbox="516 639 1782 722">▪ Creates free surplus that can be used to improve RBC ratios, finance sales growth, or invest in acquisitions</li></ul>
Rating agency relations	<ul style="list-style-type: none"><li data-bbox="516 848 1814 931">▪ Structure can be viewed more favorably by rating agencies than surplus note and holding company senior debt financing</li></ul>

## Example of XXX / AXXX Structure – Exchange of Notes



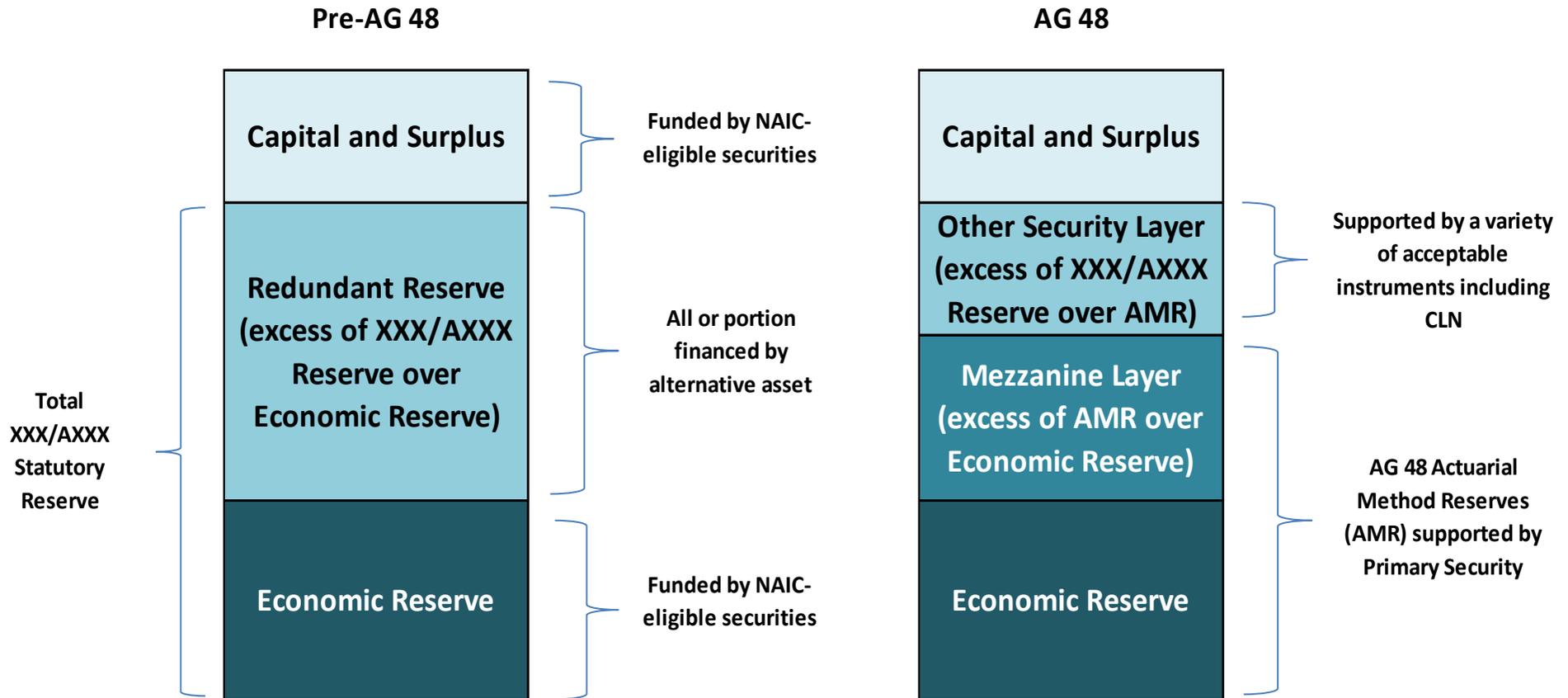
- Risk charge is the difference in coupon rates between the SN and the CLN
- If the Captive redeems the CLN to pay reinsurance claims, the Financing Provider funds the redemption of the CLN

## Example of XXX / AXXX Structure – Excess of Loss



- Captive reinsures mortality risk via YRT reinsurance. XOL provider assumes other insurance risks, investment risk, and the Captive's collection risk.
- XOL Provider pays claims up to full Stat Reserves less Qualified Reserves once all other sources have been exhausted.

# AG 48 at a Glance



- Actuarial Method Reserve based on modified principle-based reserves as specified in NAIC Valuation Manual (VM-20) is used to set Required Level of Primary Security. Primary Security assets are specified in AG 48.
- Actuarial Method Reserve =  $\max(\text{Net Premium Reserve} * \text{Adjustment Factors}, \text{Deterministic Reserve}, \text{Stochastic Reserve})$ . AG 48 NPR adjustment factors intend to approximate 2001 CSO mortality table update to 2014 CSO; they will not be used once NPR is calculated with 2017 CSO.

# AG 48 Compliant Financing Solutions

## Other Security Layer Financing

- Pre-AG 48 arrangements are still viable
- Several transactions of this nature have successfully closed

## Mezzanine Layer Financing

- Funding from cedant's internally generated funds
- Financing from cedant's affiliates
- Financing provided by reinsurer or other financing provider
- Financing provided by a 3<sup>rd</sup> party, backed by guarantee from reinsurer or other financing provider
- Limited success in closing deals of this nature

## AG 48 Compliant Financing Solutions (cont.)

A captive reinsurance agreement between a major US life carrier and global reinsurer marked one of the first such transactions in compliance with AG 48 where primary assets are funded by the reinsurer

- Primary assets provided by an affiliate of the reinsurer
- Transaction utilized a securities lending arrangement

Similar non-cedant primary asset transactions are being discussed in the market

- Regulatory approval represents a significant hurdle challenge
- Credibility and reliability of financing provider are important consideration

# PBR Impact on Captive Financing

Captive Facility	PBR Impact
<b>Pre-AG 48 Compliant Facility</b>	<ul style="list-style-type: none"><li>▪ Restructure of existing facilities to refinance or accommodate block acquisition</li></ul>
<b>AG 48 Compliant Facility</b>	<ul style="list-style-type: none"><li>▪ Applicable to insurers choosing 3-year phase-in</li><li>▪ Option of companywide exemption</li><li>▪ Lower tax reserves under PBR makes reserve financing less attractive</li></ul>
<b>VM-20 Compliant Facility</b>	<ul style="list-style-type: none"><li>▪ Financing opportunities still exist post PBR due to perceived redundancy in VM-20<ul style="list-style-type: none"><li>▪ Assumptions<ul style="list-style-type: none"><li>▪ No mortality improvement after valuation date</li><li>▪ Explicit PADs</li><li>▪ Grading to industry tables</li></ul></li><li>▪ Methodologies<ul style="list-style-type: none"><li>▪ Benefits of reinsurance</li></ul></li></ul></li><li>▪ Financing transactions common in other jurisdictions with PBR</li></ul>

# Section 8 of VM-20 pertains to the impact of reinsurance on the components of reserves under PBR

	Component	Considerations in determining reinsurance impact
Maximum	Net premium reserve	<ul style="list-style-type: none"> <li>No change as compared to pre-PBR</li> <li>Coinsurance: The NPR is reduced by the percentage coinsured</li> <li>Yearly Renewable Term (YRT): The NPR is reduced by the unearned cost of insurance that is reinsured</li> </ul>
	Deterministic and stochastic reserve	<ul style="list-style-type: none"> <li>Requires two separate calculations, pre- and post-reinsurance</li> <li>Exclusion testing, if elected, must be performed on a pre- and post-reinsurance basis</li> </ul>
=	Final PBR reserve	<ul style="list-style-type: none"> <li>The starting asset collar does not apply to pre-reinsurance reserves</li> <li>Credit = <math>Max(NPR_{Gross}, DR_{Gross}, SR_{Gross}) - Max(NPR_{Net}, DR_{Net}, SR_{Net})</math></li> </ul>

The reserve credit for reinsurance under PBR is materially different from the formulaic approach that insurers have become accustomed