Assessing Capital Management Deals for Life Companies
An Asian Market Perspective

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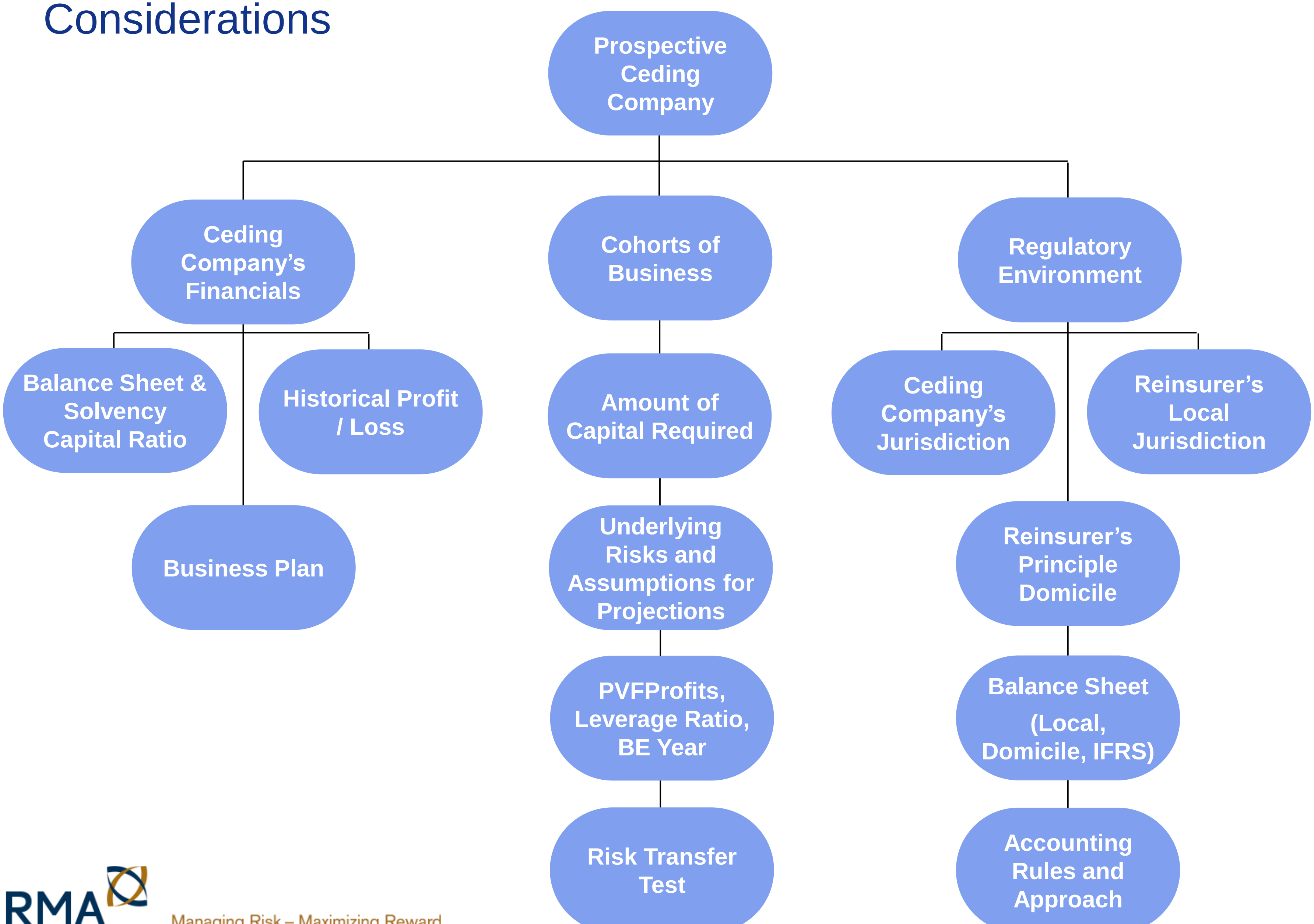
Pacific Rim Actuaries Club Dinner, Oct. 9, 2014

RMA Managing Risk – Maximizing Reward

Agenda

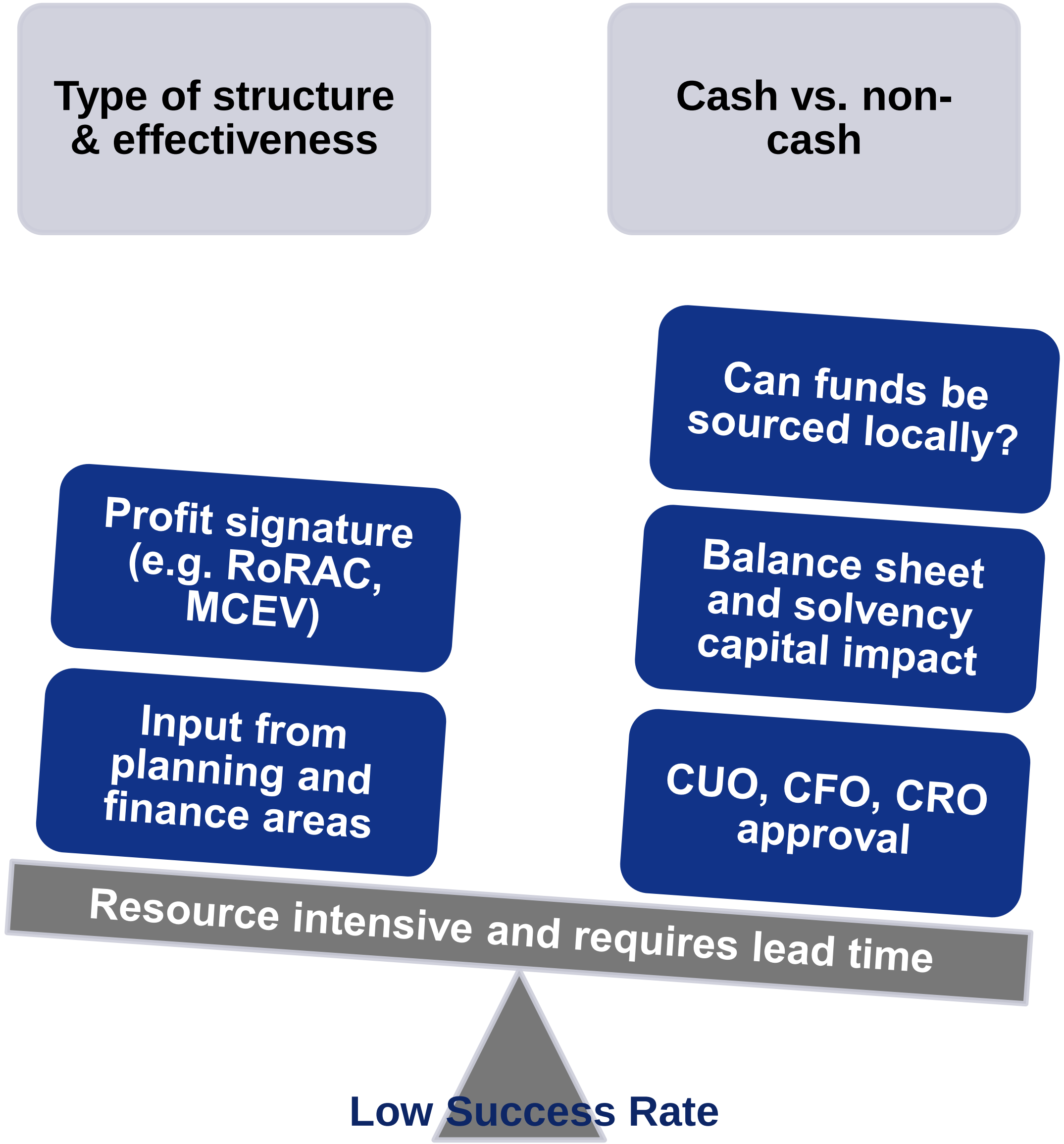
- **Considerations**
- **Initial Assessment**
- **Regulatory Environment**
- **Accounting Implications**
- **Risk Transfer Test**
- **Case Studies**

Considerations



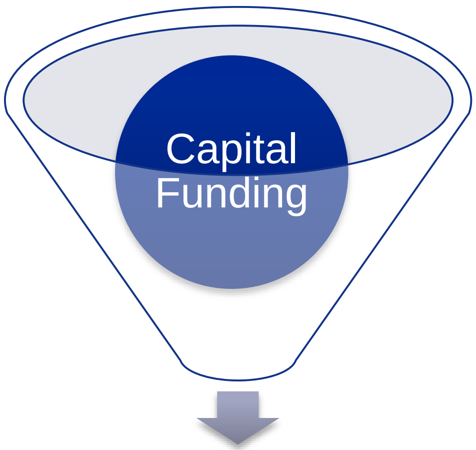
RMA Managing Risk – Maximizing Reward

Considerations



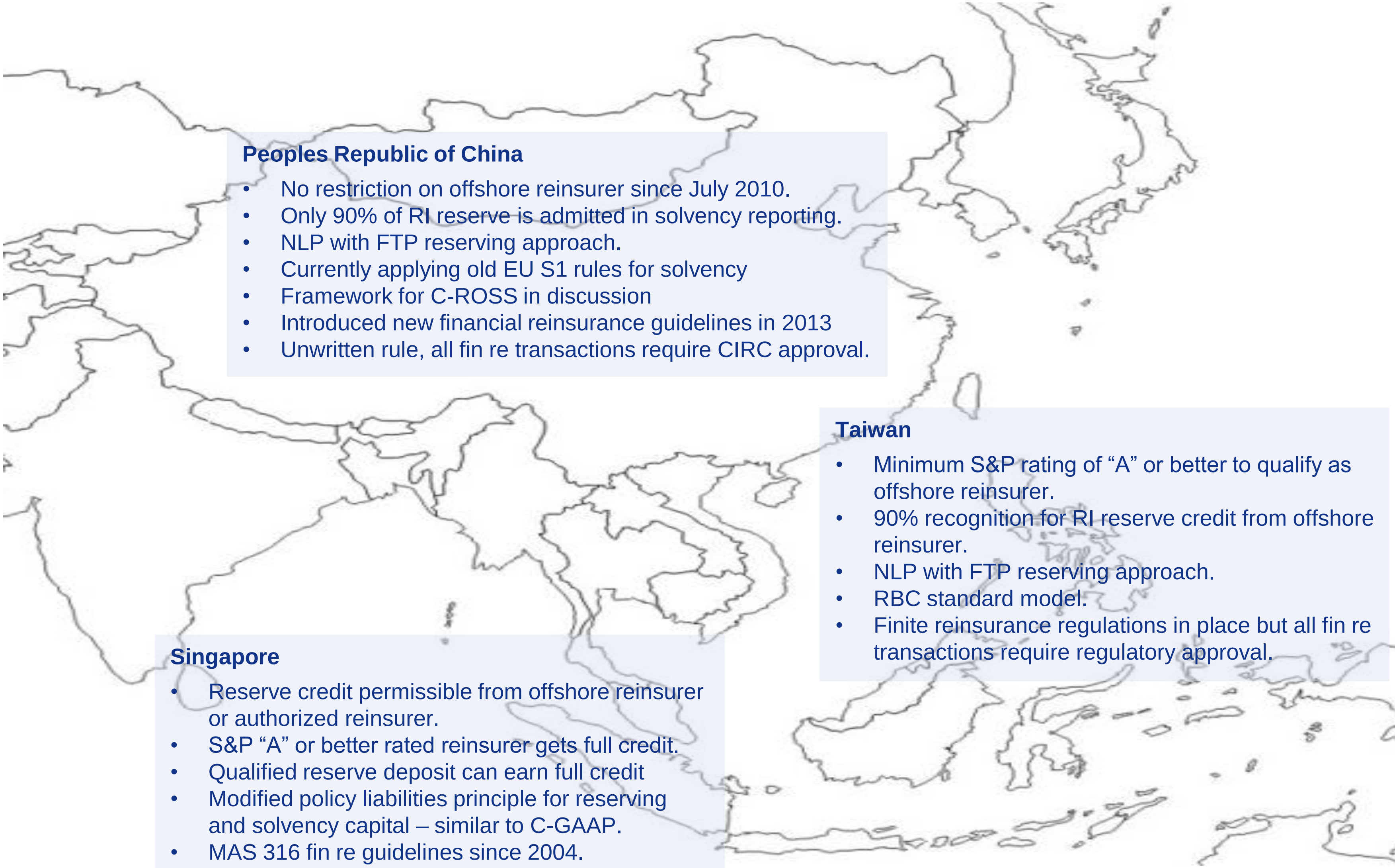
Initial assessment

- Ceding company requires capital funding or solvency relief or both?
- Ceding company’s legal structure, audited financials, solvency reports
- Management of company aligned with reinsurer’s philosophy?
- Underlying risks and assumptions (e.g. mortality / morbidity, yield, expenses)



- Ceding company’s capacity to re-pay the capital outlay
- PVFP sufficient to collateralize the funding
- Leverage ratio (e.g. 50% to 60% of PVFP)
- Break even year (e.g. target 8 years max)

Regulatory environment



Peoples Republic of China

- No restriction on offshore reinsurer since July 2010.
- Only 90% of RI reserve is admitted in solvency reporting.
- NLP with FTP reserving approach.
- Currently applying old EU S1 rules for solvency
- Framework for C-ROSS in discussion
- Introduced new financial reinsurance guidelines in 2013
- Unwritten rule, all fin re transactions require CIRC approval.

Taiwan

- Minimum S&P rating of “A” or better to qualify as offshore reinsurer.
- 90% recognition for RI reserve credit from offshore reinsurer.
- NLP with FTP reserving approach.
- RBC standard model.
- Finite reinsurance regulations in place but all fin re transactions require regulatory approval.

Singapore

- Reserve credit permissible from offshore reinsurer or authorized reinsurer.
- S&P “A” or better rated reinsurer gets full credit.
- Qualified reserve deposit can earn full credit
- Modified policy liabilities principle for reserving and solvency capital – similar to C-GAAP.
- MAS 316 fin re guidelines since 2004.

Regulatory environment

Accounting implications

IFRS 4

- Uncertainty of a future event
- Risk transfer between the policy bearer to the issuer
- Significant insurance risk
- Encompassing assumption of risk transfer (i.e. underlying policy translates to RI treaty)
- Disclosure and unbundling

FAS 113

- Indemnification of loss / liability relating to insurance risk (ceding company to reinsurer)
- Significant timing and underwriting risk assumed by the reinsurer
- Reasonable possibility that the reinsurer recognizes a significant loss
- Amortization of costs (i.e. DAC)
- Disclosure and unbundling

EITF 93-6

- Accounting treatment for retrospectively rated contracts
- Retrospective rating provision for future obligations based on past experience
- Payment to reinsurer if losses and payment to ceding company if no losses
- Recognition of assets or liabilities only if an obligation of pay cash by either party
- The RI contract can't have features that prevent the risk transfer criteria

Risk transfer test

Significant timing and underwriting risk assumed by the reinsurer

- Not clearly quantified under FAS 113
- 10% loss on cash flows

Product of both scenarios

Reasonable possibility of significant loss

- No clear guidance in FAS 113
- 10% probability of loss

Case Studies

Cashless ST Solvency Relief Transaction, Taiwan

- Simple QS 1 year term reinsurance contract: 70% QS Ceded
- Short term life, PA, hospital indemnity policies
- High profit share back to ceding company
- Risk margin charge 0.5%
- Ceding company takes credit for special claims reserve and UPR
- S2 perspective – mortality / morbidity calamity, business and market risk negligible
- LR for past 5 years ranged from 40% to 70%

Financial Results (€ 000s)

Reinsurer			Financial Impact for Ceding Company	
Premium Ceded	31,440		UPR Credit	15,720
RI Risk Margin	156		Special Claim Res Credit	4,997
99.93% Event	32,706		**Total Reserve Credit**	**20,717**
RAC	**1,266**		**Reinsurance Cost**	**156**
RoRAC	**12%**		**Cost of Capital**	**0.8%**
RI Margin Charge	0.50%			
Minimum Hurdle	0.14%			
RAC % of Premium	4.03%			
CoC%	3.57%			

Case Studies

Cashless LTH Solvency Relief Transaction, Taiwan

- QS treaty on long term health: 70% QS Ceded
- Long term cancer and hospital income policies
- High profit share back to ceding company: 90% xs 5% RI expense
- RBC = 0.48 x $\left(C_0 + C_4 + \sqrt{(C_{1O} + C_3)^2 + C_{1S}^2 + C_2^2}\right)$
- Ceding company takes credit for local RBC (C2 component)
- C2: Accident & Health component
  - 2% of retained UPR of short-term standalone PA policies and ADD/ADB riders
  - 3.75% of retained UPR of short-term standalone Health policies and Health riders
  - **Risk Coefficient x Reserve x (1- Ceded Proportion), for long-term health policies**

Case Studies

Cashless LTH Solvency Relief Transaction, Taiwan

Financial Impact (€ 000s)						
Reinsurer						
Treaty Duration by Year	2010	2011	2012	2013	2014	2015
Premium Ceded	2,805	2,920	3,032	3,138	3,237	3,333
Profit after tax	117	122	123	121	118	103
RAC	**1,344**	**1,467**	**1,606**	**1,765**	**1,945**	**2,129**
PVF Profit after tax	697					
PVF RAC	**10,134**					
RoRAC after tax	7%					
Ceding Company						
Treaty Duration by Year	2010	2011	2012	2013	2014	2015
RI Cost	182	185	187	187	185	170
RBC Savings	**6,568**	**6,838**	**7,101**	**7,348**	**7,579**	**7,806**
PVF RI Cost	1,084					
PVF RBC Savings	**42,746**					

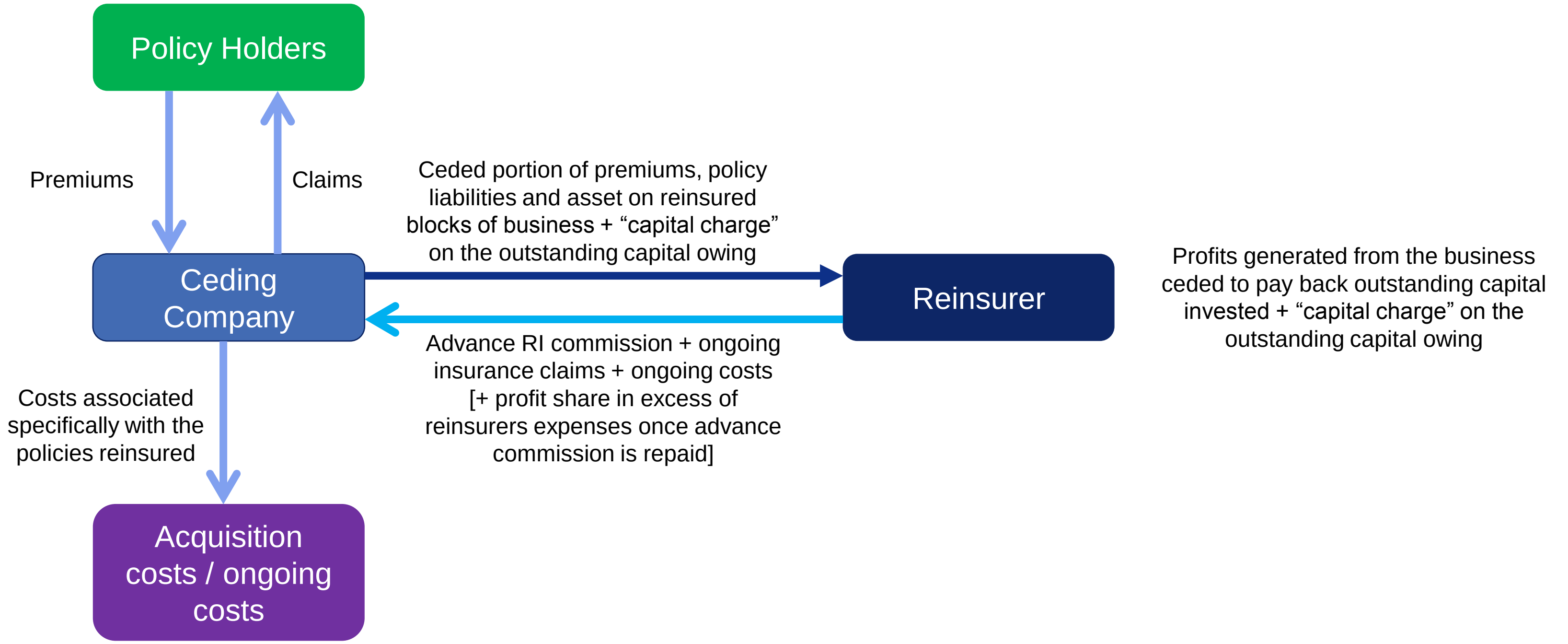
Case Studies

Embedded Value Transaction

- Transaction unlocks the embedded value of blocks of long term life insurance policies, through a reinsurance mechanism, whereby the direct life writer can realize the value immediately in order to raise capital.
- Result in solvency capital relief and increasing working capital for the insurance company.
- Most common transactions are original terms quota share transactions coinsurance with funds withheld structures.
- Ceding company cedes quota share of life insurance risks based on original terms including policy liabilities.
- Reinsurer pays advance commission based on a portion of the intrinsic value (i.e. PVFP) of the specific cohorts of business ceded (gearing is typically 50-60%).
- Assets backing the liabilities remain with the ceding company and asset performance risk is mitigated due to contractual minimum yield requirement (e.g. 2.5% prescribed valuation basis in China).
- Deficit account is created to track the re-payment of the advance commission
- Cashflows are most sensitive to persistency and less to yield on assets due to minimum yield (to follow prescribed statutory valuation basis) stipulated in reinsurance contract.
- Ceding company pays annual capital charge to reinsurer based on outstanding capital owing that is tracked in the deficit account.
- Capital charge is usually based on a WACC (or a sovereign debt benchmark), plus adjustments for credit default risk and forex, plus an expense & profit spread (typically 150 bps to 200 bps) .
- Ceding company can recapture several years after deficit account has been paid.
- Transactions pass risk transfer test as insurance / reinsurance contract and fulfill IFRS and FASB definitions.
- Some forex volatility due to initial outlay in core currencies (e.g. USD) and repayment in an Asian currency over time (i.e. forex impact on timing of cashflows).
- Year to year forex volatility can be mitigated through setting up working accounts denominated in the Asian currency or purchasing 1 year currency forward contracts.
- The recovery period (for the initial investment) usually 8 to 10 years (lower gearing tends to decrease recovery period).

Case Studies

EV Transaction Cash Flows



Case Studies

EV Transaction Risks to Consider for the Reinsurer

Biometric Risk

- Mortality and morbidity risks are involved.
- The underlying products are usually non-par and par whole life and endowment with accident and morbidity riders (e.g. critical illness, TPD, etc.).

Credit Risk

- Regulators in Asia favor cash transactions vs. cashless.
- Credit rating does not play a vital role for small to medium sized domestic companies in Asia.
- Many small to medium sized organizations do not have credit ratings according to Western standards and some may have local credit ratings.
- The capital funded in cash and is injected into the ceding company's general funds and regulators do not allow the asset to be "ring fenced".
- Isolating specific blocks of business reduces the reinsurer's exposure to the ceding company.

Lapse Risk

- The repayment stream is sensitive to policyholder behavior.
- The lapse volatility will impact the length of time to repay the capital.
- Extreme lapse scenarios (e.g. modeling a cliff) can result in a loss for reinsurer, but the likelihood is remote
- Many small to medium sized organizations do not have credit ratings according to Western standards and some may have local credit ratings.
- The capital funded in cash through reinsurance is injected into the ceding company's general funds and regulators do not allow the asset to be "ring fenced".
- The risk of early lapses is mitigated with a first year "claw back" provision in the treaty.

Yield

- The responsibility of generating yield remains with the ceding company in funds withheld structures.
- Future profit streams are sensitive to the yield volatility.
- Volatility is reduced for the reinsurer due to the minimum yield stipulated in the contracts which would be dictated by the statutory prescribed basis.

Expenses

- Expense volatility impact tend to be minimal.
- This risk can be mitigated by crystalizing the expenses at the initiation of the transaction and the reinsure absolves obligation to participate in the expenses in the latter durations.

Case Studies

EV Transaction, China

- Company required capital to maintain a CAR of 150%
- Coinsurance funds withheld structure: 90% QS Ceded
- Non-par WL and Endowment with riders policies
- Assets for ceded liabilities maintained by ceding company
- Investment income on assets credited with yield floor according to statutory prescribed basis
- Deficit account to track initial cash outlay with 8% borrowing cost for outstanding capital (the 8% equates to the reinsurer's WACC)
- Monetized future profits and expenses upfront
- Structure allows for the ceding company to recapture after capital outlay repaid
- Total capital relief combination of cash and reinsurance credit for solvency capital

Case Studies

EV Transaction Financial Metrics (€ 000s)

Source of Business (€ 000)	Amount of Cash Outlay	PVFP b/f Reinsurance	Gearing	Solvency Capital Relief	Total Capital Relief
All Plans	30,864	62,354	49%	5,140	36,004

Scenario (€ 000)	IRR	NBM	PVFPrem	PVFP (net CoC, Expense, Tax)	Deficit Account Recovery Period (Yrs)
Recapture end of TTY DA is 0	8.07%	10.17%	141,679	14,414	12.3
Recapture 1 TTY after DA is 0	8.14%	10.38%	142,766	14,818	
Recapture 2 TTY after DA is 0	8.20%	10.54%	143,515	15,122	
Recapture 3 TTY after DA is 0	8.25%	10.63%	144,103	15,319	

CAR b/f Reinsurance	CAR a/f Reinsurance
108%	189%

Case Studies

Declined EV Transaction, China

- Ceding company 75% owned locally, remaining 25% foreign owned
- Coinsurance funds withheld structure
- Company wanted to raise € 24 mn (RMB 230) in capital
- Without capital injection the company would fall below CAR 100%
- Company solvency highly dependant on asset performance
- ALM durational mismatch: liabilities 12.8 yrs, assets 6.3 years
- Mortality / Morbidity Risks: Par WL and Endowment, non-par CI
- Performance of the blocks of business highly dependant on asset performance (i.e. 2.5% investment yield floor was not sufficient)
- Large portion of assets in real estate (~20%)
- **Too many uncertainties – decided not to proceed**

Questions?

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SATAY GADO
$5.00
TAUHU GORENG
$4.00
GADO GADO
$4.00
LAYAN DIRI
SELF SERVICE
THE MAIN EVENT
Satay Set in Banana Cone
Get off my Bach