# The Collateralized Reinsurance Market: Insights & Recent Developments

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**Prepared by Aon Benfield Analytics**

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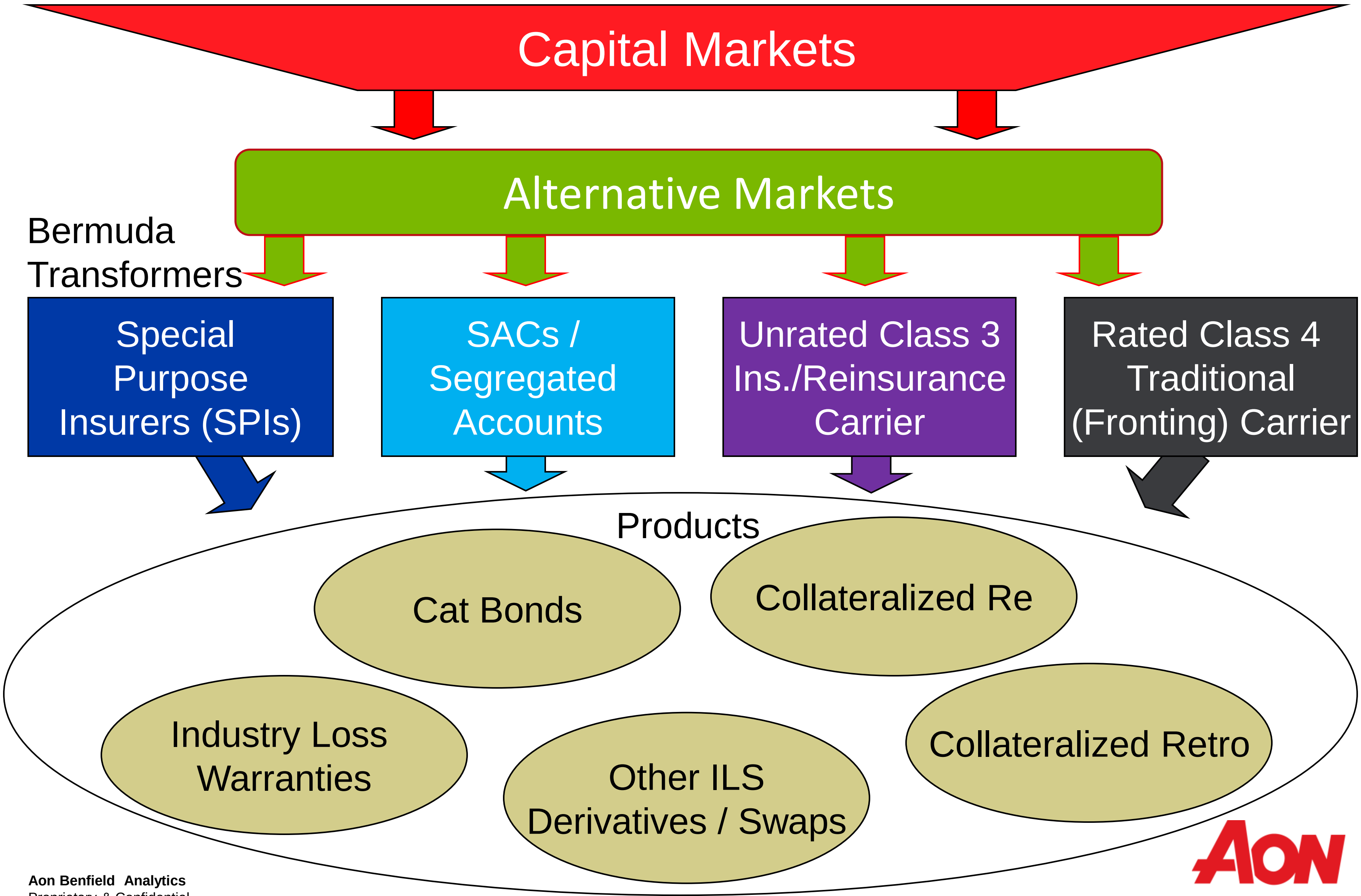
# Agenda Tracker

# The Bermuda Alternative Reinsurance Market



# Traditional Market vs. Alternative Market

| Category | Traditional Reinsurer | Alternative Reinsurer |
|---|---|---|
| Financial Statements | Available | Typically not available |
| Financial Strength Ratings | Rated | Not rated |
| Collateral | For existing recoverables only | For the full limits of exposure, governed by collateral release |
| Regulation and Reporting | High | Low |
| Sample Companies | Arch Reinsurance Ltd.<br>Aspen Bermuda Ltd.<br>Everest Reinsurance Co.<br>Third Point Reins. Co Ltd. | Aeolus Capital Mgmt. Ltd.<br>Aspen Capital Markets<br>Nephila Capital Ltd.<br>Third Point Re Capital Ltd. |

# Traditional Market vs. Alternative Market

## Alternative Markets

- Collateralized Reinsurers ( & Sidecars)
- Insurance Linked Securities
  - Industry Loss Warranty
  - Catastrophe Bonds
  - Other ILS Derivatives/Swaps

## Traditional Markets

- Rated Traditional Reinsurers
- Rated Hedge Fund-Backed Reinsurers

# Alternative Market - Bermuda Risk Bearing Entities

## Fronting Carriers (Class 4)
- Minimum capital $ 100M
- Traditional rated carriers
- Audited financials
- Reserve opinion required
- Available for additional premium
- May provide collateral for liabilities

## Special Purpose Insurers
- Typically shorter-term entities
- Fully funded transactions only
- Sophisticated parties
- Minimum capital $1
- No loss reserve opinion required
- No investment restrictions
- May file unaudited Accounts in lieu of audited Fin. statements

## Class 3, 3A and 3B Insurers
- Write third party business
- Minimum capital $1M
- 3A: Small Commercial, net premiums are less than $ 50M
- 3B: Large Commercial, net premiums are more than $ 50M
- 3: Not Captives or 3A, 3B or 4

## Segregated Accounts / SACs
- Intended to be a separate and distinct account
- Segregated accounts are non-legal entities
- Must be established by a Segregated Account Co. (SAC)
- SACs are typically SPIs or Class 3 insurers

# Capital Market Investors in the Reinsurance Industry

## Original Investors

- Private Equity
  - Private Equity firms wanted representation, e.g. seats on the Board
- Longer-term investment with limited exit opportunities
- Investment offers diversification and higher rates of return
  - Not correlated to the capital markets

## Investors Today

- Wider pool of investors that are willing to participate w/out representation
  - Hedge Funds, Pension Funds
  - Other Institutional Investors
  - Endowments, Family Trusts
  - High Net Worth Individuals
- Most investments are via open funds, so greater ability to exit
- Offers diversification and higher returns



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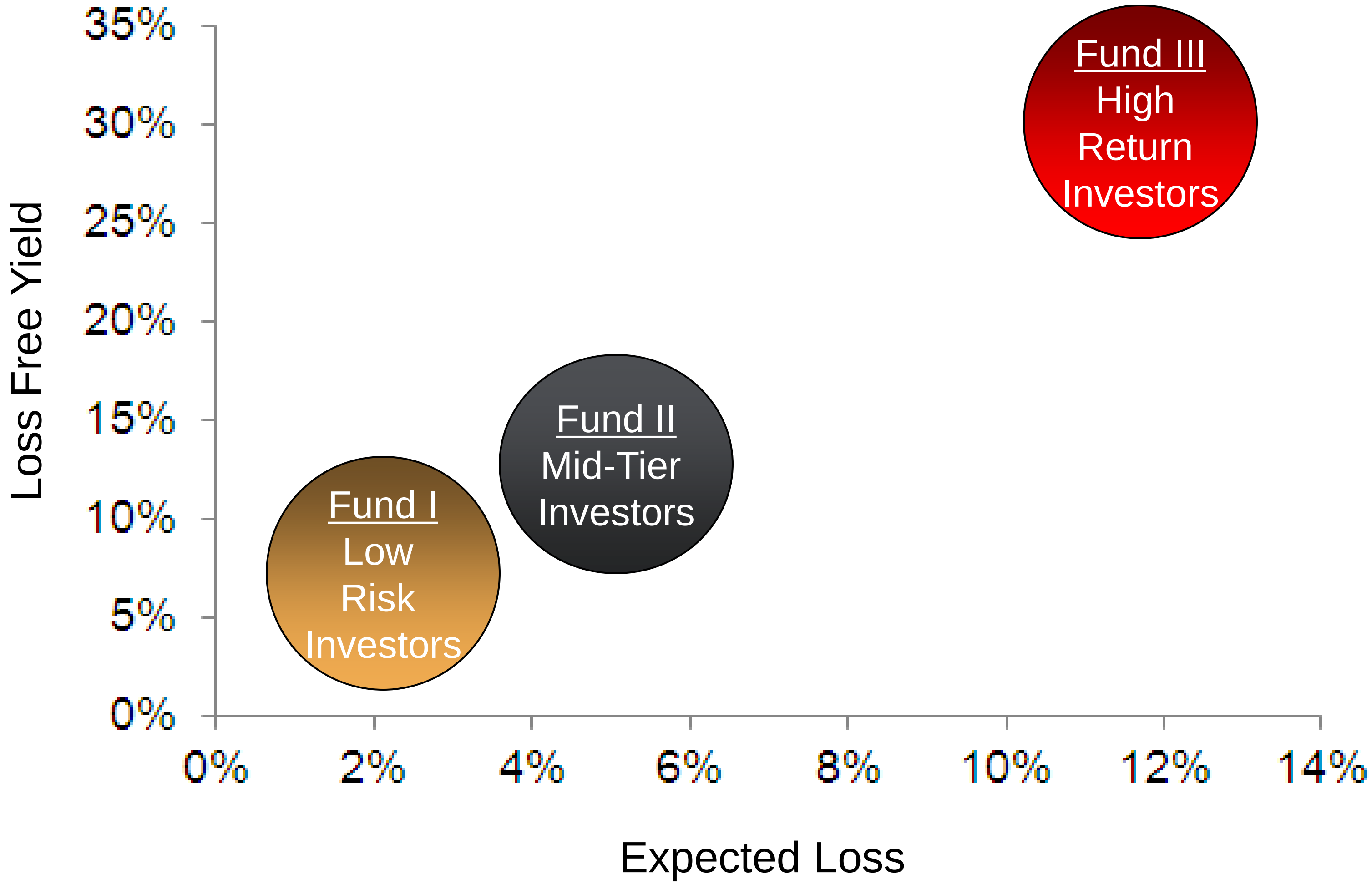
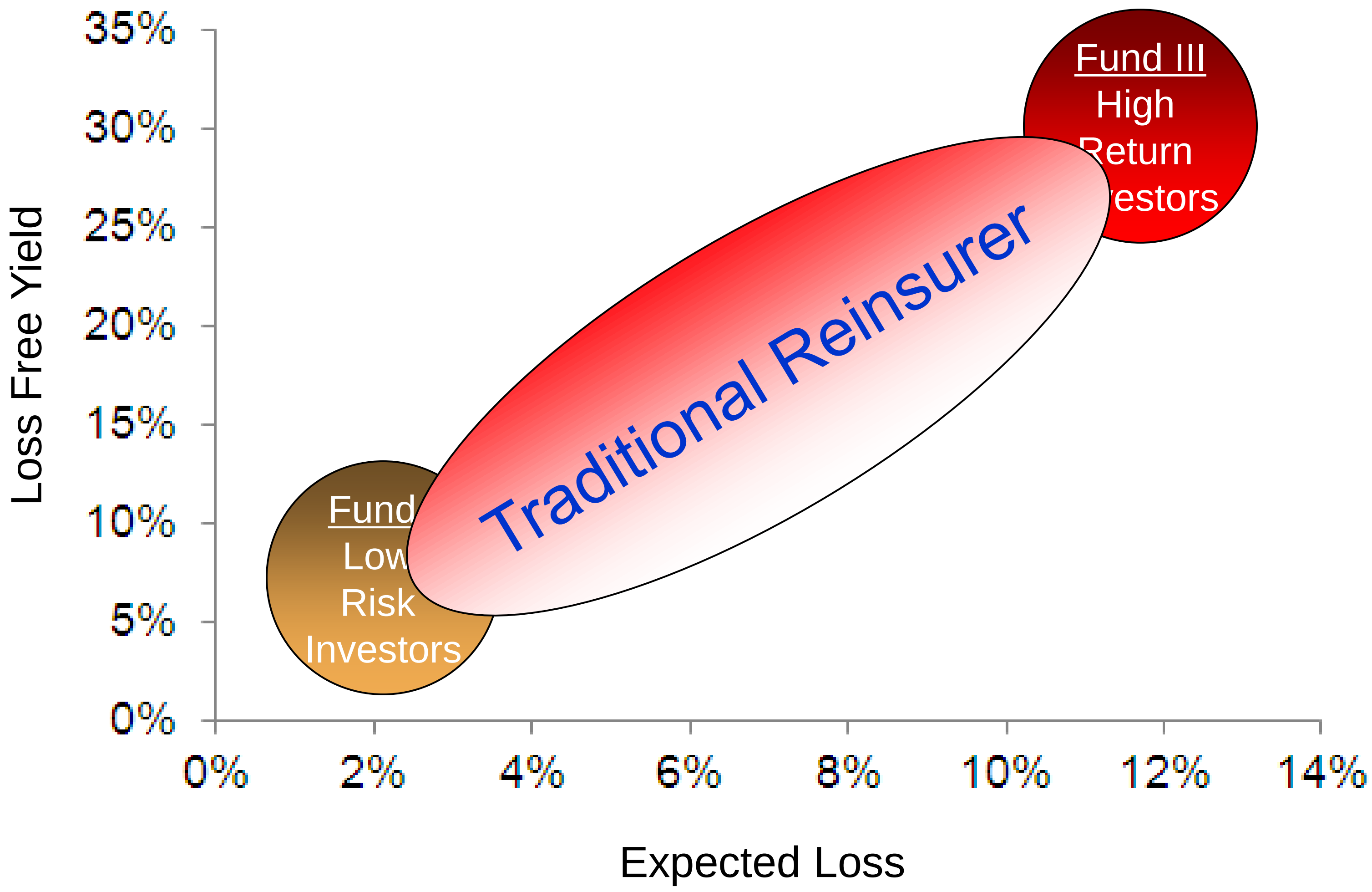
# Investor Risk - Return Options




Note: For Illustrative purposes only

# Investor Risk - Return Options

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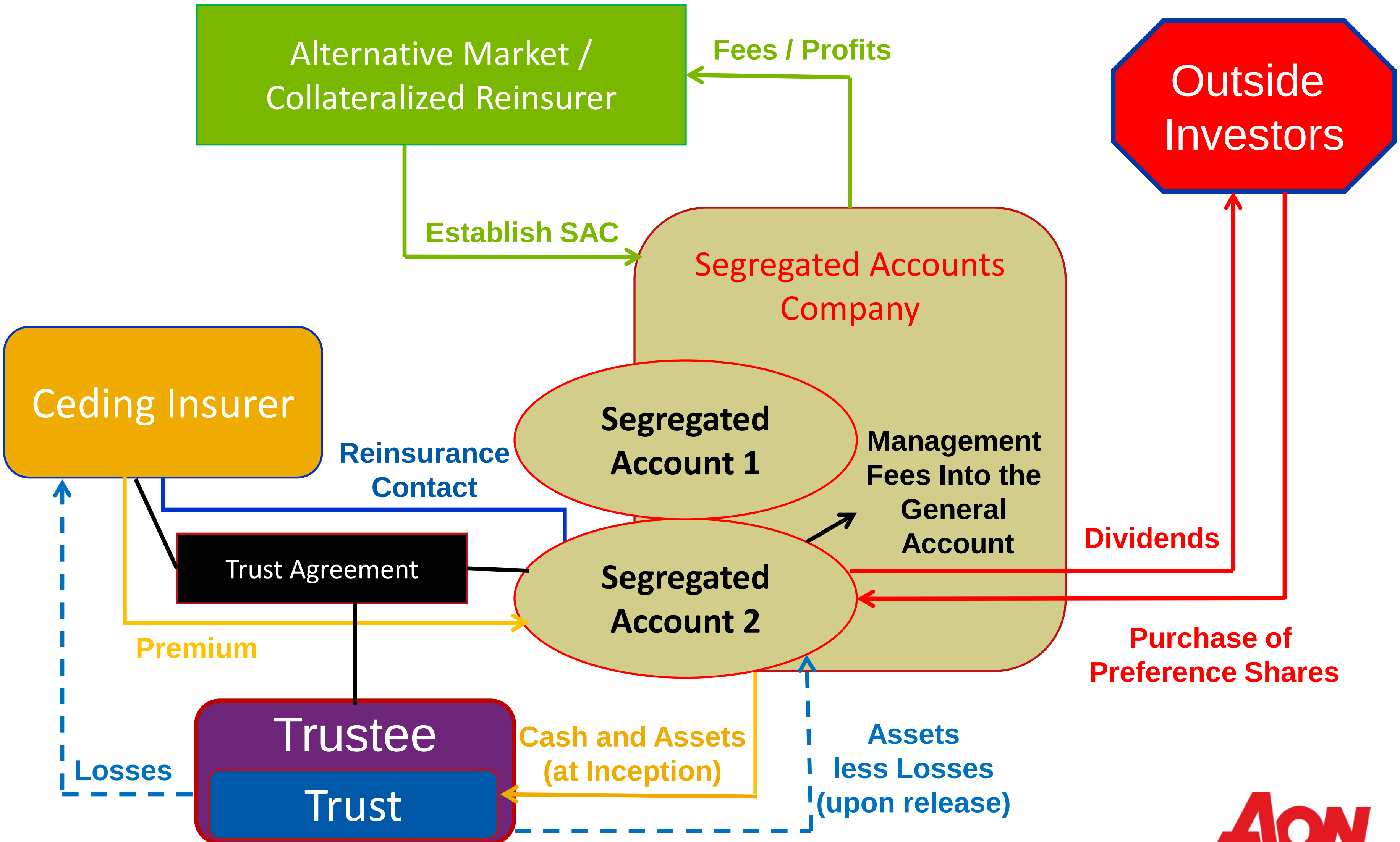
# Alternative Market Risk Bearing Counterparties

## Schedule of Segregated Account Entities Which Comprise the Subscribing Reinsurer

| Name of Grantors | Percentage Interest in Contract |
|---|---|
| Aeolus Re Ltd. In respects of its | |
| Underwriting Segregated Account | 8.654% |
| Keystone Segregated Account | 87.367% |
| Hotoru Re Segregated Account | 1.764% |
| QVT V Segregated Account | 1.008% |
| Pendulum Re II Ltd. (Special Purpose Insurer) | 1.207% |
| Total | 100.000% |

# Collateralized Reinsurance Structure with Segregated Accounts



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# Sample Alternative Markets

| Alternative Market | Domicile | AuM (USD mn) | Founded |
|---|---|---|---|
| Aeolus Capital Management Ltd. | Bermuda | 2,500 | 2006 |
| AlphaCat Managers Ltd. | Bermuda | 760 | 2008 SC |
| AQR Re Management Ltd. | Bermuda | 400 | 2012 |
| Aspen Capital Markets | Bermuda | Not Disclosed | 2013 SC |
| Blue Capital Management Ltd. | Bermuda | 610 | 2012 SC |
| Cartesian Re Management Co. | Bermuda | Not Disclosed | 2009 |
| CATCo Investment Management Ltd. | Bermuda | 3,000 | 2010 |
| Credit Suisse Asset Management | Switzerland | 5,500 | 2003 |
| D. E. Shaw & Company (Bermuda), Ltd. | Bermuda | Not Disclosed | 2006 |
| Elementum Advisors, LLC. | U.S. / Bermuda | 1,000+ | 2009 |
| Hiscox Capital Ltd. | Bermuda | Not Disclosed | 2013 SC |
| Kinesis Capital Management Ltd. | Bermuda | 250 | 2013 SC |
| Leadenhall Capital Partners | United Kingdom | 1,600 | 2008 |
| LGT Insurance-Linked Strategies | Switzerland | 2,800 | 2001 |
| Nephila Capital Ltd. | Bermuda | 10,000 | 1997 |
| New Ocean Capital Management, Ltd. | Bermuda | Not Disclosed | 2013 SC |
| New Point Ltd. | Bermuda | Not Disclosed | 2006 SC |
| Pillar Capital Management Ltd. | Bermuda | Not Disclosed | 2008 |
| Renaissance Underwriting Managers, Ltd. | Bermuda | 200 | 2012 SC |
| Sirius Capital Markets (Bermuda) Ltd. | Bermuda | Not Disclosed | 2013 SC |
| Third Point Re Cat Ltd. | Bermuda | 100+ | 2012 SC |
| Triton Re Ltd. | Bermuda | Not Disclosed | 2011 |
| Twelve Capital AG. | Switzerland | 2,500 | 2010 |

Note: SC = Sidecar of traditional reinsurer

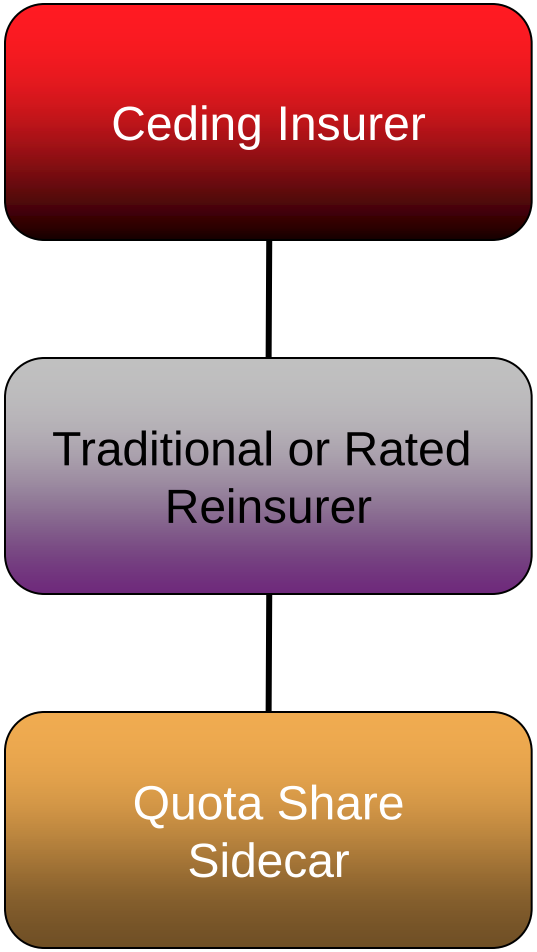
# Motivations of Traditional Reinsurers to Manage Third Party Capital

- Ability to earn fee income, potential profit commissions and improve ROE
- The distribution channel for this business already exists
- Most reinsurers are able to conduct this business without significant additional expense
  - Some reinsurers are hiring underwriters and / or a capital markets expert to lead this business
  - However, almost all reinsurers are leveraging existing infrastructure and support staff
- New source of business that does not require an increase in capital and also does not increase the reinsurer's PMLs
- May also allow reinsurers to provide larger lines to clients
- Many believe that this part of the market is not going away
  - Reinsurers want to be able to offer a broader spectrum of products (one stop shopping)
  - Provides ability to compete with the collateralized players on similar terms
  - Everybody else is doing it; Market leaders such as Renaissance Re have been doing it since 2005 or earlier

# Traditional Reinsurer Management of Third Party Capital

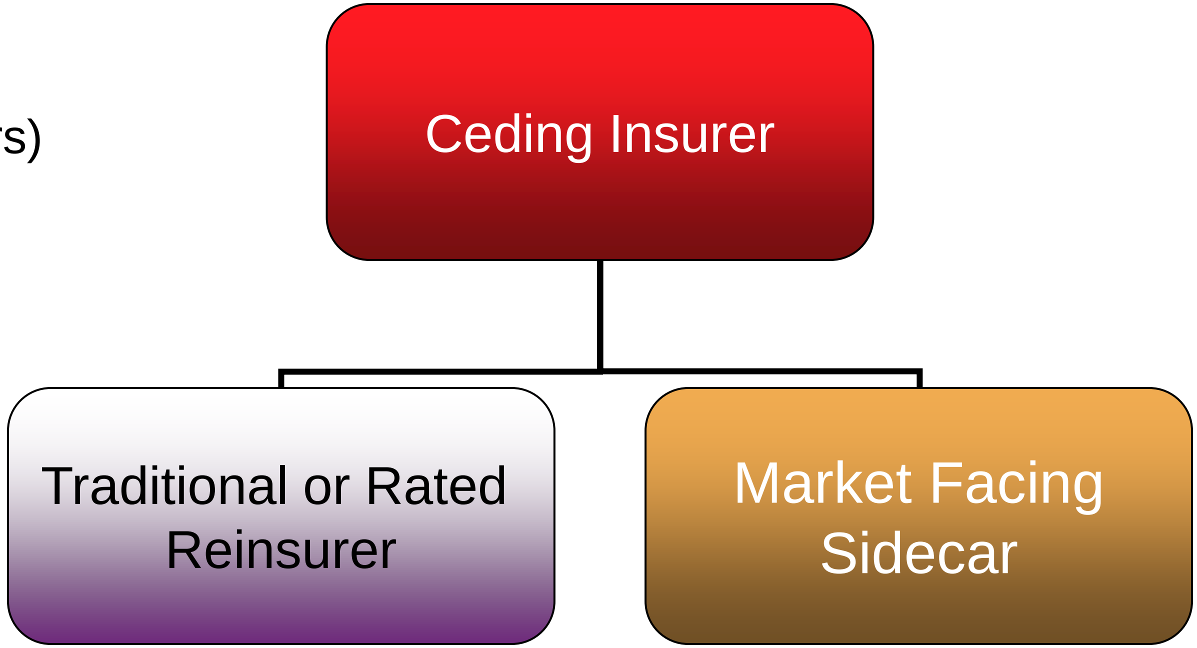
Traditionally sidecars took a proportionate share of the Traditional Reinsurer's catastrophe book via a collateralized quota share

This ensured the Traditional Reinsurer's interests were aligned with the investors in the sidecar



# Traditional Reinsurer Management of Third Party Capital

Now several sidecars are reinsuring the clients directly (a.k.a. Market facing sidecars)




However, investors in the market facing sidecar need to ensure that there is no adverse selection to the business placed directly in the sidecar

# Traditional Reinsurer Management of Third Party Capital

- Biggest issue is determining what business goes into the market facing sidecar vs. traditional reinsurer
- Several approaches are being used (some use more than one)
  - Independent UW decision: Separate underwriters and/or separate management team represents the interests of the sidecar
  - Must meet traditional reinsurer's UW criteria: Sidecar only participates if the traditional reinsurer participates either on the same layer or a lower layer
  - Defined criteria: Sidecar business must meet certain criteria and / or may be mutually exclusive from that placed by traditional reinsurer
  - Linked compensation: Equity stake and/or profitability commissions help keep investor and the traditional reinsurer interests aligned

# Why Are Endurance and Platinum Not Managing Third Party Capital

- Competes with their existing business
- There is no need at this point as the industry is well capitalized and demand is flat
- There are significant start-up costs as you have to invest your own money and establish a 3 year track record before you can attract capital
- There is a potential greater level of legal, operational and reputational risk than their peers realize
  - Managing third party capital structures can potentially create a conflict between these third party structures and the reinsurer's balance sheet

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# Characteristics of Hedge Fund-Backed Reinsurers

| | Greenlight Re | Third Point Re* | PaCRe | Hamilton Re | Watford Re |
|---|---|---|---|---|---|
| **Inception** | 2004 | 2011 | 2011 | 2012 | 2014 |
| **A.M. Best Financial Strength Rating** | A | A- | A- | A- | A- |
| **Capital (USD)** | 1.1B at 12/31/13 | 1.5B at 12/31/13 | 553M at 12/31/13 | 792M at 12/31/13 | 1.1B at 3/31/14 |
| **Premium (Estimated/Actual)** | 533M | 392M | 12M | 90M | 342M |
| **U/W Leverage** | 0.49 | 0.26 | 0.02 | 0.11 | 0.31 |
| **Type of Reinsurance** | High Frequency, Low Severity | High Frequency, Low Severity | Low Frequency, High Severity | Mixed | Limited High Severity |
| **Separate Underwriting** | Yes | Yes | No - Validus | Yes | No - Arch |
| **Investments** | Traditional Hedge Fund | Traditional Hedge Fund | Traditional Hedge Fund | Beta Neutral | Non-Investment Grade Fixed Income |
| **Public Entity** | Yes | Yes | No | Not yet | Not yet |

* Note: Low frequency / high severity business being written in a sidecar

# Motivations for Hedge Funds & Traditional Reinsurers

| **Hedge Fund Motivations** | **Reinsurer Motivations** |
|---|---|
| Fees from managing the assets | Fee income for UW & services |
| Profits from reinsurance business | Profit commission on UW results |
| Uncorrelated to other investments | Return on invested equity |
| Tax benefits: Investment compounds tax free offshore and then is taxed as long term capital gains (e.g. 15%) as opposed to ordinary income or short-term capital gains (e.g. 35%) | Limited appetite for some of this business<br>- Limits concentration risk (net PMLs)<br>- Does not require additional capital<br>- Larger lines can now be offered |
| Access to high quality reinsurance operations | Infrastructure already exists |
| Going public will provide liquidity | Deal flow already exists |

## Hedge Fund-Backed Reinsurers

- If the Hedge Fund-Backed reinsurers can generate the return on investments that they expect, they can underwrite business with lower margins
- Traditional reinsurers will have difficulty competing
  - Higher capital requirements
  - Higher expense structures
  - Lower investment returns
- Third party capital is no longer limited to property catastrophe single limit transactions
  - Some Hedge Fund-Backed reinsurers are actively writing casualty business
- The level of investment disclosures and the sophistication of the Hedge Fund investment strategies make the analysis of investment risk extremely difficult for regulators and equity analysts

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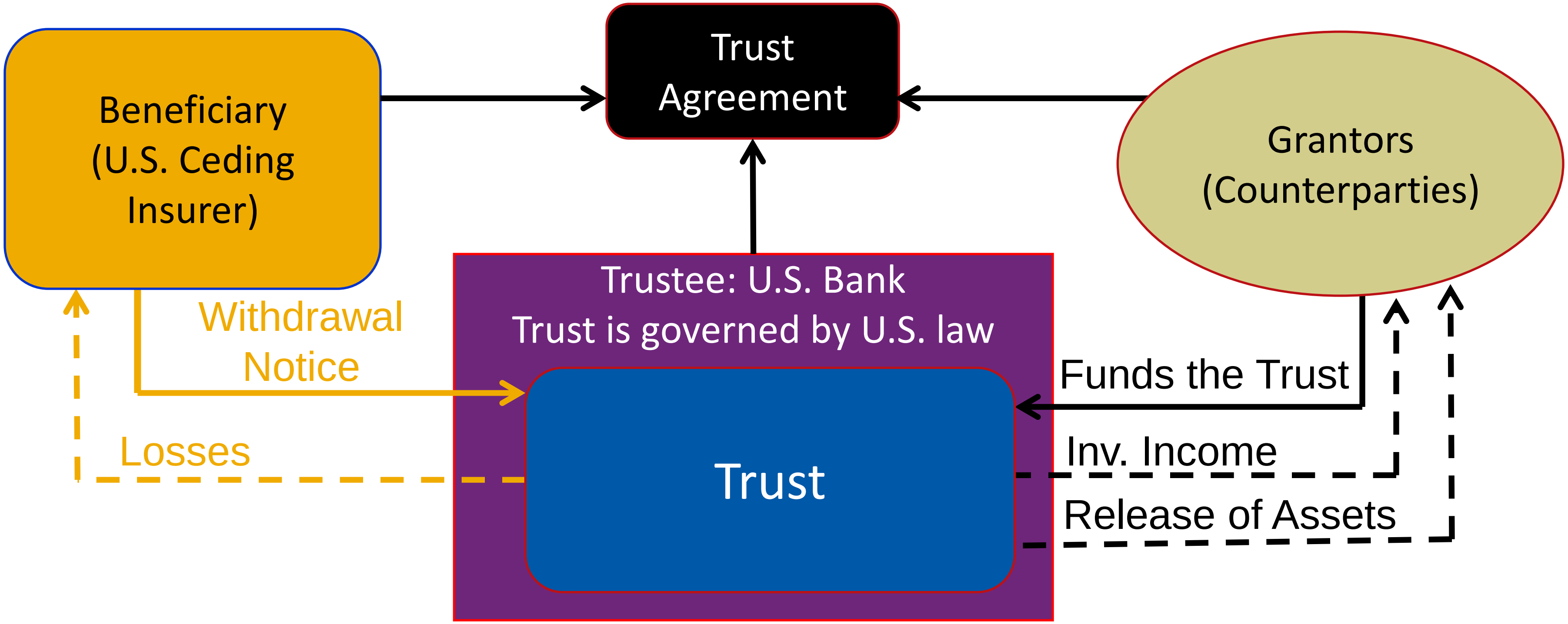
# Collateral Funding – Trust Agreement

- Most collateralized reinsurers use trusts to collateralize their exposure
  - Letters of Credit may also be used, but they are typically more expensive
  - For U.S. clients, the trust is typically subject to U.S. law (e.g. New York)
- Trusts should be similar to a single beneficiary 114 trust used to support traditional reinsurance agreements
  - Only major difference should be permitted assets
  - Some reinsurers have modified the trust terms and conditions
- Any investment income from the trust accrues to the benefit of the grantors and not the beneficiary

# Trust Agreement for Collateralized Re Transaction (U.S. Ceding Insurer)




Typical Permitted Trust Assets

- Cash
- U.S. treasury obligations
- U.S. Gov't agency obligations
- Money Market Accounts (U.S. treasuries and/or U.S. Gov't agency)

# Collateral Funding – Trust Agreement

- Negotiations over the trust terms and conditions may be time consuming
- In some cases, ceding insurers have not given the trust agreement the same level of importance as the reinsurance contract
  - In some cases, trust agreements are not finalized and executed by the reinsurance contract inception
  - This leaves ceding insurers exposed
  - Technically, this violates the Bermuda regulations
- Aon Benfield recommends that trust agreements are executed at least 5 days prior to reinsurance contract inception
  - This allows time for the reinsurer to set up the trust with the bank and the trust to be funded

# Collateral Release – Buffer Loss Factor Table

- Most agreements do not provide for the immediate release of collateral at the expiration of the reinsurance contract
  - Ceding insurers may need a few days/weeks to determine if there are any loss events under the reinsurance agreement
- If there are loss events under the reinsurance agreement, the collateral release is typically governed by a Buffer Loss Factor Table
  - Outlines when the collateral can be released from the trust
  - Provides a buffer (additional amount) above the loss amount; which is gradually reduced over time

# Collateral Release – Buffer Loss Factor Table

| Months Since Date of Occurrence | Windstorm | Earthquake |
|---|---|---|
| 0 to 3 | 150% | 200% |
| > 3 to 6 | 125% | 150% |
| > 6 to 9 | 110% | 125% |
| Thereafter | 100% | 100% |

# Collateral Release – Buffer Loss Factor Table

- Reinsurance contract period: January 1, 2013 – December 31, 2013
- Reinsurance is 10M X/S 10M (10M is collateralized limit)
- 12M hurricane loss occurs on November 15, 2013 (Loss to reinsurer is 2M)

| Months Since Date of Occurrence | Windstorm | Period | Amount Held |
|---|---|---|---|
| Limit Held | | 1/1/13 – 12/31/13 | 10,000,000 |
| 0 to 3 | 150% | 1/1/14 – 2/28/14 | 3,000,000 |
| > 3 to 6 | 125% | 3/1/14 – 5/31/14 | 2,500,000 |
| > 6 to 9 | 110% | 6/1/14 – 8/31/14 | 2,200,000 |
| Thereafter | 100% | 9/1/14 & Subsequent | 2,000,000 |

- Full collateral is held through the contract period (unless reduced by losses)
- On Dec. 31, ceding insurer may have 10 days to calculate the buffer
- Collateral is released when calculation is submitted to reinsurer / Trustee
- Additional buffer calculations & release follow the schedule above

# Collateral Release Risk

- Many collateralized reinsurers add accelerated collateral release terms into the reinsurance contract
  - *Notwithstanding the aforementioned, at December 31, 2014, the Reinsurer and the Company agree to consider the release of collateral. The intention is to release collateral for all limits for which there is essentially no possibility of loss from past or future loss occurrences before the expiration of this Contract. All collateral securing what the Reinsurer and the Company agree are unreachable limits will be released within three business days*

    *OR*

  - *On the expiration of this Agreement, if the Company believes that no Loss Occurrence has occurred that may result in a claim hereunder, the Company agrees to release the collateral as soon as practicable*
- Some collateralized markets request early release of collateral regardless of what is in the contract
  - "It's December 1st and it appears we are through hurricane season with no losses. Can you release the collateral at this time?"

# Coverages May Differ Significantly

- The coverages offered by collateralized reinsurers may differ significantly from traditional placements, even on single limit, natural catastrophe reinsurance contracts
- Limited Claims Development Period
  - Once assets are released from the trust, the counterparty's liabilities are reduced / extinguished (assets are never reposted to the trust)
  - Mandatory commutations or commutations at the option of the reinsurer also serve to limit the claims development period
- Unlimited Claims Development Period
  - Releasing the assets from the trust does not extinguish the counterparty's liabilities
  - However, once collateral has been released, it may be returned to investors or committed to other transactions, therefore the funds may no longer be available in the Class 3 insurer, Special Purpose Insurer, or Segregated Account

# What Coverage Are You Buying?

<u>Unlimited Claims Development</u>

- Contract states that assets may be reposted to the trust
- Releasing assets from the trust does not extinguish the counterparties' liabilities

Contract is silent with respect to whether assets will be reposted to the trust or whether the liabilities are extinguished once assets are released from the trust

Once assets are released from the trust, they may be returned to investors or committed to other transactions, therefore, the counterparties may have insufficient resources to repost assets to the trust (permanently or at least initially)

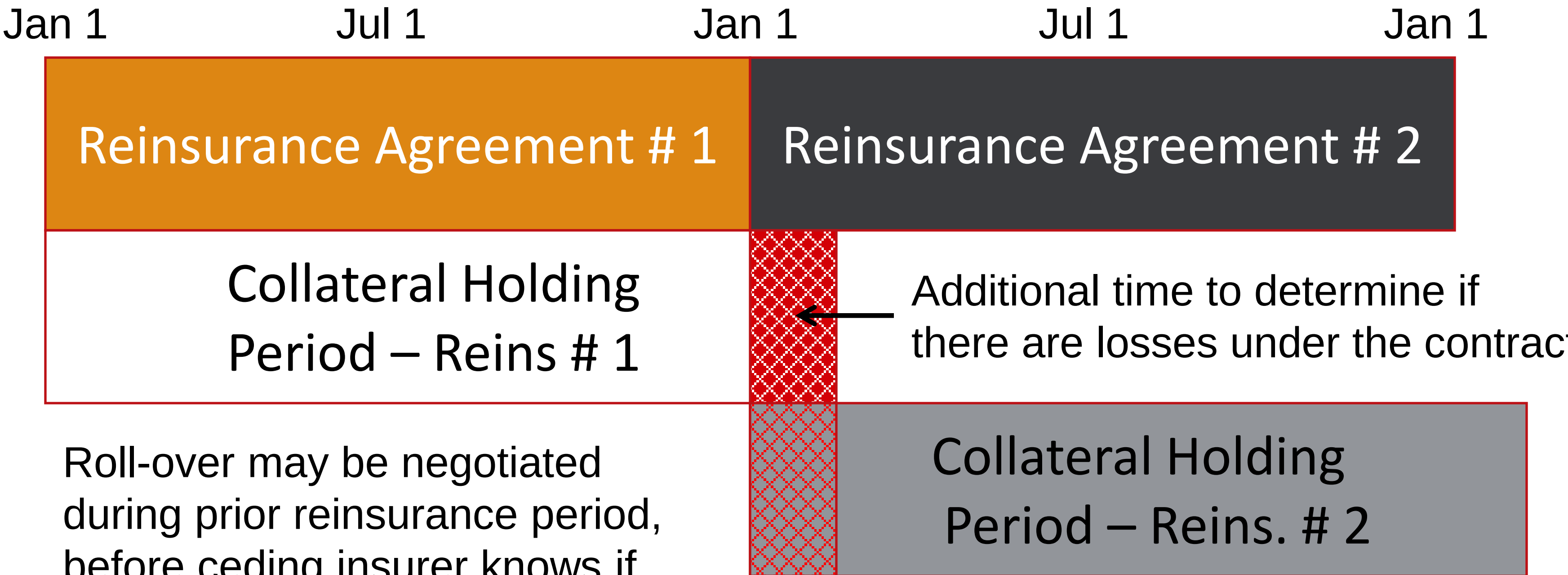
<u>Limited Claims Development</u>

- Contract states that once assets are released from the trust, the liabilities are extinguished
- Commutations also limit the claims development period

# Claims Development Period: Options for Ceding Insurers

- The first step is to educate the ceding insurer that coverages offered may not be the same
- The limited claims development period may be appropriate for some types of perils (e.g. Florida wind), but not for others
- Ceding insurers may want to shop for collateralized reinsurance agreements where there is not a limited claims development period
- Ceding insurers may want to consider using a fronting carrier to avoid this issue

# Collateral Trust Roll-Over




Roll-over may be negotiated during prior reinsurance period, before ceding insurer knows if there are any losses under the contract

Until the trust is rolled-over, there is no coverage for the new reinsurance period
At some point, when the trust is rolled-over, the ceding insurer no longer has collateral for the prior period

# Collateral Trust Roll-Over

- Roll-over of the trust has been an accommodation to the alternative market
  - Ceding insurers would not view it as extinguishing coverage
- Potential solutions
  - Best practices: Ceding insurers should not agree to a trust roll-over (at least for some perils / contracts)
  - Additional collateral: Collateralized reinsurer must provide collateral (e.g. Letter of Credit) in the short term for both the expiring contract (according to the collateral release provision) and full collateral for the new contract
  - Contractual: Collateralized reinsurer agrees contractually that roll-over of trust without commutation does not extinguish liability and additional collateral will be posted to the trust as needed

# Advantages & Disadvantages of Fronting Carriers

## Advantages

- Fronting carriers are typically highly rated companies, tracked by regulators, investors and other stakeholders
- Reinstateable limits are easily accommodated
- Claims development period is not limited (fronting carrier assumes the tail risk)
- Eliminates the need to negotiate the trust agreement and other clauses unique to collateralized reinsurance transactions

## Disadvantages

- Exposes ceding insurers to the credit risk of the fronting carrier
- May increase the cost of the reinsurance

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# Summary & Conclusion

- Collateralized reinsurers are a viable alternative to traditional reinsurers for some types of reinsurance
- Due to the sophistication of the parties involved, collateralized reinsurance risk bearing entities are lightly regulated and may have little to no assets beyond what has been allocated to the trust
- The coverages offered by collateralized reinsurers may not be the same as coverages offered by traditional reinsurers or other collateralized reinsurers
- The collateral release provisions are negotiable and should be suitable for the business being reinsured
- The trust agreement should be finalized and the trust should be funded prior to the reinsurance contract inception
- Trust rollovers may limit the assets available to pay claims
- The use of fronting carriers eliminates the need to negotiate the trust agreement and other clauses unique to collateralized reinsurance transactions and typically provides coverages similar to that of a traditional reinsurer
- Aon Benfield has experts to assist with collateralized reinsurance transactions

# Contacts

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