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Capital and Regulatory Requirements for Captive Insurers: a Western Hemisphere Perspective

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Quick captives overview

- A captive is a special purpose insurance company formed primarily to write the risks of its parent or third party risks that are somehow affiliated with the parent
- May be organized under the domicile's regular insurance laws – or not
- Usually regulation is more limited in exchange for limitation on what risks the captive may write

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Quick captives overview

- In its simplest form: a “pure” captive
  - Corporation with one or more subsidiaries sets up an insurance subsidiary – the captive
  - Domiciled and capitalized in a jurisdiction that allows for captive insurance companies
  - Captive underwrites risks of its parent and/or sister companies: collects premiums, pays claims, earns investment income on its capital and reserves

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Why go to all the trouble?

- Unavailability of coverage
- Coverage that is too expensive
- Coverage doesn’t meet the insured’s needs
- Premium rates that don’t reflect the insured’s risk profile
- Inflexible policies or terms
- Taxes: it’s always about taxes

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Pure captives

- At its core, a pure captive is a risk financing vehicle
  - More risk management control than traditional insurance can lead to lower total losses
  - More financial control, but little if any transfer of risk away from the corporation
    - Avoids paying a carrier to trade $$
    - Can create significant earnings volatility
  - Custom-tailored coverages allow for financing of otherwise uninsured risks

Western hemisphere domiciles: offshore

- Bermuda
  - Oldest and most sophisticated
  - Excellent captive administration industry
  - Favorite domicile for multi-nationals with complicated risk profiles
- Cayman Islands and Barbados
  - Some regulatory arbitrage: lower initial capital requirements than Bermuda, less regulation
- Solvency II not expected to affect single parent captives
- US tax advantage for offshore captives is almost entirely gone

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Western hemisphere domiciles: domestic

- Canadian provinces (principally British Columbia)
  - Favorable tax treatment for Canadian risks
  - Allows Canadian parent to write some statutory covers
- US States
  - 20+ have captive legislation; significant competition among the States
    - Capital requirements
    - Legal forms allowed
    - Premium taxes
    - Regulatory atmosphere
  - Almost exclusively US risks

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Single parent captives: capitalization

- Objective: risk financing for exposures that would otherwise be retained
- Corporate risk appetite and captive risk appetite may not be the same
  - Parent should have more than sufficient financial solidity to retain the risk
  - Captive regulatory structure requires capital *within the captive* to support the risk
    - Creates a natural tension: should the captive carry more than the minimum when the parent could always infuse more capital (or shut the captive down and retain the risk)?
    - Likely that asset returns in the captive are minimal

Single parent captives: capitalization

- Most US-based single parent captives are relatively thinly capitalized
  - *However,* must be sufficiently capitalized that there is risk transfer: if almost any adverse experience will exceed the capital, then the US Internal Rev Service will not allow reserves to be deducted on income taxes
  - *Frequently* targeted at the 90% to 95% outcome for losses with no provision for operational risk and possibly none for asset risk (although assets tend to be very conservatively invested)
  - I have seen at least one example where a corporation chose to do a loss portfolio transfer from its statutory insurance subsidiary to a captive precisely to avoid US risk based capital requirements

Exception: Canadian multi-nationals

- Canada imposes a significant tax on repatriated profits
  - Strong incentive to keep money out of Canada as long as possible
- Island captives (Bermuda, Barbados, Cayman)
  - Write non-Canadian exposures and some Canadian at a profit and build surplus
  - Rates must be competitively justified: market competitive or experience-based
  - Surplus must be supported by insurance risk

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Canadian multi-nationals

- Typical exposures written
  - Anything US-based: auto, other liability, workers compensation, health
    - Sometimes reinsuring a US-domiciled captive
  - Canadian and worldwide property and liability
    - Often for high limits and at high attachments
  - More esoteric risks: trade credit, business interruption, marine cargo, key man life, product recall

Canadian multi-nationals: capital modeling

- Risk appetite in business practices is relatively high
  - Hard to quantify exposures
  - High attachments and limits
- Target: maximize justifiable asset retention
  - Build reserves for longer term exposures (such as US workers compensation)
  - Select a high surplus target (e.g. 99.995% of modeled outcomes)
  - Include a provision for operational risk

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Straying a bit off target: What can go wrong?

- Canadian multi-national in oil & gas exploration with worldwide exposures
- Bermuda captive writes property & nat cat cover on all locations (without much consultation with the business units)
  - Objective is to finance future property losses, manage tracking of exposures
  - Smooths earnings for operating units compared to self-insurance
  - Market competitive rates adjusted for lower expense/profit ratios than in the commercial market
  - E.g. about C$2,000,000 for C$100,000,000 limits

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Straying a bit off target: What can go wrong?

- C$100,000,000 loss in the UK
- Risk manager initially delighted to report that there is coverage, Bermuda will pay the loss in full, everyone should agree this is a risk management win
- Except it’s not. UK’s petroleum revenue tax is 81%, and it’s ring-fenced from offsets by other corporate losses

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Straying a bit off target: What can go wrong?

- Without the captive insurance, UK subsidiary would have had a C$100,000,000 loss, and consolidated corporate would show C$100,000,000 loss
- With the captive insurance, expectation was that UK subsidiary would have an expense of $C2,000,000 and Bermuda a net loss of C$98,000,000: no change to consolidated corporate, but better financing and risk management

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Straying a bit off target: What can go wrong?

- Actual result:
  - Captive has a C$98,000,000 loss
  - UK unit has a C$2,000,000 expense and a C$100,000,000 recovery, so a net C$98,000,000 increase in the UK unit's profits, taxed at 81% = C$79,380,000
  - So on a consolidated basis, the corporation not only paid the C$100,000,000 loss, it also paid C$79,380,000 in taxes on the loss
- Surprisingly, the risk manager did not lose his job

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Some other types of captives

- Multiple owner or association captives
  - Formed by unrelated companies that have some tie other than the captive – such as in the same industry
    - Some function as a mutual insurer: all of the insureds may also be owners
    - US federal risk retention group legislation takes some of the regulation away from the States.

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Risk retention groups

- Formed by unrelated entities in the same industry to share risk
  - Created during the 1980's liability insurance crisis when commercial coverage was simply not available
  - Not subject to State regulation but also not covered by State guarantee funds
- Effectively lightly-regulated mutual insurers
  - Subject to NAIC RBC requirements
- Pitfalls: all of the member/owners need to have a common objective to stay for the long haul
  - Can be very hard to sustain during a prolonged soft market
  - "We can always identify another stupid insurer"
- Individual capital accounts: available for all when needed, but what to do when a large member chooses to leave and wants to withdraw its capital?

Some other types of captives

- Profit sharing captives formed by insurance agents
  - Agency captives: reinsures part of the risk written by a licensed carrier through the agency. Allows agency to share in the profits (sometimes the losses as well)
  - Association captives or risk retention groups formed and managed through the agency. Usually a really good deal for the agency.

Risk retention groups and insurance agents

- There is a natural conflict of interest
  - Agency expects to received compensation to manage the captive as well as commissions on the premiums
  - Agency owner understands the risk far better than the insureds (although probably not as well as he thinks he does)
  - Risk retention groups can offer tailored coverages, often at very competitive rates
  - But RRGs are outside the State insurance guarantee fund – so policyholders are taking on the insolvency risk

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Some other types of captives

- Micro captives: formed by very small corporations or individuals to take advantage of favorable insurance taxation
- Wealth transfer captives: formed by the heirs of a closely-held corporation to write its risks - transferring wealth to the heirs via profits

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Wealth transfer captive example: how much surplus is enough?

- Closely held corporation that would normally retain substantial risk
  - Currently owned by the company founder’s daughters and managed by three of the five grandchildren
- Operating units purchase ground up coverage from ABC insurance company, an offshore captive owned by all of the grandchildren
  - Rates targeted to cover losses at the 65th percentile of the loss distribution (a healthy risk margin)
  - Rates are substantially lower than the commercial market, but higher than the cost would be to the operating units to just retain the risk
  - So the risk retention savings are shared between the operating units and the grandchildren

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Wealth transfer captive example: how much capital is enough?

- ABC started with $100,000 in capital and has grown over 25 years to $300 million in assets including about $150 million in surplus
  - Board believes that there is room for dividends to be paid, and asked us to help develop a dividend policy.
  - The captive has been paying experience dividends
  - Based on Board consensus, but not grounded in any particular policy

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Surplus

- Like all insurance companies, ABC carries surplus to cover the risk of losses
  - Underwriting results worse than the premiums or the carried reserves
  - Adverse investment results
  - Other types of losses

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How much surplus is enough?

- Depends on the Company's risk appetite:
  - What probability of insolvency is appropriate to the Company's business plan?
  - This is ultimately a decision that can only be made by the Board
- Examples share with the Board
  - Solvency II baseline: probability of ruin in the next 12 months is less than 0.5% (the 99.5%ile)
  - Rating Agencies set approximate expected capital levels to go with their various ratings:
    - BBB about 99.75%, A 99.94%, AA 99.99%
    - AAA at 99.995%

How much surplus is enough?

- *Only the Board of Directors can make this decision*
- Prior discussions told us the ABC Board is *very* risk averse
  - We assumed a target surplus at the AAA rating level
  - Probability of insolvency at 0.005%, or one in 20,000
  - This was the economic capital target selected by the Board after consultation
- Anything extra is “free capital”
  - You can do other things with this – including dividends

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ABC's Risk Exposures

- Underwriting Risk
  - Premiums and Reserves are conservative, but there is still the potential for adverse results
  - We model this consistent with our other actuarial work
- Asset Risk (market risk)
  - ABC's investments are significantly more aggressive than the typical insurer asset mix
  - Significantly offset by a widely diverse portfolio, but assets tend to move together especially at the extremes
  - Uncomplicated modeling based on modeled interest rates and equity returns

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ABC's Risk Exposures

- Operational Risk
  - Risk of loss due to people, process or systems, and outside event risk
    - Includes errors, natural disasters, fraud, etc.
  - Very, very hard to measure, but surplus should include a provision for this risk (a gross up to the modeling)
  - We include a provision for these risks based on a percentage of revenue
    - Probably way overstates the actual exposure for ABC

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Other Risk Exposures

- Credit Risk (risk of bond default)
  - To some extent, this is included in the provision for market risk
  - We have not included an explicit provision in the surplus calculations because of the diversification in ABC's portfolio
- Liquidity Risk
  - Due to the very long nature of ABC's obligations and the relative liquidity of the assets, we have not considered this risk to be material

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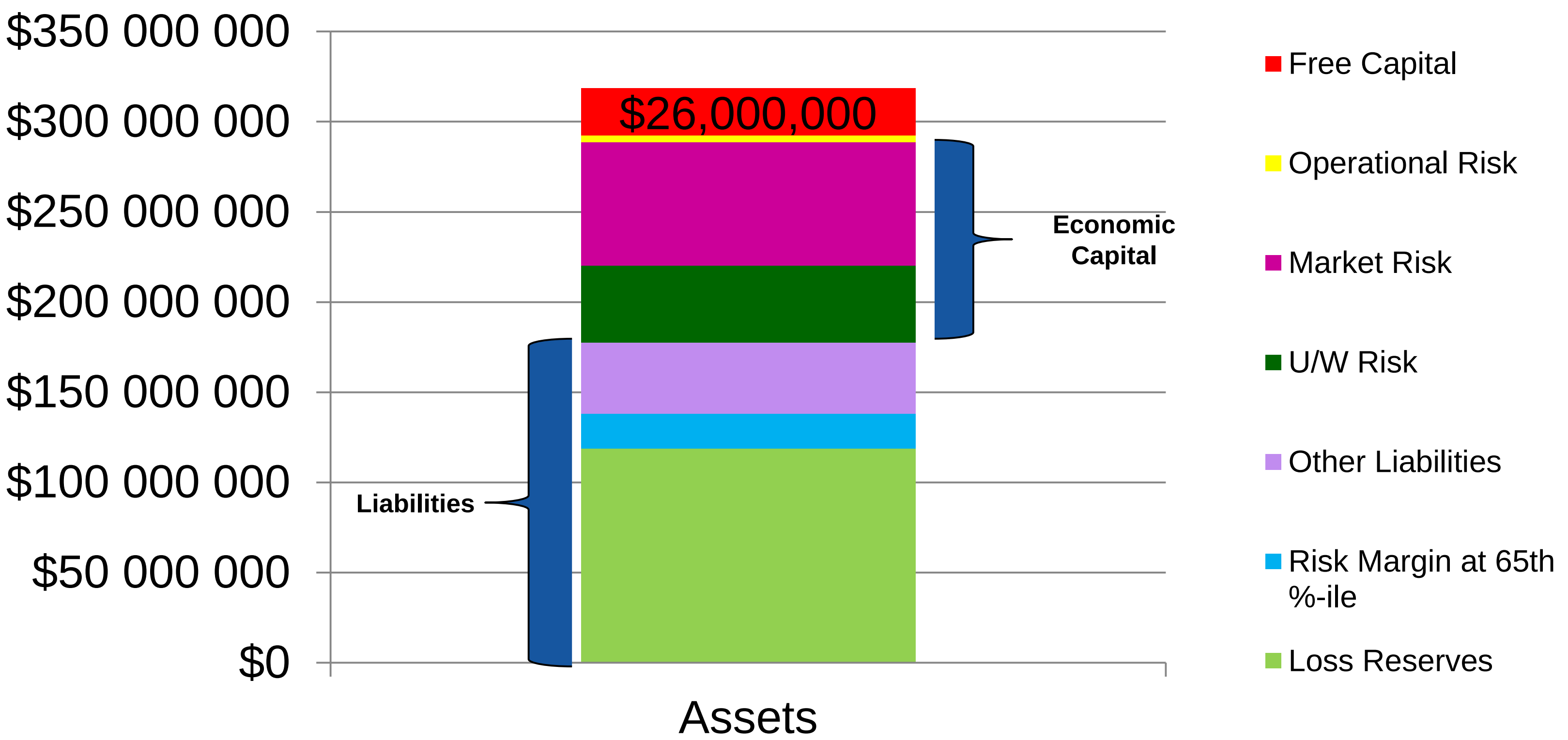
Breakdown of Assets before Diversification



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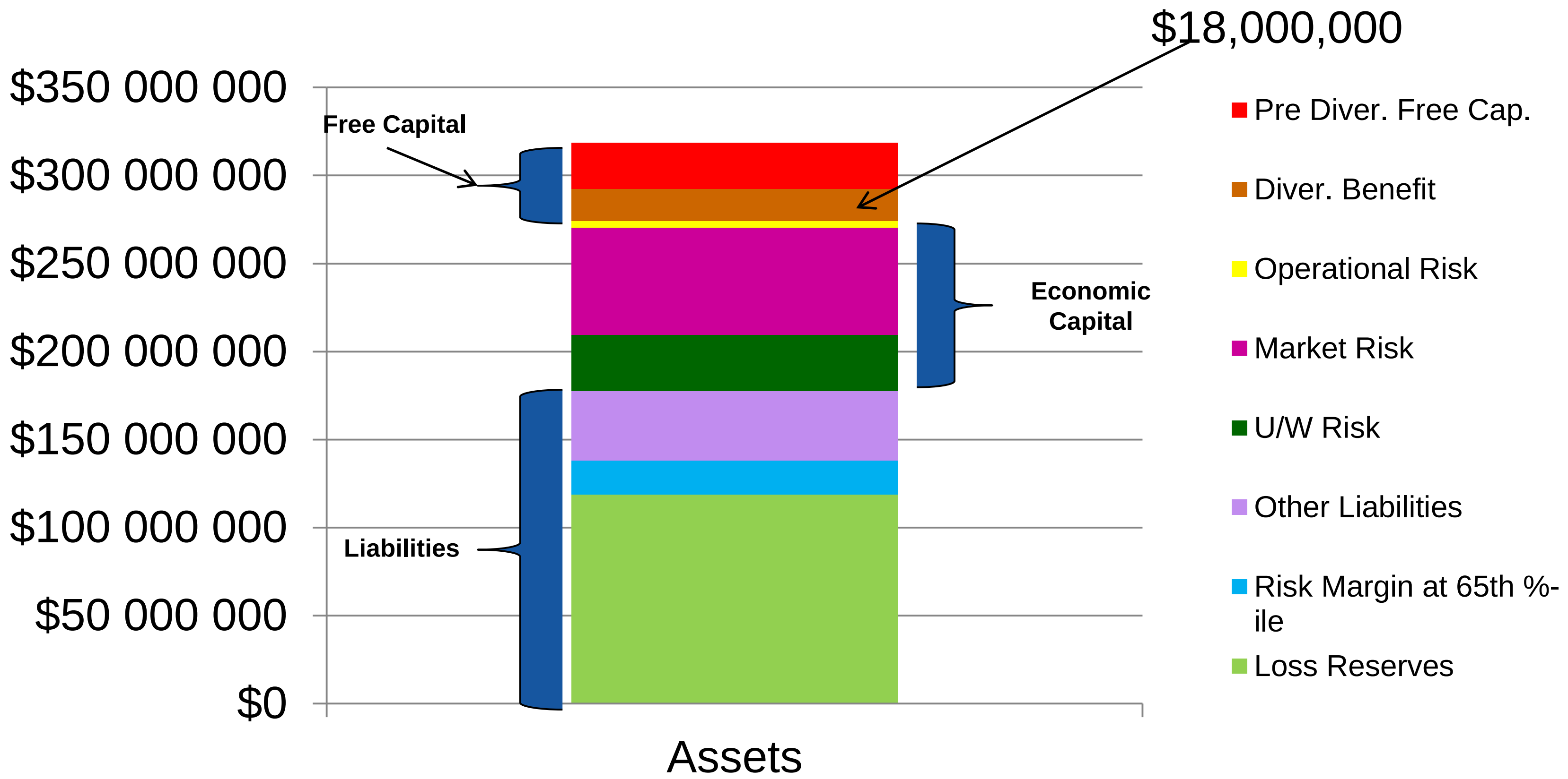

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Economic and Free Capital

- Economic Capital (on top of reserves at the 65th percentile) = \$97,000,000
- Free Capital = \$44,000,000
  - Potential uses within the Company: e.g. expand the underwriting portfolio, invest in different assets, or other ventures
  - Outside the Company: draw down the free capital over a short or long period of time and allow the owners to use as they see fit (e.g. through dividends)

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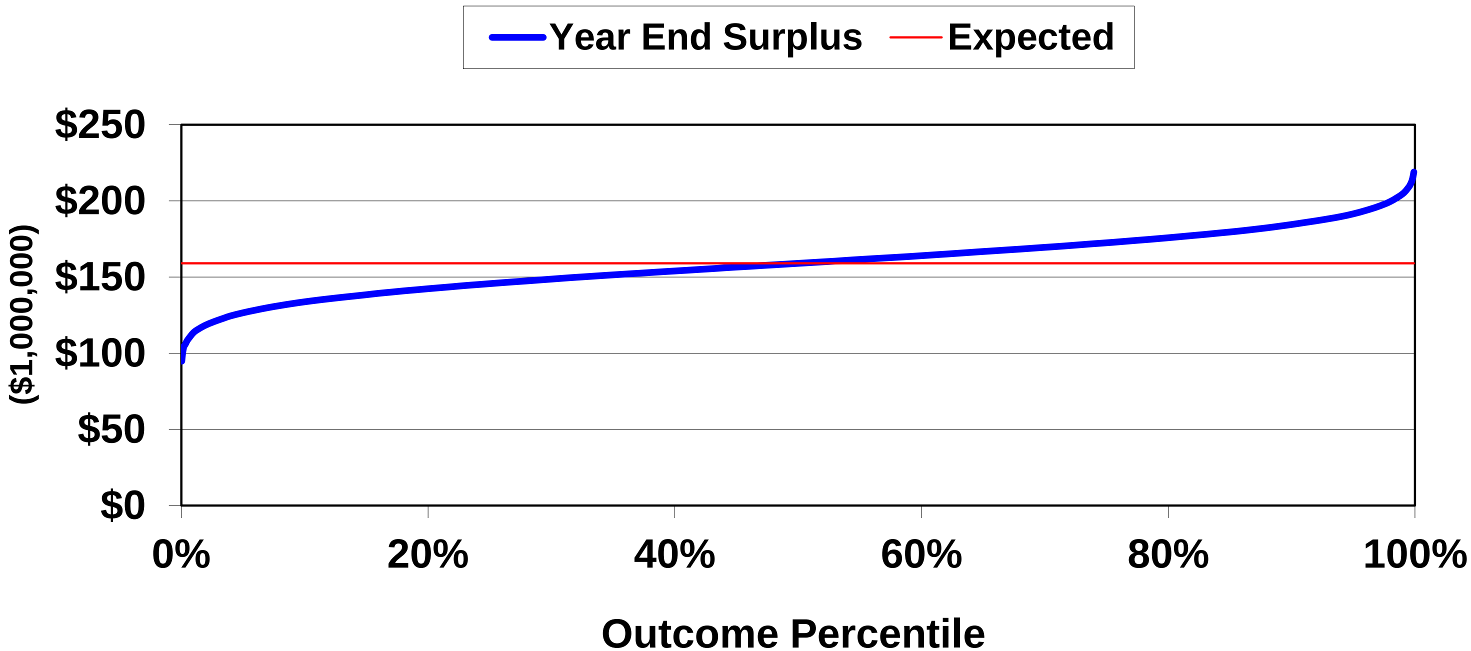
One Year Surplus Range of Outcomes



Using Free Capital within the Captive

- Expanding the underwriting portfolio: Which choices make sense?
- Internal benchmark is the expected underwriting return on economic capital
  - Takes both riskiness of the business and risk appetite of the company into consideration
  - Without penalizing lines of business for free capital

Using Free Capital within the Captive

- New exposures should meet the same expected return on economic cap hurdle
  - Higher limits or new lines of business
- Economic capital required for new business set at risk appetite percentile
  - Usually ignores diversification benefit, but could be incorporated
    - But: Don’t assign all of the diversification benefit to the new exposure!

Using free capital inside/outside the captive

- Ultimately, ABC's Board elected to use the free capital to finance sale of ABC to the next generation

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Thank you for inviting me to join you today

Discussion!

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