

Alternative Risk Transfer Methods

Absolutely Positively
Wellington City Council
Me Heke Ki Pōneke

Insurance Roadmap Workshop
6th November 2024

AON

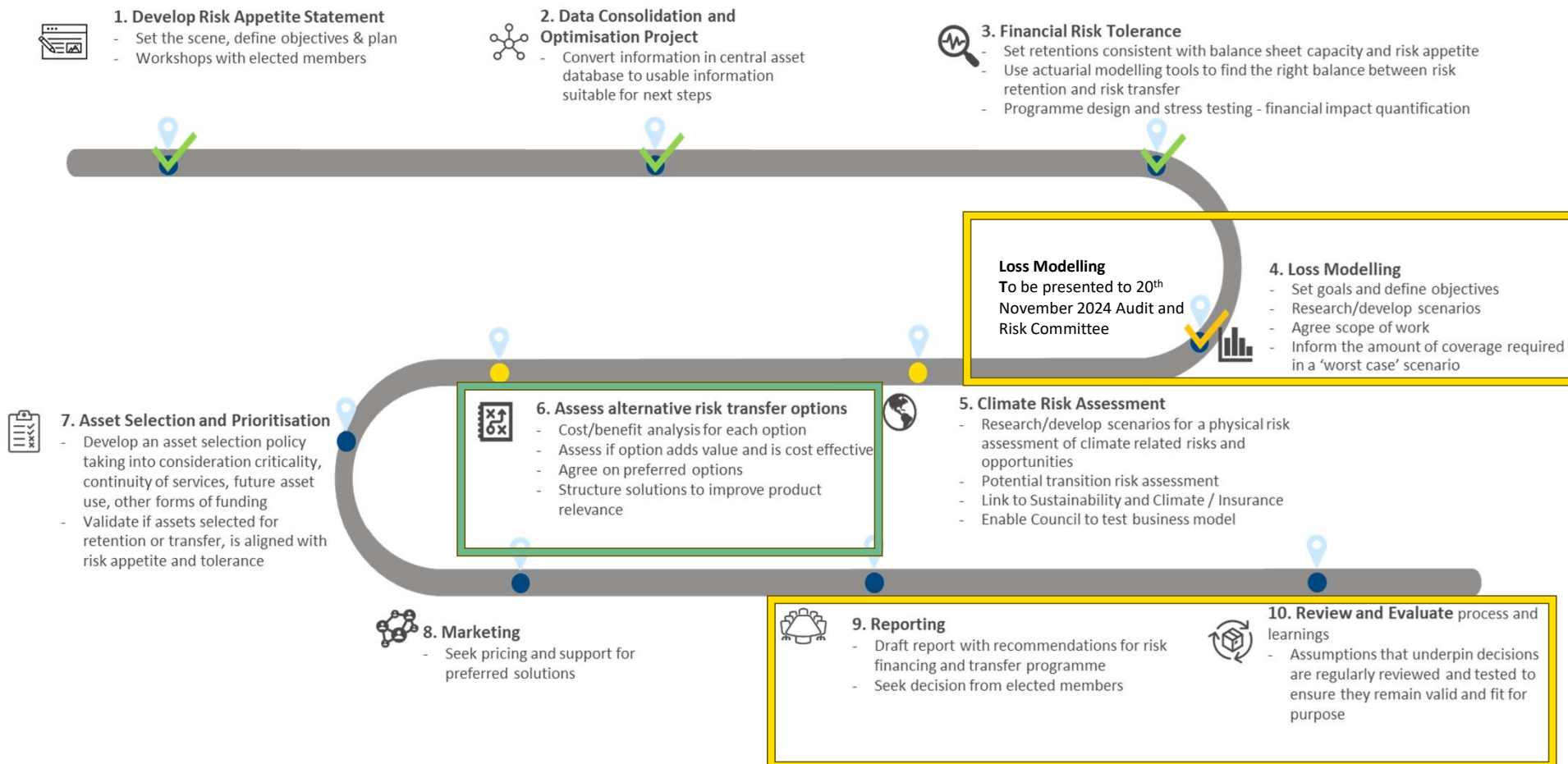
Agenda

- Introduction to team
- Background – how we are travelling along the roadmap
- Captive Insurance – presentation from AON’s Ross Ivey
- Catastrophe Bonds – presentation from AON’s Jordan Brown
- Questions

Insurance Roadmap workstreams include:

- **Governance** – Increase understanding across ELT and Council to support better informed decision making
- **Internal Partnerships** – Partner with other Council teams to deliver mutually beneficial outcomes and provide up to date and fit for purpose guidance
- **Data and Risk Modelling** – Improve the process and analysis used to make insurance or other risk funding purchasing decisions at Council
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Insurance Roadmap



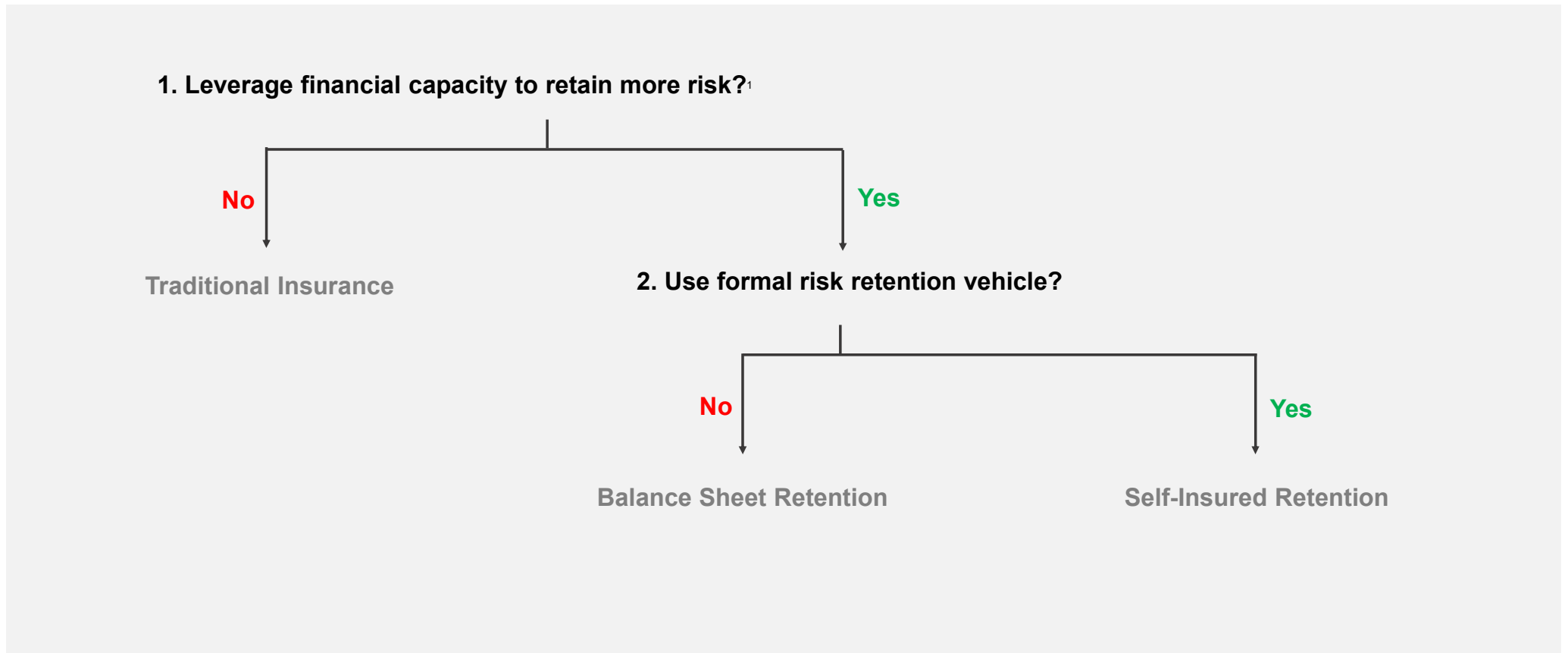
Captive Insurance Insights

Wellington City Council
November 2024

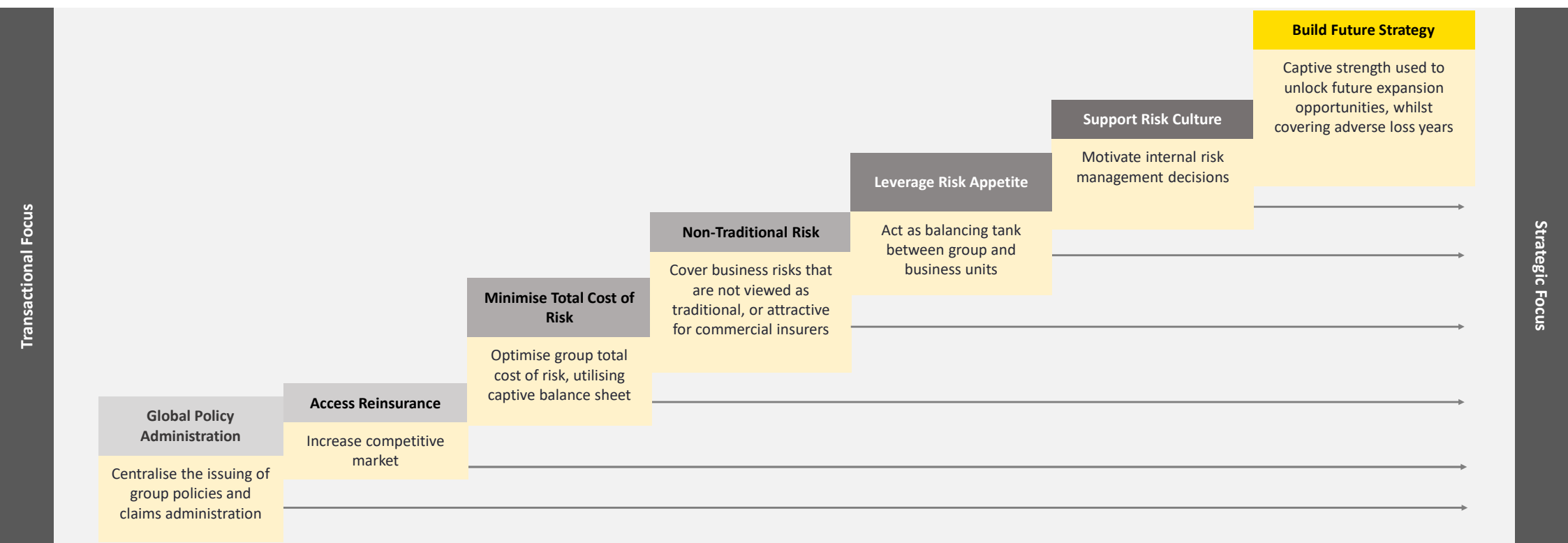


Risk Financing Approach

Wellington City Council Decision Tree



Captive Journey



What is a Captive?

A captive is a bona fide insurance or reinsurance company owned by a non-insurance company parent and which insures or reinsures the risks of its parent and/or affiliated companies. It is similar in principle to a conventional insurance company and usually formed in a specialised regulatory environment (“domicile”).

There are approximately 7,000 captives globally with over half of the Global 1500 companies own at least one captive. Captives have been around since the mid-1960’s and the number of captives have steadily grown amidst fluctuations in insurance market and global merger and acquisition activities.



7,000

Captives globally



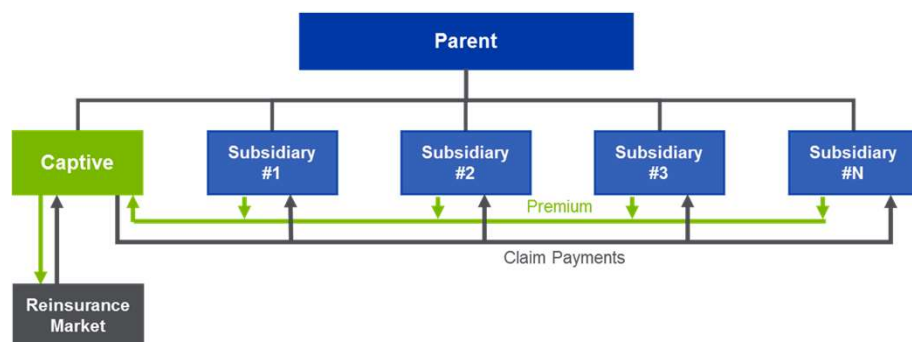
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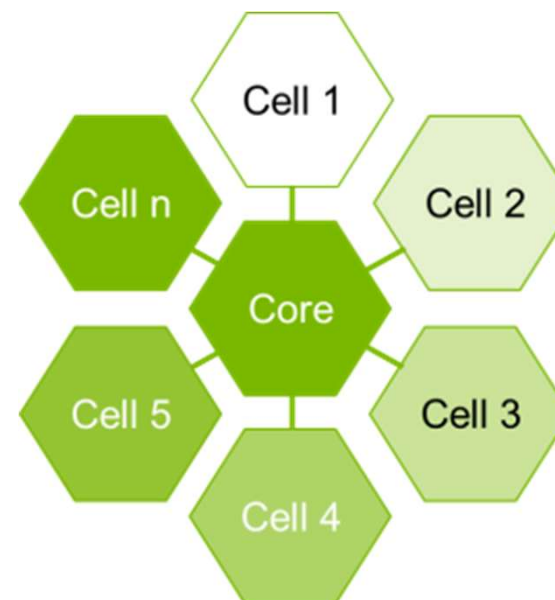
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- All risk co-mingled within one structure
- Can be onshore or offshore
- Minimum Capital : \$150,000 - \$400,000

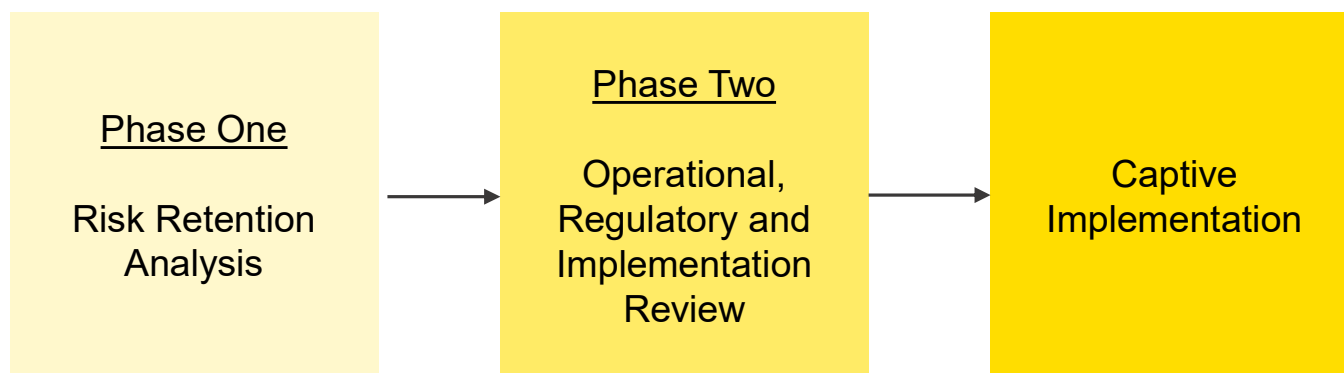


Cell or Series Captive

- Can be a self-owned cell company or “rented” cell
- Risks are fully segregated between cells
- Can be onshore or offshore
- Core capitalised by owner
- Individual cells likely to be fully collateralised



Captive Feasibility Study



Six to eight weeks.

- Establish risk tolerance and appetite
- Loss forecast analysis
- Total cost of insurable risk

Four weeks.

- Domicile and regulatory review
- Governance and management
- Financial projections
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Two to six months dependent on:

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- Domicile
- Urgency of organisation need and speed in completing internal due diligence

Outputs of the feasibility process are used to support regulatory applications for implementing the desired approach.

Phased Approach

Enables the viability of a captive to be tested at each phase.

Phase One focusses on the analytics.

Does financial strength exist?
Does retaining more risk make sense?

Phase Two considers structure options.

Captive, cell or other?

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Phase One Analysis

Finding the Right Balance Between Risk Retention and Transfer

Risk Appetite

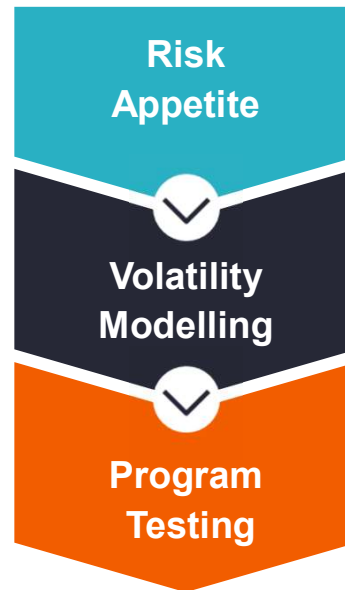
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Program Testing

Tests **alternative program structures** by class and in aggregate to minimise the total cost of risk.



Outcomes and Benefits

- Visibility on available risk transfer options in the market
- Ability to test complex program structures including cross-class aggregates and captive participation
- How insurance portfolios respond to these options
- How each option compares to the risk appetite of the organisation
- Gives a better understanding of risk exposure and current program fit
- Measures the economic benefit of the insurance program under typical and stressed scenarios
- Demonstrates a data-driven approach to decision making

The Four Families of Capital

Expanded Market Access for Captives ²

Direct (Retail) Market

- Transitioning out of hard market conditions
- Return to profit driving competition
- Volatility concerns remain with natural catastrophes or social inflation

WCC purchases its insurance from this market

Facultative Reinsurance

- Typically purchased for single risk
- More opportunistic
- Abundant short tail capacity but more limited on long tail
- Collaborative facultative strategies

Insurance for insurers (including captives / protected cells)

Treaty Reinsurance

- Capacity for a portfolio of risks
- Large unobtrusive capacity
- Requires a “professional” lead direct insurer to set pricing

Alternative Risk Transfer

- Insurance Linked Securities (ILS)
- Cat Bonds
- ILS historically used for insurance companies
- Capital Market

Used by insurers to transfer risk to capital market investors



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Catastrophe Bonds

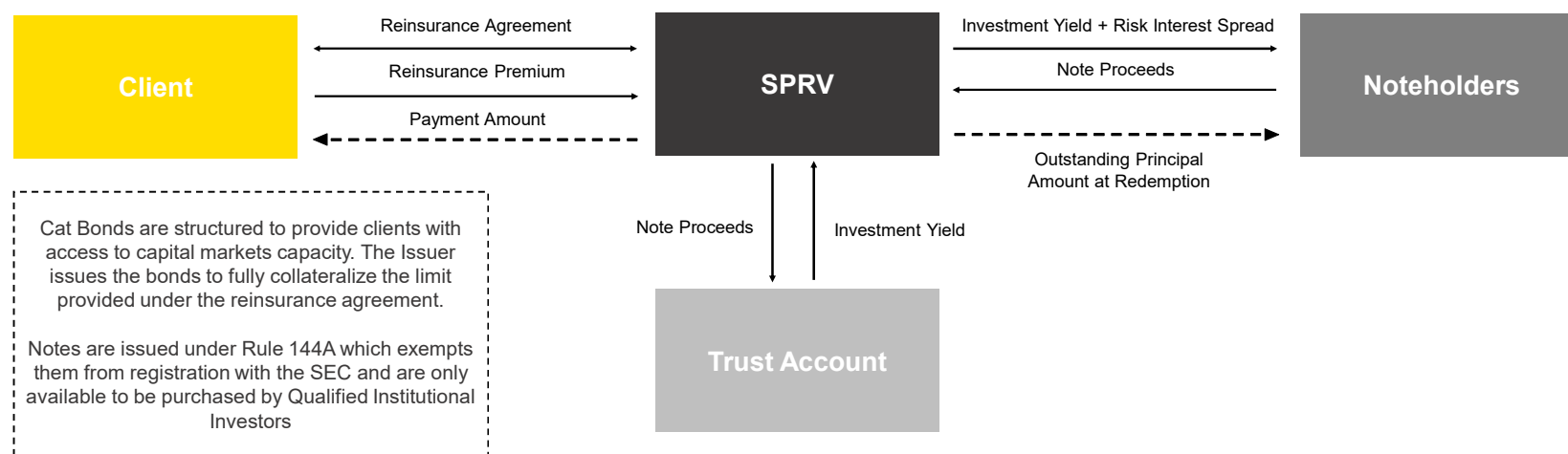
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Cat Bond Schematic³



Strategic Motivations for Accessing Catastrophe Bond Capital

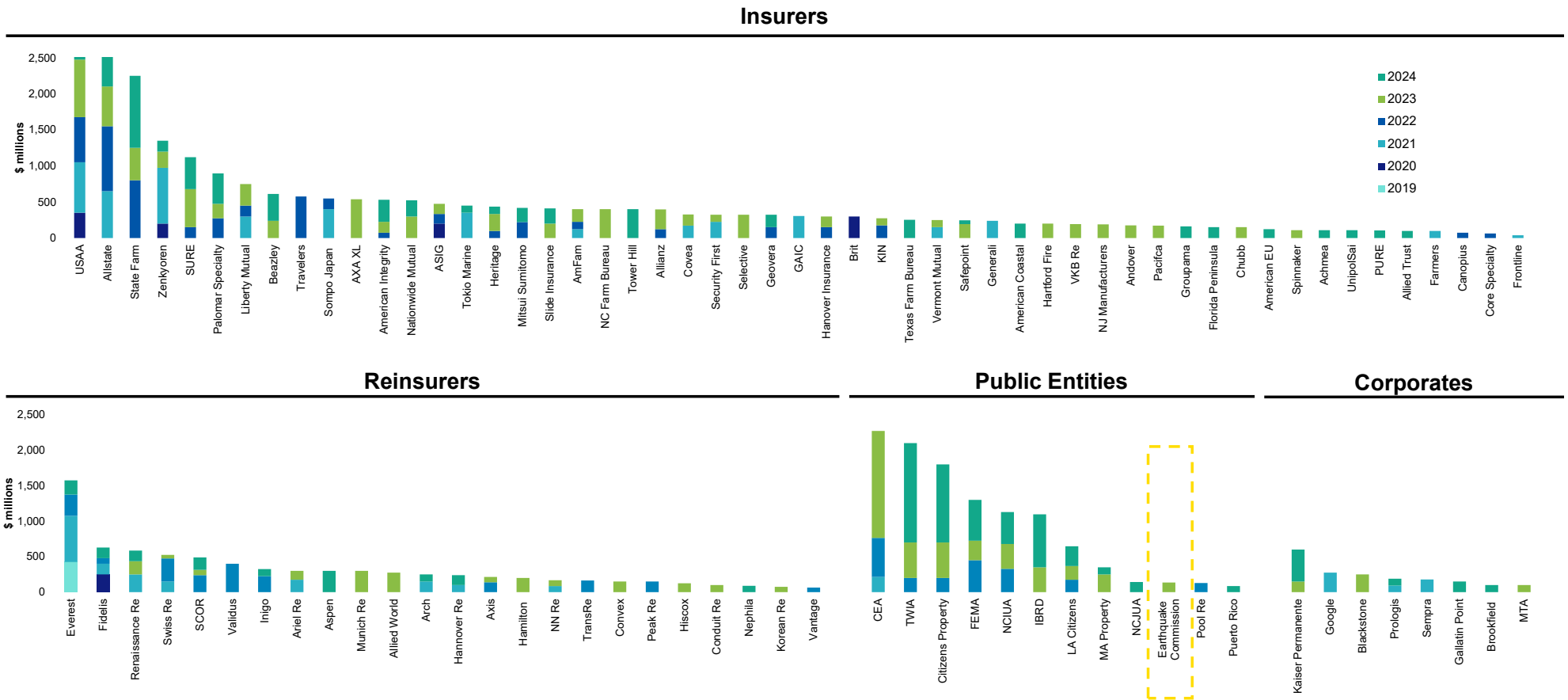
Benefits

- Multi-year fixed-price protection
- Collateralized limit to minimize counter-party credit risk
- Additional / diversifying source of risk transfer capacity
- Creates competition of risk transfer capacity
- Potential to reduce the cost of risk transfer over time
- Ability to use non-indemnity recovery structures
- Effective product to cover uninsured or underinsured risks
- Sustainable source of aggregate capacity
- No requirement to align to traditional renewal date; allows for opportunistic purchases

Considerations

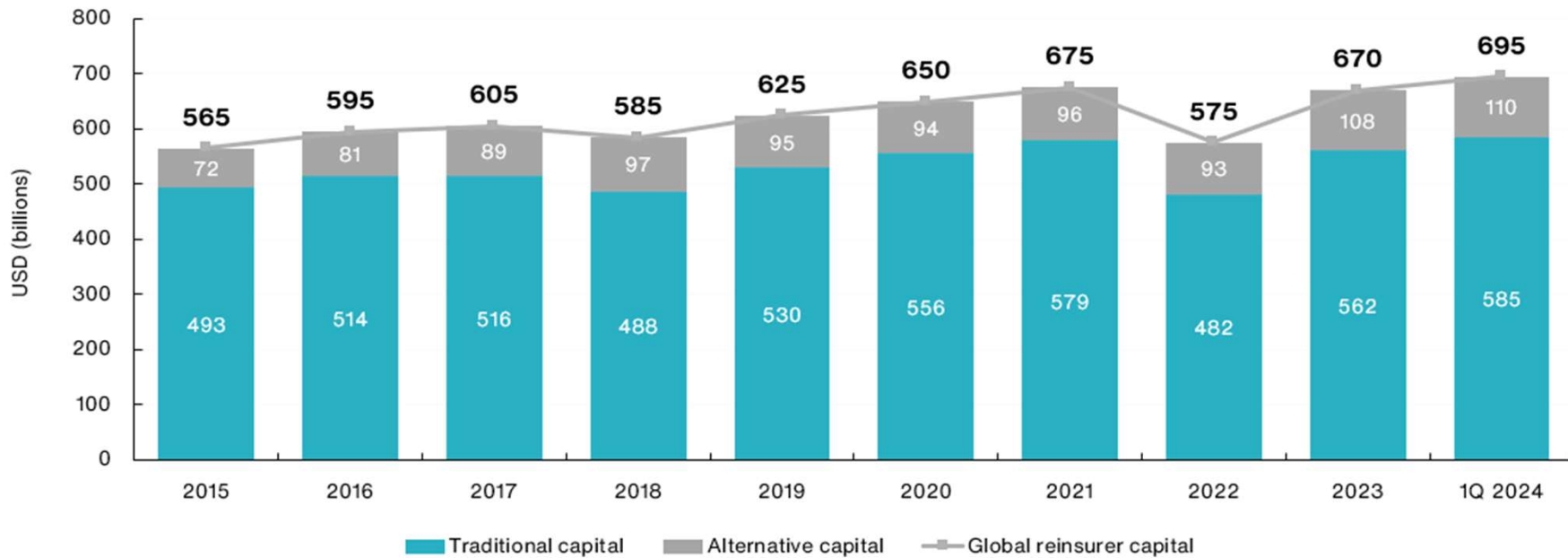
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- Upfront transaction costs
- Legal considerations and documentation
- Strong preference for vendor risk models

Frequent Use by Multiple Cohorts of Clients Including Insurers, Reinsurers, Corporate and Government Entities



Alternative Capital Continues To Grow In Line with Traditional Capital

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- Continued Investment from:
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 - Private Equity
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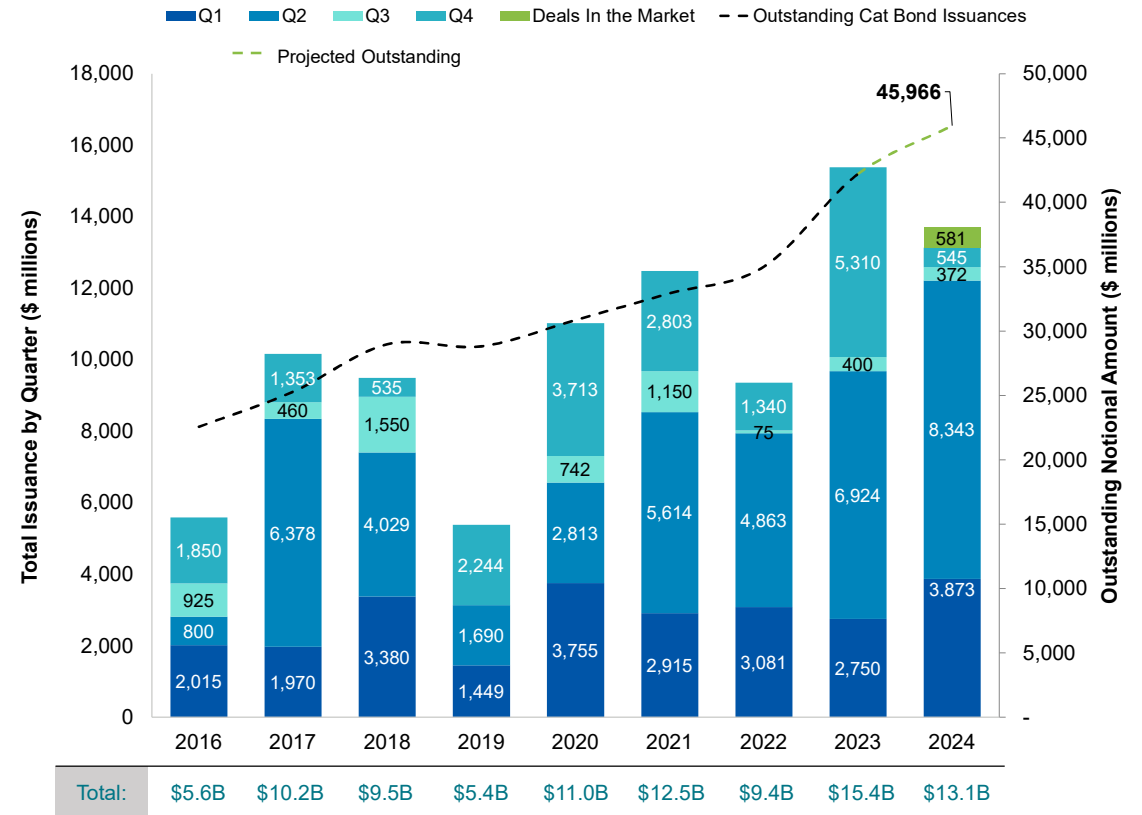
Catastrophe Bond Market Overview

Record Breaking H1 for Cat Bond Issuances in 2024

Market Highlights⁴

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Property & Casualty Catastrophe Bond Issuance by Quarter

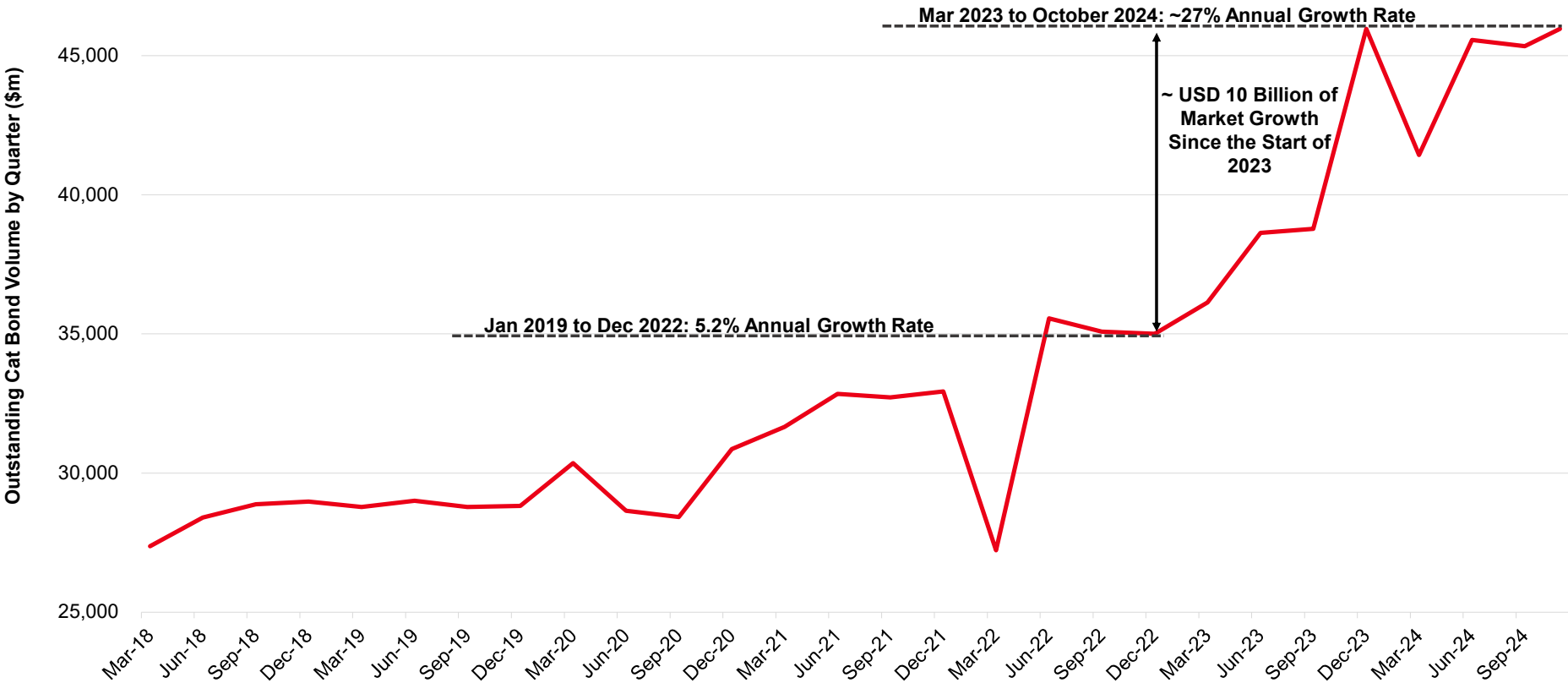


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Market has grown by 10 billion USD in the Past 18 months

Growth in Outstanding Cat Bond Volume by Quarter since 2018



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Concentration of Cat Bond Vehicles

Vehicle Domicile Considerations³



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He Patai? Questions?

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Appendices

Appendix 1 - Risk Financing Approach

Wellington City Council Decision Tree



Appendix 2 - The Four Families Of Capital

Expanded Market Access for Captives

Direct (Retail) Market

- Transitioning out of hard market conditions
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- Volatility concerns remain with natural catastrophes or social inflation
- Difference in appetite between “Global Insurers” and “New Insurers”

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- Lower operating costs can lead to competitive pricing
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Treaty Reinsurance

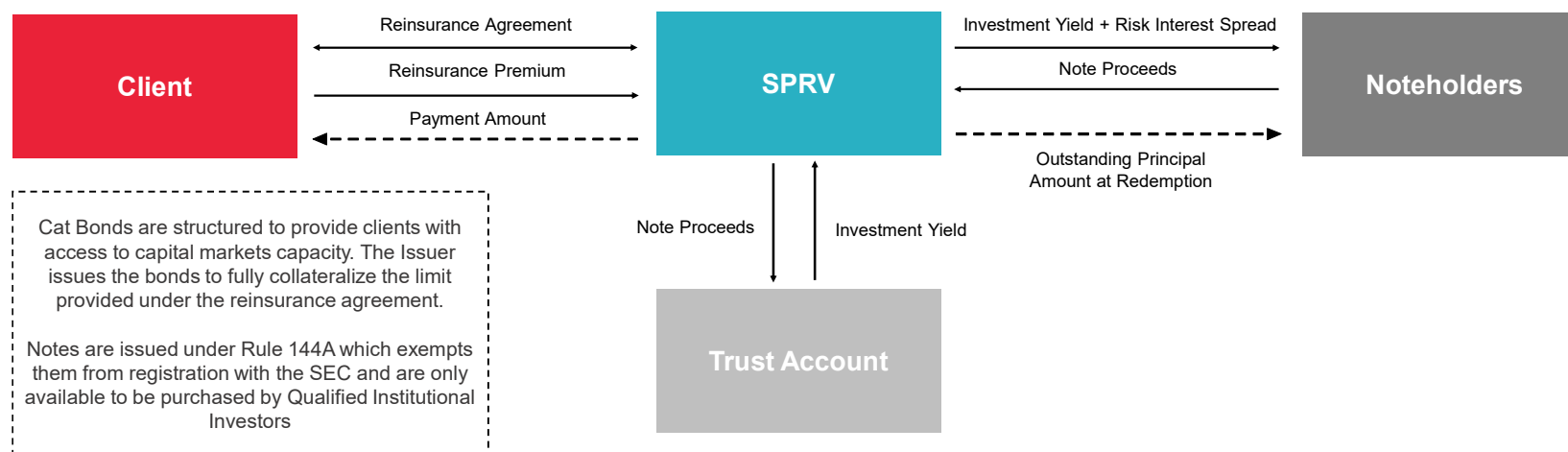
- Capacity for a portfolio of risks
- Large unobtrusive capacity
- Requires a “professional” lead direct insurer to set pricing
- Struggles with long-term arrangements and/or multi-line coverages

Alternative Risk Transfer

- Insurance Linked Securities (ILS)
- Cat Bonds
- Parametric, Structured Solutions, Cross Class Aggregates, Stop Loss
- ILS historically used for insurance companies
- Parametric is becoming more competitive for corporates
- Capital Market

Used by insurers to transfer risk to capital market investors

Appendix 3 - Cat Bond Schematic



- Client will enter into a Reinsurance Agreement with a newly formed Special Purpose Reinsurance Vehicle (“SPRV”)
 - The SPRV is owned by a charitable trust, managed by an independent third-party and is not consolidated or affiliated with the Client
- The SPRV is required to be fully collateralized up to the limit of the Reinsurance Agreement; to fund this obligation the SPRV issues the cat bonds to institutional investors
- Proceeds from the sale of Notes will be invested into AAA-rated instruments (Money Market Funds / Structured Notes) and held in the Trust Account. The Client is the beneficiary of the Trust Account. Investors are subordinated to the SPRV’s reinsurance obligations to the Client
- Alternative structures include using a Captive as the ceding company and/or entering into a fronting arrangement with a rated reinsurer

Appendix 4 - Catastrophe Bond Market Overview

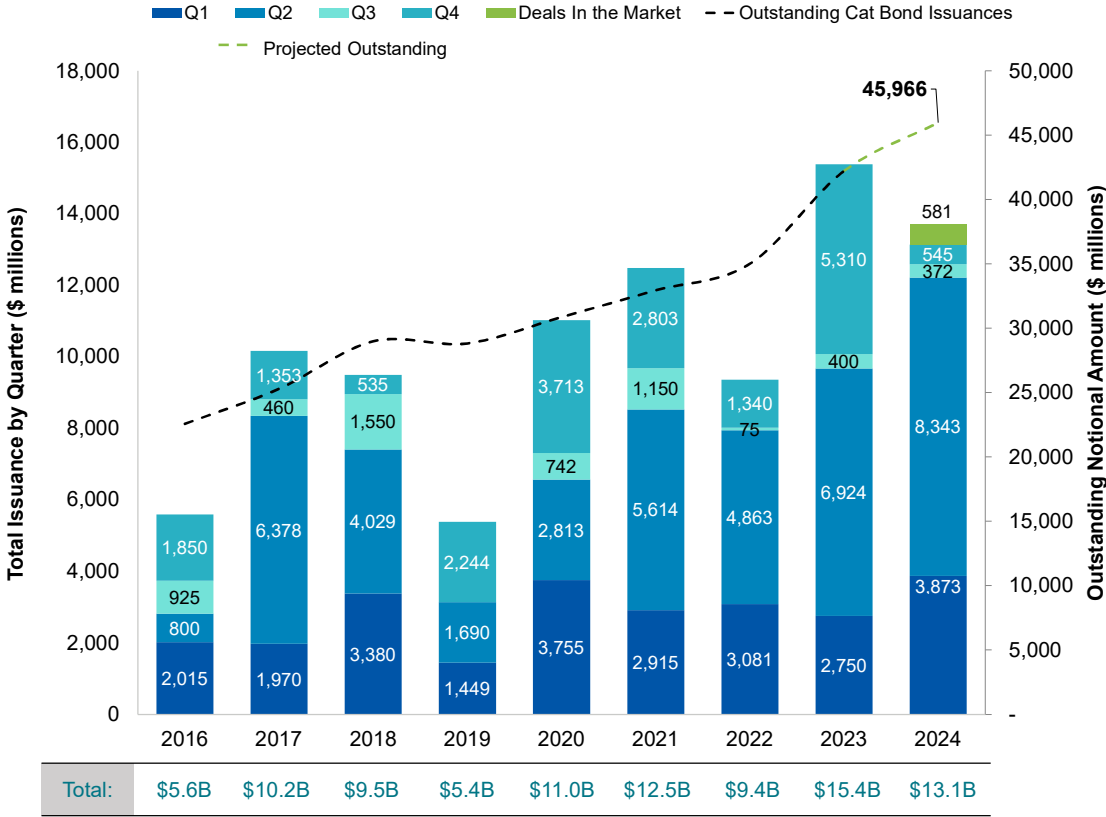
Record-Breaking H1 for Cat Bond Issuances in 2024

Market Highlights

- An increase in client demand for cat bond protection resulted in the most active H1 in market history in terms of issuance volume and number of clients. This continued growth followed the annual issuance record set in 2023
- In mid-April, issuance demand began to outpace investor capital supply, and spreads widened, especially for index structures
- The growth of investor capital has facilitated diversification of the market in terms of geography and perils; non-U.S. clients and cyber insurers are accessing the market more frequently
- With consistently strong investment results and allocators reinvesting earnings, 2025 has the potential to become another significant year for growth of the cat bond market

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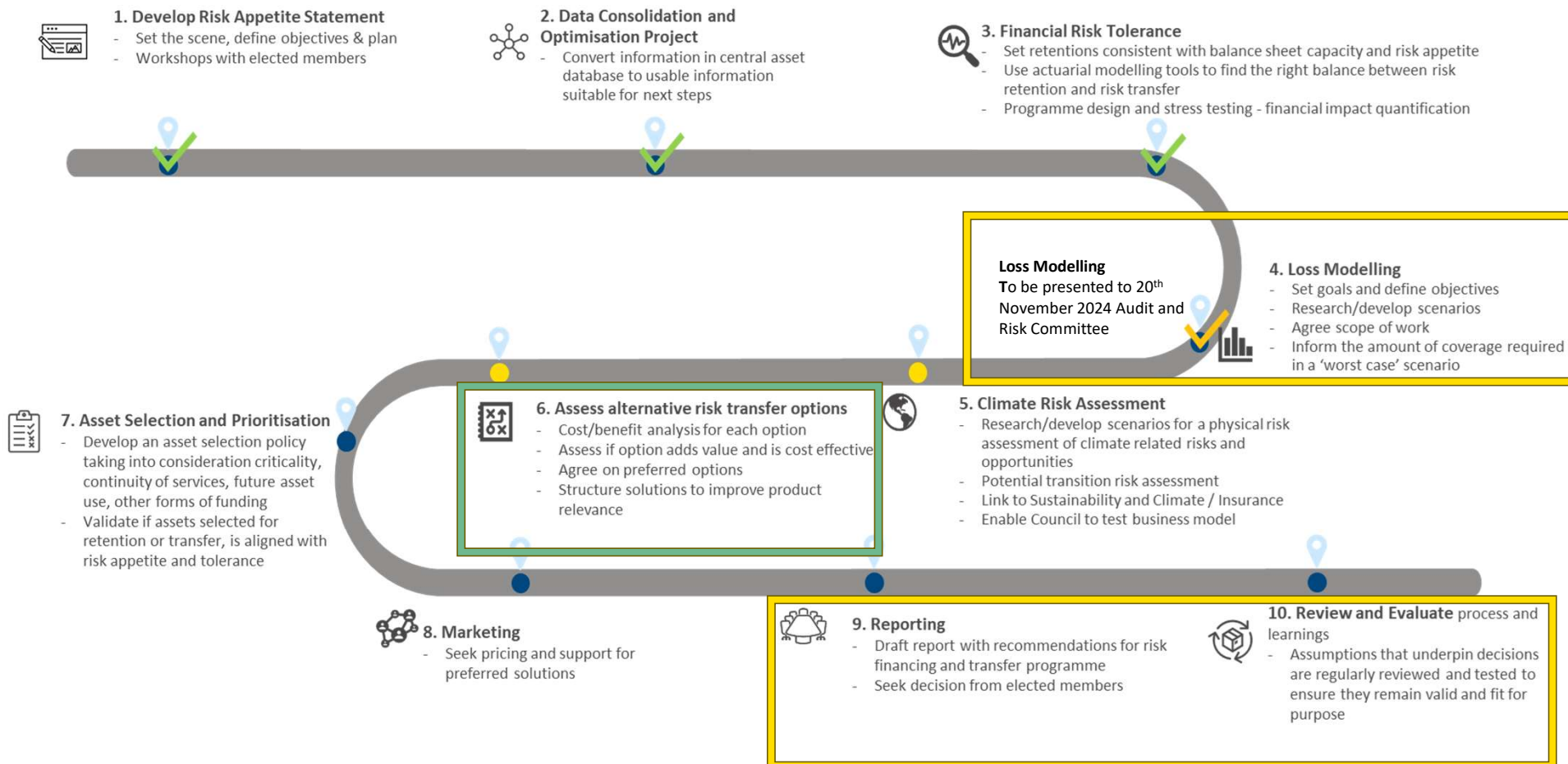
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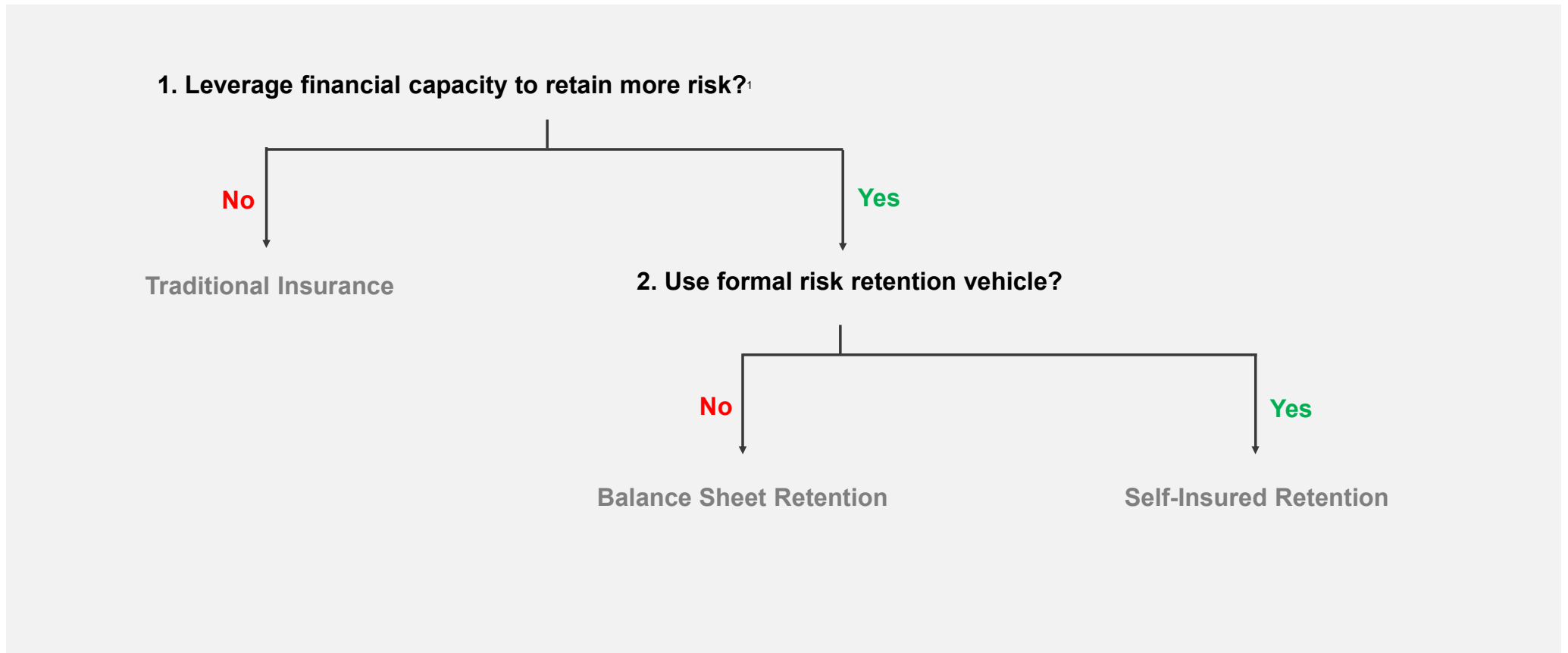
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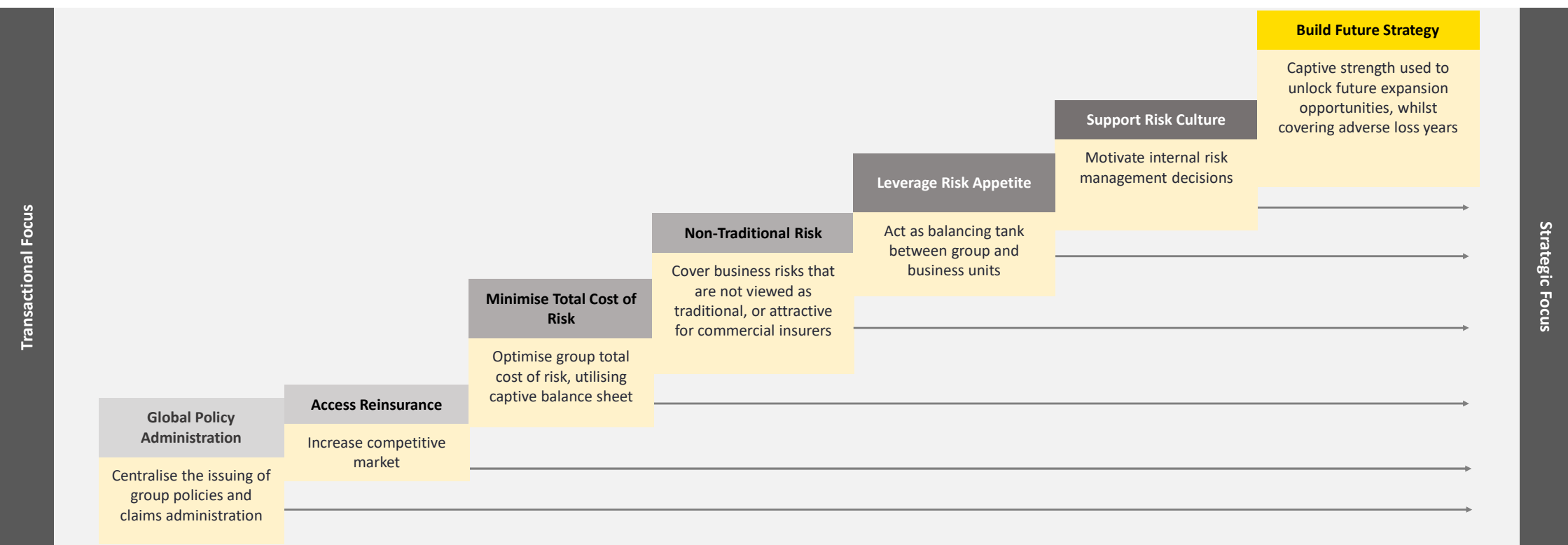


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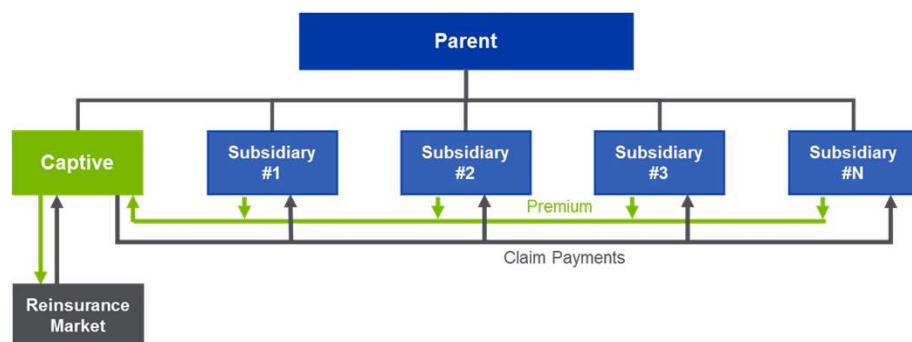
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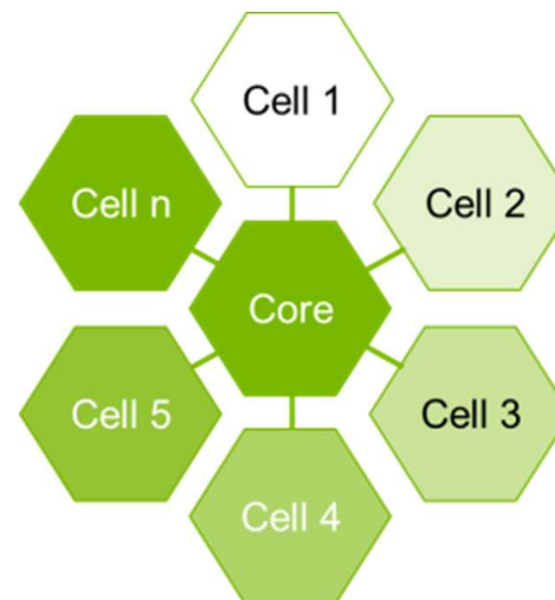
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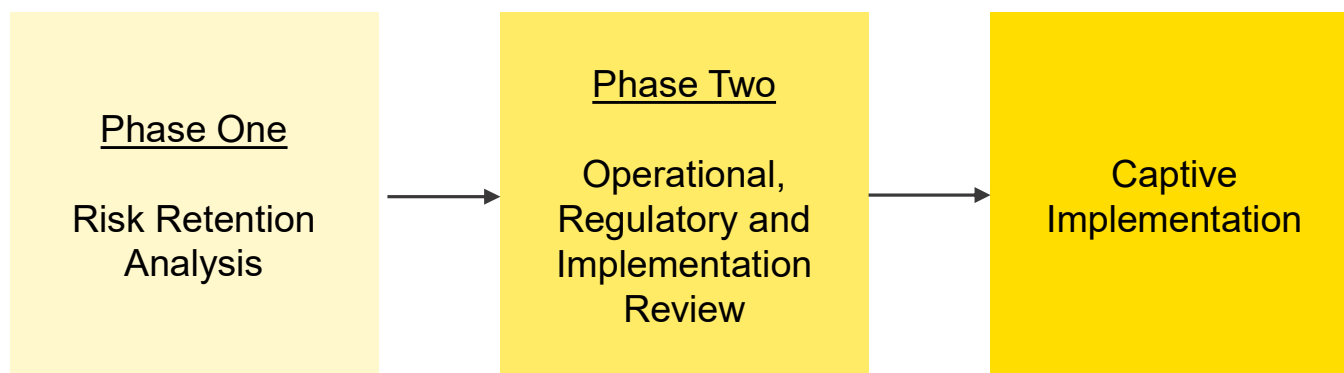


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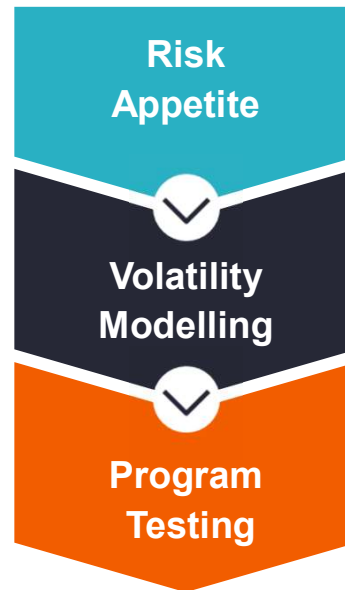
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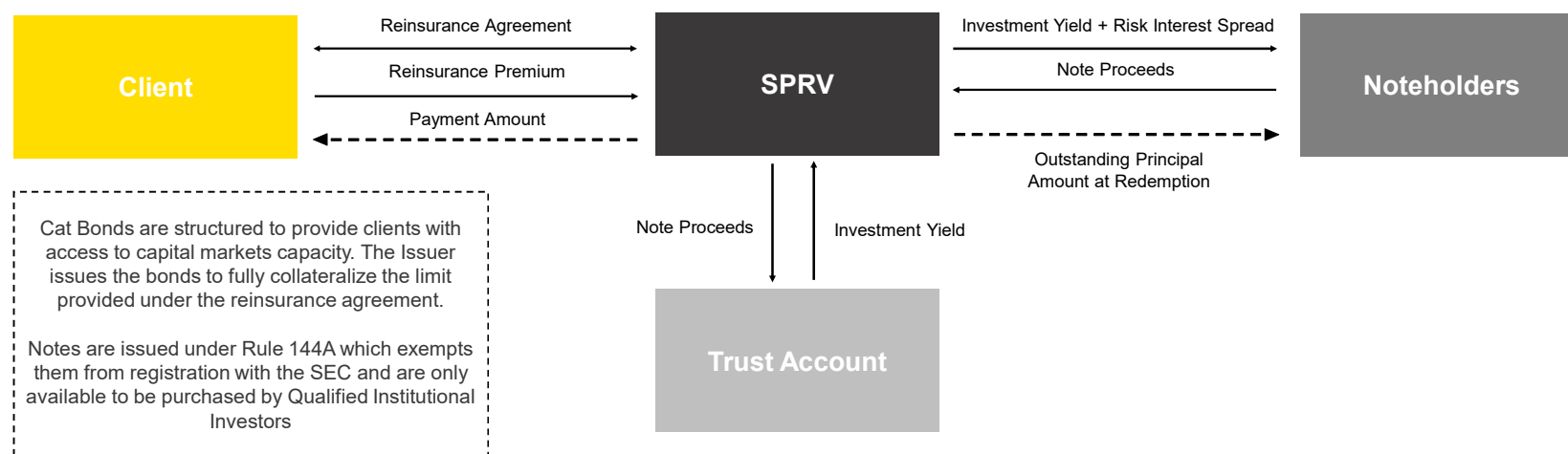
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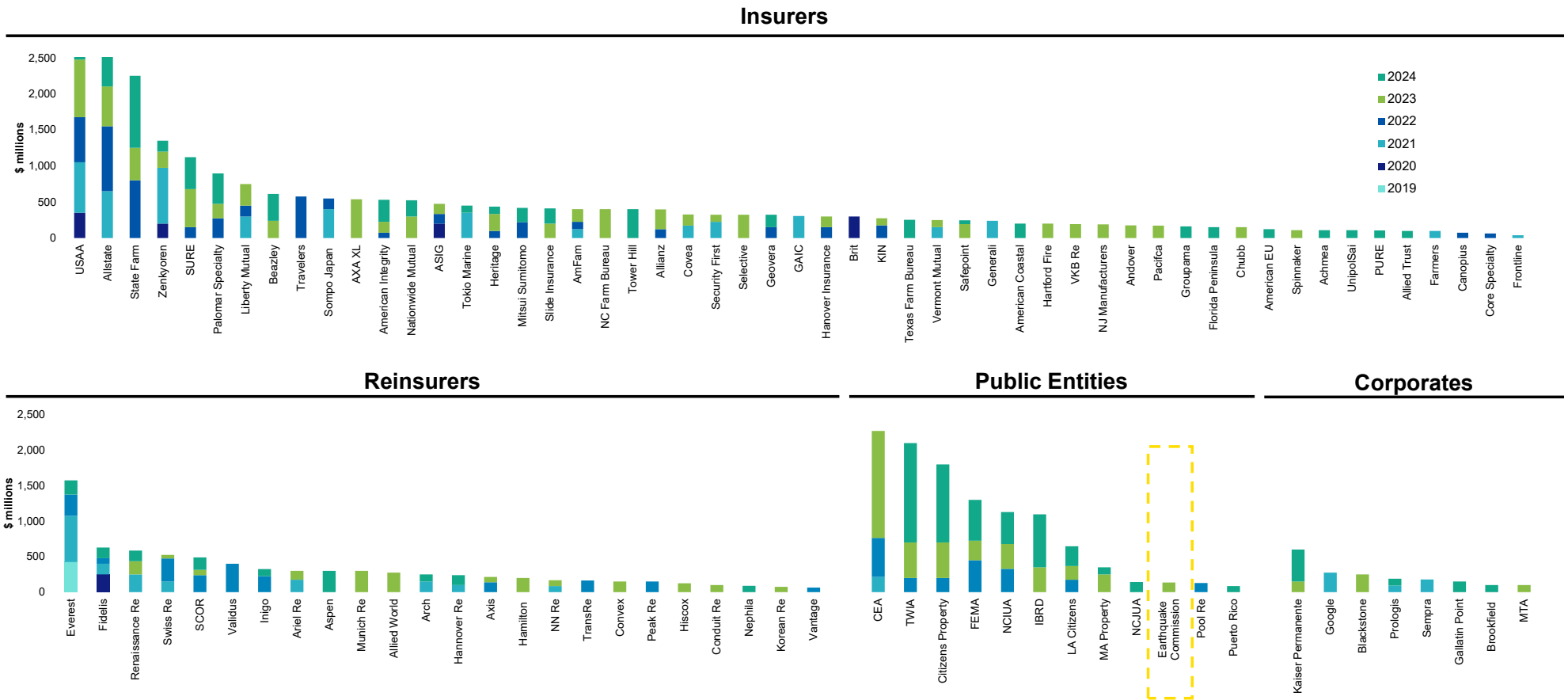
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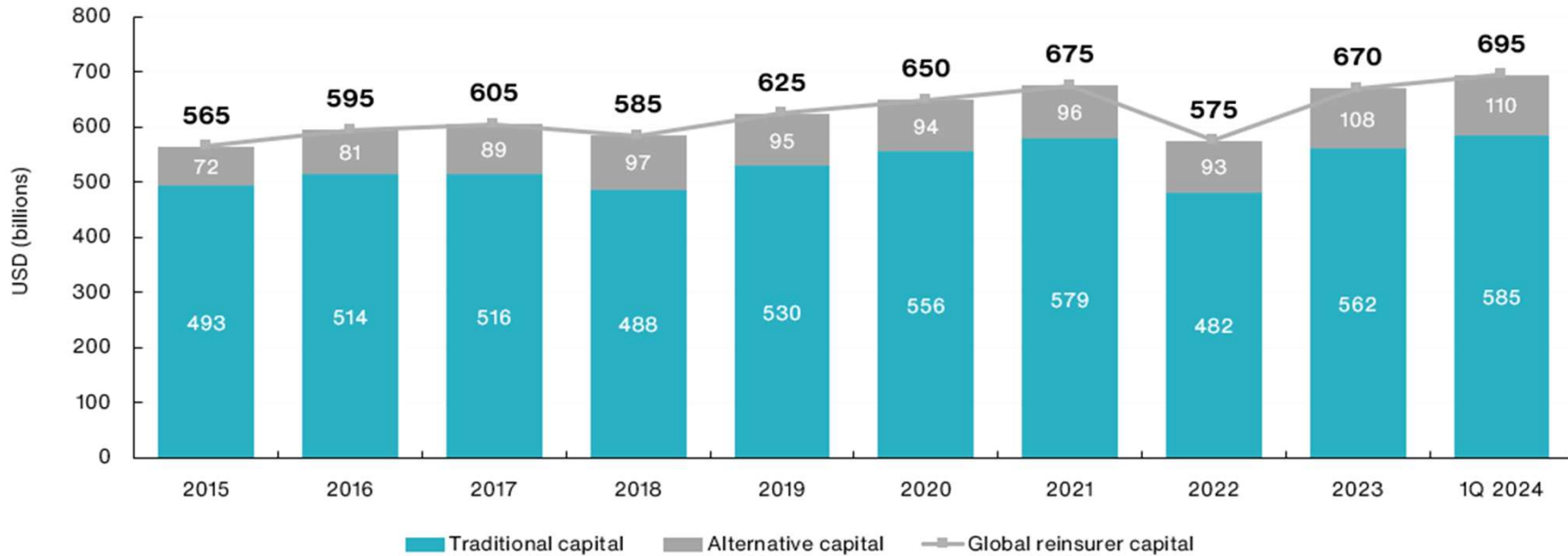
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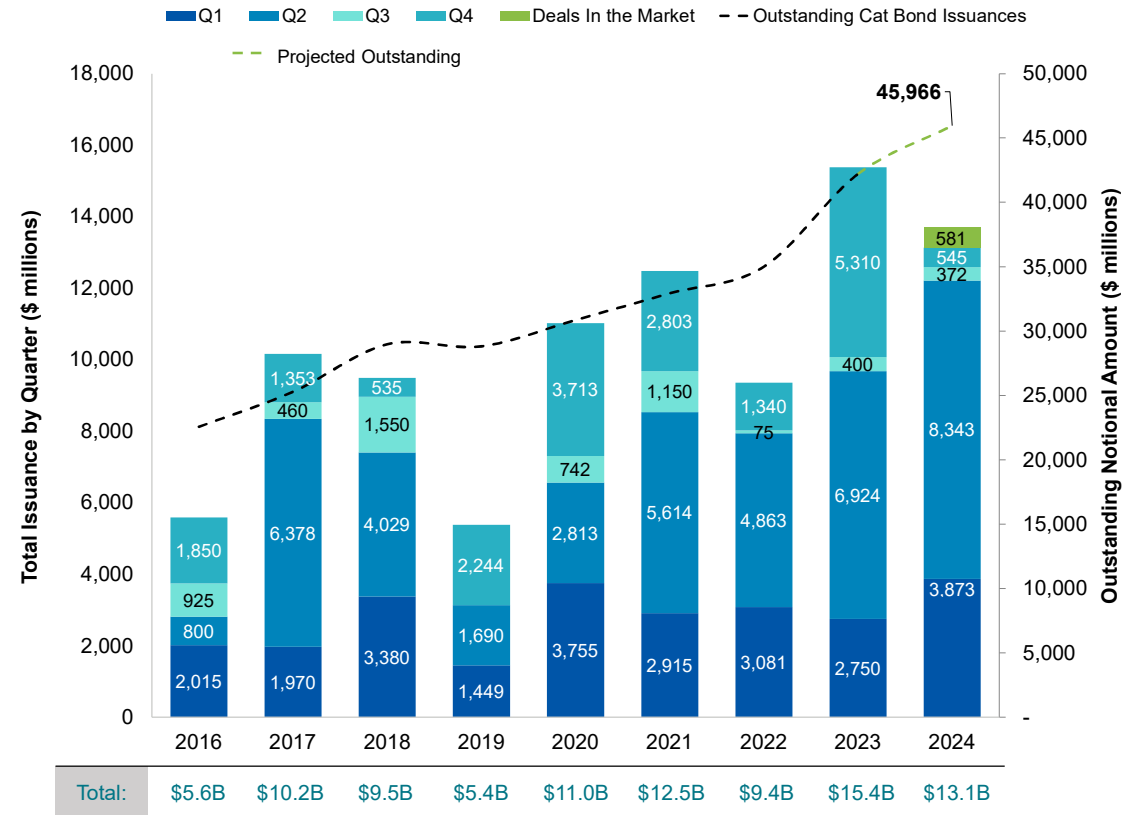
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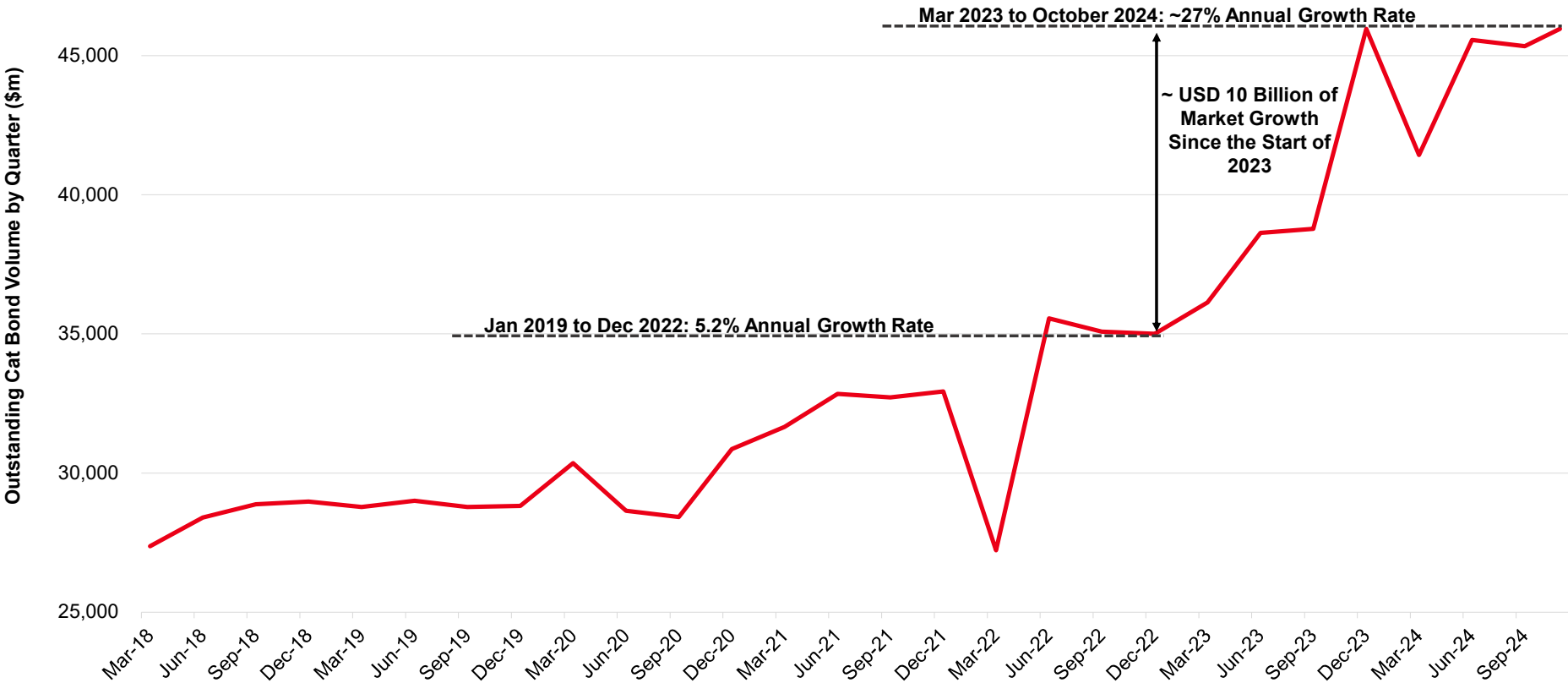


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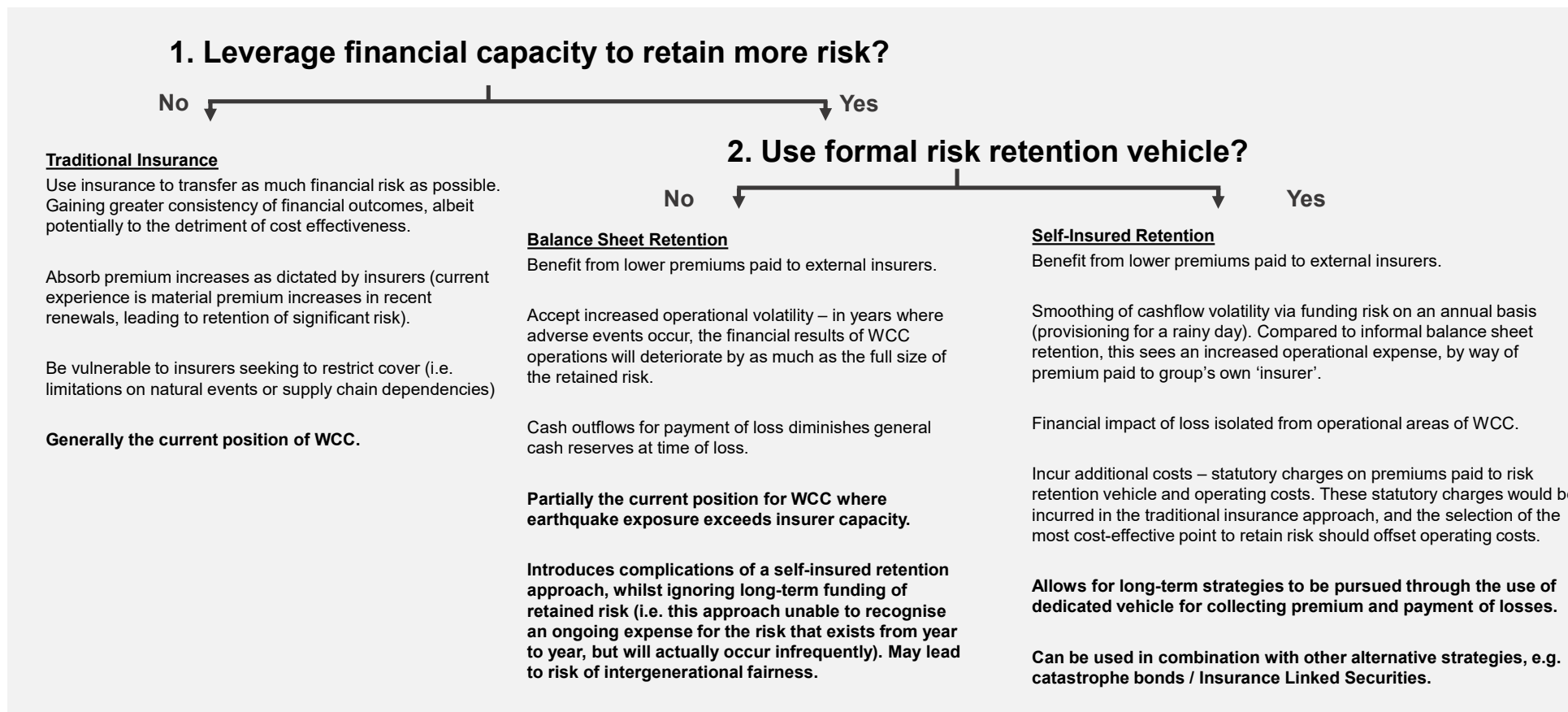
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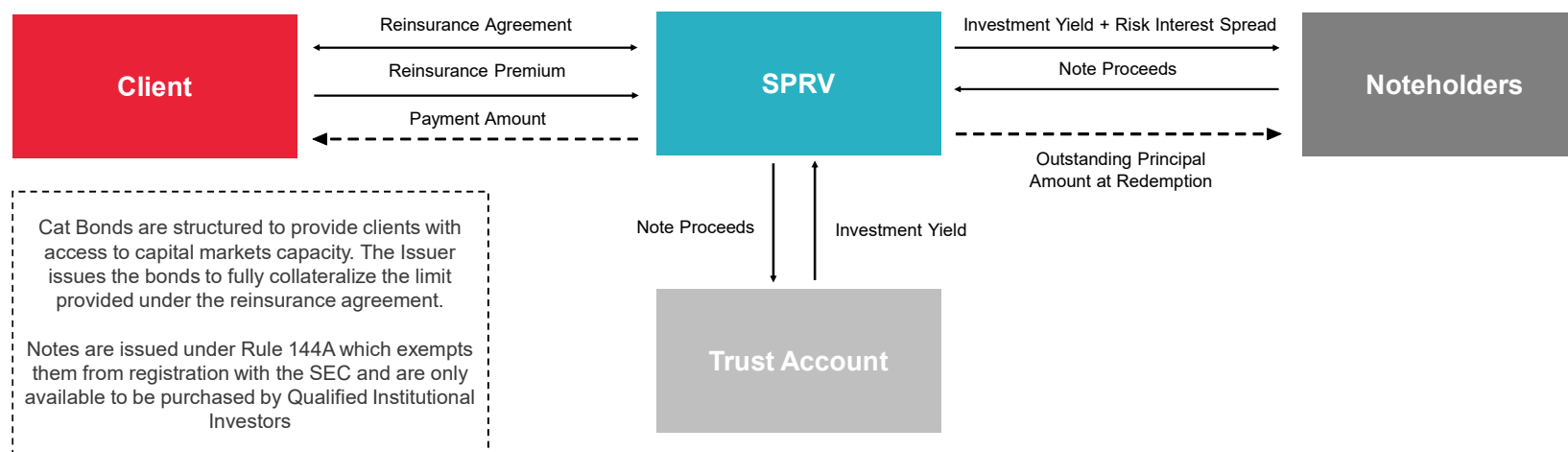


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Appendix 4 - Catastrophe Bond Market Overview

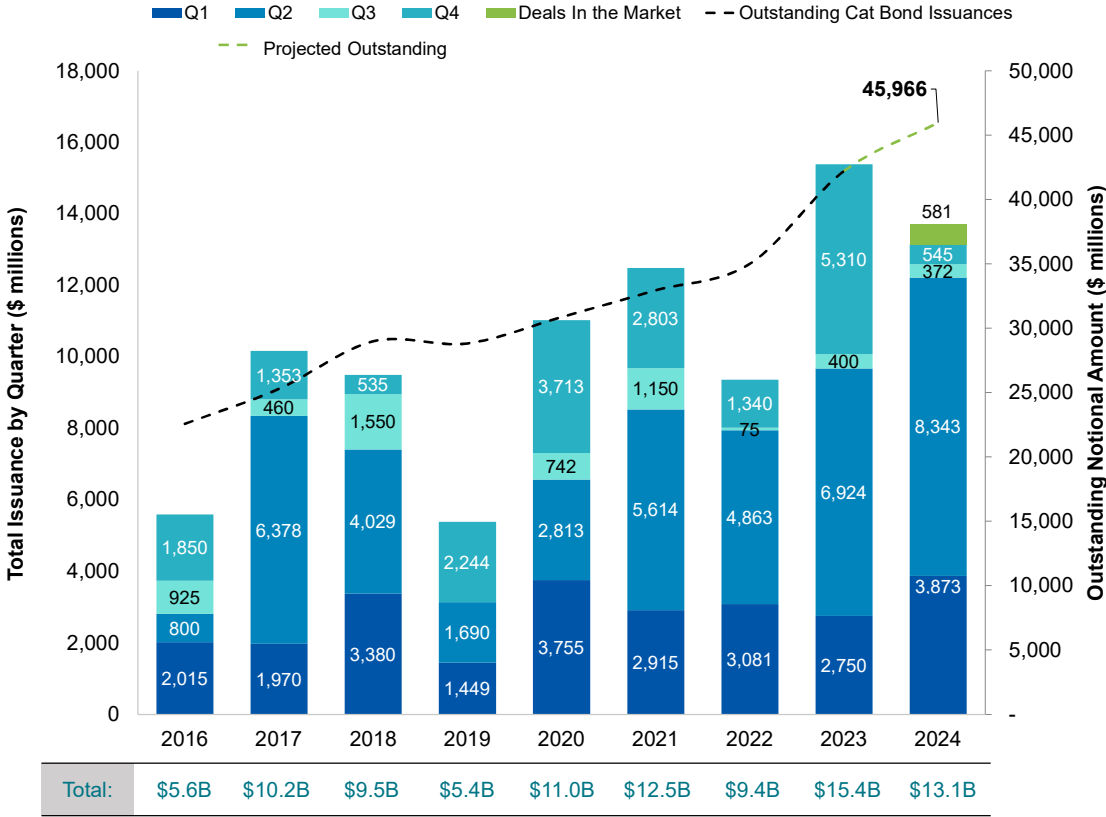
Record-Breaking H1 for Cat Bond Issuances in 2024

Market Highlights

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2024 YTD	2023
48 Total Clients	57 Total Clients
53 Total Transactions	69 Total Transactions
\$13.1B Total Issuance	\$15.4B Total Issuance

Property & Casualty Catastrophe Bond Issuance by Quarter



Alternative Risk Transfer Methods

Absolutely Positively
Wellington City Council
Me Heke Ki Pōneke

Insurance Roadmap Workshop
6th November 2024

AON

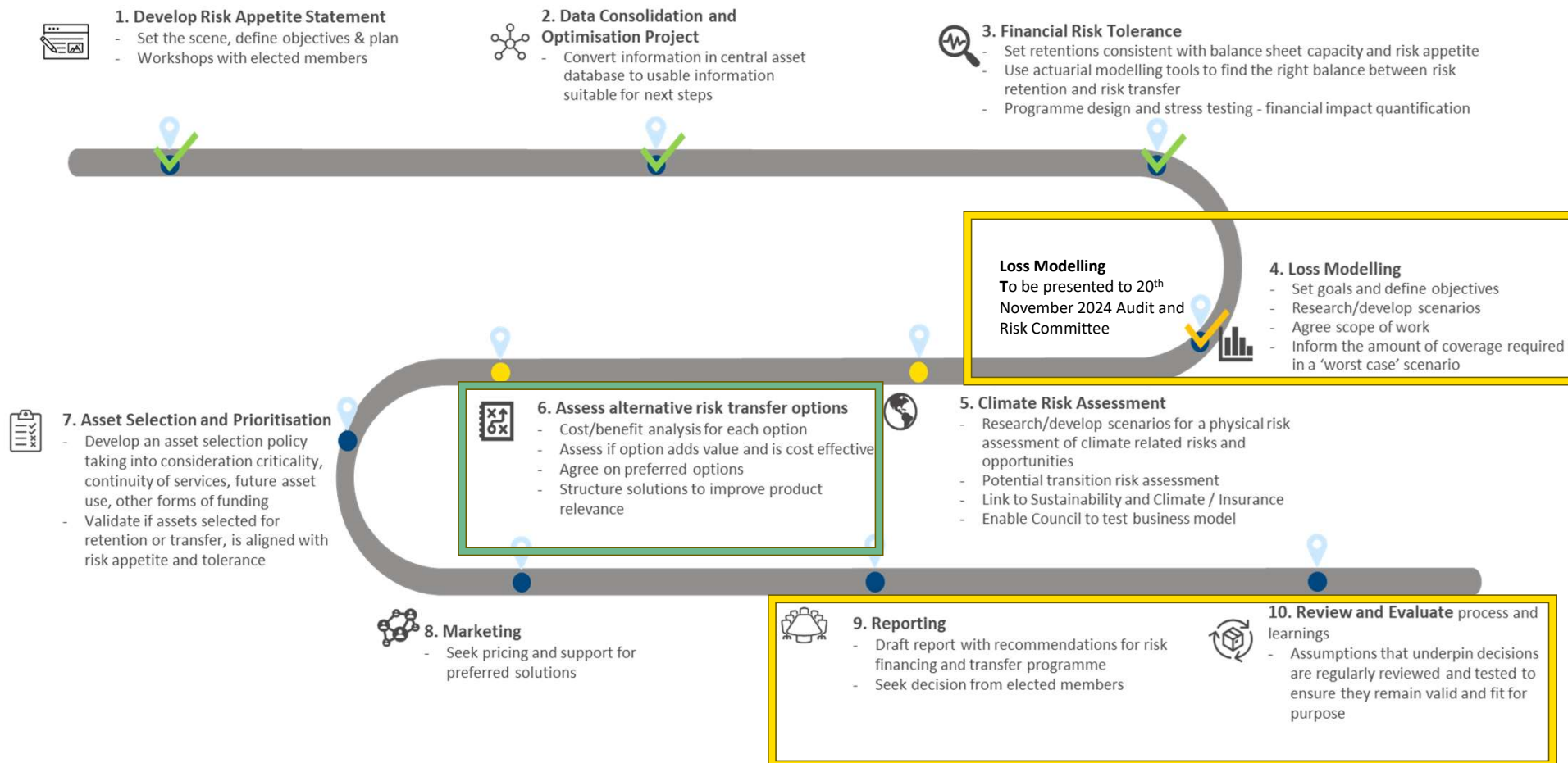
Agenda

- Introduction to team
- Background – how we are travelling along the roadmap
- Captive Insurance – presentation from AON’s Ross Ivey
- Catastrophe Bonds – presentation from AON’s Jordan Brown
- Questions

Insurance Roadmap workstreams include:

- **Governance** – Increase understanding across ELT and Council to support better informed decision making
- **Internal Partnerships** – Partner with other Council teams to deliver mutually beneficial outcomes and provide up to date and fit for purpose guidance
- **Data and Risk Modelling** – Improve the process and analysis used to make insurance or other risk funding purchasing decisions at Council
- **Purchasing Decisions** – Improve the process and analysis used to make insurance or other risk funding purchasing decisions at Council

Insurance Roadmap



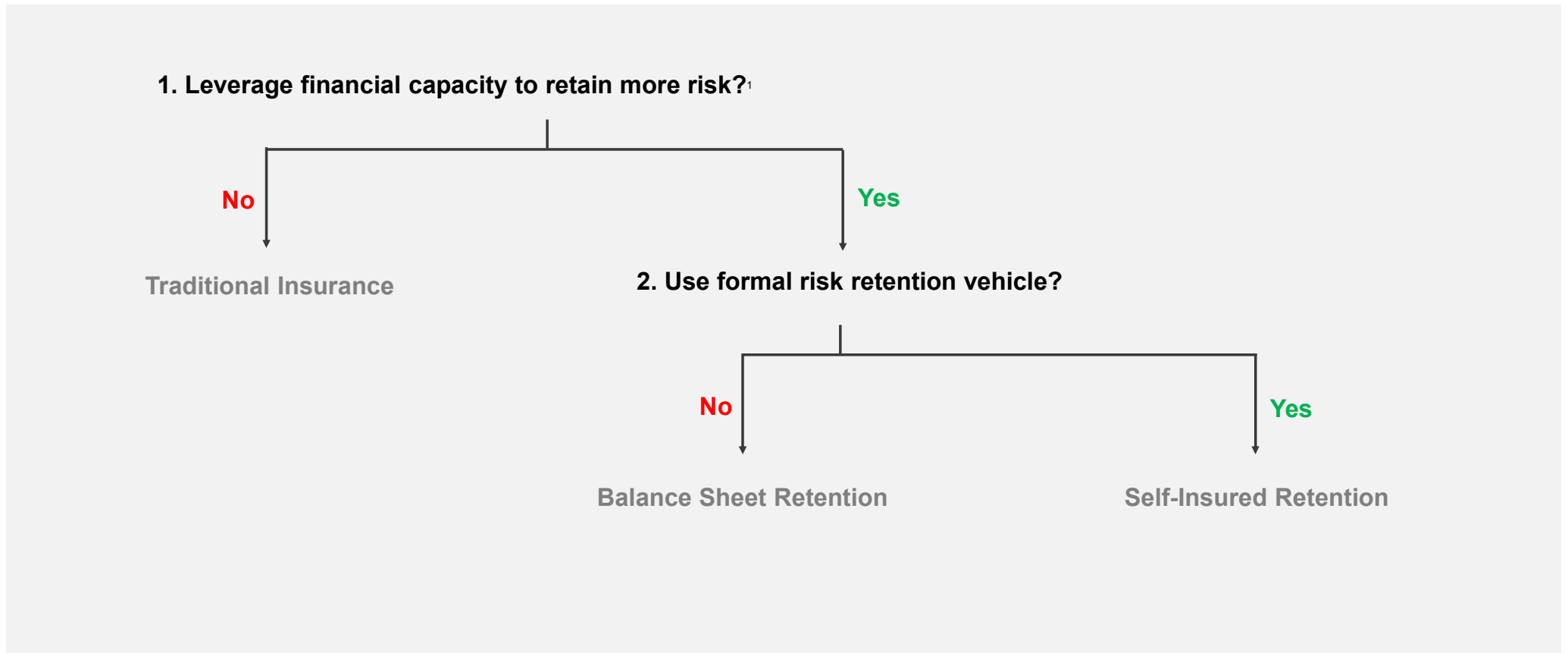
Captive Insurance Insights

Wellington City Council
November 2024

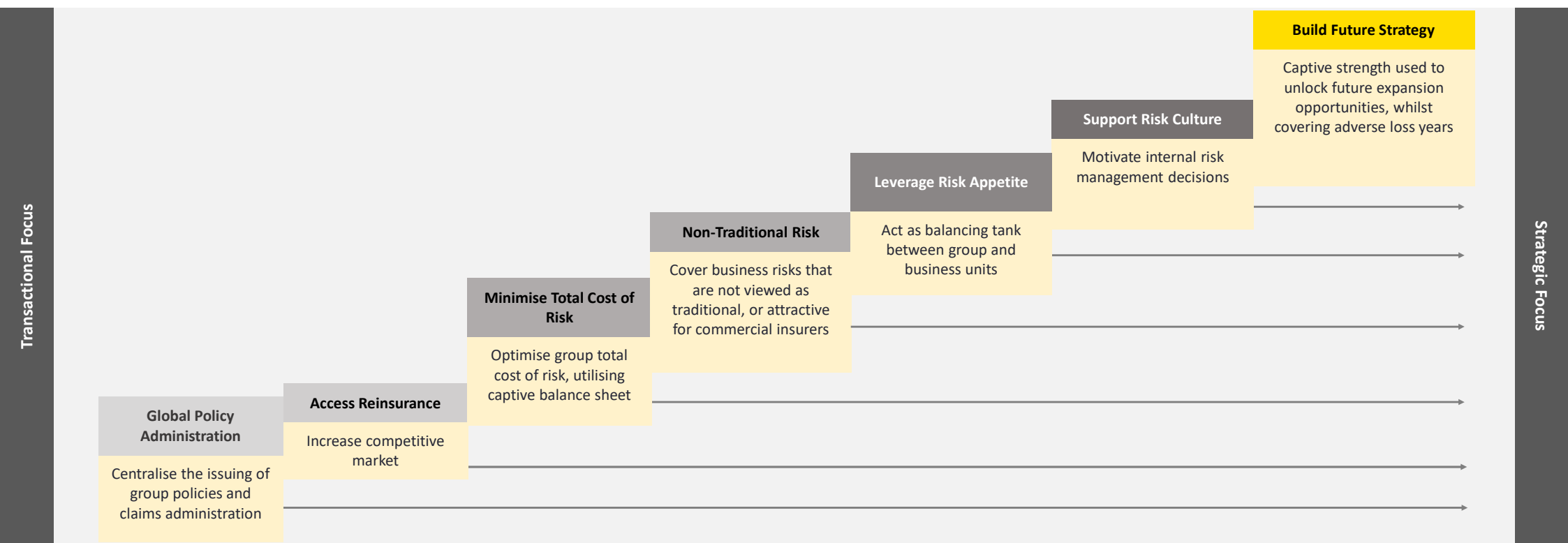


Risk Financing Approach

Wellington City Council Decision Tree



Captive Journey



What is a Captive?

A captive is a bona fide insurance or reinsurance company owned by a non-insurance company parent and which insures or reinsures the risks of its parent and/or affiliated companies. It is similar in principle to a conventional insurance company and usually formed in a specialised regulatory environment (“domicile”).

There are approximately 7,000 captives globally with over half of the Global 1500 companies own at least one captive. Captives have been around since the mid-1960’s and the number of captives have steadily grown amidst fluctuations in insurance market and global merger and acquisition activities.



7,000

Captives globally



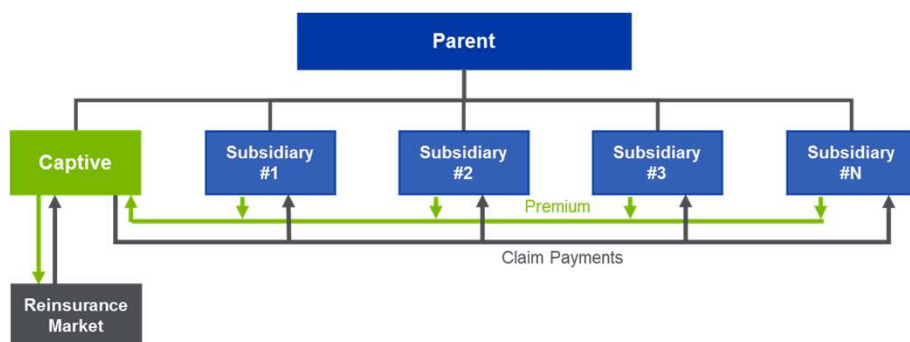
1,500

Companies own at least one captive

What is a Captive?

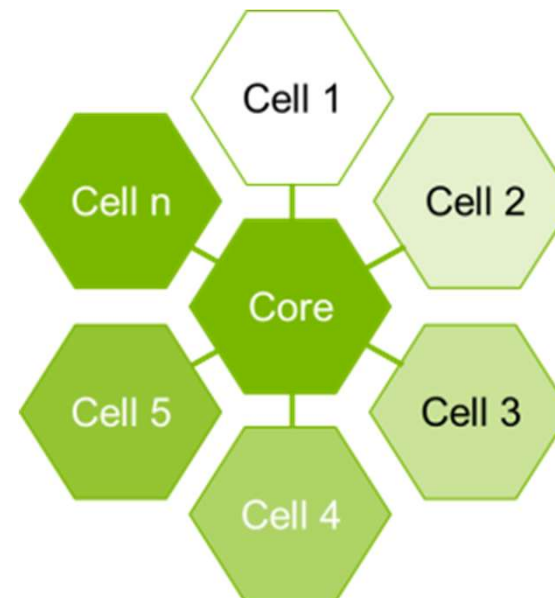
Single Parent Captive

- Single entity wholly owned
- All risk co-mingled within one structure
- Can be onshore or offshore
- Minimum Capital : \$150,000 - \$400,000

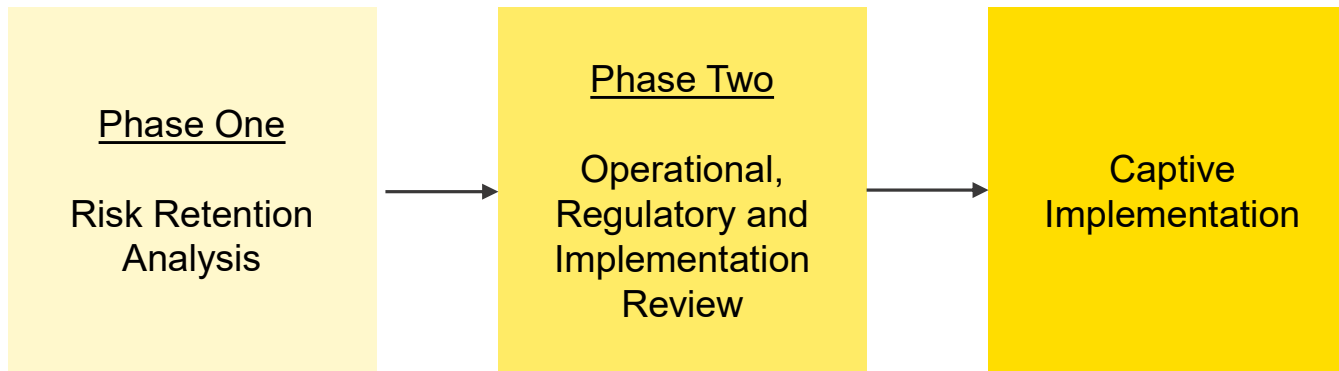


Cell or Series Captive

- Can be a self-owned cell company or “rented” cell
- Risks are fully segregated between cells
- Can be onshore or offshore
- Core capitalised by owner
- Individual cells likely to be fully collateralised



Captive Feasibility Study



Six to eight weeks.

- Establish risk tolerance and appetite
- Loss forecast analysis
- Total cost of insurable risk

Four weeks.

- Domicile and regulatory review
- Governance and management
- Financial projections
- Project plan

Two to six months dependent on:

- Captive or cell
- Domicile
- Urgency of organisation need and speed in completing internal due diligence

Outputs of the feasibility process are used to support regulatory applications for implementing the desired approach.

Phased Approach

Enables the viability of a captive to be tested at each phase.

Phase One focusses on the analytics.

Does financial strength exist?
Does retaining more risk make sense?

Phase Two considers structure options.

Captive, cell or other?

Domicile?

Capital contribution and captive premiums?

Profitability?

Phase One Analysis

Finding the Right Balance Between Risk Retention and Transfer

Risk Appetite

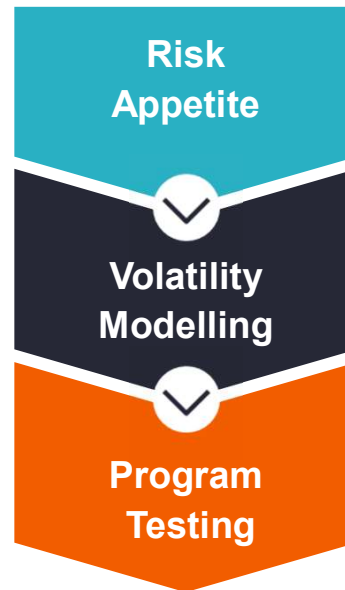
Establishes the **risk tolerance and appetite** of an organisation (how much risk **can** they take vs how much risk **should** they take).

Volatility Modelling

Builds a thorough understanding of the **loss volatility** in the insurance portfolio through actuarial modelling based on **loss and exposure data**.

Program Testing

Tests **alternative program structures** by class and in aggregate to minimise the total cost of risk.



Outcomes and Benefits

- Visibility on available risk transfer options in the market
- Ability to test complex program structures including cross-class aggregates and captive participation
- How insurance portfolios respond to these options
- How each option compares to the risk appetite of the organisation
- Gives a better understanding of risk exposure and current program fit
- Measures the economic benefit of the insurance program under typical and stressed scenarios
- Demonstrates a data-driven approach to decision making

The Four Families of Capital

Expanded Market Access for Captives ²

Direct (Retail) Market

- Transitioning out of hard market conditions
- Return to profit driving competition
- Volatility concerns remain with natural catastrophes or social inflation

WCC purchases its insurance from this market

Facultative Reinsurance

- Typically purchased for single risk
- More opportunistic
- Abundant short tail capacity but more limited on long tail
- Collaborative facultative strategies

Insurance for insurers (including captives / protected cells)

Treaty Reinsurance

- Capacity for a portfolio of risks
- Large unobtrusive capacity
- Requires a “professional” lead direct insurer to set pricing

Alternative Risk Transfer

- Insurance Linked Securities (ILS)
- Cat Bonds
- ILS historically used for insurance companies
- Capital Market

Used by insurers to transfer risk to capital market investors



Wellington City Council

Catastrophe Bonds

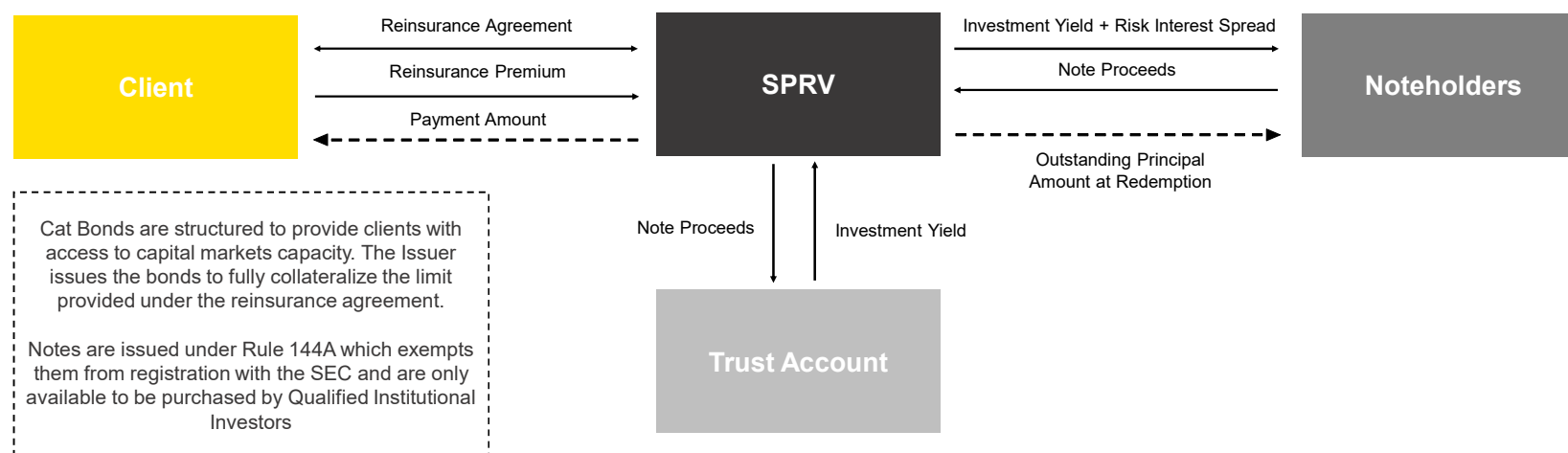
Aon Securities LLC

November 2024

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Cat Bond Schematic³



Strategic Motivations for Accessing Catastrophe Bond Capital

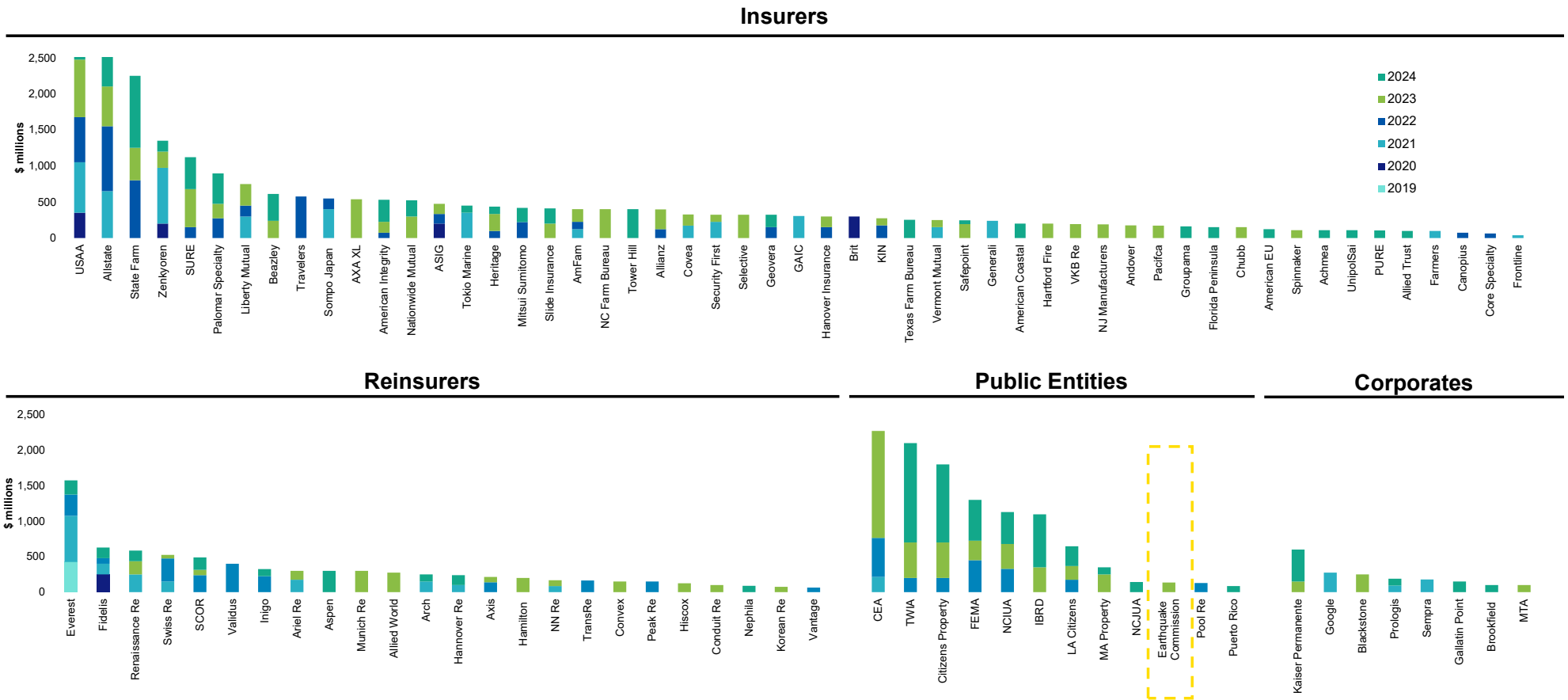
Benefits

- Multi-year fixed-price protection
- Collateralized limit to minimize counter-party credit risk
- Additional / diversifying source of risk transfer capacity
- Creates competition of risk transfer capacity
- Potential to reduce the cost of risk transfer over time
- Ability to use non-indemnity recovery structures
- Effective product to cover uninsured or underinsured risks
- Sustainable source of aggregate capacity
- No requirement to align to traditional renewal date; allows for opportunistic purchases

Considerations

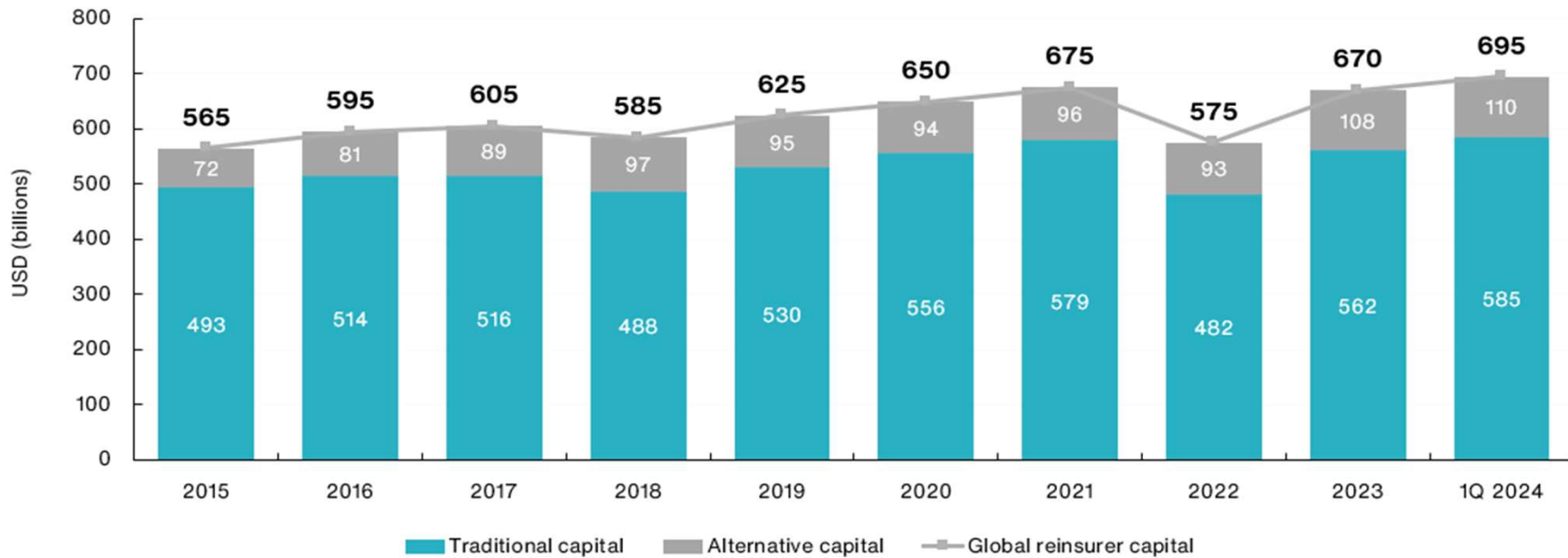
- Single shot limit (i.e. no reinstatement)
- Basis risk present if non-indemnity recovery mechanics used (e.g. parametric)
- Coverage may be limited to specified perils and regions
- Upfront transaction costs
- Legal considerations and documentation
- Strong preference for vendor risk models

Frequent Use by Multiple Cohorts of Clients Including Insurers, Reinsurers, Corporate and Government Entities



Alternative Capital Continues To Grow In Line with Traditional Capital

Insurance Linked Securities (“ILS”) are an institutionalized asset class with over a 25-year history; current Assets Under Management of the asset class exceeds USD 110 billion and makes up approximately 16% of Global Reinsurer Capital



- Continued Investment from:
- Sovereign Wealth Funds
 - Pension Funds
 - Private Equity
 - Multi-Strategy Asset Managers
 - Family Office



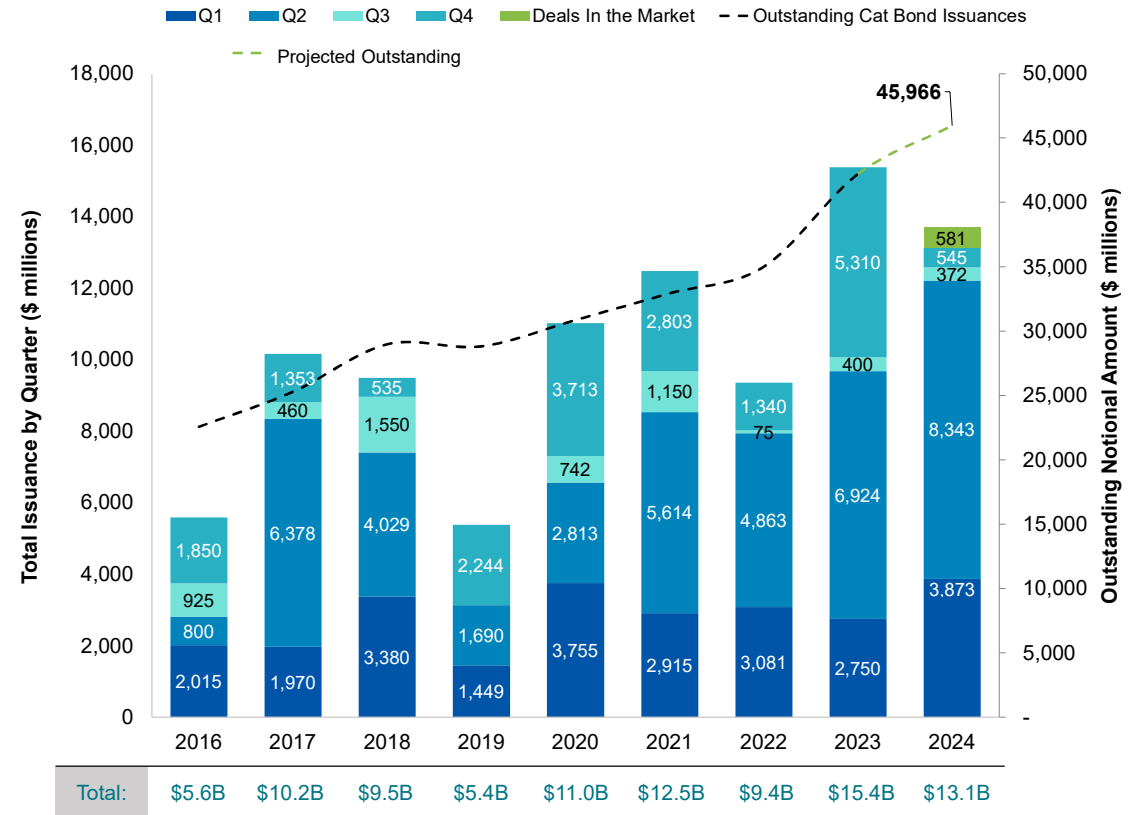
Catastrophe Bond Market Overview

Record Breaking H1 for Cat Bond Issuances in 2024

Market Highlights⁴

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Property & Casualty Catastrophe Bond Issuance by Quarter

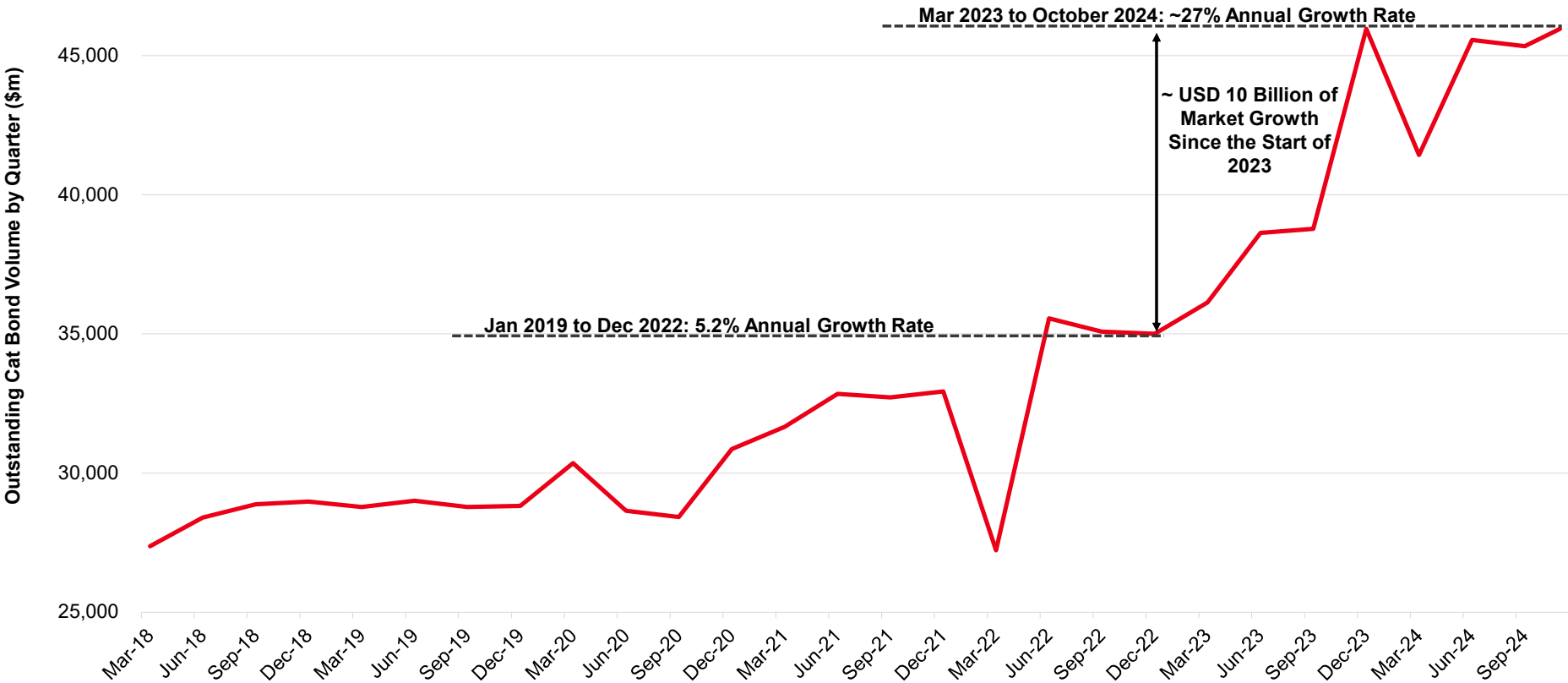


refer to Appendix 4 for details

Unprecedented Growth in Catastrophe Bond Capital

Market has grown by 10 billion USD in the Past 18 months

Growth in Outstanding Cat Bond Volume by Quarter since 2018



Absolutely Positively Wellington City Council
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Source: Aon Securities
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Concentration of Cat Bond Vehicles

Vehicle Domicile Considerations³



	Bermuda	Cayman	Ireland	Singapore	UK	Hong Kong
ILS Deal Count	321	32	28	22	6	2
Notional Amount Issued	\$83.49B	\$8.51B	\$4.59B	\$3.88B	\$1.18B	\$0.18B
SPI/SPV Approval Timeline	10-20 days	10-20 days	[4-5 weeks]	[2-4 months]	[4-6 months]	[2-4 months]
Structure Tested by Loss Payout	Yes	Yes	Yes	No	No	No
Expense Reimbursement	No	No	No	~\$0.7M	No	~\$1.54M

- Hong Kong Insurance Authority (HKIA) requires up to 6 weeks to have the SPI application approved, which is shorter than Singapore (up to 6 months) but longer than Bermuda (2 weeks)
- The maximum grant amount per catastrophe issuance in Singapore is 50% of qualifying costs, capped at SGD 1M
- The 2-year pilot ILS Grant Scheme of up to HKD 12M per issuance has been approved by the Hong Kong Government 2021-22 budget, which is higher than Singapore
- Hong Kong requires a minimum of 20% issuance cost to be billed locally and Singapore requires a minimum of 40% of total incurred costs to be billed locally
- Given the lack of experience of HKIA and the relevant service providers in Hong Kong, Singapore is still deemed more attractive as a domicile
- Potential clients should prepare for execution risk and start the application as early as possible

3. Values from January 1, 2014 to Present, excluding Life and Health transactions

Source: Aon Securities

He Patai? Questions?

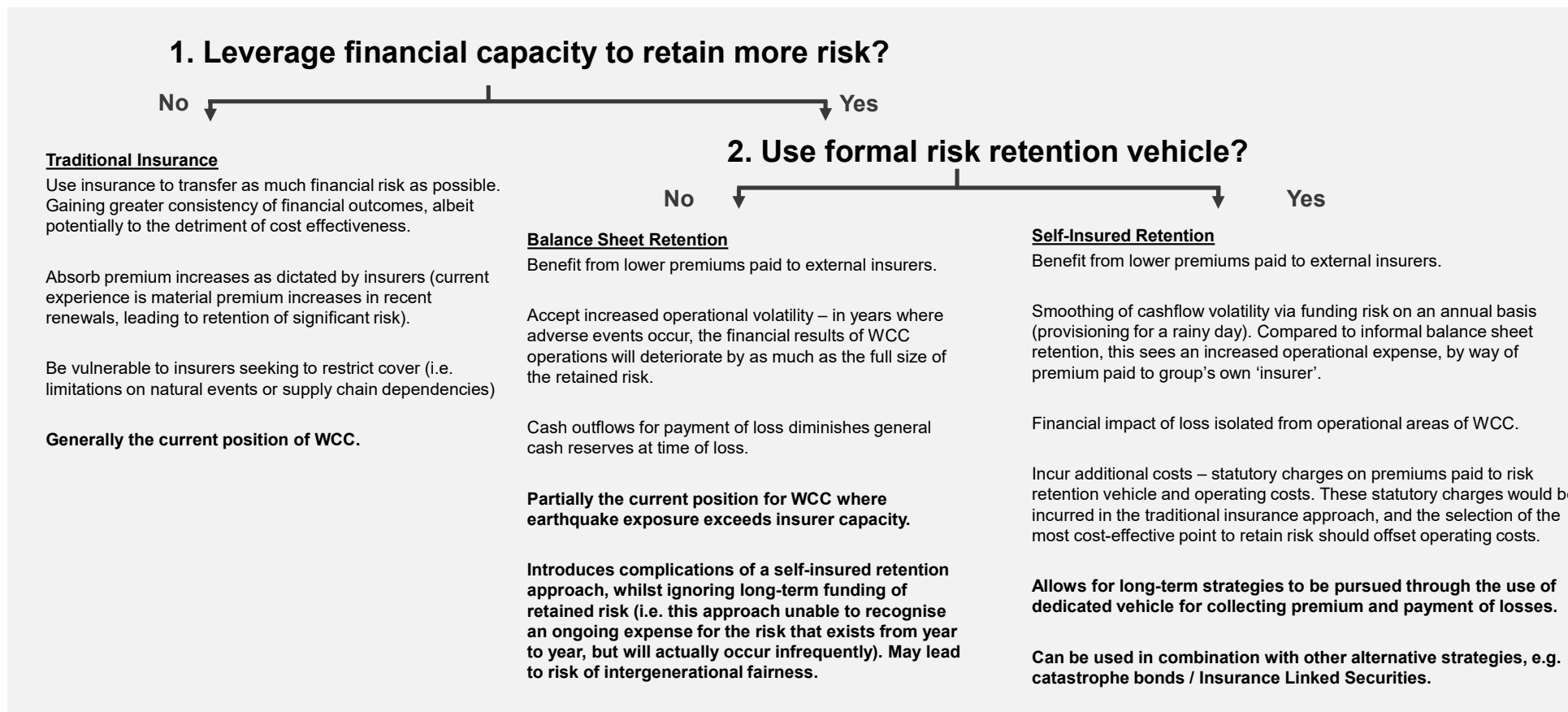
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Appendices

Appendix 1 - Risk Financing Approach

Wellington City Council Decision Tree



Appendix 2 - The Four Families Of Capital

Expanded Market Access for Captives



Direct (Retail) Market

- Transitioning out of hard market conditions
- Return to profit driving competition
- Volatility concerns remain with natural catastrophes or social inflation
- Difference in appetite between “Global Insurers” and “New Insurers”

WCC purchases its insurance from this market



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- Typically purchased for single risk
- More opportunistic
- Abundant short tail capacity but more limited on long tail
- Lower operating costs can lead to competitive pricing
- Collaborative facultative strategies

Insurance for insurers (including captives / protected cells)



Treaty Reinsurance

- Capacity for a portfolio of risks
- Large unobtrusive capacity
- Requires a “professional” lead direct insurer to set pricing
- Struggles with long-term arrangements and/or multi-line coverages

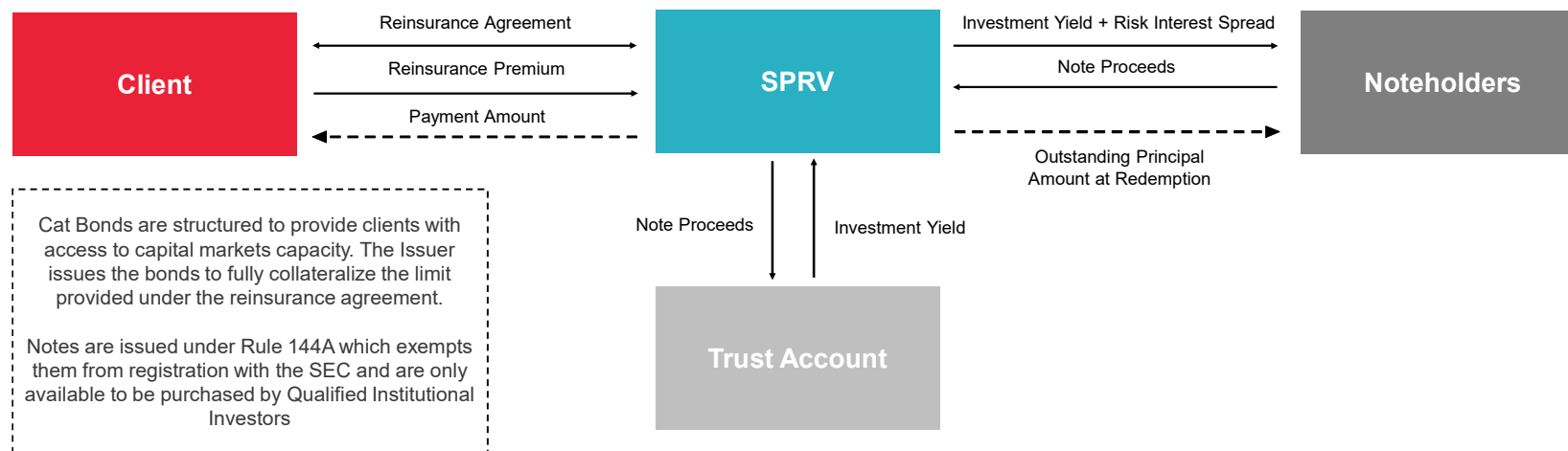


Alternative Risk Transfer

- Insurance Linked Securities (ILS)
- Cat Bonds
- Parametric, Structured Solutions, Cross Class Aggregates, Stop Loss
- ILS historically used for insurance companies
- Parametric is becoming more competitive for corporates
- Capital Market

Used by insurers to transfer risk to capital market investors

Appendix 3 - Cat Bond Schematic



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