

INSURANCE-LINKED SECURITIES (ILS)

An introduction to members of the IAPF

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ILS at Schroders Capital*

*Schroders Capital is the private markets investment division of Schroders.



WHAT ARE ILS?

What are ILS?

A transfer of risk for a premium



They are financial instruments that allow an insurer or reinsurer to transfer their insured risk to the capital markets through securitisation

- Investors take on a premium in payment for taking on a part of the transferred risk



Investors choose to invest as returns have historically offered uncorrelated returns compared to other investments and often pay higher interest rates than other corporate instruments

- Strong diversification benefits



The ILS market is young, and developed out of the costly disaster that was Hurricane Andrew in 1992

- An alternative risk transfer market via the capital markets was created

Source: Schroders Capital.

Why invest in ILS?

Investor benefits



Great diversification – an independent risk premium

- Against all major asset classes
- At all stages of the cycle



Non-Life ILS are very low duration fixed income instruments

- Floating rate
- Short duration contract



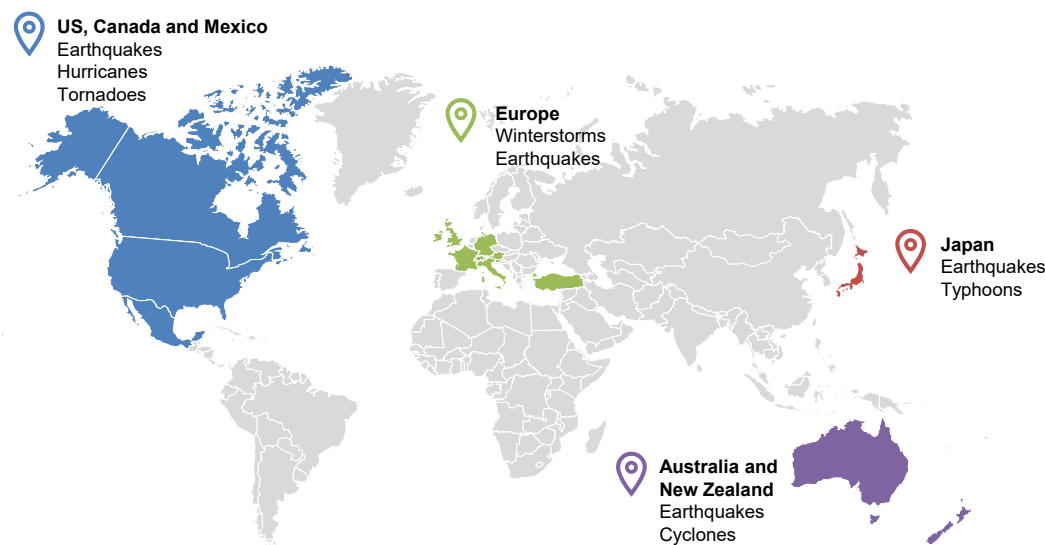
Fairly compensated asset class

- Insurance still fairly compensated per unit of risk

Source: Schroders Capital.

What types of risk are transferred to the ILS market?

Diversification across perils, regions, transaction types and risk levels



Natural catastrophe risks

- Hurricanes, tornadoes, typhoons
- Winter storms
- Earthquakes
- Hail and winter freeze
- Drought
- Flood
- Wildfire

Other non-life-related risks

- Marine and Offshore Energy
- Motor
- Aviation

Life related risk

- Mortality/extreme mortality
- Lapse risk
- Embedded value/
Value of in-force
(life insurance policy pools)
- Longevity (not active in this area)
- We are NOT ACTIVE in the area of
Life Settlements

Treaty type	Transaction type	Reinsurance type	Instrument type	Trigger type
<ul style="list-style-type: none">• Excess of Loss ('XL')• Aggregate Excess of Loss ('AggXL')• Stop Loss• Whole account quota share	<ul style="list-style-type: none">• Cat bond• Cat bond Lite• Collateralised Reinsurance transactions ('CollRe')• Industry Loss Warranties ('ILW')• Swap• Sidecar	<ul style="list-style-type: none">• Reinsurance• Retrocession• Direct	<ul style="list-style-type: none">• Note/Bond• Shares (common, preferred, partially paid)	<ul style="list-style-type: none">• Indemnity• Parametric Index• Industry Loss index• Modelled loss

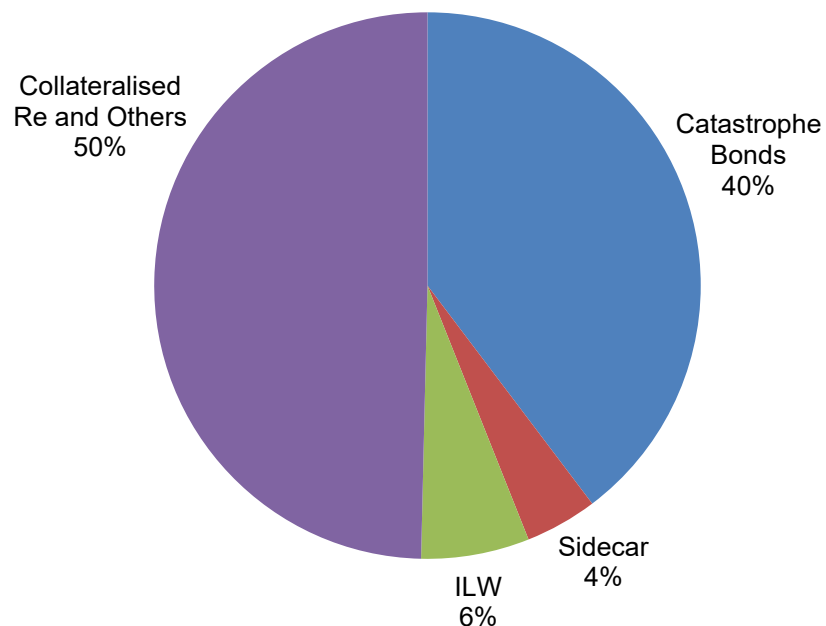
Source: Schroders Capital; world map for illustration purposes only.

ILS instruments

Breakdown of the building blocks that make up the asset class

Total ILS Universe: ~\$100 billion¹

Approximate² ILS universe split by instrument type



Instruments to access ILS exposure		Typical Term	Trading/Liquidity
Catastrophe Bonds	<ul style="list-style-type: none"> Standardised tradable securities that incur losses in the event of specified perils and trigger types Active secondary market 	Multi-year	Publicly tradeable, liquid
Collateralised Reinsurance	<ul style="list-style-type: none"> Private reinsurance agreements Ability to customise risk/return profile Provides reinsurance capacity on fully collateralised basis Ability to enhance return through operational leverage 	1 year or less	Privately negotiated, limited liquidity
Industry Loss Warranties (ILWs)	<ul style="list-style-type: none"> OTC insurance derivatives contracts linked to industry-wide losses Private, with the ability to customise Used by insurers and ILS managers Triggers based on third-party reporting agency (PCS, Perils etc.) 	1 year or less	Privately negotiated, limited liquidity
Sidecars (Quota Shares)	<ul style="list-style-type: none"> Vehicles established by reinsurers and capitalised through syndicated preferred shares or notes Participate in risk portfolio side-by-side with reinsurer Diversified across region and peril based on a pre-agreed book of business 	1 year	Privately negotiated, limited liquidity

Source: Schroders Capital, Aon Benfield – Aon Thought Leadership ILS Annual Report September 2020, ¹Artemis.bm, 31 March 2021. ²Cat bond total figure excludes mortgage insurance risks.

ILS market

Structure of insurance and reinsurance market

Securitisation/Capital markets:

Insurance and reinsurance companies cede part of their risks to capital market players for a coupon

ILS

Retrocession

Reinsurers manage concentration risk by geographical diversification/investing different lines of business

Re-insurer

ILS

Re-insurance

Insurance companies transfer portfolio of similar risks to reinsurer in return for a risk premium; this reduces loss volatility

Re-insurer

ILS

Primary insurance

Individuals and companies buy insurance protection for a premium; small losses are retained and paid by the insurer

Insurer

ILS

Catastrophes



Homeowner/
Renters Property



Auto



Commercial



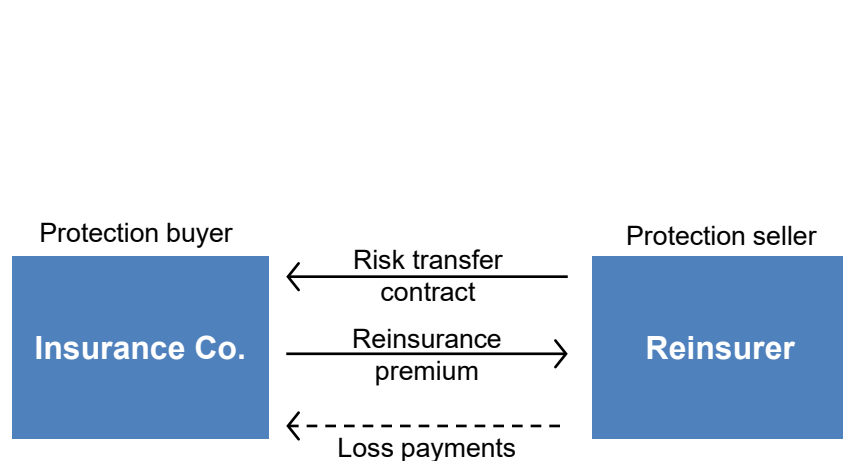
Life

Source: Schroders Capital; images: freepic.com and dreamstime.com.

Difference between traditional reinsurance and ILS

Rated promise to pay vs. fully secured structure

Traditional reinsurance



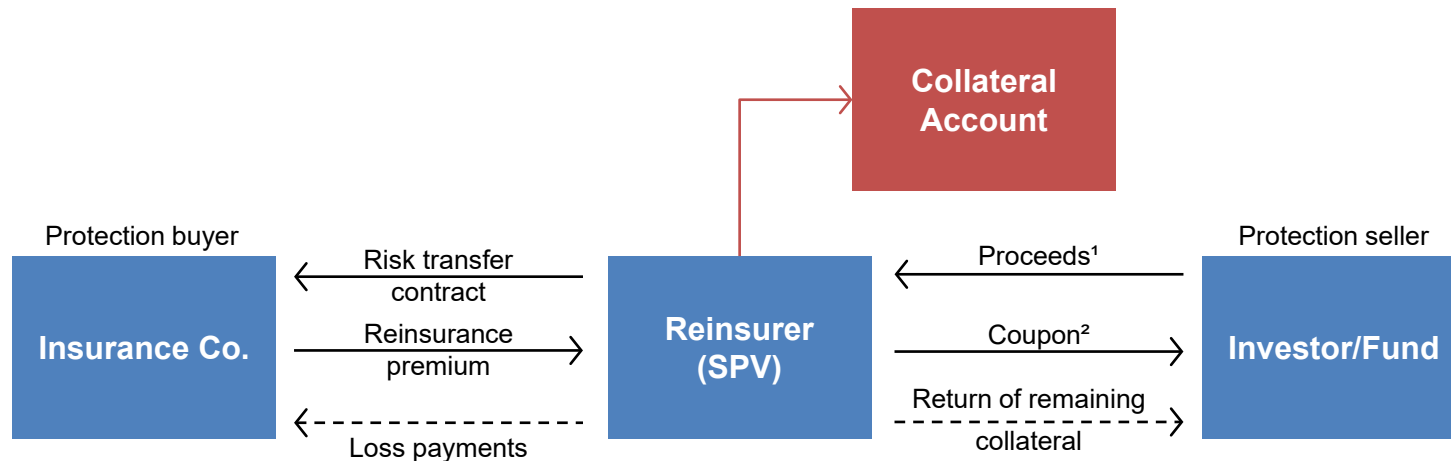
Protection sold by Reinsurer

Counterparty is strongly capitalised and rated A or better by A.M. Best or Standard & Poor's

Obligation is not secured other than through contractual promise to pay in event of loss

Protection buyer takes counterparty credit and performance risk

Collateralised reinsurance



Protection is sold through SPV Reinsurer

Counterparty is thinly capitalised and not rated

Obligation to pay in event of loss is fully secured through an on-demand collateral trust structure where the protection buyer is the beneficiary

ILS Structure provides investors the benefit of uncorrelated exposure to insurance risk:

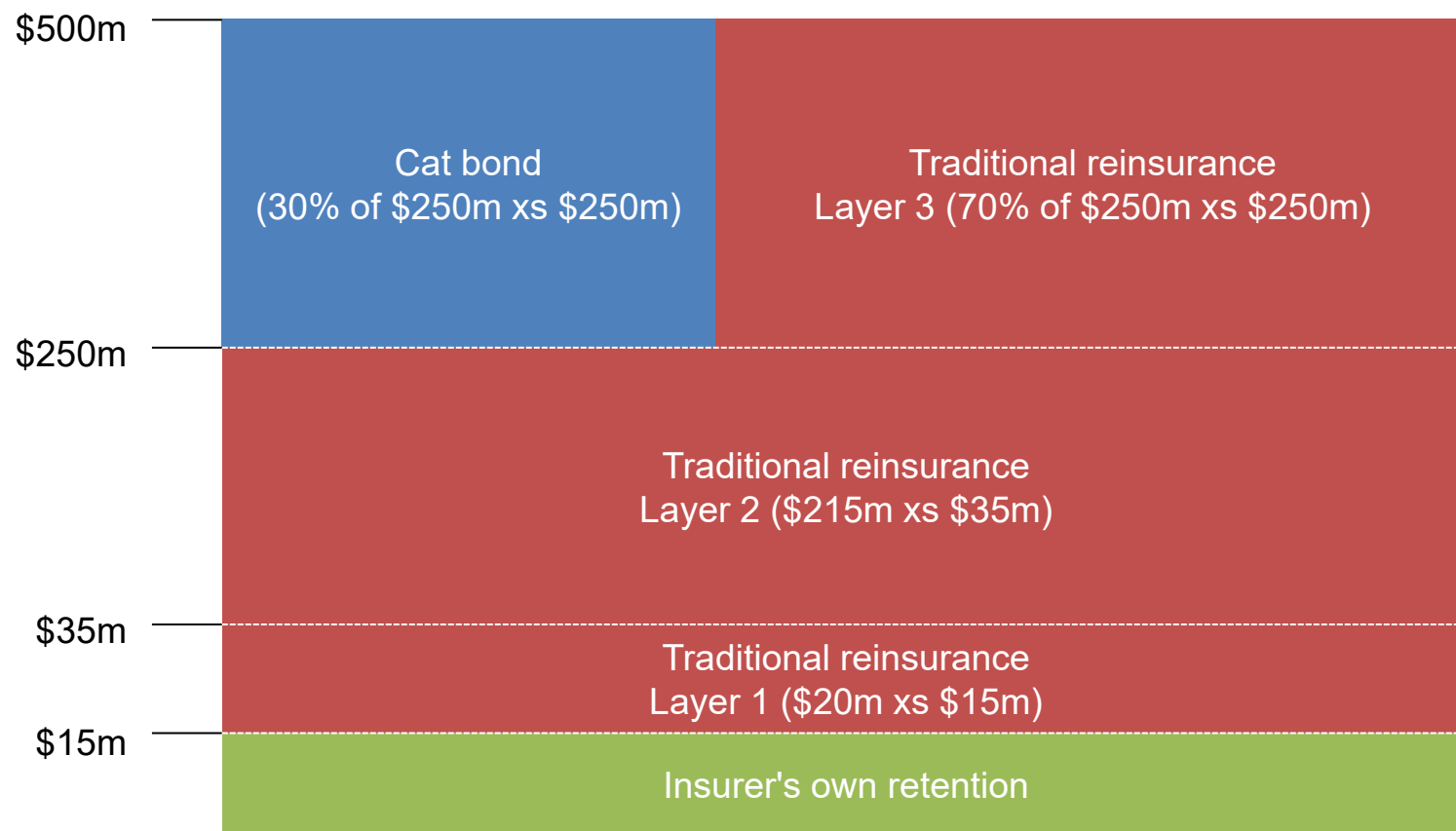
- SPV structure limits exposure to insurer, removing credit risk
- Collateral account is funded by high-quality fixed income assets, limiting duration risk

Source: Schroders Capital. Notes: ¹Proceeds from share or debt issuance, ²Coupon = risk premium + money market return.

Example of an indemnity cat bond

Indemnity trigger

- Trigger is on a per-occurrence basis, i.e., linked to losses from a single natural catastrophe (as opposed to an aggregation of events)
- Cat bond holders will start suffering principal losses when insured losses caused by a covered event exceed \$250m
- Cat bond holders will incur 30% of the insured losses between \$250 and \$500m
- Insurer retains 'first layer of losses' of \$15m which creates an alignment of interests



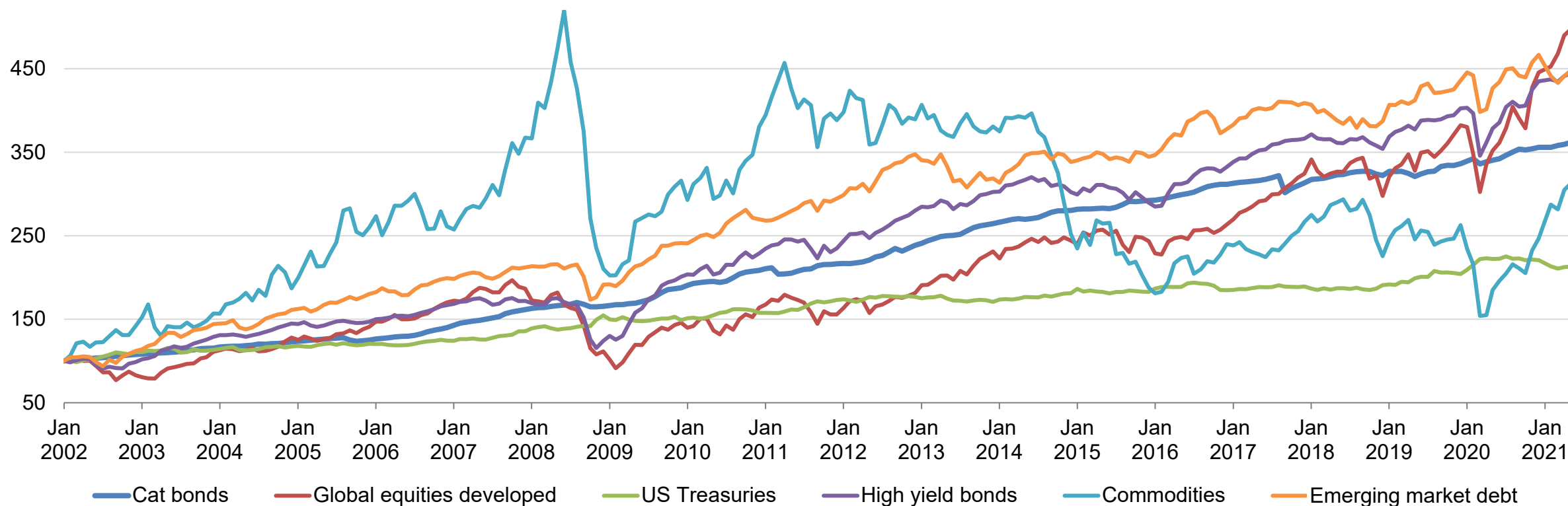
Source: Schroders Capital.



INVESTMENT CASE

ILS diversification benefits persist through market volatility

Low correlation of ILS to all major financial assets



Past performance is not a guide to future performance.

Source: Schroders Capital. Bloomberg, monthly returns from 31 January 2002 to 31 May 2021 in USD. Cat bonds: Swiss Re Global Cat Bond TR Index, US Treasuries: BofA Merrill Lynch US Treasury, Global Equities Developed: MSCI World, High yield bonds: BofA Merrill Lynch Global High Yield Index, Commodities: S&P GSCI, Emerging Markets Debt: JP Morgan EMBI+.

ILS asset class

Attractive historical returns, excellent diversification versus other asset classes

	Cat Bonds	Equities	IG Bonds	Hedge Funds	Commodities	High Yield Bonds
Annualised return (USD)	6.9%	9.1%	5.5%	2.1%	5.9%	8.0%
Volatility annual	2.9%	14.7%	5.0%	4.6%	23.5%	9.9%
Positive months	92%	67%	68%	65%	59%	70%
Cat bonds positive if index negative	–	84%	80%	87%	87%	90%
Worst month	-6.3%	-16.8%	-6.4%	-9.9%	-28.7%	-17.3%
Date of worst month	Sep. 2017	Oct. 2008	Oct. 2008	Oct. 2008	Mar. 2020	Oct. 2008

Past performance is not a guide to future performance and may not be repeated.

Source: Bloomberg, Swiss Re, Schroders Capital. Data from 31 December 2001 to 31 May 2021. Cat Bonds: Swiss Re Global Cat Bond Performance Total Return Index, Equities: S&P500 Composite Index, IG bonds: Dow Jones AIG US 10 year IG Bonds Total Return Index, Commodities: S&P Goldman Sachs Commodity Index, Hedge Funds: HFRX Equally Weighted Index, High Yield Bonds: Merrill Lynch Global HY Index. Cat bonds positive if index negative refers to monthly performance of Swiss Re Global Cat Bond Index vs. other indices. Worst month figure refers to the Swiss Re Cat Bond Index, which suffered the biggest draw-down over all cat bond indices in September 2017.



MARKET INFORMATION

Is it time to consider Insurance-Linked Securities?

Summary

ILS is a timely solution for investors

Diversification to traditional asset classes

- ILS has historically provided investors with **low correlations to traditional asset classes**, a benefit confirmed during recent market dislocations

Recent insured losses led to rate increases

- Recent years saw significant losses in the reinsurance market
- Insured losses have led to a lack of capital, especially in the retrocession market, pushing insurance rates higher

COVID-19 likely to drive further rate increases

- COVID-19 likely to mean \$40 to 200 billion in insured losses for insurance companies
- Financial market dislocation also means insurance company assets may see impairments
- Combined effects will likely result in further rate increases and **higher yields available for ILS investors**

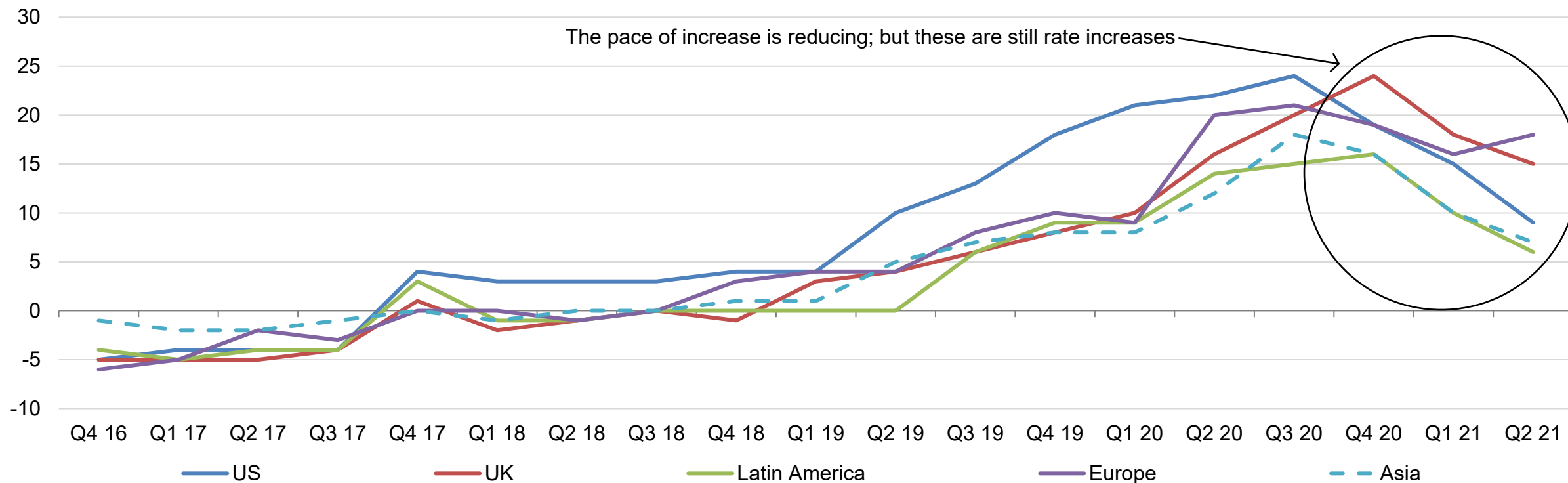
Portfolios will seek to capitalise on opportunity

- Increases yield with constant risk
- Use full scope of opportunities in market, liquid and illiquid
- **Returns expected to materialise by year-end**, (if no major cat event)

Source: Schroders Capital. Diversification cannot ensure a profit or protect against loss of principal. The views and opinions shared are those of individual presenters and are subject to change. The slide contains some forecasted views which should not be relied upon and are not guarantee to materialise.

Insured events of 2017 through 2020 resulted in rates hardening globally

Primary property insurance market rate increases year-on-year per quarter

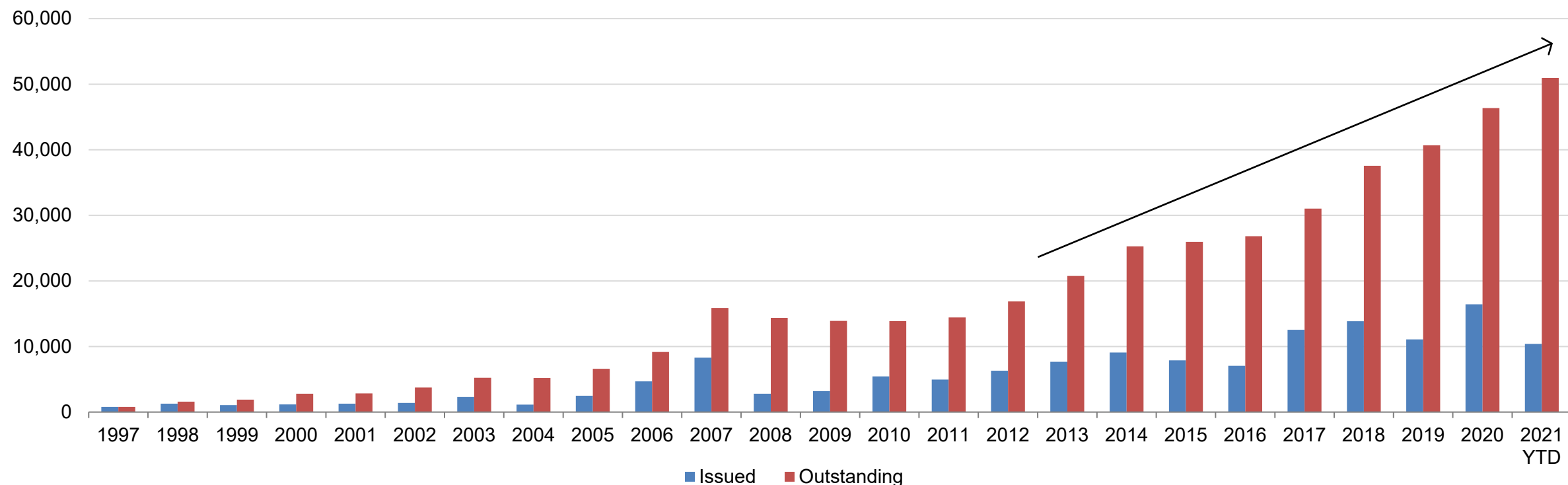


Source: Marsh – Global Insurance Market Index Q1 2021 (May 2021).

ILS growth drivers

Significant growth of the cat bond market since 2011

Cat bond market development 1997–2021 (in \$m)



Source: Artemis.bm, 31 May 2021, including mortgage insurance risks which Schroders Capital does not include in our investment universe.



ILS AT SCHRODERS CAPITAL A BRIEF OVERVIEW

Schroders Capital ILS at a glance



Dedicated team for
Insurance-linked Securities



One of the largest managers in the asset
class, with \$4.0 billion under
management



Strategies targeting the full spectrum¹ of
ILS investment opportunities



Combination of tradeable and private
segments of ILS



Investments through mandates
and funds



Servicing institutional and intermediary
investors globally



Strong absolute
and relative performance



High emphasis on
responsible investing

Past performance is not a guide to future performance.

Source: Schroders Capital, May 2021. ¹Investments are made across natural catastrophe, life-related and other man-made risks.

Insurance-Linked Securities

Dedicated ILS team



Stephan Ruoff
Global Head of ILS
27 years



Dirk Lohmann
Chairman of ILS
41 years



Dr. Christoph Hummel
Head of Analytics ILS
21 years



Flavio Matter
Head of Origination ILS
17 years



Daniel Ineichen
Head of Portfolio
Management ILS
21 years



Scott Mitchell
Head of Life ILS
23 years



Mark Gibson
Head of Products
and Solutions ILS
34 years

Dedicated, specialist supporting resources:

4

Fund
Management

3

Life ILS

6

Analytics

2

Origination
Non-life

3

Products and
Solutions

2

Transaction
Management

Awards

- 2019** **ILS Manager of the Year**
Trading Risk magazine
- 2018** **ILS Contributor of Year**
Trading Risk magazine
- 2016** **Life transaction of the Year 2016**
Trading Risk magazine
(SQ ReVita II Ltd.)
- 2015** **Investor of the Year 2015**
Trading Risk magazine
- 2011** **ILS Transaction of the Year 2011**
Review magazine (SQ ReVita I Ltd.)

Source: Schroders Capital as at June 2021. Years shown are years of industry experience.

Our USP

How we differentiate ourselves from our peers

Independence

- Not affiliated to (re)insurer
- Fully owned by asset manager
- Full alignment of interests with investors

Track record

- Across life and non-life strats
- Consistent returns since inception
- Loss creep/trapped collateral below market

Sourcing

- Broad broker/dealer network
- Primary and secondary markets
- Liquid and non-liquid transactions

Underwriting

- Anticipate/benefit from market dislocations
- Agnostic to format (Bond, Note, Coll Re, Fronted, etc.)

Portfolios

- Leader in cat bonds enables broader strategies to thrive (i.e. risk benchmarking, available liquidity for opportunities)
- Our stronghold in the Life ILS market enables our 'All' strategy to be better diversified than most other diversified strategies in the market



Modelling

- Own model view
- Broad academic and professional backgrounds
- Consulting services to top (re)insurers

Valuation

- Robust, industry-leading and award-winning valuation framework
- Fair valuation based on IFRS 13 principles

Analytics

- 8 actuaries
- 1 earthquake engineer, 1 geophysicist and 1 meteorologist

Expertise

- 400+ years of relevant industry expertise
- Long history as ILS sponsors/advisors
- Balance sheet responsibility and C-level management experience

Communication

- Timely communication and accurate estimation of impact from events
- Interactive investor relations

Source: Schroders Capital, June 2021.

Investment mantra

Key factors we apply in our approach to ILS management

Moderate diversification	Don't overdo diversification (ILS is a diversifier already)
Information symmetry	Overcome information asymmetry (e.g. for retro covers, choose your counterparty carefully, focus on the detail of contract wordings and structures)
Transparency	Take advantage of opportunities; but maintain transparency (why, what, how)
Attrition losses	Be aware of attrition losses (possible impact of developing weather patterns and climate change)
Trapped collateral	Don't allow collateral to be trapped unnecessarily (and manage it actively if it is trapped)

Source: Schroders Capital.

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