AEGEAN INTELLIGENCE GROUP

PUBLISHABLE MARKET RESEARCH · 2026

CLASSIFICATION
PUBLIC

PRODUCT ID
PMR-2026-0526-GLOBAL-003

TIMELINESS
CURRENT

DATE
2026-05-26

The Uninsurable Frontier

Parametric, ILS, and the Capital-Markets Repartition of Catastrophe Risk

$61.3B
OUTSTANDING CAT-BOND MARKET, YEAR-END 2025

$136B
ALTERNATIVE OR ILS REINSURANCE CAPITAL

$483M
CCRIF LIFETIME SOVEREIGN PARAMETRIC PAYOUTS

EXECUTIVE DASHBOARD

Where traditional indemnity insurance cannot price or service the risk, capital markets and parametric structures are stepping in at record scale. Pension funds and sovereign capital are now writing payout-triggered cover against physical signals, and the design of the trigger has become the new governing constraint on whether the protection gap closes or merely relocates.

THESIS

The fastest-growing segment of catastrophe risk transfer is **parametric and insurance-linked securities**, where pension and sovereign capital now writes payout-triggered cover against physical signals at record scale, leaving trigger design itself as the new governing constraint on whether the protection gap is closed or merely relocated inside the product.

KEY STATISTICS

$61.3B
outstanding cat-bond market, year-end 2025[1]

$25.6B
record cat-bond issuance during 2025[1]

$136B
alternative/ILS reinsurance capital, end-2025[2]

+18%
alt-capital growth in 2025 vs. 8% for traditional re[2]

$19.4B
global parametric insurance market in 2025[3]

$483M
CCRIF lifetime payouts, 82 events, all <14 days[4]

13.6%
UCITS cat-bond fund average return in 2024[5]

$8.9B
PFZW Dutch pension ILS portfolio at year-end 2025[6]

Scope & method. Open-source intelligence verified against allowlisted Tier 1-4 sources. Cat-bond and ILS market figures from Artemis and Aon; sovereign-pool payouts from CCRIF, SEADRIF, ARC, and PCRIC disclosures; parametric market size from triangulated industry research. Confidence and rationale carried on every judgment. Window: 2024 to early 2026. Timeliness: CURRENT, with a 6 to 12 month shelf life.

KEY JUDGMENTS

Six judgments anchor this assessment. Each is tied to the cited evidence in the sections that follow and carries an explicit confidence level.

1 High — ILS and cat-bond markets are at record scale and grew through the 2023 to 2025 catastrophe cycle rather than retreating from it.[1, 2]

2 High — Pension funds and sovereign-aligned capital are the structural allocators behind the growth; single-entity allocations exceed $1B at multiple US and EU pension systems.[6, 27, 28, 29]

3 High — Parametric products are scaling fastest where indemnity has historically failed: sovereigns, agriculture, renewable infrastructure, small-business hurricane cover.[3, 4, 16, 20]

4 Moderate — Basis risk is the central engineering and governance constraint; the discontinued World Bank pandemic bond is the canonical demonstration of how trigger overengineering renders a product useless.[23, 24]

5 High — The four major sovereign parametric pools (ARC, CCRIF, SEADRIF, PCRIC) are converging architecturally and exploring a joint reinsurance facility, indicating consolidation toward shared capital-markets access.[18]

6 Moderate — Where parametric triggers depend on modeled rather than directly observed data (USGS ShakeMap), the product transfers a specific data-governance question to the carrier rather than eliminating it.[25, 26]

SECTION 01 · STRUCTURE

The Shape of the Protection Gap

Indemnity insurance functions when an insurable interest exists, loss can be measured after the event, and the carrier's claims function can process the assessment in a useful window. Across catastrophe exposures, all three conditions are stressed.

Swiss Re Institute's sigma series has documented through multiple vintages that economic catastrophe losses run substantially above insured losses, with the gap concentrated in lower-income geographies, lower-income segments within higher-income geographies, and perils that the traditional underwriter declines to write.[9] Hurricane Helene's pattern, with inland counties at sub-1-percent flood-insurance penetration, is the recent canonical case at the household level.[10]

Three structural features of indemnity shape where the gap appears. First, claims-handling latency: loss adjustment is expensive and slow. For a Caribbean island state needing relief funds within 72 hours of a Category 4 landfall, conventional timelines are unworkable. Second, adverse selection and moral hazard: voluntary purchase selects against the worst exposures; required coverage needs a mandate. Third, concentrated underwriting capacity: peak-zone perils consume disproportionate capacity even when reinsurance is abundant.

The capital-markets and parametric response addresses each of these features at a different layer. Cat bonds and ILS deepen the capacity available for peak-zone tail risk; parametric structures eliminate claims-handling latency; sovereign pools aggregate adverse-selection-resistant demand. The growth of the answer is the subject of the next two sections.

ASSESSMENT · HIGH CONFIDENCE

The decision-relevant fact is not that any single peril is uninsurable in absolute terms. It is that the standard indemnity contract is operationally unworkable for entire categories of exposure: rapid sovereign relief, smallholder agriculture, named-storm-driven revenue loss for service businesses without physical damage. Parametric and ILS architecture is engineered for that gap.

Rationale: *The structural mismatch between indemnity claims-handling speed and the operational windows of disaster response is the same gap documented across CCRIF, ARC, SEADRIF, and PCRIC payout case histories.*

SECTION 02 · CAPITAL

The Capital-Markets Answer

The insurance-linked securities market has consolidated as the principal mechanism for moving peak-zone catastrophe risk to balance sheets that can price and absorb it. 2024 and 2025 set successive records.

Cat-bond issuance hit a record $17.7 billion in 2024, lifting outstanding cat bonds to $49.5 billion at year-end. 2025 broke that record with $25.6 billion of new issuance, taking outstanding cat bonds to $61.3 billion at year-end with 24 percent annual growth.[1, 11] Aon's broader ILS aggregate, including collateralized reinsurance, sidecars, and other structures, reached $136 billion at end-2025, up 18 percent year-on-year and growing faster than traditional reinsurance capital's 8 percent.[2]

Performance through 2024 supports the scale-up. UCITS cat-bond funds averaged 13.62 percent return for the year on Plenum's index methodology.[5] Mark-to-market implied losses from Hurricanes Helene and Milton across the cat-bond market totaled approximately $380 million per Lane Financial; realized losses were minimal to non-existent for most fund strategies because bonds attach at remote-tail return periods the events did not cross.[7]

The exception is instructive. NFIP-related FloodSmart Re cat bonds experienced principal impairment as FEMA's updated NFIP Helene loss estimate rose above attachments on certain note classes. Remaining outstanding Class B notes traded around the 50s and Class C notes around the 30s. Where attachments were lower and aggregate triggers more responsive to inland-flood loss, structures delivered loss to investors in proportion to the program experience: the cat-bond model functioning, not failing.[13]

ASSESSMENT · HIGH CONFIDENCE

$61.3B in cat bonds and $136B in alternative reinsurance capital are still small relative to global insurance balance sheets. The significance is that this is the marginal capital pricing the tail. When the next major event arrives, the question of whether the market repays-then-replenishes is largely a question of how ILS investors respond.

Rationale: *Sustained record issuance through a cycle that included the largest wildfire loss in industry history is, on its face, a vote of confidence in cat-bond structures and the institutional allocator base that funds them.*

SECTION 03 · SOVEREIGN

Parametric Goes Corporate and Sovereign

Parametric insurance, defined as a contract that pays when a measurable physical signal crosses a defined threshold, has scaled substantially across both sovereign and corporate segments in 2024 and 2025.

The aggregate market reached approximately $19.4 billion in 2025 on industry-research estimates, with forecasts to $29 billion or more by 2033 to 2035.[3] AXA Climate held over 9 percent share of the parametric market by 2025; Swiss Re, Munich Re, AXA Climate, and Descartes Underwriting are the industry-leading providers. Descartes crossed $200 million in written premium in mid-2025 and launched a parametric product for utility-scale solar farms against tornado damage using satellite analytics.[16]

The sovereign-parametric segment is consolidating around four regional risk pools: African Risk Capacity Ltd. (ARC), Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC), Southeast Asia Disaster Risk Insurance Facility (SEADRIF), and Pacific Catastrophe Risk Insurance Company (PCRIC). CCRIF reports cumulative payouts of $483 million across 82 events since inception, every payout disbursed within fourteen days of the triggering event.[4]

Recent payouts illustrate the operational tempo. CCRIF disbursed $91.9 million to Jamaica after Hurricane Melissa in November 2025 and $84.5 million to seven members after Hurricane Beryl in 2024.[4] SEADRIF made a $2 million payout to Lao PDR following multiple medium-sized disasters in September 2025, disbursed six days after the national disaster

management office's final impact report; that policy was the first to use nationally reported disaster impact data as the trigger rather than a remote-sensed physical signal.[8]

The four pools committed in February 2026 to explore a joint risk-finance and reinsurance platform. This is the architecturally consequential move: a shared platform across the four regional pools would aggregate enough notional exposure to access capital markets directly at scale, replicating much of the ILS architecture for sovereign-pool needs specifically.[18]

ASSESSMENT · HIGH CONFIDENCE

The corporate-parametric segment is growing fastest where indemnity has the worst fit: renewable-energy generation, Caribbean tourism (revenue loss from named-storm windfields regardless of physical damage), and agriculture. Hurricane Melissa triggered a $150M parametric policy for Jamaica using barometric pressure as the primary trigger, a more verifiable index than eyewall wind speed.

Rationale: *Sovereign and corporate volume growth, institutional consolidation of the sovereign-pool architecture, and a recurring sequence of fast post-event payouts validate the model at scale.*

SECTION 04 · BASIS RISK

Basis Risk Is the Binding Constraint

Basis risk is the structural mismatch between a parametric trigger and the loss it is intended to cover. It is to parametric what claims-handling is to indemnity, the central operational risk that distinguishes the product from a pure derivative.

Three categories of basis risk recur. Geographic: the trigger event occurs at sufficient distance from the policyholder's exposure that no damage results. Intensity: the threshold is crossed at the index location but the actual loss is materially lower than the policy's payout. Coverage-gap: loss occurs from a peril or sub-type the policy was not designed to cover.[21, 22]

The cautionary structure that frames the basis-risk question at scale is the World Bank's Pandemic Emergency Financing Facility (PEF) and its associated pandemic bonds, launched in 2017 after the 2014 West Africa Ebola outbreak. The PEF payout was conditioned on multiple compound triggers: minimum case count, minimum death count, exponential

growth rate, minimum twelve-week duration, geographic spread across countries, and confirmation rate thresholds.[23]

In the 2018 to 2019 DRC Ebola outbreak the disease did not cross international borders and the bonds did not trigger. During early 2020 COVID-19 the bonds eventually triggered, but only after months of delay during which investors continued to receive interest payments. The World Bank discontinued the PEF in 2020 and indicated 'no plans for a PEF 2.0.'[23, 24]

A parallel category arises in earthquake parametric. USGS ShakeMap, the canonical US trigger source, does not reflect the actual distribution of shaking intensity after an event according to USGS itself and is more model than observation in regions without dense seismic monitoring.[25] The 2024 Vanuatu earthquake parametric paid out, but Vanuatu has no strong-motion instruments within 250 km of the epicenter, making the ShakeMap basis primarily a model derivation.[26] When the trigger is a model output rather than a direct observation, parametric does not eliminate model risk; it shifts who carries it.

ASSESSMENT · HIGH CONFIDENCE

Capital is abundant; sovereign demand is established. The question that determines whether parametric closes the protection gap or reproduces it inside the product is whether trigger architecture aligns with policy purpose. The discontinued World Bank PEF is the canonical demonstration of how alignment can fail; trigger-design governance will become a regulatory and rating-agency focus.

Rationale: *Across the last five years, every documented major parametric structure failure has been a trigger-design failure rather than a capital failure. The next stage of expansion is therefore a trigger-design governance question rather than a capital-availability question.*

SECTION 05 · ALLOCATORS

Pension and Sovereign Money Underwrites the Tail

The capital underwriting cat-bond and ILS exposure has shifted progressively toward institutional long-duration allocators. The composition of this allocator base determines how the system responds to a major loss event.

Pension funds are the largest single category. PFZW manages the largest ILS exposure tracked publicly: its PGGM-run portfolio reached $8.904 billion at year-end 2025 with a 12.4

percent USD-denominated return for the year.[6] Among US public pensions, the Florida Retirement System ILS allocation reached approximately 1 percent of fund assets, around $2.23 billion at year-end 2025; CalPERS reached $1.451 billion with allocations to Tangency Capital, Integral ILS, and Swiss Re's SRILIAC.[27, 28]

European institutional examples include City of Zurich Pension at approximately $1.58 billion with a 6.9 percent 2025 return.[29] Corporate pension allocations are smaller but growing; Coca-Cola's pension fund grew its ILS investment to $266 million in 2025 on returns.[30] Sovereign-wealth funds are less publicly disclosed but increasingly active in collateralized reinsurance, sidecars, and direct cat-bond allocations.

The structural significance is two-sided. On the upside, allocators with multi-decade horizons and policy commitments to climate-aligned capital are stable lenders; their participation explains why the cat-bond market remained open and growing during 2024. On the downside, allocator behavior in a major loss event is the system's principal stress test. A 1-in-200-year event that activated multiple attachment points across outstanding cat bonds would mark down pension and sovereign-wealth NAVs by amounts that could trigger formal allocator-level reviews and pause inflows.

ASSESSMENT · MODERATE CONFIDENCE

The dominant 2026 stress test for the ILS architecture is not a single carrier insolvency or a single peril re-pricing; it is the behavior of the institutional allocator base after the next industry-loss event materially above $100B. Allocator-level review processes typically take quarters; the cat-bond issuance window could compress materially during that window.

Rationale: *Public allocator-level data is fragmentary and reporting lag is material. The judgment is moderate because the magnitudes that would trigger formal review are at the upper bound of plausible 2026 events, not within base-case expectations.*

SECTION 06 · OUTLOOK

Three Scenarios, 12 to 24 Months

Construction confidence reflects analytical quality, not probability. Each scenario carries a velocity and an earliest-signal trigger.

Baseline · Continued growth with pricing pressure

CONSTRUCTION CONFIDENCE: HIGH · VELOCITY: GRADUAL

Cat-bond issuance continues at $20B to $28B annually; outstanding market grows toward $70B to $80B by end-2026. Parametric corporate premium continues at double-digit growth; sovereign-pool joint platform moves from study to formal launch by 2027. Pricing softens at the top end of cat-bond programs as competition compresses risk margins toward technical pricing.

SIGNAL TO WATCH: Q2 2026 ILS ALLOCATOR COMMITMENTS FROM MAJOR US AND EUROPEAN PENSIONS FOR 2026 VINTAGE

Deterioration · Trigger-design shock

CONSTRUCTION CONFIDENCE: MODERATE · VELOCITY: RAPID

A major sovereign parametric payout fails to materialize where expected (geographic or intensity basis risk binds), or a corporate parametric structure pays out without commensurate loss in a visible way, triggering governance and rating-agency review. Allocator base pauses pending review; cat-bond issuance contracts; parametric corporate growth slows.

SIGNAL TO WATCH: A MAJOR EVENT WHERE A SOVEREIGN POOL ISSUES A PUBLIC STATEMENT ON A NON-TRIGGER WITH POLICY-PURPOSE JUSTIFICATION

Stabilization · Multilateral integration

CONSTRUCTION CONFIDENCE: MODERATE · VELOCITY: STRUCTURAL

The four sovereign parametric pools formalize the joint reinsurance platform discussed at the February 2026 Bellagio meeting. Multilateral development banks channel climate-finance commitments through parametric structures at scale with standardized trigger-design governance. Parametric becomes the principal disbursement vehicle for climate-adaptation finance.

SIGNAL TO WATCH: A MULTILATERAL DISASTER-RISK-FINANCE COMMITMENT OF $1B OR MORE CHANNELED THROUGH A PARAMETRIC STRUCTURE WITH PUBLIC TRIGGER-DESIGN SPECIFICATION

ASSESSMENT · HIGH CONFIDENCE

The 2026 to 2027 trajectory of the uninsurable frontier is determined by two interacting factors: the resilience of the institutional allocator base and the credibility of trigger-design governance. Capital strength tilts toward baseline. A trigger-design shock would push toward deterioration. Multilateral integration through the sovereign pool architecture would push toward stabilization. Baseline is the most likely twelve-month path; stabilization is the most likely two-to-three-year destination.

Rationale: *The institutional commitments already made (Bellagio sovereign-pool platform, growing pension allocations, multilateral DRF programming) all point toward eventual integration. The question is whether the path runs through a deterioration event or through orderly architecture.*

SOURCE REGISTRY

1. Artemis, "Catastrophe bond issuance breaks Q4 and full-year records, market grows 24%," 2026.
2. Artemis, "Alternative/ILS reinsurance capital grew 18% to $136bn in 2025 (Aon)," 2026.
3. SNS Insider / Global Market Insights, "Parametric Insurance Market Size, Share & Growth Report 2035," 2025.
4. CCRIF SPC, "Driving Climate Resilience Through Innovation: Regional Risk Pools Ahead of COP30," 2025.
5. Artemis, "UCITS catastrophe bond funds average 13.62% return for 2024 (Plenum Indices)," 2025.
6. Artemis, "PGGM/PFZW ILS investments returned 12.4% USD, ended 2025 at $8.904bn AUM," 2026.
7. Artemis, "$380m implied Helene & Milton cat bond loss keeps pricing in neutral (Lane Financial)," 2024.
8. SEADRIF, "Driving Climate Resilience Through Innovation: Regional Risk Pools Ahead of COP30," 2025.
9. Swiss Re Institute, "sigma series on global insured catastrophe losses (1/2026)," 2026-03.
10. Rethought Flood, "Bridging the Flood Insurance Gap: Lessons from Hurricane Helene," 2024.
11. Artemis, "Cat bond issuance breaks all records in 2024 (market grows 10% to $49.44bn)," 2025-01.
12. Bermuda Re, "ILS market posts stellar returns yet again in 2024," 2025.
13. Artemis, "Two FloodSmart Re cat bonds see partial repayments on NFIP Helene loss," 2025.
14. Aon, "Reinsurance Market Dynamics 2025 Report," 2025-2026.
15. Global Reinsurance, "Howden heralds re-balancing as rates fall to pre-hard-market levels," 2026.
16. Descartes Underwriting, "Parametric earthquake / solar / industry product disclosures," 2025.
17. SkyQuest aggregator, "Arbol Series B and homeowners-insurer acquisition (synthesized reporting)," 2025.

18. Artemis, "Parametric pools ARC, CCRIF, PCRIC, SEADRIF to explore joint reinsurance platform," 2026.
19. The Insurer, "Building resilience in Asia: insurance initiatives across the region," 2025.
20. Arbol, "Hurricane Insurance in 2025: How Parametric Coverage Fills the Growing Protection Gap," 2025.
21. PwC Switzerland, "Basis risk in parametric insurance," accessed 2026-05.
22. WTW, "Enhancing Disaster Resilience: Addressing Basis Risk in Parametric Insurance," 2023-12.
23. Bretton Woods Project, "World Bank abandons pandemic bond instrument after disastrous Covid-19 response," 2020-10.
24. Center for Global Development, "Why the World Bank Should Not Renew the Pandemic Emergency Facility Insurance Window," 2020.
25. Guy Carpenter, "Use of USGS ShakeMap for Parametric Earthquake Transactions," 2022.
26. Temblor.net, "2024 Vanuatu earthquake triggered rapid insurance payout for emergency response," 2024.
27. Artemis, "Florida Retirement System Pension grows ILS allocation to 1% of fund, $2.23bn," 2026.
28. Artemis, "CalPERS ILS investments hit $1.451bn at YE 2025," 2026.
29. Artemis, "City of Zurich Pension ILS investments grow to $1.58bn, returned 6.9% in 2025," 2026.
30. Artemis, "Coca-Cola pension fund ILS investment grew to $266m on returns in 2025," 2026.
31. Aon Securities, "ILS Annual Report (July 2024 to June 2025)," 2025.

AEGEAN INTELLIGENCE GROUP

Publishable Market Research

Timeliness: CURRENT. Cat-bond issuance, ILS allocator commitments, and sovereign-pool architecture are evolving on quarterly to annual cadence. This assessment carries a six- to twelve-month shelf life. Material updates may follow Q3 2026 cat-bond issuance, any principal-impairment event, or the formal launch of the sovereign-pool joint reinsurance facility.

Classification: PUBLIC. Prepared on open-source intelligence verified against allowlisted sources. Figures cited are drawn from public broker, multilateral, and rating-agency disclosures; analytic judgments are Aegean's.

contact@aegeanintel.com · aegeanintel.com