

Challenges and Opportunities to scale inclusive disaster protection in the Caribbean

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**Disaster Risk Financing
& Insurance Program**

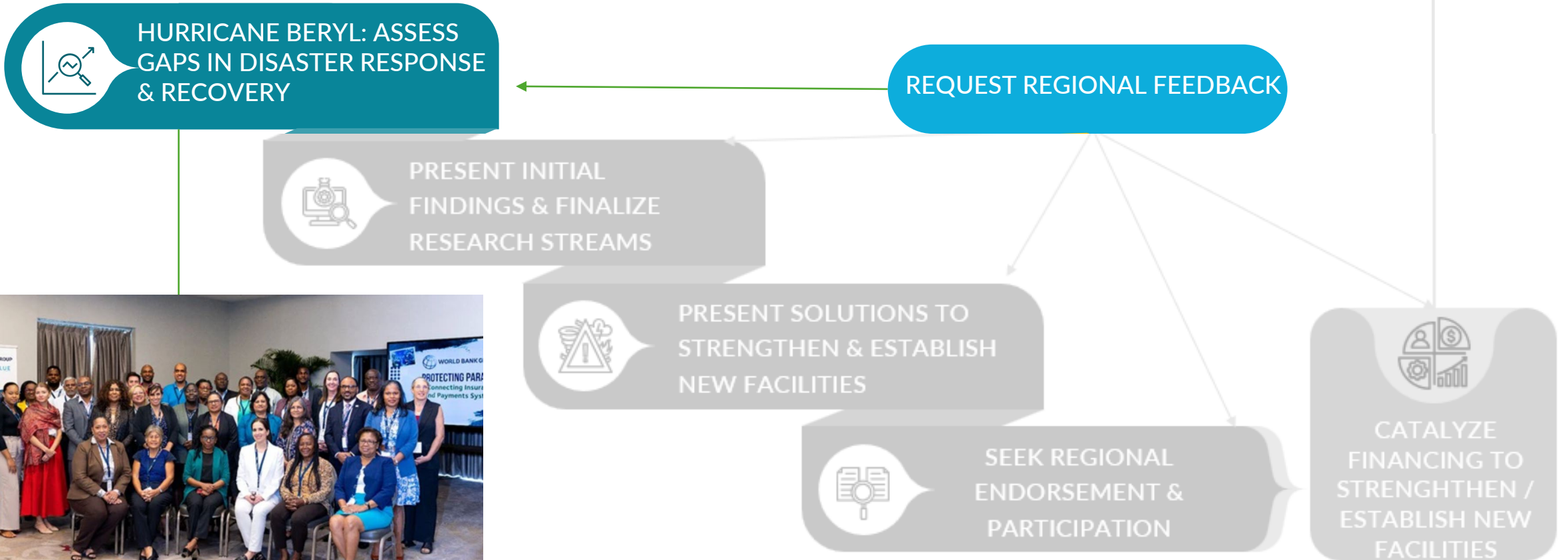


Agenda

- Background and rationale
 - Findings from regional insurance and reinsurance study
 - Next Steps
-

BACKGROUND & RATIONALE

HOW CAN CARIBBEAN COUNTRIES STRENGTHEN FINANCIAL SECTOR TO SUPPORT DISASTER RESILIENCE & RESPONSE EFFORTS?



KEY INSIGHTS & LESSONS FROM HURRICANE BERYL & AFFIRMED BY MELISSA



Shock-Responsive Payment Systems

Fast, effective & inclusive delivery of liquidity, domestically and across borders, is essential for disaster recovery.



Governments De-Facto Insurers

Governments bear the bulk of costs, there is a need to transfer more risk to private insurance sector



Widening Financial Protection Gap

Broader strategies needed to close the coverage gap.

5 REASONS WHY THIS MATTERS NOW

01

MACROFISCAL RISK & RISING CLIMATE CHANGE

60–70% public debt / GDP

Losses absorbed: **2–4% of GDP** per severe event, crowding out development spend.

60–280% of GDP per single event

Projected to rise from annual average ~5% of GDP (2025) to over 20% by 2100.

02

JOBS & INCLUSIVE ECONOMIC GROWTH

Insurance underpins investable economies

5–10 pp GDP drop in year of impact
MSMEs see **13% equity losses** and **+23% loan defaults**. Tourism, agriculture & fisheries hit hardest.

03

SOCIAL PRESSURE

Households pushed deeper into poverty

~3M people face moderate to severe food insecurity

10–25% already in poverty; **1 in 3** at risk of falling in after a shock.

04

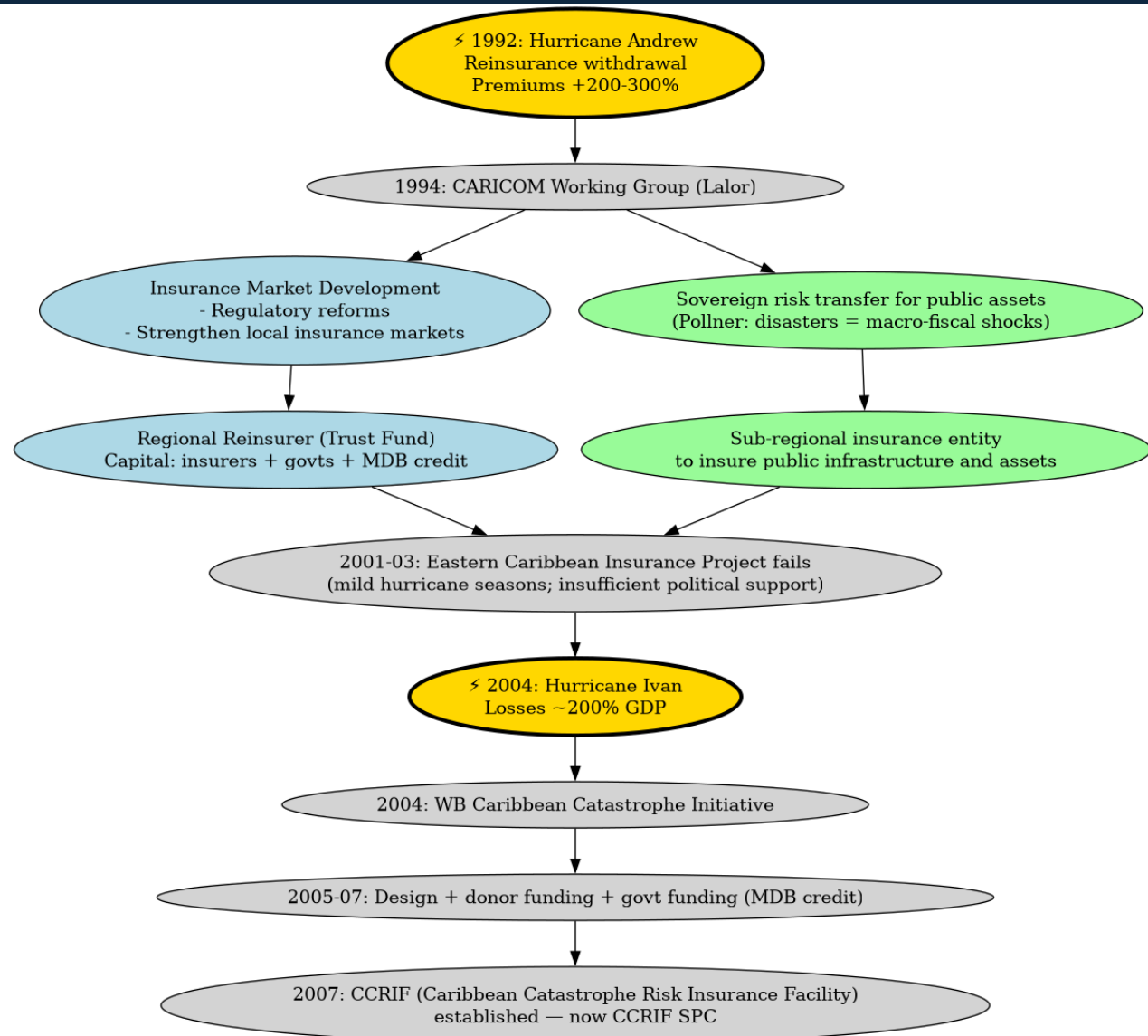
DATA AND TECHNOLOGY INNOVATION

Technology and digital reshaping unit economics

Delivery innovations reframing demand and scalability

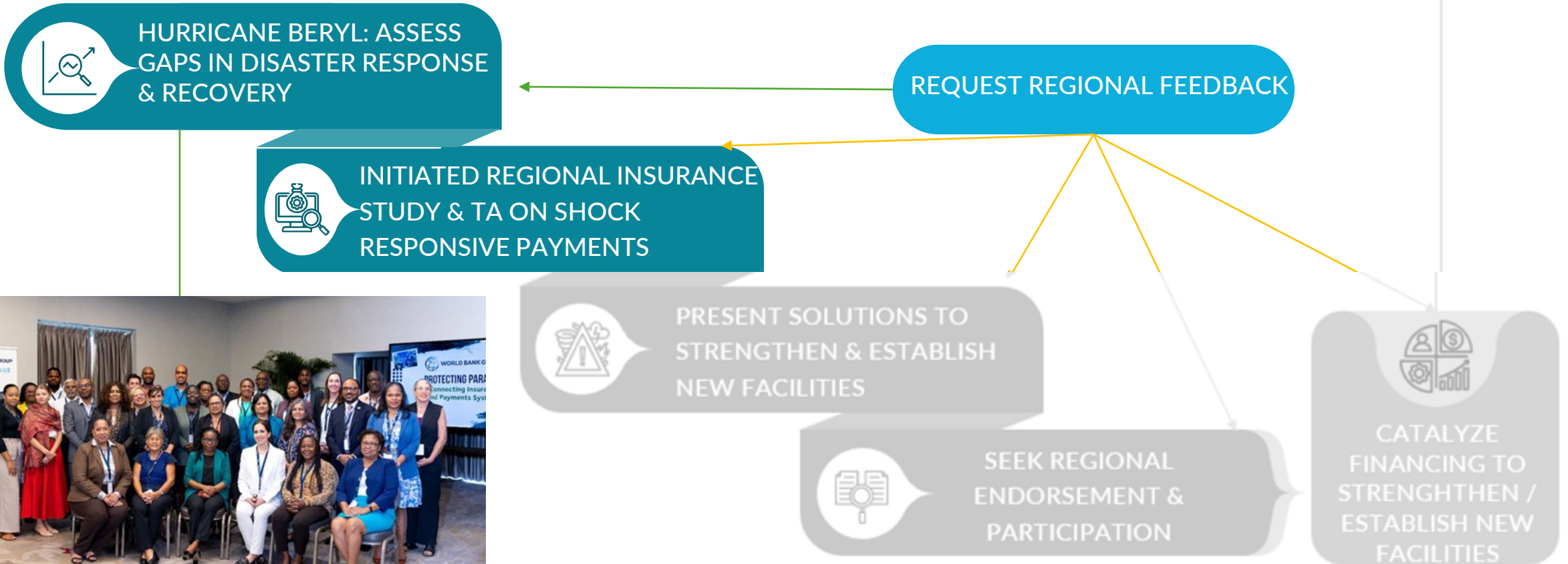
WHY NOW
Compounding Vulnerability

REASON 5: THE CARIBBEAN INDUSTRY CANNOT AFFORD TO “WASTE” ANOTHER DISASTER



BACKGROUND & RATIONALE

HOW CAN CARIBBEAN COUNTRIES STRENGTHEN FINANCIAL SECTOR TO SUPPORT DISASTER RESILIENCE & RESPONSE EFFORTS?

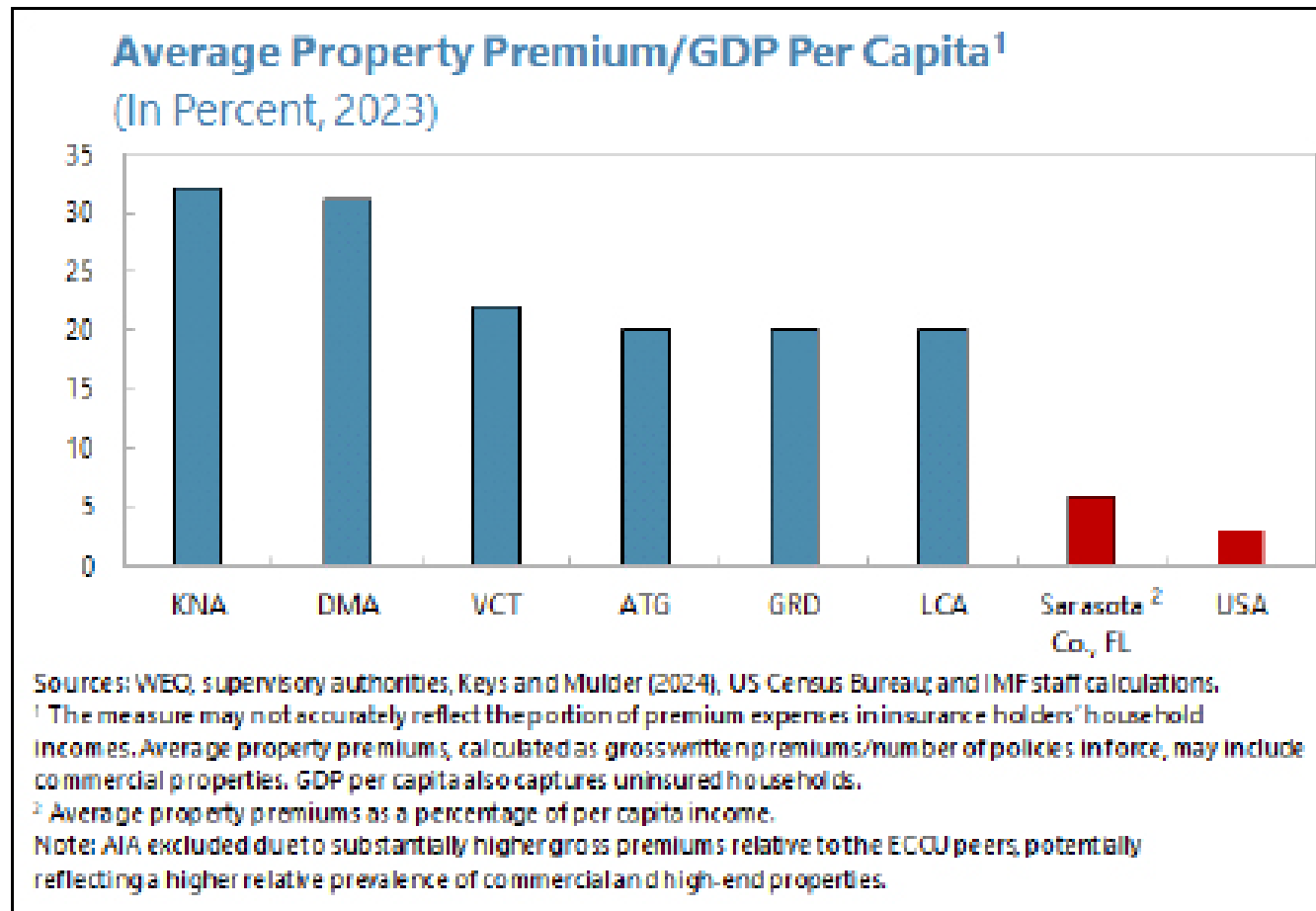


Findings from regional insurance and reinsurance study



Property insurance premiums have increase by an average of 40% in since 2019 and 2023, yet incomes rose only 16% on average

Property insurance is 3 to 6 times more expensive in the Caribbean compared to areas with similar risk profiles in the US



Source: International Monetary Fund. Western Hemisphere Dept.. Property Insurance Challenges in the ECCU. *IMF Staff Country Reports*. 2025;2025(105):A004. doi:10.5089/9798229010214.002.A004

Note: ATG = Antigua and Barbuda, DMA = Dominica, GRD = Grenada, KNA = St. Kitts and Nevis, LCA = St. Lucia, VCT = St. Vincent and the Grenadines.

Caribbean Regional Insurance and Reinsurance Study

70 stakeholders engaged across the Caribbean insurance ecosystem and global forum of catastrophe risk pools

42

Cedents (Non-life)

Across 15 Caribbean territories — from Jamaica and Trinidad to The Bahamas, Barbados and the OECS

6

Global Reinsurers & Brokers

Munich Re, Swiss Re, Hannover Re, Hiscox, Aon and Guy Carpenter

5

Insurance Associations

Regional industry bodies including the Caribbean Actuarial Association and national insurance councils

11

Risk Pools & Specialized Providers

Parametric insurers, MGAs and initiatives such as CCRIF SPC, Blue Marble and ARC

6

Cat Risk Modelers

Moody's RMS, Verisk, KatRisk, Karen Clark & Co., and ERN

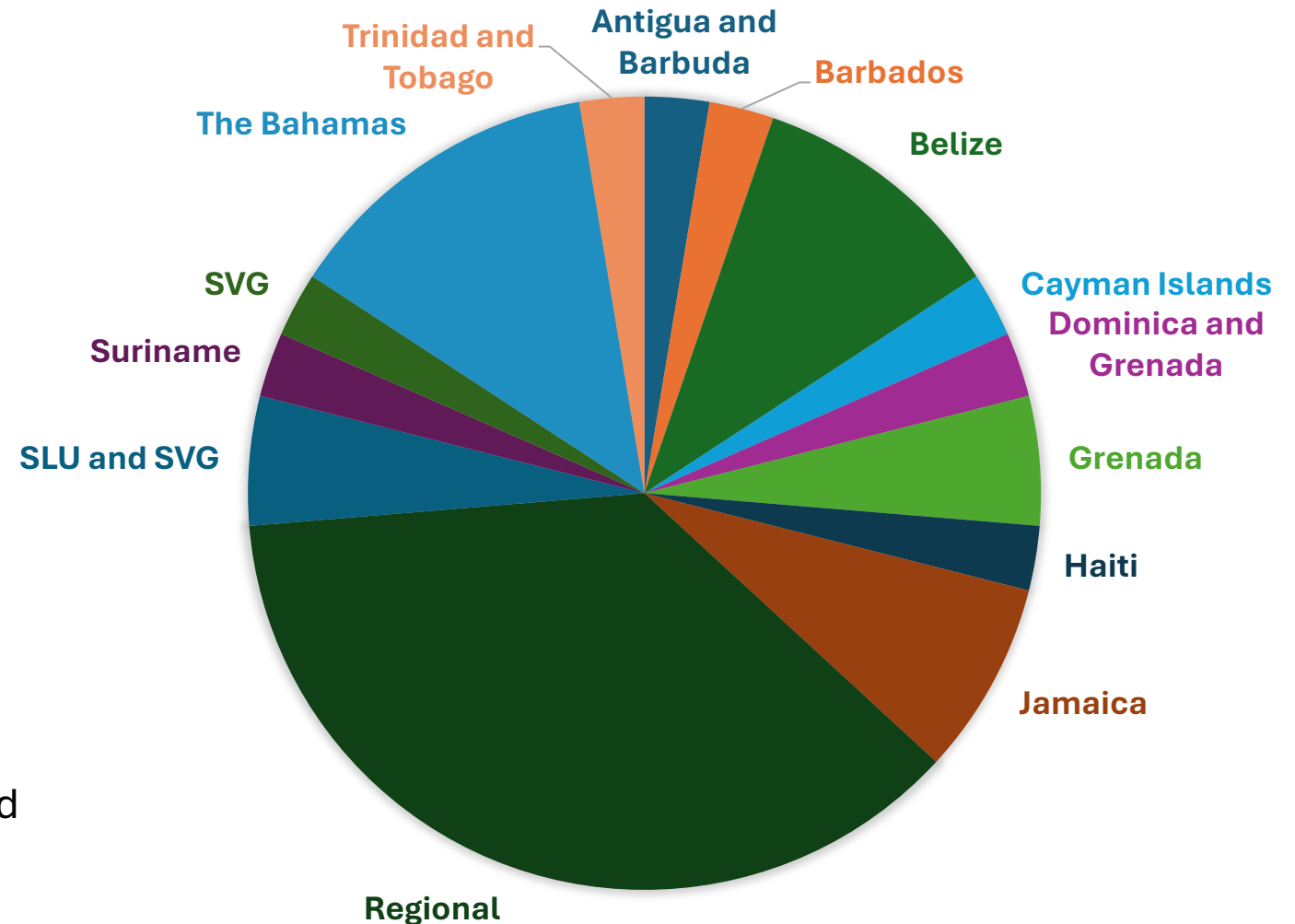
insurers in-depth survey – structured interviews – comparative case study

Survey Snapshot: Caribbean Insurance Market Respondents

Size	Sum of GWP (USD)	Number of respondents
Large	2,140,360,000	9
Medium	601,999,000	13
Small	62,988,954	14
Unclassified	-	1
Total	2,805,347,954	37

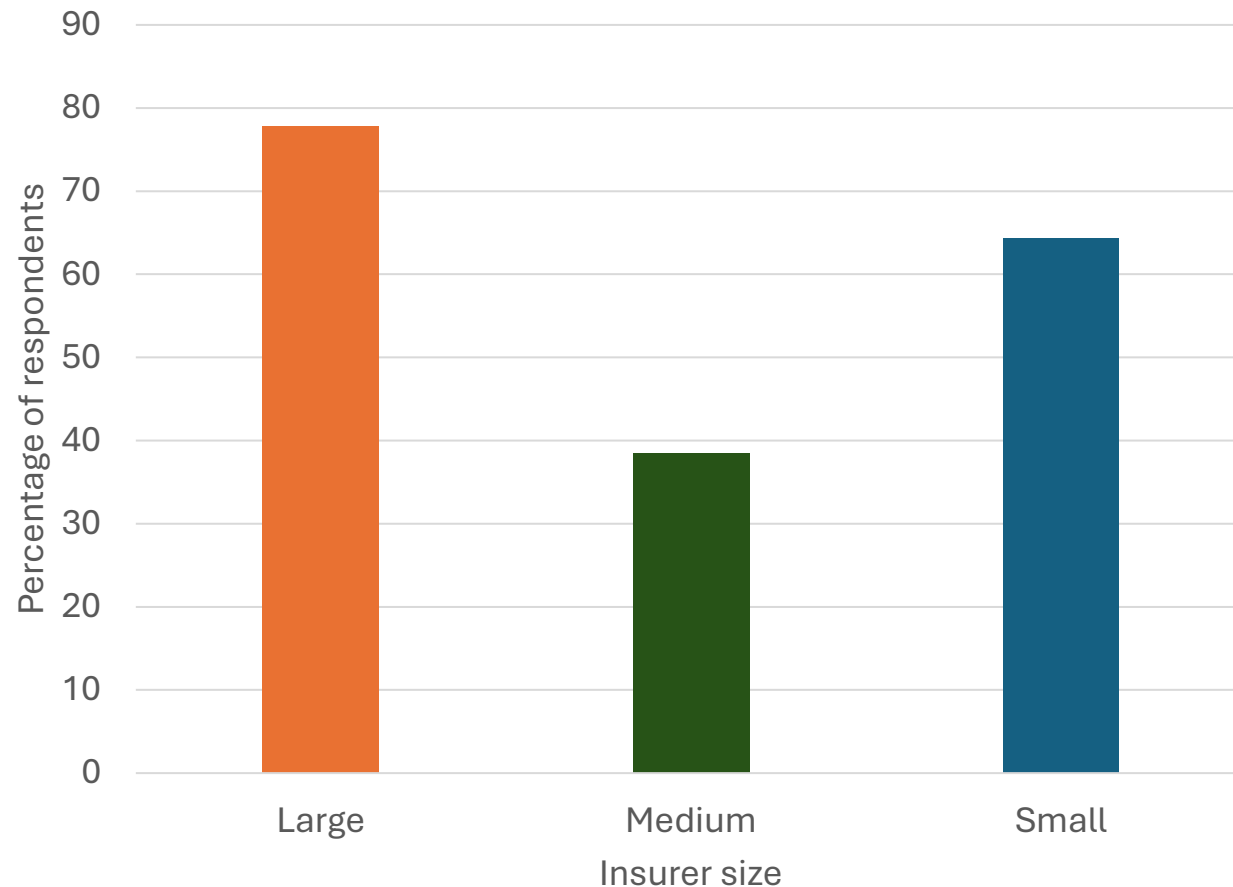
Note: Small: < US\$5m GWP; medium <US\$100m; Large >US\$100m

- 37% are small insurers predominantly in 1 island
- 37% are regional (multi-island) insurers



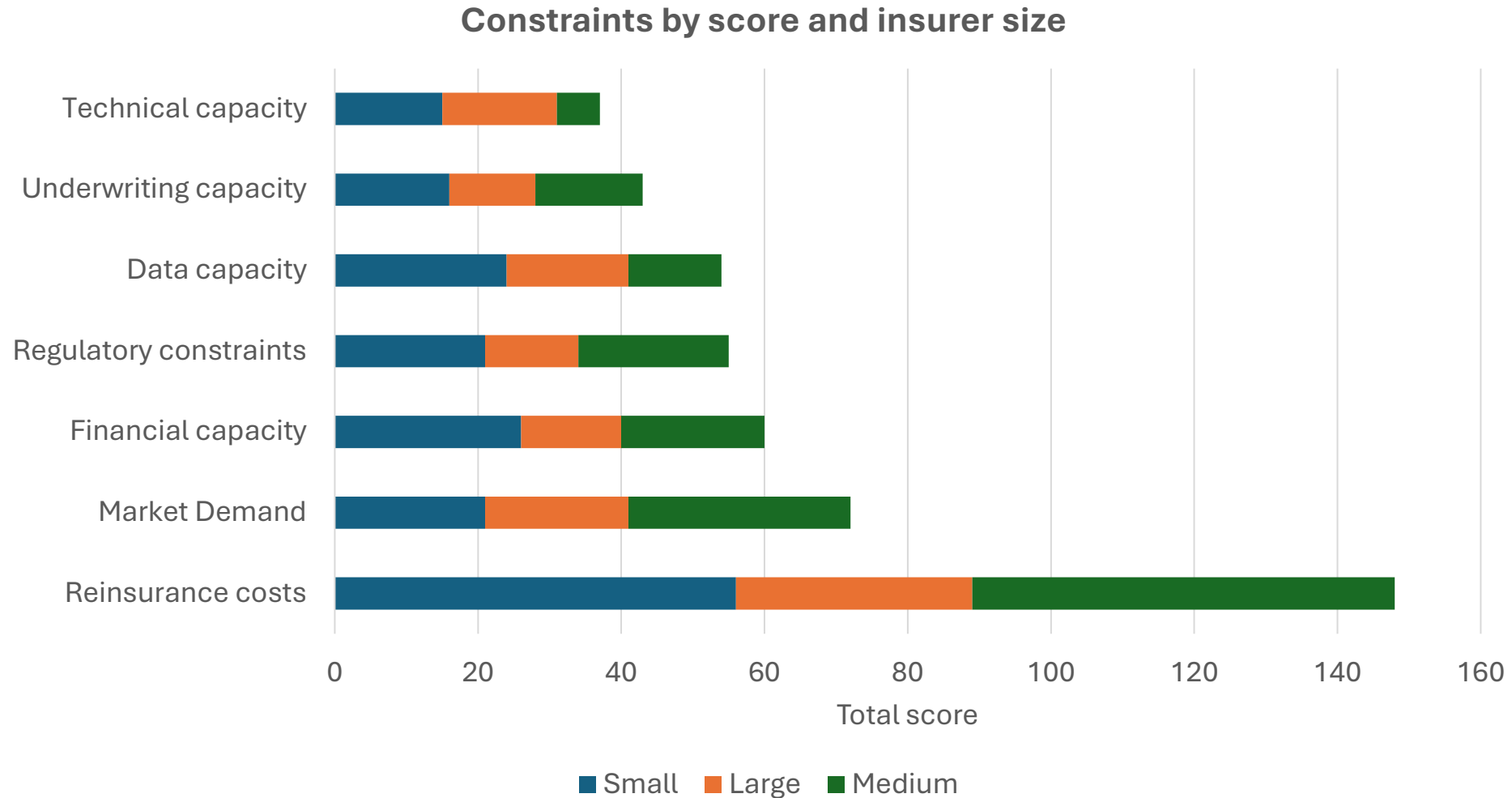
Strong private sector appetite to expand and increase inclusive disaster cover but key challenges need to be addressed

Share of insurers with appetite to expand inclusive climate and disaster insurance



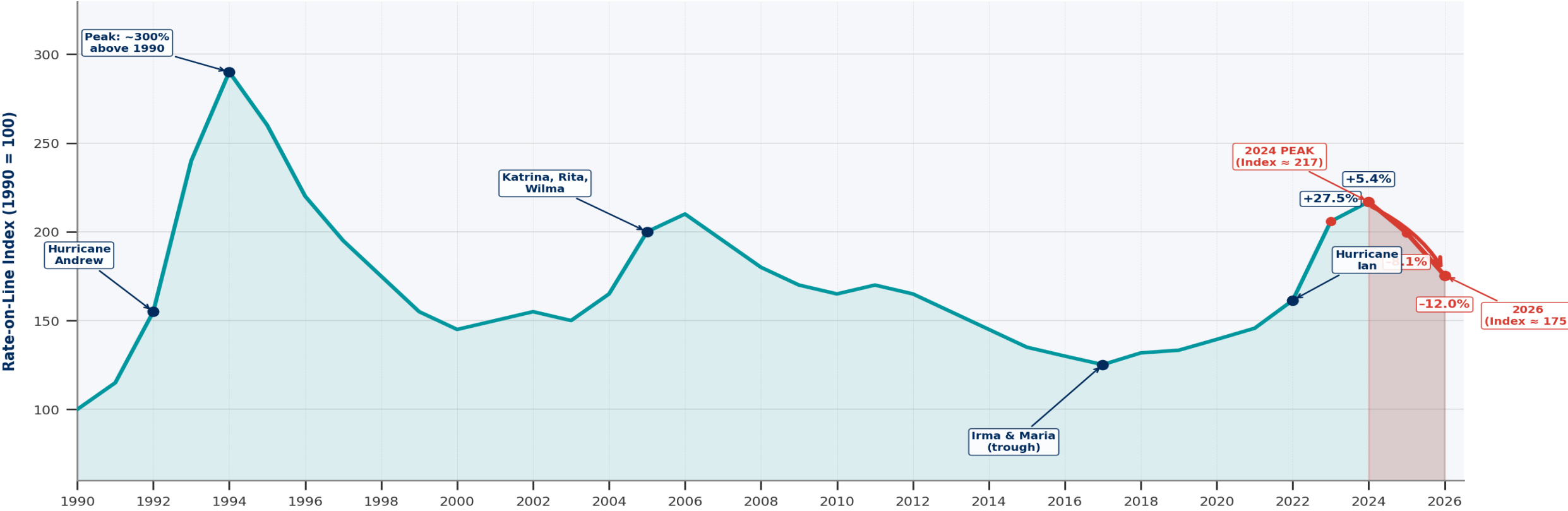
- **Opportunities to expand are aligned with drivers of inclusive economic growth and jobs**
 - MSMEs, agriculture, fisheries, tourism
 - Property incl public infrastructure
 - Innovation -> Parametric insurance
- **Structural constraints leading to challenges**
 - Small market size
 - Heavy risk (natural hazard) concentration
 - Rising extreme events and climate change impacts challenging insurability

Reinsurance cost is the most binding challenge to expanding disaster insurance; system-wide with some regional variation



Reinsurance Cost Trends

Figure 1: Global Property Catastrophe Excess of Loss Prices, 1990–2026 | Source: Guy Carpenter Global Property Catastrophe Rate-on-Line Index



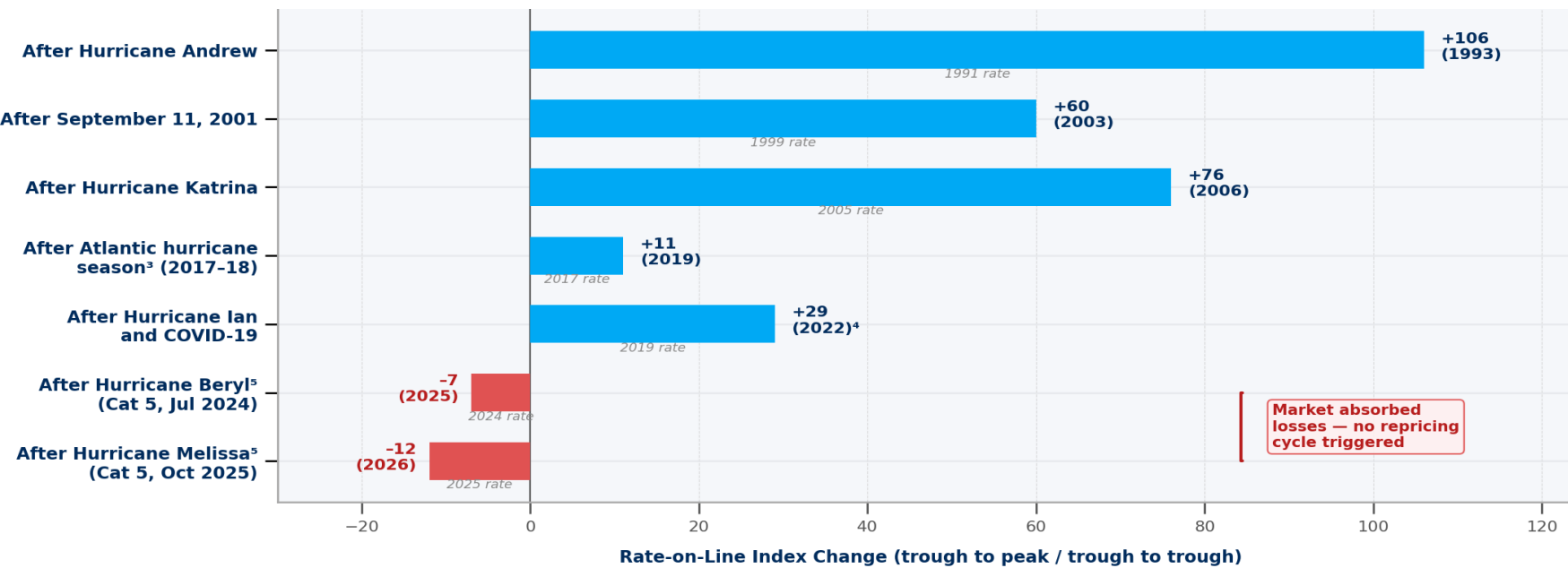
Rate-on-Line (ROL): The premium paid for a specific amount of losses covered in a reinsurance contract. A higher ROL indicates a higher cost of reinsurance.

- **Post-Hurricane Andrew (1992):** Retro market collapse drove premiums to nearly 300% above 1990 levels by 1994; an influx of Bermuda capital and advanced cat models restored confidence, easing rates by decade's end.
- **Post-Hurricane Ian (2022):** The Jan 2023 repricing shock (+27.5%) pushed the index to its highest level since 2006. The 2024 peak marked a cumulative ~67% surge above 2016 levels.
- **Downward Trend (2024–2026):** Record reinsurance capital (~\$838 B), strong reinsurer ROE (~17%), and lower catastrophe losses drove consecutive declines of -8.1% (2025) and -12% (Jan 2026), easing rates to ~38% above 2016 levels — but climate-change uncertainty continues to challenge risk models.

Cat XOL Reinsurance Rate Sensitivity to Major Catastrophes Is Declining

A Structural Break in the Repricing Cycle? neither Beryl nor Melissa triggered the traditional trough-to-peak

Rate-on-Line Change After Major Catastrophe Events (Trough to Peak) | Source: Guy Carpenter, McKinsey & Company



Drivers of Resilience:

- **Record reinsurance capital** (~\$838B), with cat bond issuance at all-time highs (\$58B+)
 - Alt capital ↑ 15% yoy 2010 - 2020
 - Traditional reinsurance capital ↓ 11% yoy
 - Alternative capital consistently 13-18% of total reinsurance capital since 2015.
- **High attachment points:** reinsured share of cat losses ↓ 20% → 12%
- **Strong profitability** ~17% ROE for 3 years

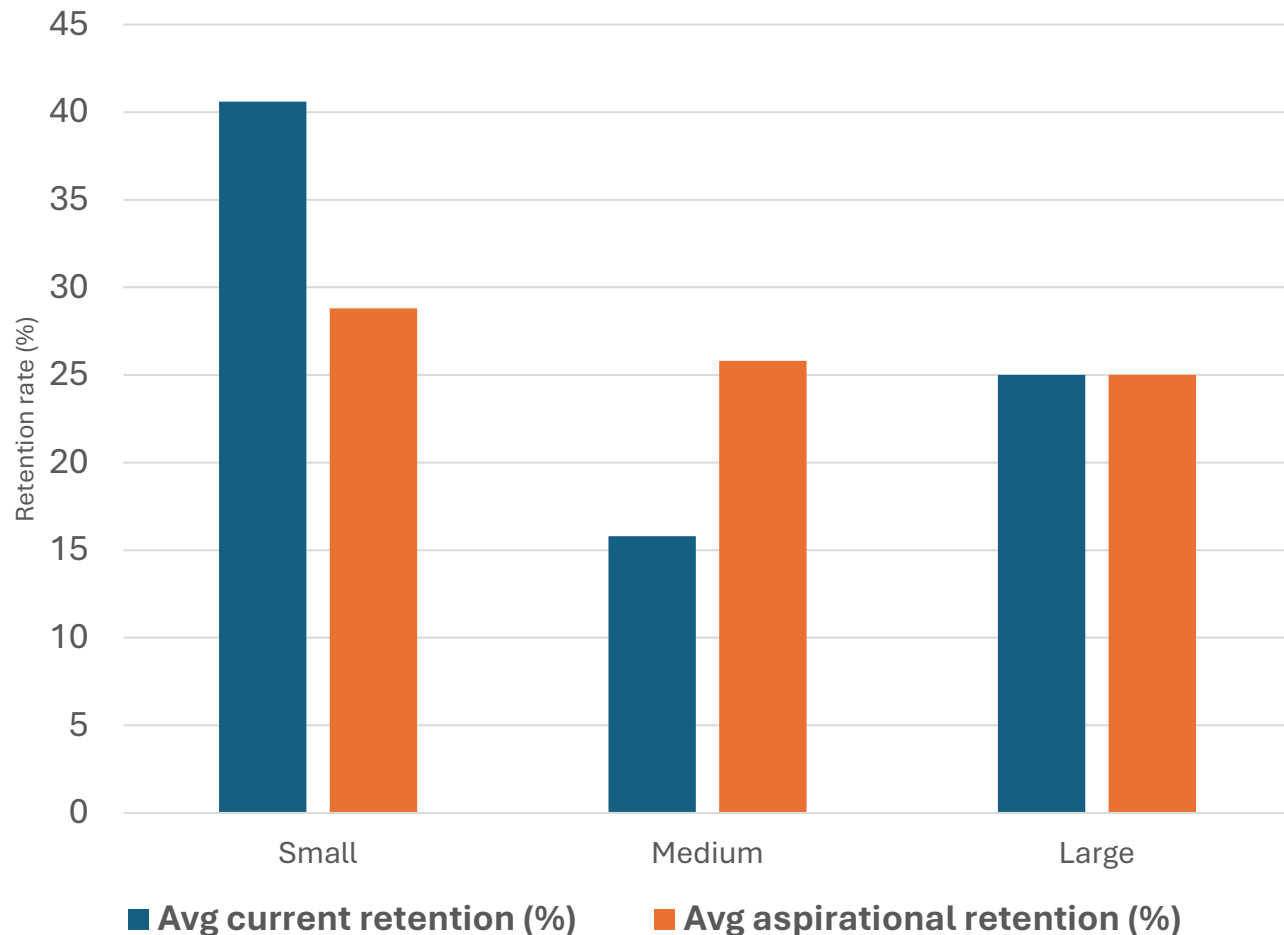
³ 2017-18 Atlantic hurricane seasons include Hurricanes Harvey, Irma, Maria (2017) and Florence, Michael (2018).

⁴ 2022 data includes impact of Hurricane Ian and COVID-19 (estimated).

⁵ Beryl: ~3.7B insured loss (US); Melissa: 3-5B insured loss (Jamaica). Despite Cat 5 intensity, record reinsurance capital, high attachment points, and strong ROE (~17%) prevented rate spikes.

Small insurers hold more risk and medium sized insurers are willing to hold more risk

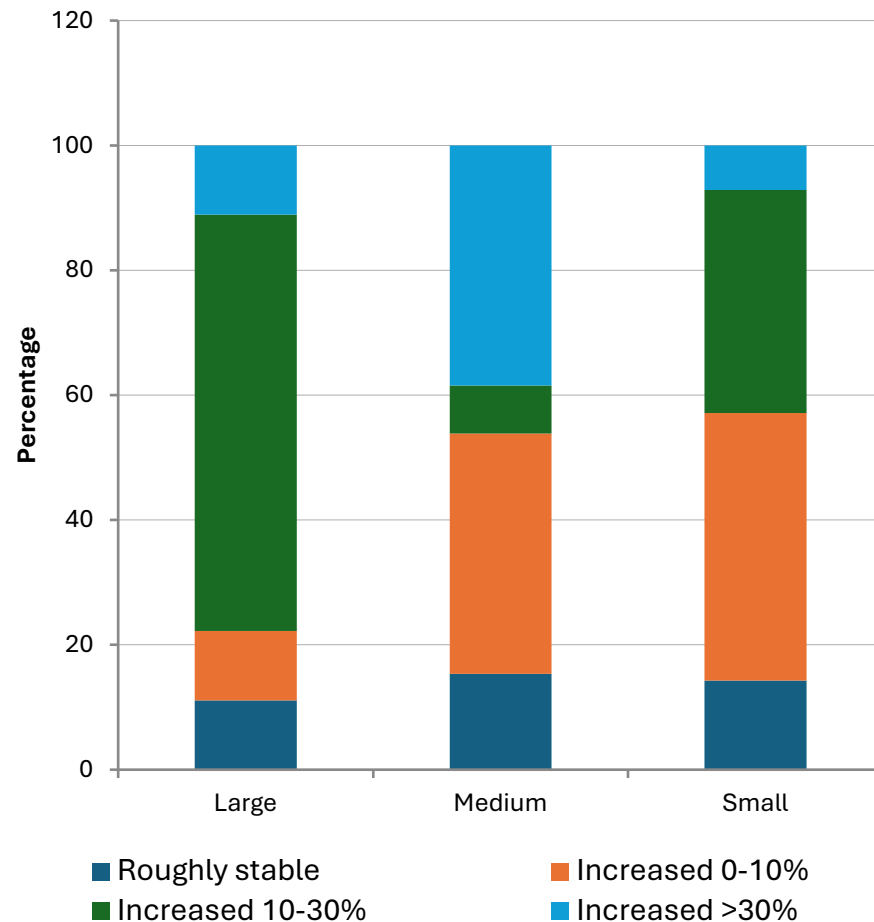
Insurers that responded to current and aspirational retention



- **Retention declines with scale.** Smaller insurers retain the most risk on average, while large (re)insurers retain the least.
- **Capital vs. transfer trade-off.**
 - Higher average retention among small insurers likely reflects constrained access to affordable reinsurance.
 - Larger players likely comfortable with measurable negotiating power
 - Medium sized players are more cautious and indicate willingness to hold more risk – likely constrained by modeling capacity “underserved”

Clear structural mismatch driving affordability pressure for inclusive insurance

Reinsurance Cost Trends by Insurer Size



42% of insurers reported experiencing reinsurance capacity constraints in recent renewals

- Large (50%) & medium (67%) insurers absorb shocks internally mainly by increasing retention
- Small insurers → push shocks outward or exit mainly by passing costs to clients (60%), cutting coverage (40%), or stopping business (20%)

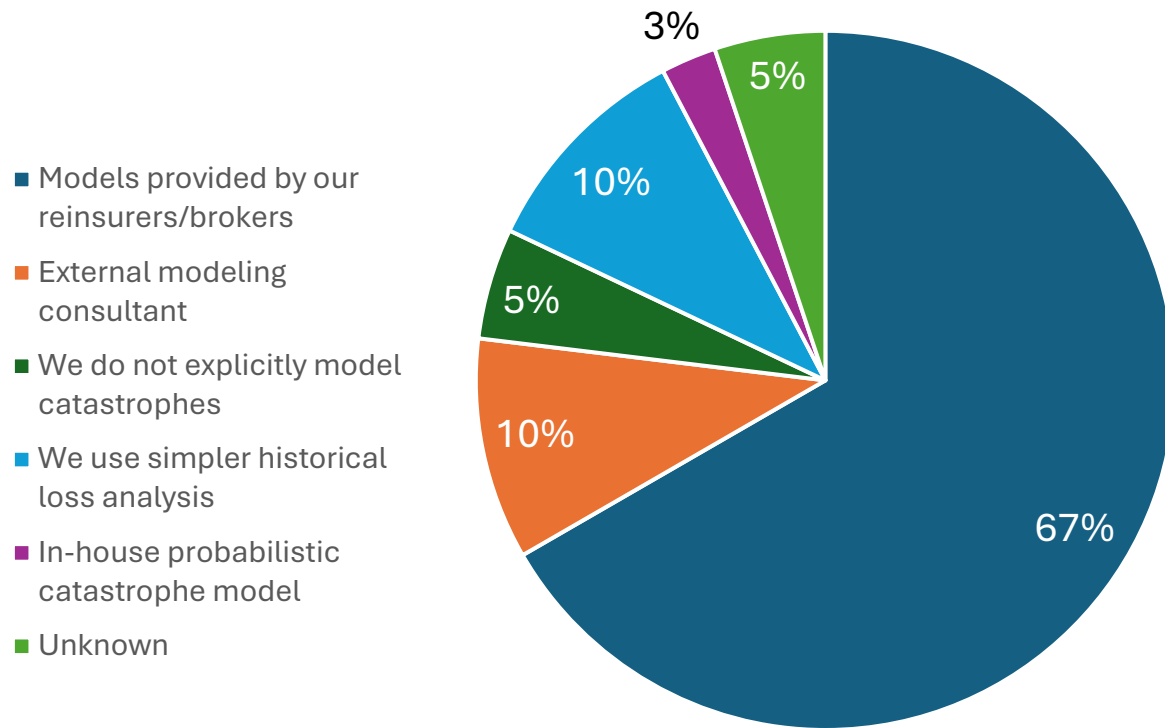
Clear structural mismatch

- Large insurers: Face higher cost increases, but cope better
- Small insurers: Face lower cost increases, but struggle more

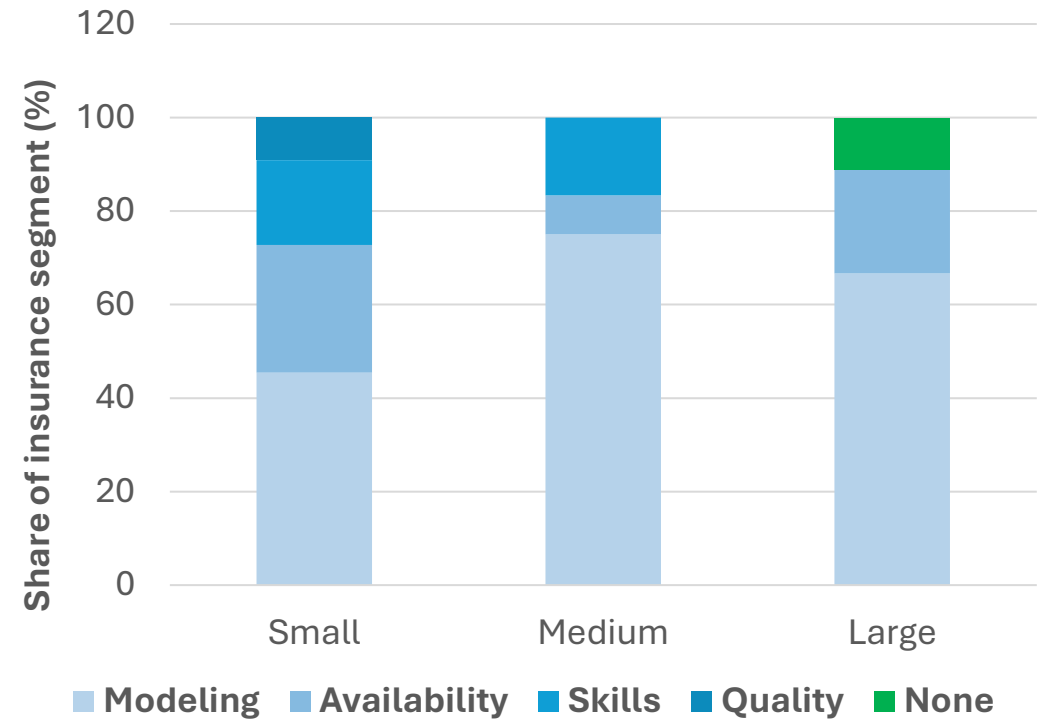
Affordability pressures will concentrate where small insurers dominate → inclusive

Modeling capacity is the dominant constraint — but intensity differs

Catastrophe Modeling Approaches by Caribbean Insurers



Data & Risk Analytics Challenges

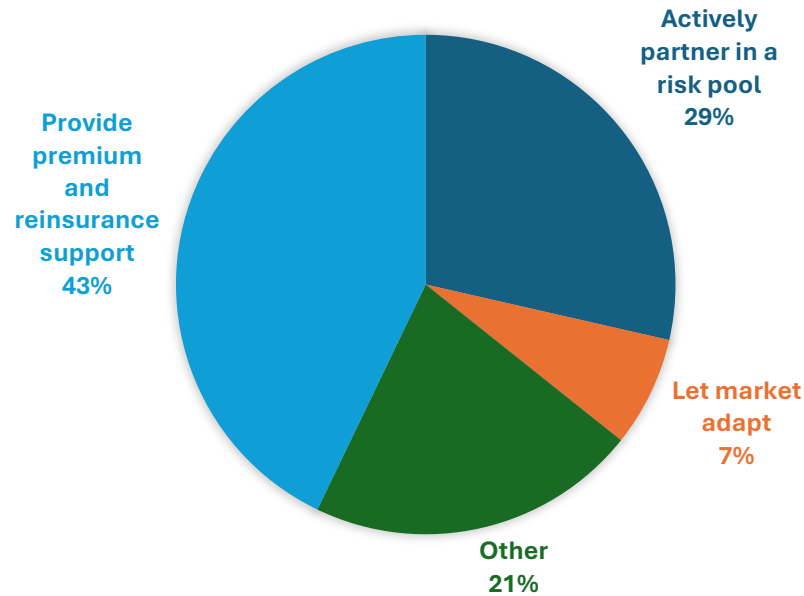


- Small insurers: foundational gaps (data availability, skills shortages)
- Medium insurers: modeling & cat/climate model access constraints
- Large insurers: advanced constraints (model/data granularity) but strong skills

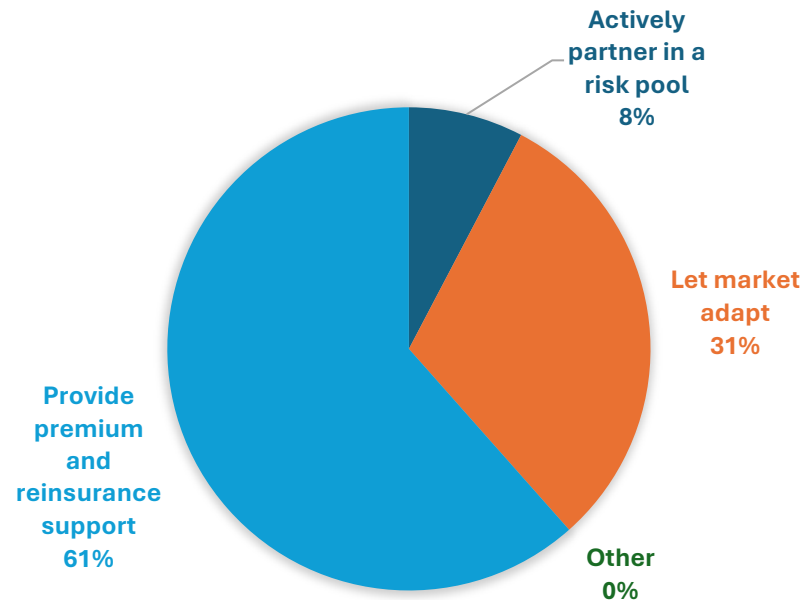
Significant need for government support to close the disaster protection gap

What is the role of the government in supporting the expansion of disaster insurance cover

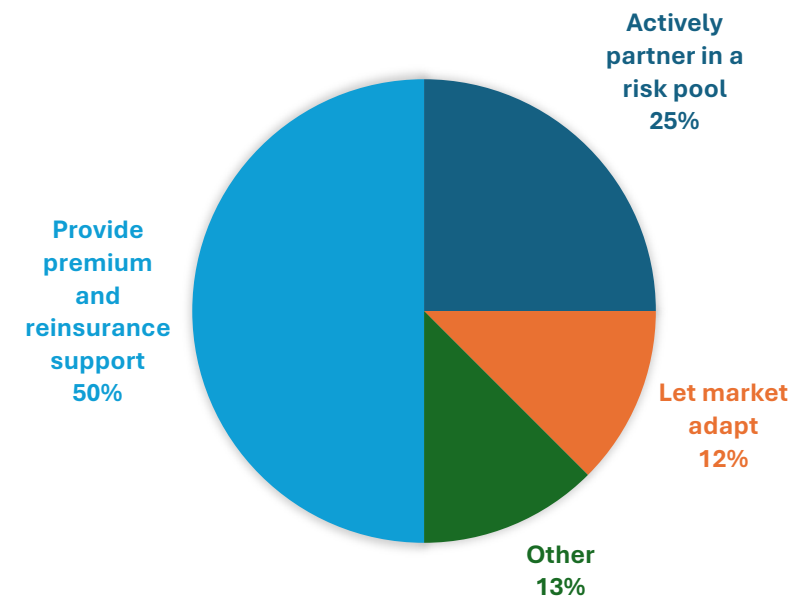
SMALL INSURERS



MEDIUM INSURERS



LARGE INSURERS



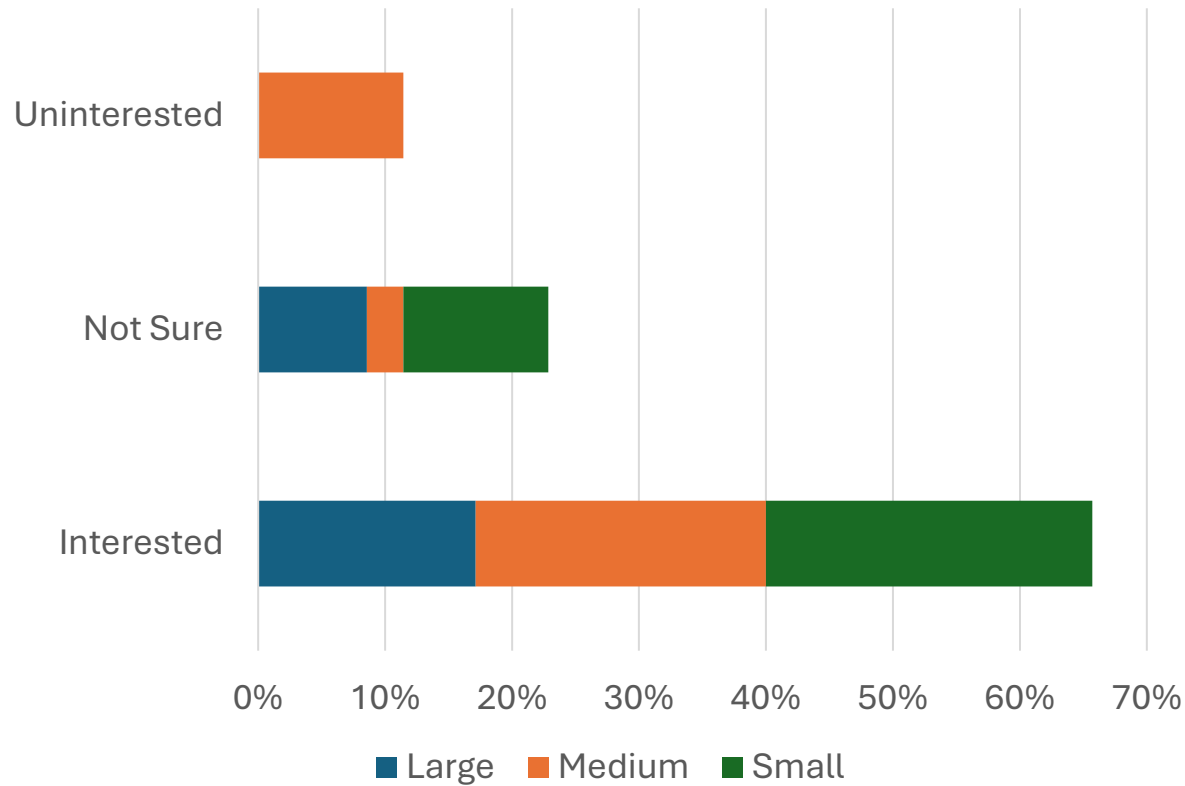
- Other policy interventions needed
 - Incentives to invest in risk reduction and physical resilience
 - Sustained insurance education awareness programs
 - Tax relief for catastrophe property insurance and solvency catastrophe reserves
 - Regulatory harmonization across the OECS

Public private partnership is a key lesson from global experience of catastrophe reinsurance pools/facilities to deepen and expand disaster insurance cover

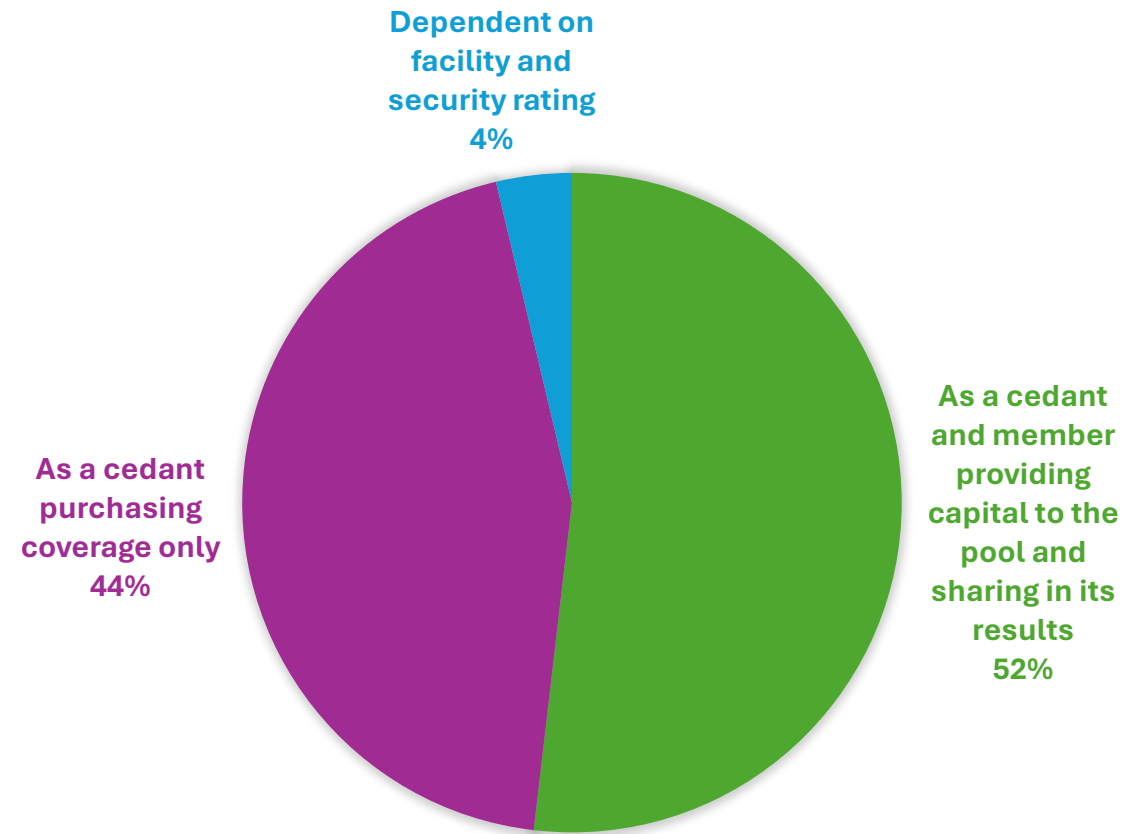
	Australia Cyclone Reinsurance Pool (ARPC) (2022~)	Caisse Centrale de Réassurance (CCR, FR) (1982~ for Nat Cat)	Flood Re (UK) (2016~)	Florida Hurricane Catastrophe Fund (USA) (1993~)
Objective	Reduce cost of insurance in higher-risk areas	Providing natural catastrophe reinsurance with state guarantee	Promote affordability and availability of flood insurance for homeowners	Maintain insurance capacity and keep premiums affordable
Scope	Cyclone & flood	All natural perils	Flood	Hurricanes
Government role	Unlimited guarantee	Unlimited guarantee	Scheme sponsor	Legal framework
Private market role	Insurers issue policies + pay part of the premium to the pool	Insurers issue policies + pay surcharge to the pool	Insurers issue policies + pay a levy into the pool	Insurers pay a part of the premium to the pool
Compulsory cession	Yes	No	No	Yes
Retrocession	Quota share + guarantee	State-backed reinsurance	Retroceding risks to the international market	Stopped buying outward reinsurance in 2020
Cumulative payout	\$1 Billion	EU56 billion (2023)	£304 Million	\$17.4 Billion
Impact	Home premiums ↓ 11–15% Small business premiums ↓ ~24%	Near universal coverage (90–95%) of disaster insurance Solidarity-based pricing kept cover stable and affordable	Premiums ↓ 50% for most flood-prone households Cover access surged from <10% to 100%	Cost insurers one-fourth to one-third of equivalent private reinsurance Preserved near-universal coverage availability

Strong interest in reinsurance pool for more affordable and stable reinsurance and willingness to invest own capital

High interest in regional reinsurance pool/facility for disaster



Preferred form of participation in a regional reinsurance pool/facility



What Private-Sector Requires to Participate

1

Investment-grade credit rating

"Credit rating non-negotiable"

"Strong credit rating, cost savings, available capacity"

"A- or BBB- minimum" — multiple respondents

Near-universal

2

Meaningful cost savings

"Minimum cost savings achieved" — GK General

"Meaningful cost savings or improved capital efficiency"

"Better rates and fair claims payments"

~80% of respondents

3

Private-sector governance to ensure sustainability

"Governance and decision-making — want to ensure private sector voice" — cited by 28 of 39 respondents as a top concern

"Transparent governance, equitable treatment of all"

72% of respondents

4

Independence from CCRIF (for some)

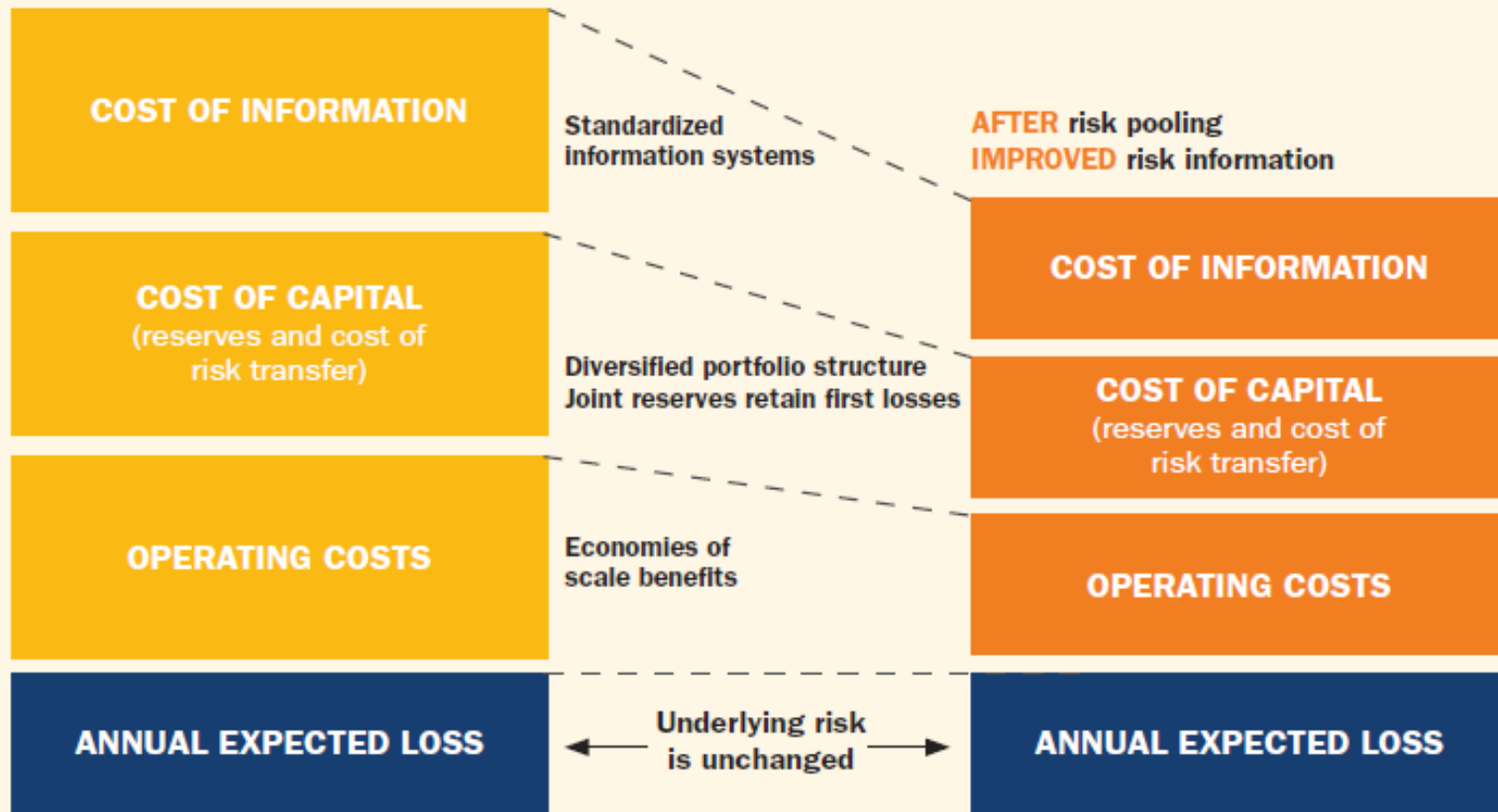
"A stand-alone would be ideal" — multiple respondents

"CCRIF is a competitor now — should be independent"

Contested — requires stakeholder consultation

Robust analysis is needed to develop ToC and quantify potential impact of regional risk pooling

WITHOUT risk pooling
WEAK risk information



Source: World Bank Disaster Risk Financing and Insurance Program (2015).

Note: The size of the boxes is not meant to be proportional to each component's actual contribution to the insurance premium.

AFTER risk pooling
IMPROVED risk information

- Effective risk diversification dividend of 44% - 64% reduction in probable maximum loss based on evidence from CCRIF¹ and our modeling using open-sourced catastrophe modeling (45% reduction in 99.5% VaR)²
- Diversification via pooling could also reduce uncertainty loading by 50% if we assume current standard deviation loads of 25-40%
- Long term risk reduction investments could reduce disaster exposure

1: Bollmann, A., & Wang, S. (2019). International catastrophe pooling for extreme weather. *Society of Actuaries*.

2: Ciullo, A., Strobl, E., Meiler, S., Martius, O., & Bresch, D. N. (2023). Increasing countries' financial resilience through global catastrophe risk pooling. *Nature Communications*, 14(1), 922.

<https://doi.org/10.1038/s41467-023-36539-4>

Timeline and Next Steps:



WE WANT TO HEAR FROM YOU — SHOW OF HANDS

Five quick questions. Raise your hand on each — your signal shapes the design.

01

DESIGN

Standalone Caribbean Regional Reinsurance Facility, or a window inside an existing institution?

02

DEMAND

Would your company cede premium to a regional reinsurer in the next 24 months at global rates?

03

CAPITAL

Primary funding lever — member contributions, donor seed capital, or catastrophe bonds?

04

GOVERNANCE

Member-led board, or an independent technical body at the helm?

05

COMMITMENT

Is your institution ready to participate?



We'd love to hear from you

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