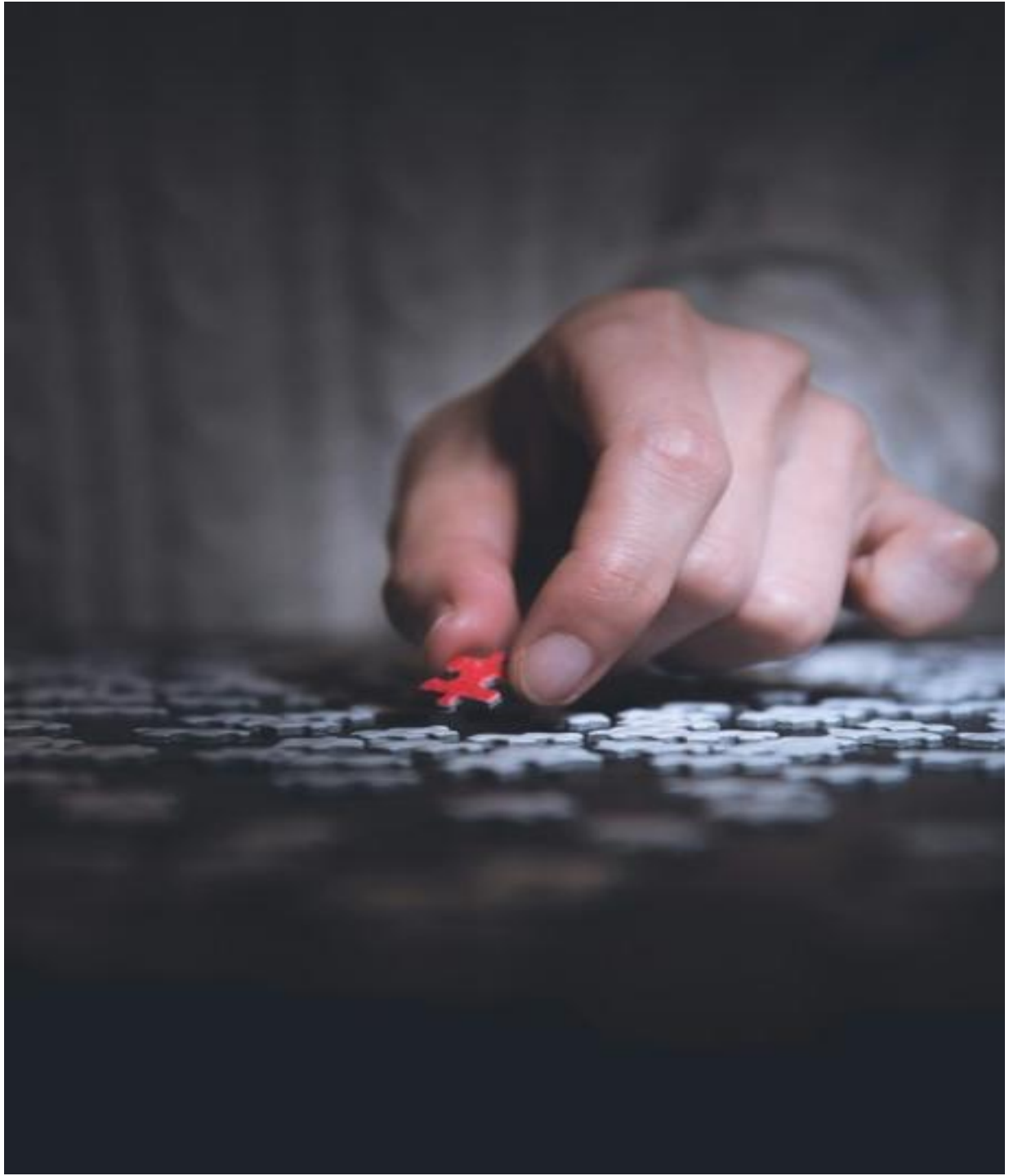


Changing reinsurance landscape

Amitabha Ray, Swiss Re
26 October 2026

Key messages

1. Single risks are getting bigger
2. Aggregation is changing
3. Emerging risks challenge insurability
4. Reshaping demand for risk transfer



Three structural changes are reshaping property and BI reinsurance

What is changing in the underlying risk landscape?

1. Larger single risks

The capex cycle is creating exceptionally valuable assets. Losses are shaped by equipment density, shared systems and long restoration times.

2. New aggregation

Exposure is no longer only geographic: shared suppliers, utilities and digital networks connect risks across locations.

3. Emerging risks

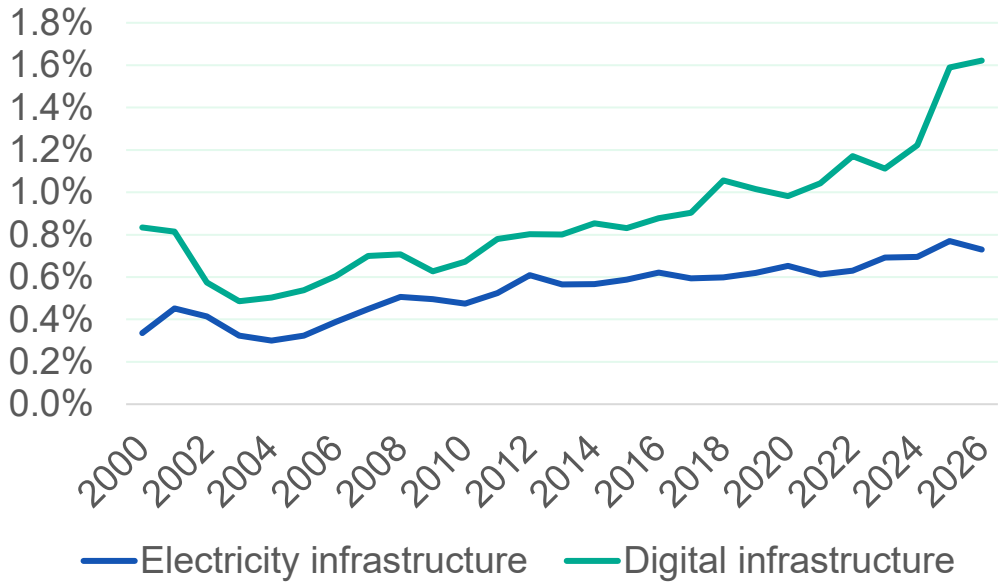
Cyber and new technologies require engineering, response capability and accumulation knowledge. Capacity alone does not help

Changing capacity, volatility and risk-transfer needs

Capex super-cycle: larger, more capital-intensive assets

- Today's investment boom is unusually **physical** and **capital intensive**.
- **More exposure**, but also a **different risk architecture**.

AI boom creates new physical assets, % of GDP



Source: Swiss Re Institute analysis based on S&P Capital IQ data

Those assets have structurally different risks

Dimension	Digitalisation wave (2000-2020)	Capex super-cycle (2020s+)
Primary driver	Software, platforms	Energy, Mfg, Defence
Capital intensity	Low	High
Exposure concentration	Low-medium	High
Supply complexity	Moderate	High
Replacement times	Short	Long
Value per site	Lower	Higher

Source: Swiss Re Institute

The architecture of single risks is changing

How much value can be affected by one event

Traditional refinery



Large site with multiple process units; fire and explosion scenarios depend on separation, damage zones and process interdependencies.

Hyperscale AI data centre



Very high-value equipment, dense technical infrastructure and shared power, cooling and connectivity systems.

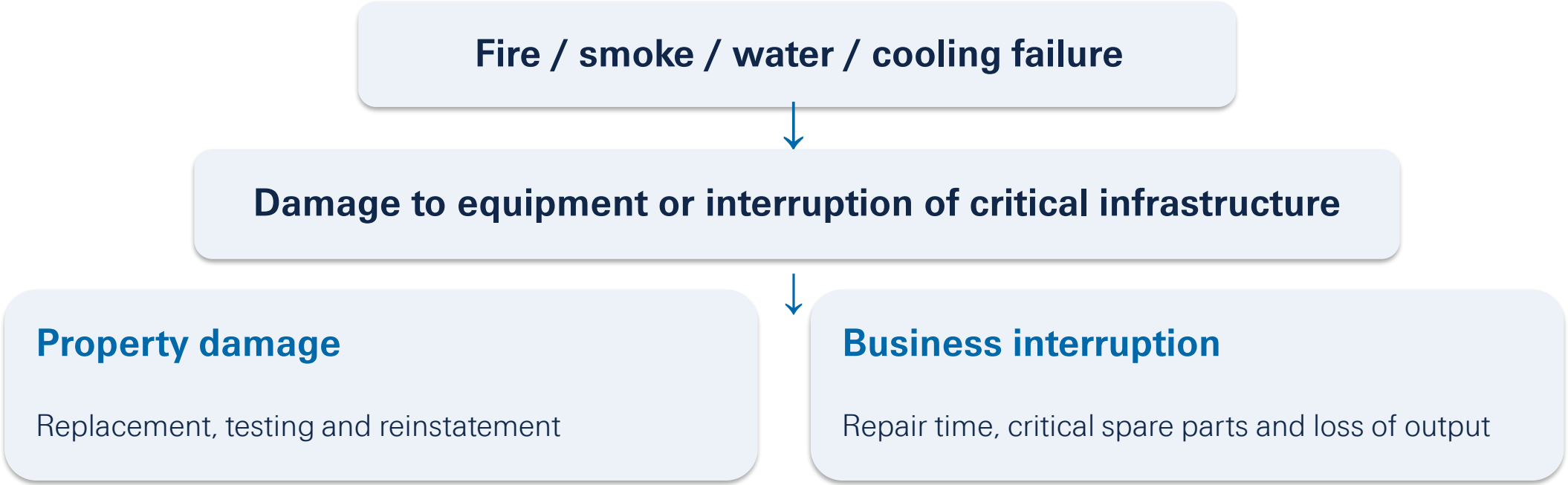
PML: credible damage scenarios matter

- Asset concentration
- Loss containment
- Restoration dependency

Illustrative underwriting comparison; site-level PML depends on construction, compartmentation and operational design.

Data-centre loss scenario

A localised physical event may generate prolonged interruption and business losses.

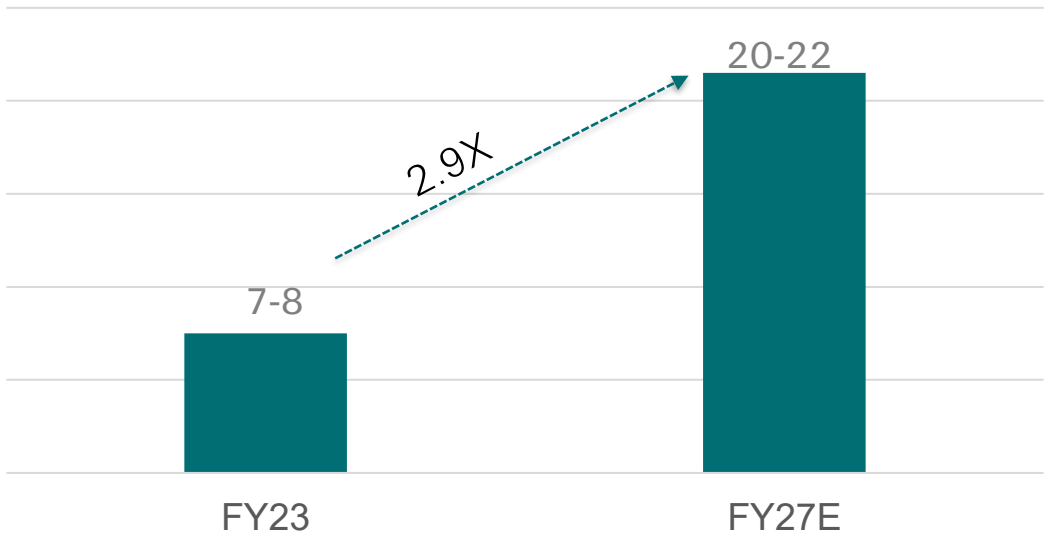


Potential downstream CBI depends on policy wording, triggers, exclusions and sublimits

AI-powered data centers powering India's trillion-dollar digital economy

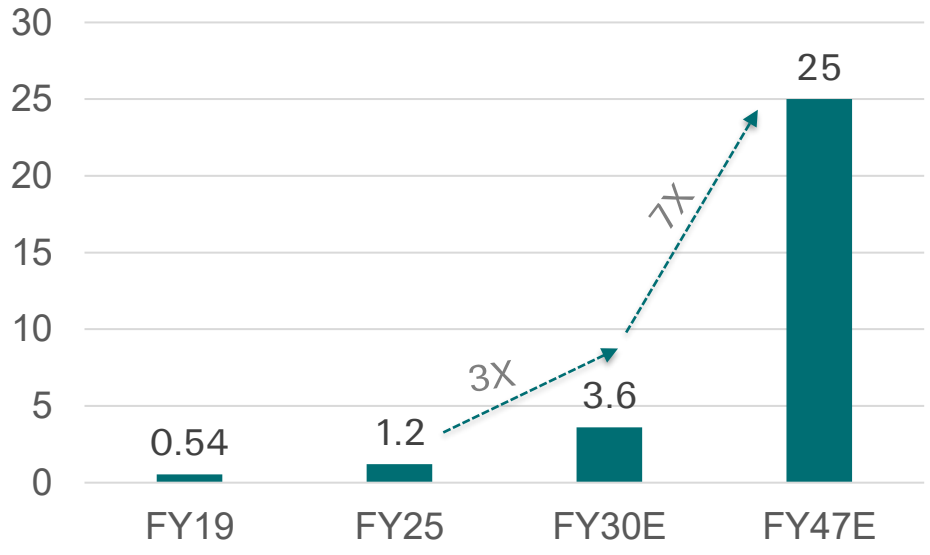
- AI is directly and indirectly expected to **contribute ~ USD 1 trillion** to India's economy **by 2035**.
- Over the past five years, **AI-enabling infrastructure** such as data centres have undergone a transformative expansion. The momentum will continue with expected cumulative investment of ~ **USD 180 billion** by 2047.

India Spending on AI, 2023-27 (USD bn)



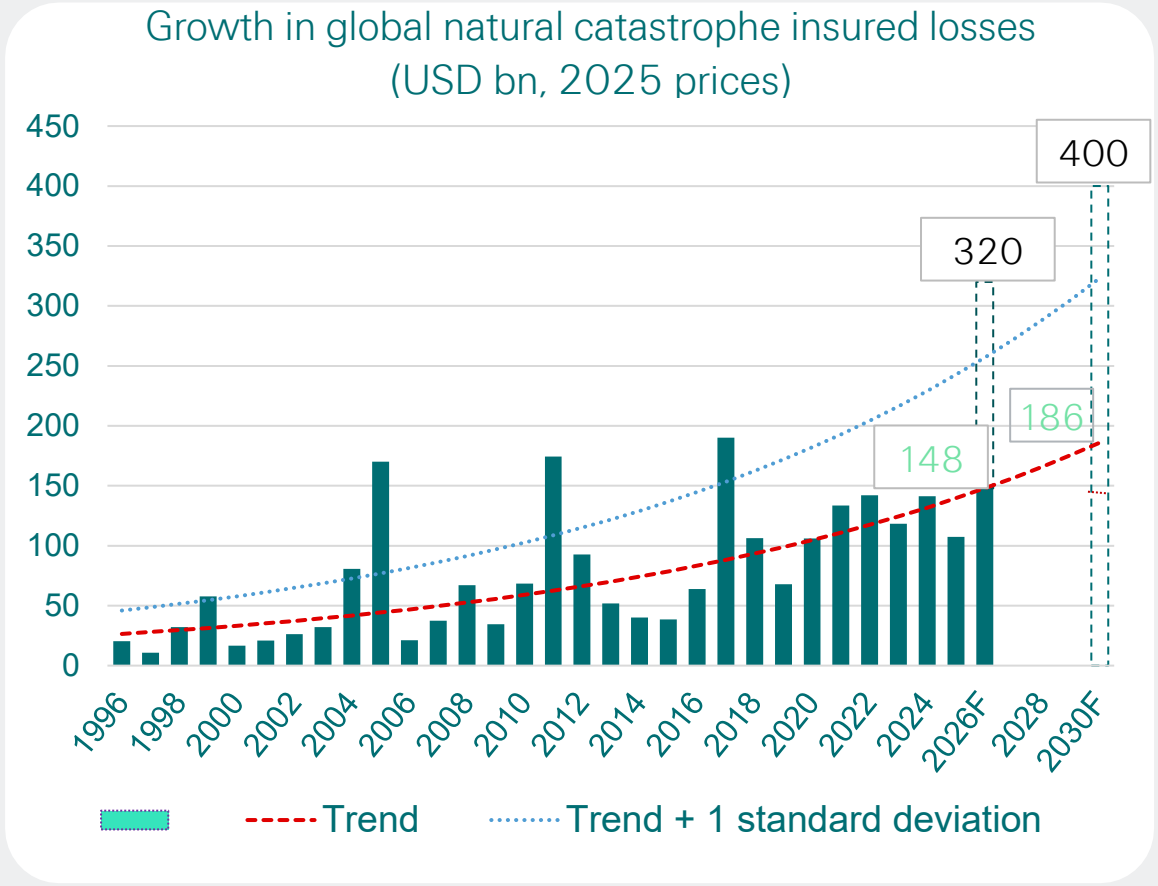
E = estimate
Source: Deloitte

Data Centres (installed capacity, in GW)



E = estimate
Source: National Bank for Financing Infrastructure and Development, ICRA estimates

Natcat losses: Up-trend reaffirmed, 5 to 7% long-term growth persists



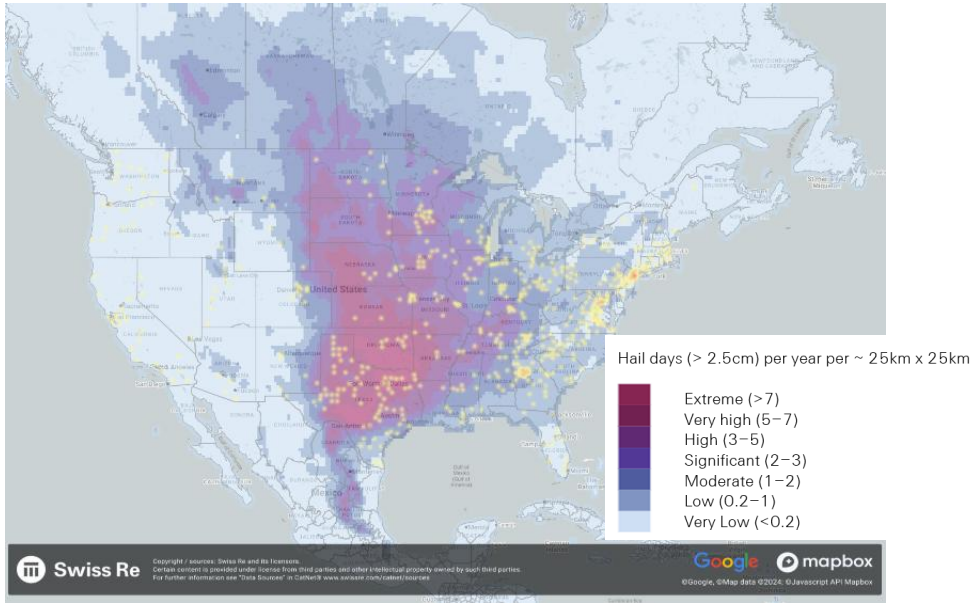
Impact on corporates

- There is a roughly one-in-ten chance of losses reaching **USD 400 billion** or more by 2030
- **2025 losses** below trend due to favourable volatility, **not lower risk**
- Exposure concentration in hazardous regions sustains **5-7% growth trend**

Source: Swiss Re Institute

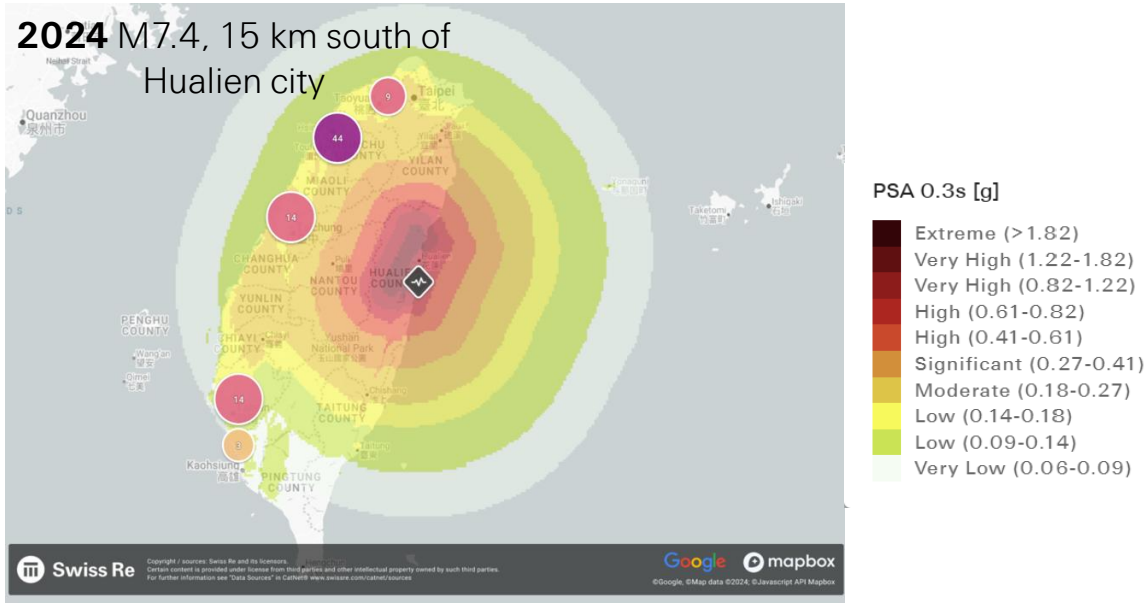
Location, location, location: Where you build matters – even more so when interconnected networks and supply chains

Weather-related perils: 40% of US data centers in higher-risk locations for tornado, 25% for hail



Sources: U.S. Department of Energy (DOE)/NLR/ALLIANCE, Swiss Re CatNet

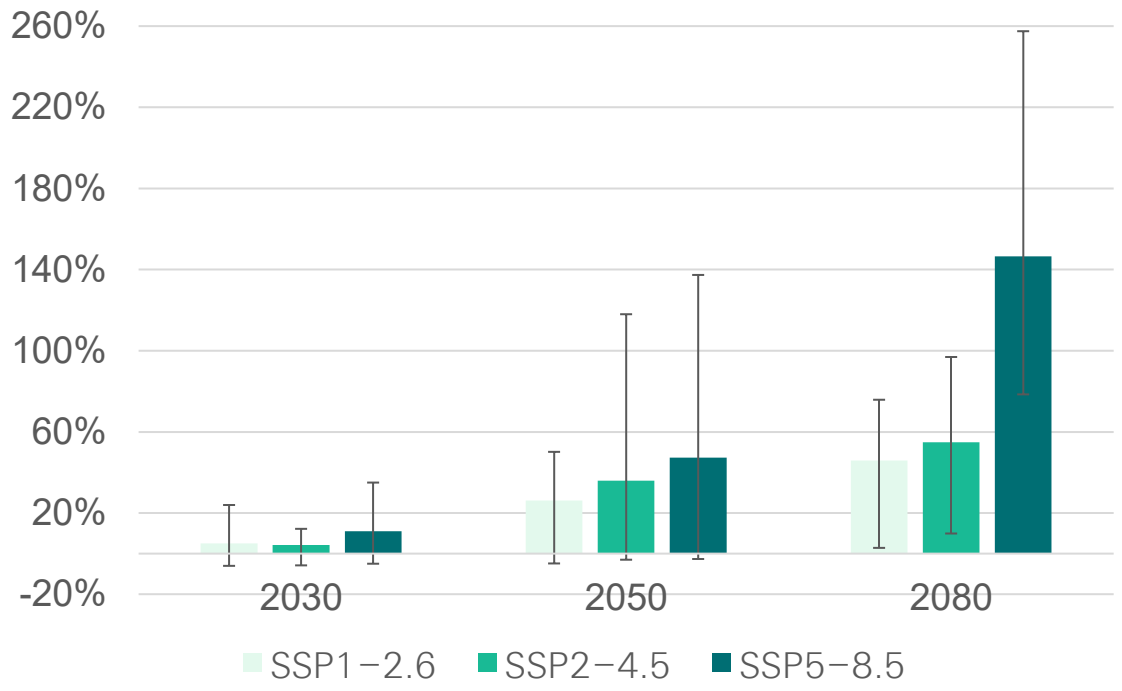
Taiwan's exposure to earthquakes (and typhoons) can impact semiconductor industry



Note: PSA refers to the ground acceleration experienced during an earthquake.
Source: U.S. Geological Survey (USGS) Earthquake Hazards Program, Swiss Re CatNet®, Swiss Re Institute

Supply chains: Climate-related risks expected to grow

Projected increase in flood losses at the Southern Taiwan Science Park, three climate change scenarios



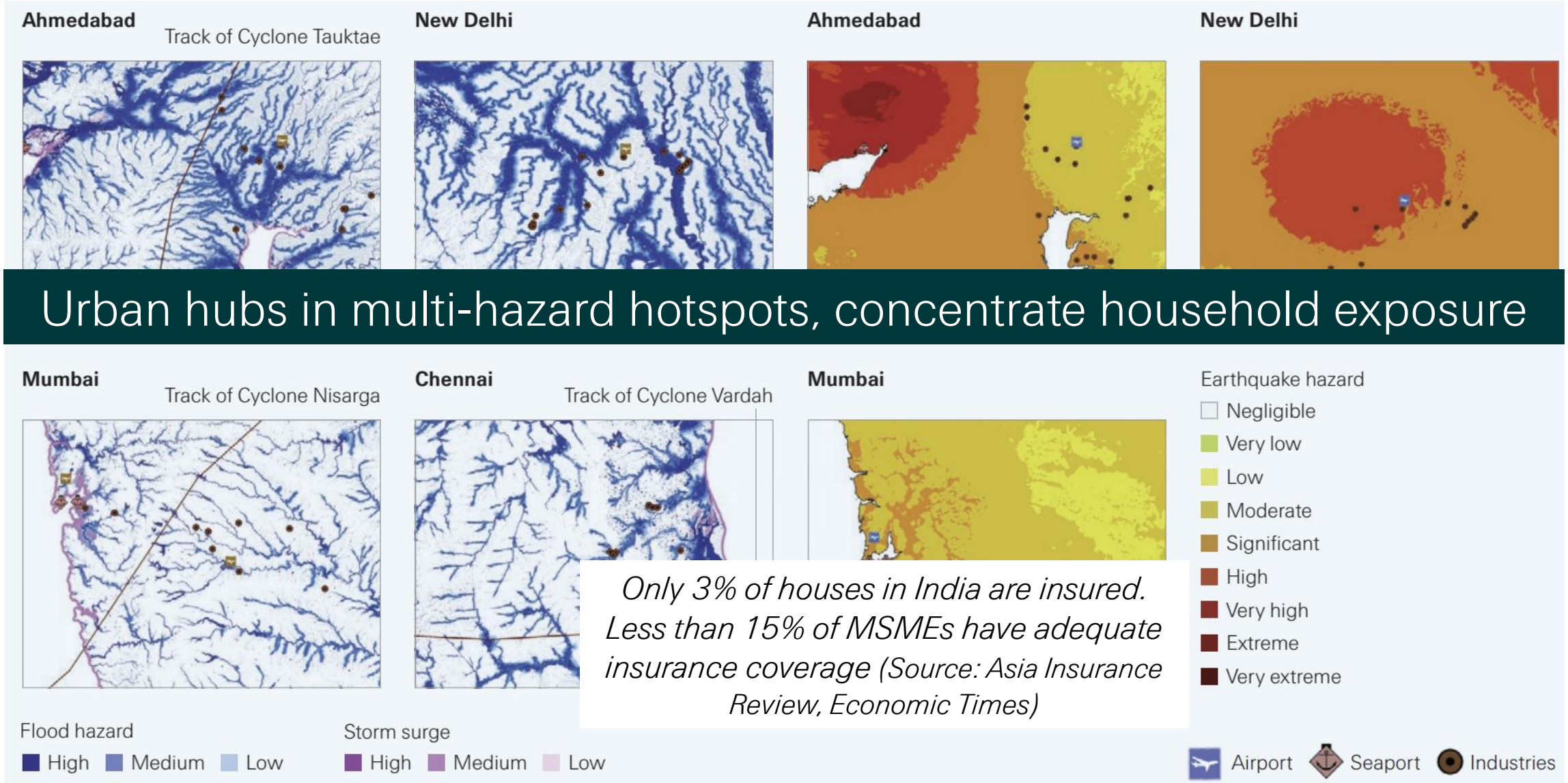
Impact on corporates

- Swiss Re flood models project **36% higher** flood losses at key semiconductor hubs by 2050
- **Rising volatility** in operations and supply chains
- Better understanding of location specific exposure to evolving hazards improves **long-term resilience**

Source: Swiss Re Corporate Solutions

Note: Relative Loss Change (%) calculated based Swiss Re CMIP6 model projections ensemble. SSP = Shared Socioeconomic Pathway. The three SSPs represent low (SSP1−2.6), medium (SSP2−4.5), and high (SSP5−8.5) GHG emissions and associated climate change. The vertical lines are error bars, representing the range (uncertainty ie, 10th and 90th percentile) across Swiss Re projections.

Urban hubs in multi-hazard hotspots, concentrate household exposure



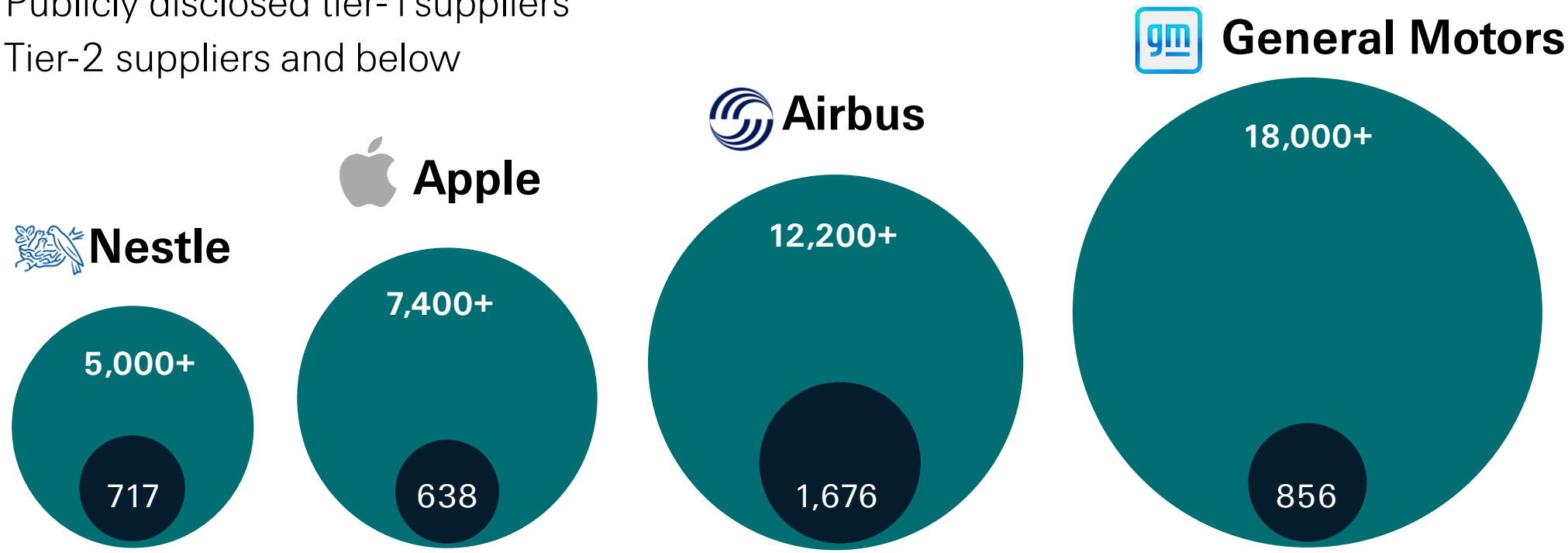
Only 3% of houses in India are insured. Less than 15% of MSMEs have adequate insurance coverage (Source: Asia Insurance Review, Economic Times)

Source: *Home insurance: Indians are not at home with it! - Insights - View from India*, *MSMEs in India and the insurance imperative: Closing the protection gap. - The Economic Times*, *India's economy and insurance market: growing rapidly, but mind the risk hotspots*, Swiss Re Institute, 2025.

Supplier aggregation is a complicating factor: the risk we can't see

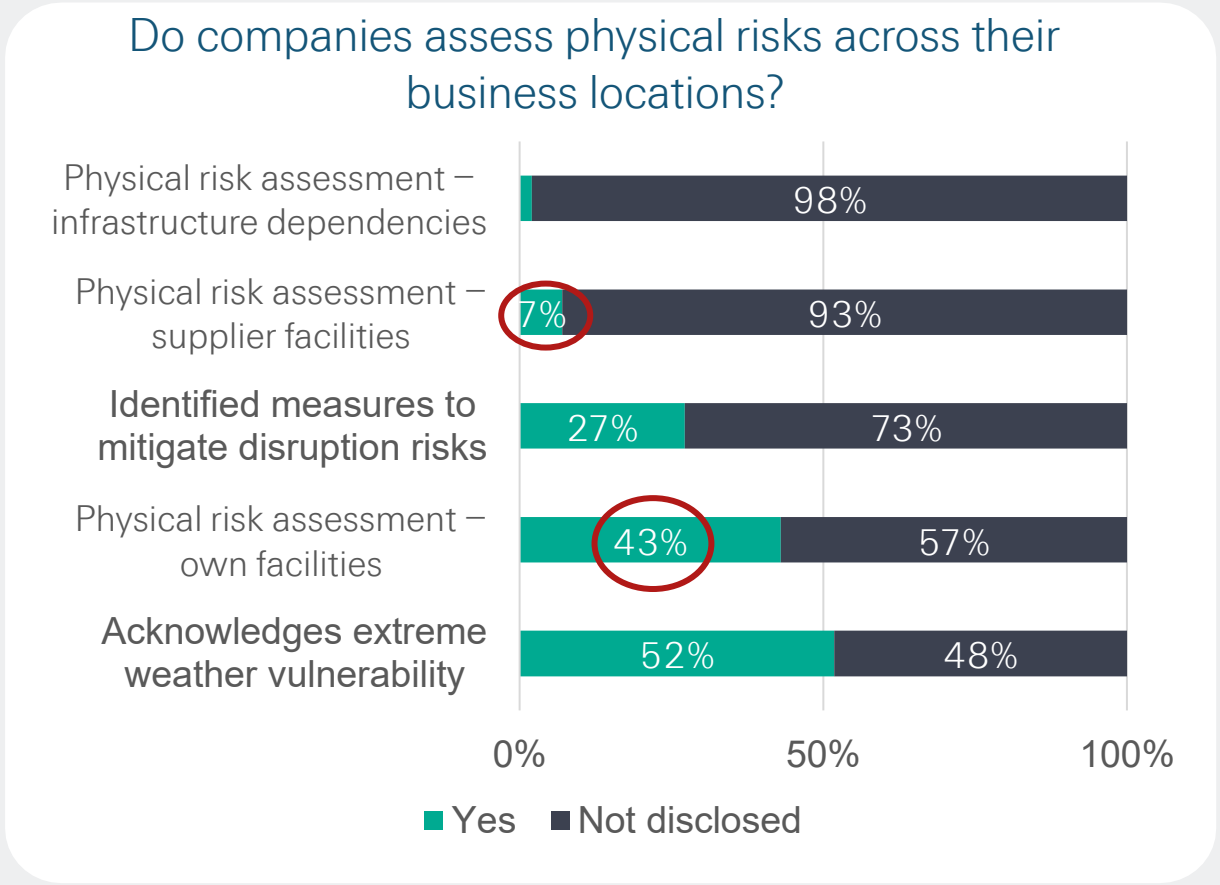
Beyond Tier 1, manufacturers rely on thousands of suppliers.

- Publicly disclosed tier-1 suppliers
- Tier-2 suppliers and below



Source: *Effectively implementing President Biden's supply-chain review*, McKinsey, March 2021.

Supply chains: Limited visibility into supply-chain accumulation risks



Impact on corporates

- **Only 43%** of Fortune 500 report conducting physical risk assessments of own facilities
- **<10%** report assessing their suppliers' facilities
- Many risks **remain unidentified** until a disruption occurs

Note: Swiss Re Institute analysis based on Fortune 500 Europe public corporate disclosures
Source: *Emerging risks: hidden dependencies in global supply chains*, Swiss Re, July 2026.

Aggregation now has overlapping dimensions

The same event can create geographic, operational and network accumulation.

Geographic

Floods, earthquakes, hail and storms affect many insured locations within a common hazard footprint.

Operational

Shared suppliers, substations, ports, cooling, or power infrastructure interrupt multiple businesses.

Network - systemic

Common software, cloud services, control systems or technology vulnerabilities impact geographically dispersed risks.

Insurers and reinsurers need to map dependencies and common loss drivers.

Evolving risks are challenging traditional underwriting and pricing approaches

	Traditional approach	Additional considerations for evolving risks
	**Risk assessment and pricing** based on established exposure characteristics, loss experience and underwriting judgment	**Changing UW and pricing**: How should underwriting and pricing evolve with new technologies, AI-driven risks and changing loss characteristics?
	**Historical experience and catastrophe models** to estimate future losses	**Model reliability:** Are historical models still representative of future climate hazards, loss severity and emerging correlations?
	**Geographic and peril-based accumulation** to assess portfolio exposure	**Hidden aggregation:** Are we adequately capturing shared infrastructure, supply-chain dependencies and systemic accumulation?
	Treaty pricing based on **historical loss costs, exposure estimates** and established **rating methodologies**.	**Treaty pricing:** Are we pricing the same underlying exposure YoY, or has the risk transferred fundamentally changed in terms of exposure, portfolio mix, risk quality and loss volatility?

Emerging risks demand an integrated approach to risk management

Cyber and tech-intensive property risks combine limited loss history with new dependencies.

Understand

Map the insured systems, vendors, control networks and potential common-mode failures.

Prevent

Combine underwriting with risk engineering, cyber controls and operational resilience.

Respond

Provide specialist incident response, containment, restoration and loss-mitigation expertise.

Transfer

Design coverage around insurable events, triggers, exclusions, accumulation and available capital.

Examples: cyber-related interruption, AI infrastructure and grid-connected battery energy storage.

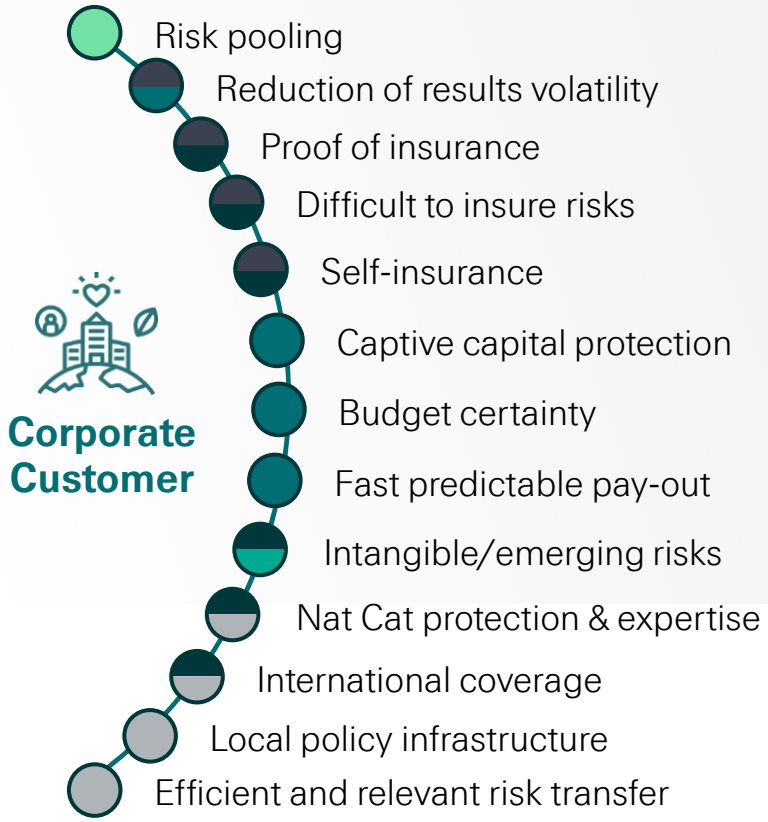
Different risks are driving different demands for risk transfer

Bigger and more volatile risks are changing how risk is retained and transferred

Larger individual values	Higher capacity and participation by more capital providers
Frequent and correlated events	Protection of annual earnings and cumulative loss volatility
Greater appetite for retention	Captives, self-insurance and structured risk financing
Systemic or peak concentrations	Alternative capital, collateralised capacity and other ART
Emerging technical exposures	Specialist underwriting, engineering and mitigation services

Solutions complement rather than replace traditional reinsurance.

Broader risk-transfer tools respond to changing exposures



Solutions	Examples
Fronting Solutions	• (Structured) Fronting • Indemnified insurance
Structured Re/Insurance & Parametric Solutions	• Virtual Captive • Multi-year/multi-line stop loss • Risk financing/blending • Captive protection • Parametric Nat Cat solutions
New Propositions	• Bespoke eg. Supply chain, (I)IOT Climate change related risks • NDBI
Conventional Insurance Propositions	• Domestic primary lead • Excess/follow lines • International Programs

Alternative Risk Transfer Solutions

The three questions this raises for treaty reinsurance

How treaty coverage structures and pricing evolve in response

Capacity

How should treaties provide line size for larger single risks while limiting reinsurer concentration?

Volatility

How should protection address multiple events, accumulation and correlated BI losses?

Insurability & pricing

How should terms reflect changing hazards, uncertain loss histories, dependencies and risk management?

Surplus and quota share structures • commissions • Cat XOL and aggregate covers • ART

Broader change in the economics of reinsurance

How capacity, portfolio participation and volatility sharing are evolving

Trend	Earlier approach	Emerging approach
Capacity provision	High surplus leverage, sometimes 20-30 times insurer retention	Lower surplus leverage, often no more than 10 times in property
Portfolio participation	Larger risks ceded through surplus structures	Increasing participation across the portfolio through quota shares
Profitability and volatility	Greater reliance on fixed commissions and conventional Cat XOL	More sliding-scale commissions, lower-layer protection and aggregate solutions

Takeaways

The physical economy is back: Energy transition, AI infrastructure and strategic manufacturing are creating a capital- intensive investment boom

Major insurance opportunities from AI data centers and renewables alone and their operations extending the opportunity for decades

Risk accumulation is being rewired. Geography still matters, but shared supplies and physical and digital networks create new accumulation risks as well

The key constraint is insurability, not capital. We see the private market as capable of meeting the demand. Structural accumulation must be understood, mitigated, limited and distributed

Swiss Re

Questions!



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Appendix

Extra slides from previous presentations

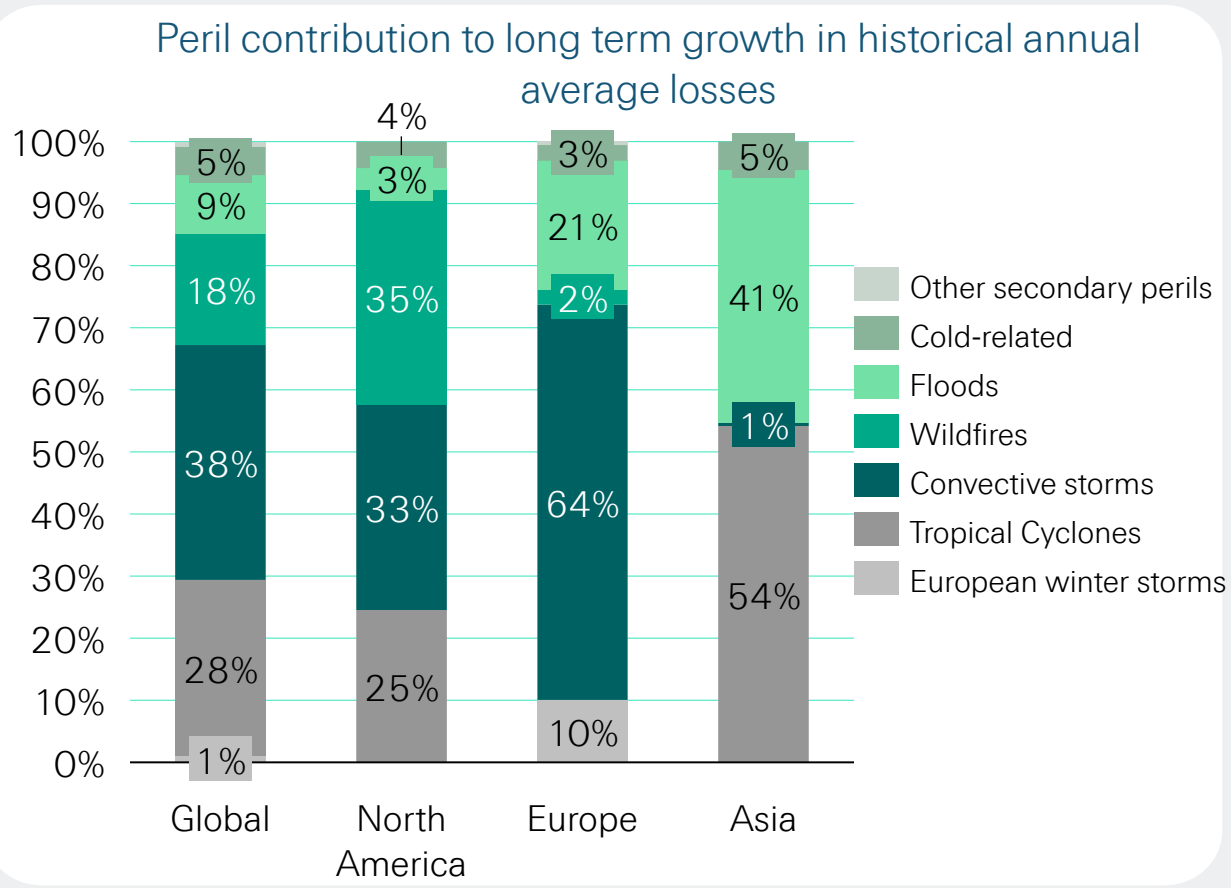
Secondary perils: largest contribution to growth of insured losses in past 55 years

Three perils account for two thirds of insured loss growth

Wildfires

SCS

Floods

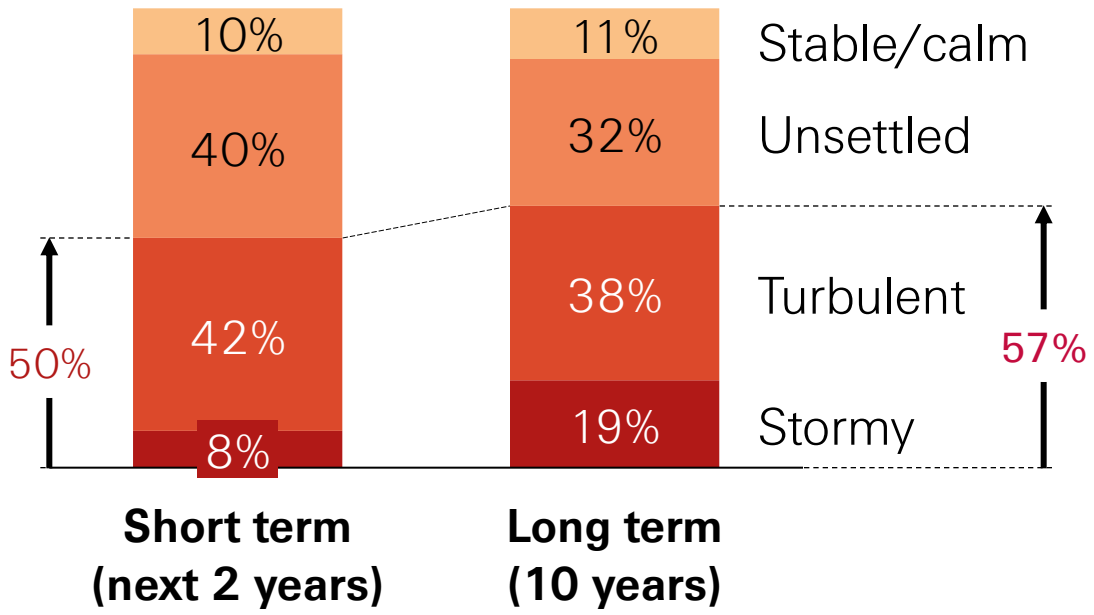


Source: Swiss Re Institute

Note: growth contributions are calculated as each peril's share of the difference between CPI-adjusted historical annual average losses and losses adjusted for peril- and region-specific long-term trends

Risk outlook clearly deteriorating: **57%** see a bleaker future

Short- and long-term risk outlook



Impact on corporates

- **Harder to plan:** more frequent shocks to demand, supply and financing
- **Higher loss potential:** greater chance that several big risks hit at the same time

Source: *The global risk report*, World Economic Forum, January 2026; Findings from WEF's Global Risks Perception Survey (GRPS) 2025-2026 from 1302 policy and business leaders

Near misses- often only one step away from catastrophe…



FedEx vs. Southwest, Texas (Feb ‘23)

Collision could have been one of the **worst aviation disasters** in US history



Space Station debris (2021–2024)

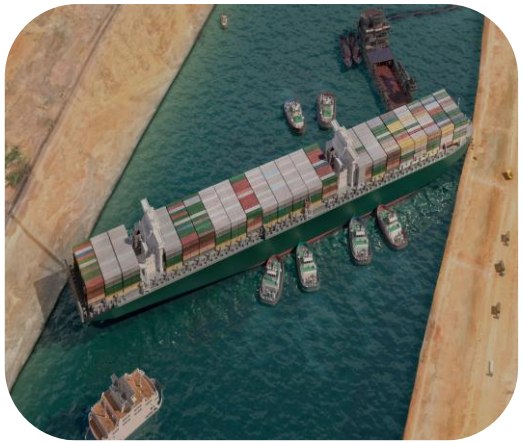
Risk of **catastrophic collision** in crowded orbit, impacting telecoms, GPS



Quad Cities nuclear plant coolant-loss (Mar ‘23)

Core damage and potential **radiological release** in Illinois

...so corporates can't manage risk just on past losses.



Suez Canal "Ever Given" blockage (Mar '21)

Refloating could have taken **weeks not 6 days** –if weather was slightly worse



Texas power grid 'almost collapse' (Feb '21)

"Seconds and minutes" away from **months long blackouts**

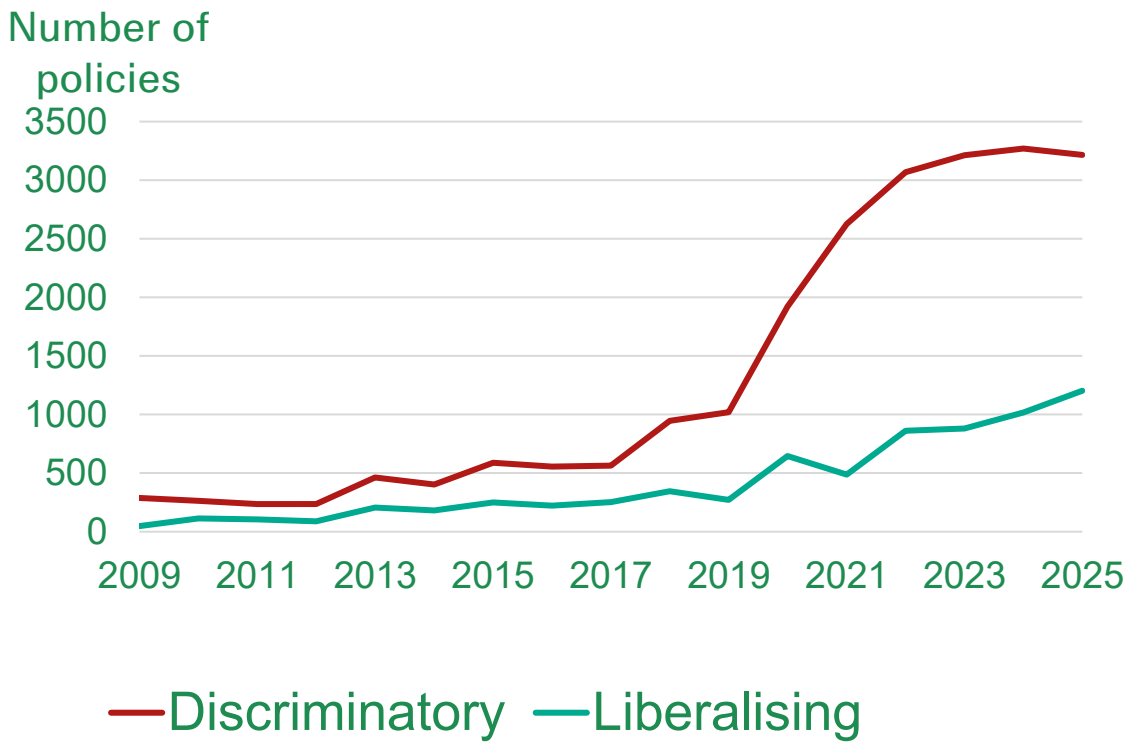


Deepwater Asgard & Hurricane Zeta (Oct '20)

Blowout could have led to a massive, **uncontrollable oil spill**

Geopolitics: More complicated, fragile supply chains for corporations

Growth in industrial policies, Global Trade Alert

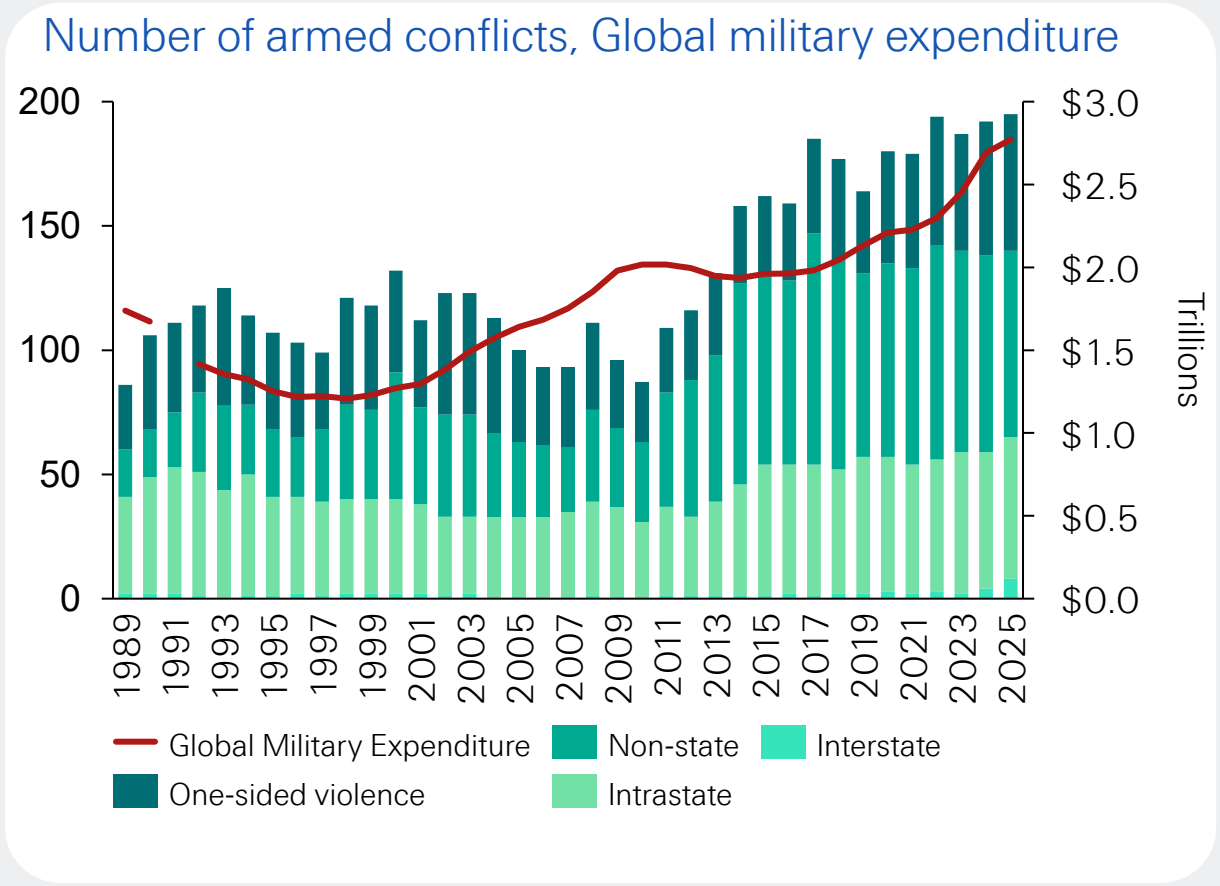


Impact on corporates

- Changes in tariffs, local-content rules or subsidies- **disrupting sourcing and market access**.
- **Capital & demand shift overnight**: spill-over hits to revenues, trade credit and project pipelines

Source: *Number of new policies per year*, Global Trade Alert, accessed 8 December 2025.

Spillover effects for corporations from **intensifying conflicts**



Impact on corporates

- Potential for tensions to **intensify over the next two years**
- **Higher volatility** in operating locations and supply chains
- Upward **pressure on costs** and financing risk

Source: *SIPRI military expenditure database*, Stockholm International Peace Research Institute, accessed 08 September 2026; Uppsala Conflict Data Program and Peace Research Institute Oslo, accessed 08 September 2026.



Risks don’t just add up, they interlock - unexpected shocks can compound existing stresses

Intertwined risks: regional conflict cascades

Neon gas shortage

50-60%

of global neon gas is from Odessa, Ukraine

Key metal exposure

15-20%

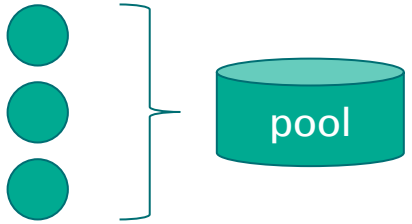
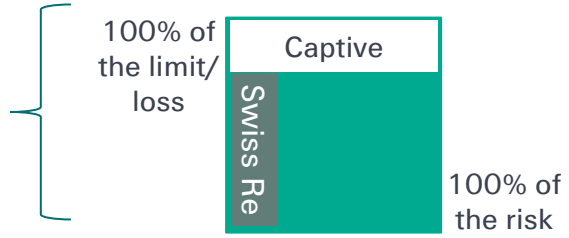
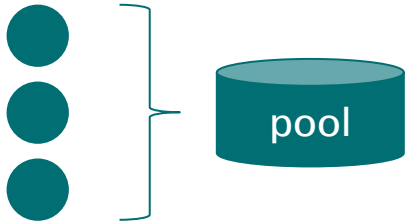
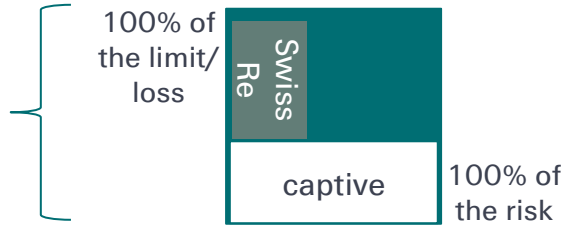
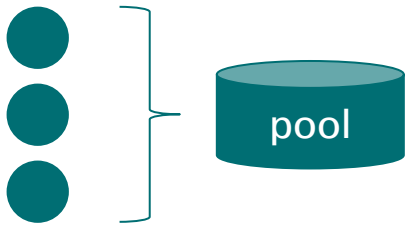
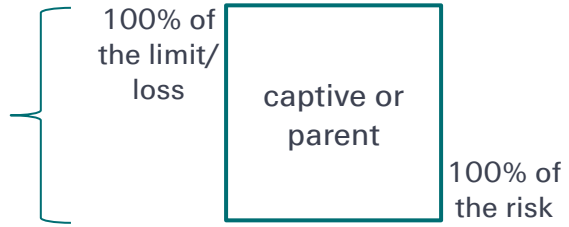
of battery grade nickel supply is from Russia

Wiring harness supply disruption

20-30k

impacted production vehicles units per week

Fronting complements Alternative Risk Transfer's overall proposition by facilitating customers' sophisticated self-insurance needs

Strategy	Aggregation of risk*	Placement of risk
Traditional (Non-ART) placement: Captive as opportunistic capacity provider on Swiss Re led program • Opportunistic captive participation • Short-term, price and capacity driven • Example: Participation on multiple excess layers		
Significant captive participation: Captive as strategic capacity provider on SR led program • Maximising capacity of self-insurance • Multi-year / Multi-line possible • Example: Significant captive retention layer		
Structured Fronting / Indemnified Insurance Captive as risk pooler and (if applicable) retro buyer • Long-term partnership • Multi-year / Multi-line possible • 100% of the risk fronted to captive / indemnified by parent		

*) International Program (if applicable)



Parametric Solutions
Windstorm

Cover for uninsured assets: T&D lines

Policyholder
Telecommunication Company in the Caribbean

Trigger
Windstorm exceeding pre-agreed windspeed Index

Pay-out
Fixed amount in % of limit dependent on index value triggered

Term
3 years

What is it that makes it alternative?

- Provides cover for often excluded assets such as T&D lines and other cover gaps
- Pays fixed amount on a parametric basis within 30 days of event occurrence as opposed to a traditional insurance contract with lengthy loss adjustment process
- Windstorm index is tailored to capture insurable interests in multiple insured locations with respective limits allocated
- Large limits available to recover quickly and at customers discretion

Video



Loyalty scheme for utility company

Policyholder

Utility company in Europe

Trigger

Earthquake and flood pre-agreed parameters

Pay-out

Variable amount based on an event parameter / index value and number of customers affected. Utility company grants their customers remission of future invoices

Term

3 Years

What is it that makes it alternative?

- Settlement is based on a Parametric cover. No assessment of direct physical loss required
- Marketing instrument to differentiate policyholder's product offering. Use insurance as an added benefit to the product to attract new customers
- The policyholder offers their customers a "payment holiday" in case they are affected by an earthquake or flood event at the policyholders' discretion
- Directly supports future income growth. Expense is an acquisition cost not a cost of risk

Award-winning Virtual Captive follows the mechanics of a traditional Captive

Who is it for?

- Corporations who decide to actively manage their risks, retain and build up capital over time to pay for losses
- Positive loss experience and good risk engineering practices in place
- Evaluating alternative solutions to captive vehicles
- Intermediate solution until captive is established and incorporated

How does it work?

A Virtual Captive is a multi-year insurance agreement that mimics the mechanics of a traditional Captive.

- Multi-year: Risk financing happens over time, as is with a real Captive
- Premium contribution to the Virtual Captive implicitly finances a larger part of the risk over time
- A "low or no claims bonus" to the client can be agreed and credited at the end of the period
- Flexibility to structure fully funded first full limit loss with pre- and post-loss financing options depending on local law and regulation

Benefits

- No set-up cost and no need to navigate regulatory complexities
- No expenses for Captive management services, actuarial, audit and other fees
- No capital injection and no collateral (standard situation)
- Speedy implementation
- Simple, clean exit options
- Swiss Re Group financial strength

Context

Motivation

- Need for setting up and managing a Captive
- Ease of process compared to setting up a regulated legal "Captive" entity

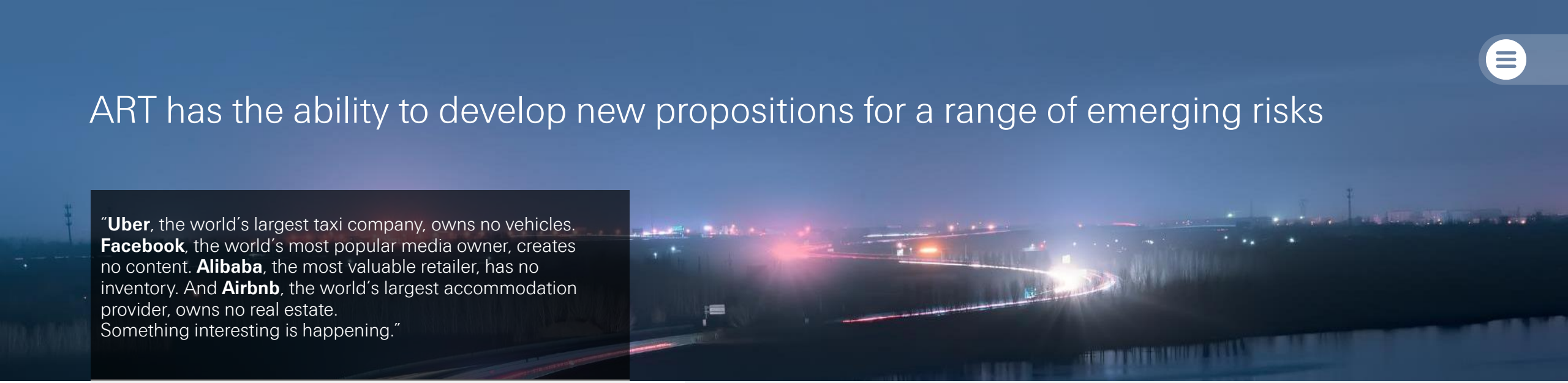
Transparency

- Agreements and their interaction are clear and explicitly connected to each other: no "side letters", no implicit agreements

Warranties

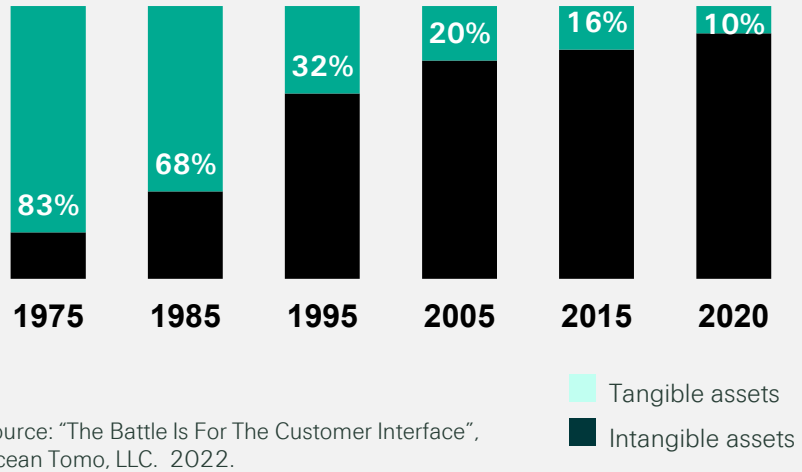
- Appropriate disclosure, reporting and accounting treatment are strict obligations in the policy

ART has the ability to develop new propositions for a range of emerging risks



"**Uber**, the world's largest taxi company, owns no vehicles. **Facebook**, the world's most popular media owner, creates no content. **Alibaba**, the most valuable retailer, has no inventory. And **Airbnb**, the world's largest accommodation provider, owns no real estate.
Something interesting is happening."

S&P 500 Index total asset distribution

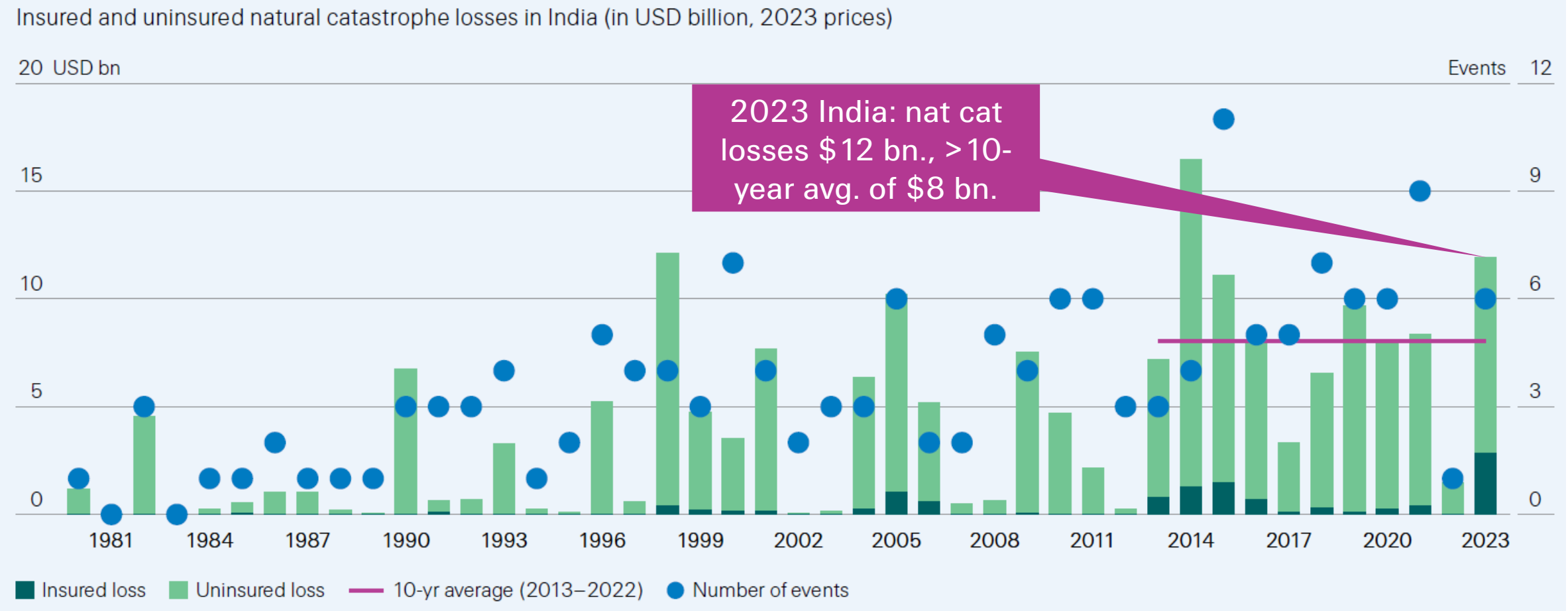


Source: "The Battle Is For The Customer Interface", Ocean Tomo, LLC. 2022.

Major trends impacting customers' risk landscape

- Supply Chain Disruptions → Pre-Agreed Value BI Parametric Solutions
- (I)IOT & Network Economy → Sensor data driven Parametric Solutions (B2B2B/B2B2C) Growthsurance
- Climate Change/ ESG → Parametric Nat Cat or ESG data based solutions … and others

India's rising retail exposure. 2005 Mumbai cloudburst hit 180 000 homes, 30 000 vehicles. 2015 Chennai floods: >80 000 vehicles



Note: Economic loss = insured loss + uninsured loss. Source: *India's economy and insurance market: growing rapidly, but mind the risk hotspots*, Swiss Re Institute, 2025.

Why reimagine retail insurance?

Policy tailwind: “Insurance for All by 2047” under Viksit Bharat

India/Year	2024	2047e	Growth (x)
GDP (USD b)	3,960	30,000	7.6x
Penetration (% of GDP)	1%	2%	
Non-Life Premium (USD b)	36	**600**	**16.5x**

Source: NITI Aayog, SRI estimate

- **Today:** Non-life penetration ≈ **1% of GDP**; To reach **2% penetration**, **retail** must drive the gains
- In mature markets, **retail is a large share** of portfolios (North America 52%)
- India must **build retail-first models** (products, pricing, distribution) **tailored to local realities** (affordability, access, trust)

Estimated infrastructure investment needs for Viksit Bharat 2047: transport sector

Roads and Highways

- **NH length** to increase to ~ 2,30,000 km by 2047 (from 1,46,195 km in 2024)
- **INR 65-70 tn (~ USD 807 bn**)* capex by MoRTH by 2047 (INR 3 tn as of FY24)

Railways

- 4,500 **Vande Bharat** trains will be operational from 156 (2024), and **DFCs** will increase to 10,000 km by 2047 from 2843 km (2024)
- Cumulative investments need of **~ INR 75 tn (USD 896 bn)** by 2047

Airports

- Operational airports to increase to **230-240** by 2030 from current 157 (2024)
- Investment need of **~ INR 4.5 tn (USD 54 bn)** over the next two decades

Ports

- **Cargo capacity** to expand to 7976 MMT by 2047 from current 2690 (2024)
- Investment need to meet the capacity expansion: ~ **INR 6 tn (USD 72 bn)** by 2047

Note: *converted at 2024 average exchange rate, National Highways (NHs), Dedicated Freight Corridors (DFCs)
Source: National Bank for Financing Infrastructure and Development, ICRA estimates

What it means for us

Complex, inter-connected landscape



Demand for re/insurance remains high



Understanding differentiating and pricing risks is key



Opportunity to grow & need to remain disciplined





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