University of St.Gallen
Swiss Institute for International Economics
and Applied Economic Research

Taxing Internal Capital Markets and the Repatriation of Risk

Anastasia Kartasheva, Andre Kraemer

Chicago Fed, October 22, 2026

From insight to impact.





"Tax Cuts and Jobs Act ... will serve only to 'Americanize' risk"

CCIR, December 2017
reported in Insurance Journal

BEAT takes effect: January 1, 2018

Tax Policy Changes Where Insurance Groups Bear Risk

- Affiliated reinsurance is a core channel through which insurance groups allocate risk and capital

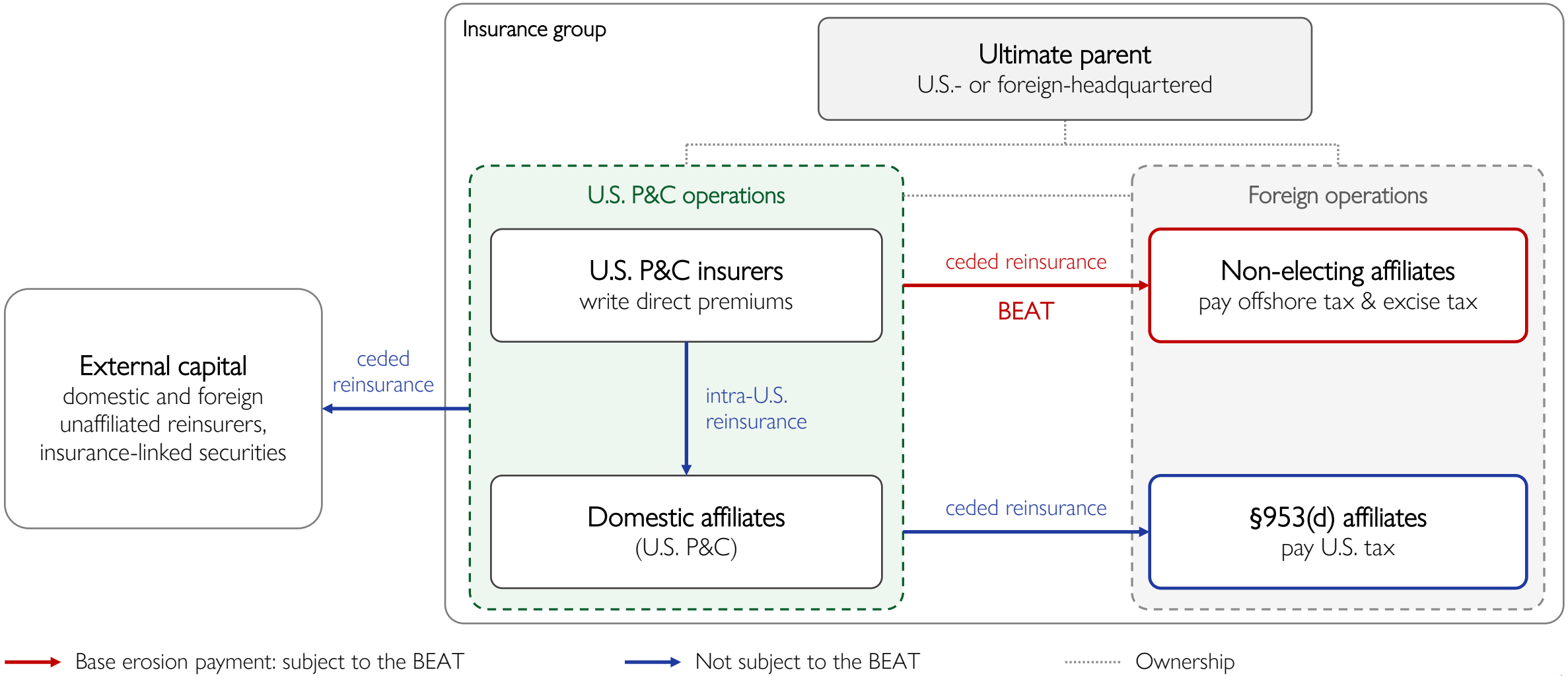
- *Distinctive evidence:* Novel data on the tax status of foreign subsidiaries of U.S.-operating insurance groups (§953(d) election)

- *Contribution:* Use the tax shock to explore the tax arbitrage and risk pooling value of the offshore subsidiaries, and document the shift of risk to domestic balance sheets

Institutional Background

P&C Insurers: Reinsurance Structure and Taxes

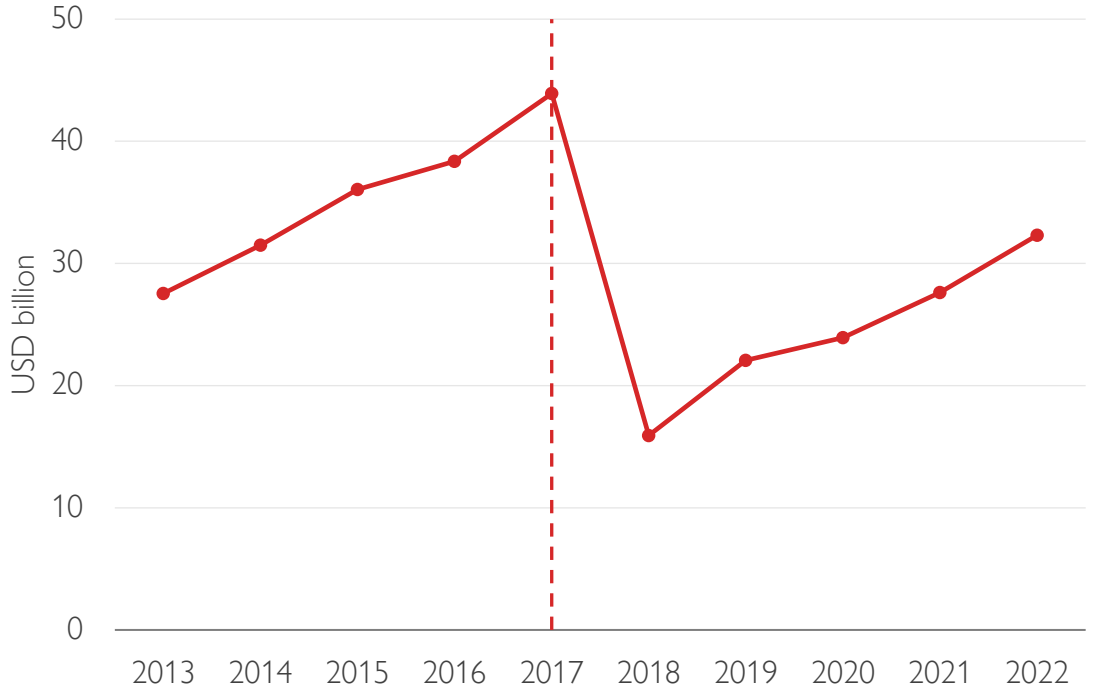
The BEAT as a Tax on Internal Capital Markets



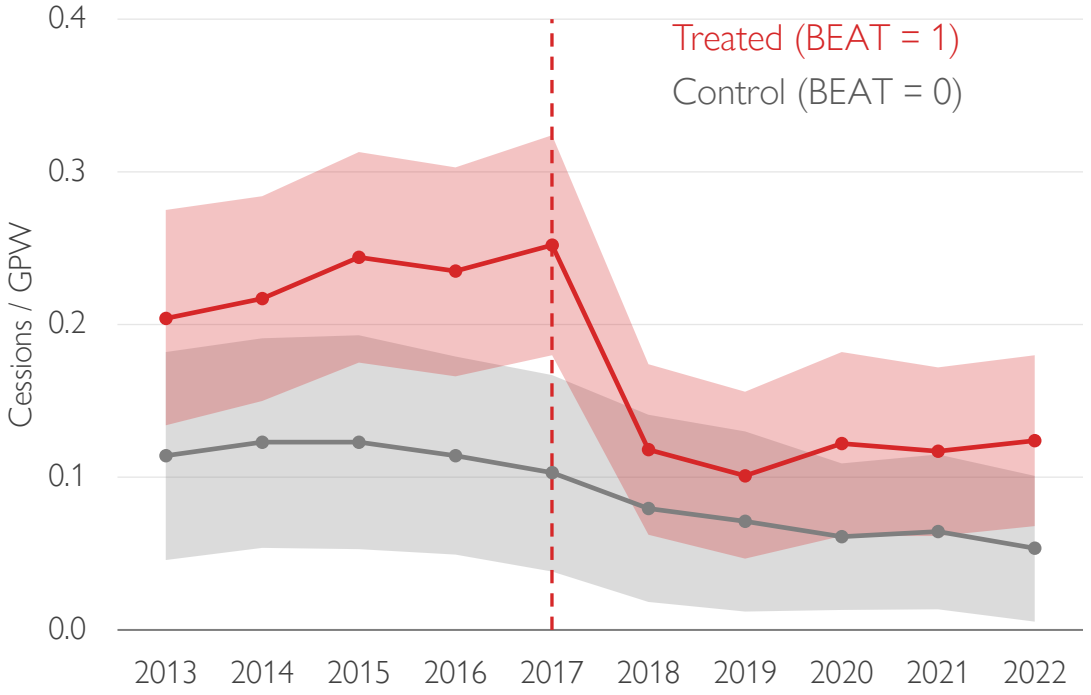
Aggregate Effect of the BEAT on Foreign Affiliated Reinsurance

Cessions to foreign affiliates collapse in 2018 for BEAT-exposed groups; control groups barely move.

A. Total cessions to foreign affiliates



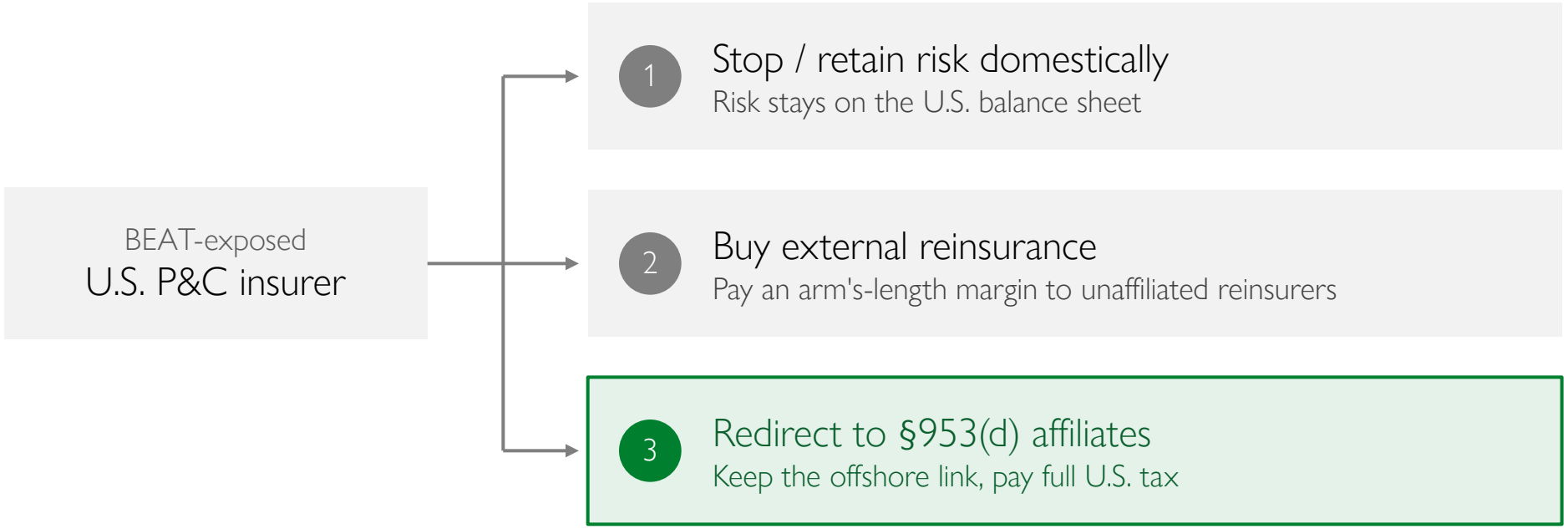
B. Cessions to foreign affiliates / GPW, treated vs. control



Dashed line: 2017, the last pre-BEAT year. Shaded areas: 95% confidence intervals of group means (26 treated, 22 control groups).

The BEAT Reveals the Value of the Foreign Affiliate Reinsurance Link

The BEAT raises the price of one internal channel. A §953(d) election keeps the offshore link but gives up the tax benefit.



Firms that pay full U.S. tax to keep the link reveal its non-tax value.

Empirical Analysis

How the BEAT Reshapes the Internal Capital Market

Data Sources

NAIC statutory filings (2013–2022)

- Schedule F (counterparty-level reinsurance), Schedule P (unpaid losses), RBC filings
- Group composition reconstructed from historical Schedule Y filings

Novel data on the §953(d) status of affiliates in Bermuda, Cayman, Switzerland

- Sources: Bermuda Monetary Authority statements, NAIC consolidated tax return notes, CFC screen using historical Schedule Y filings
- The three jurisdictions (Bermuda, Cayman, Switzerland) account for 88.8% of cessions to foreign affiliates
- The first study to track §953(d) affiliates systematically

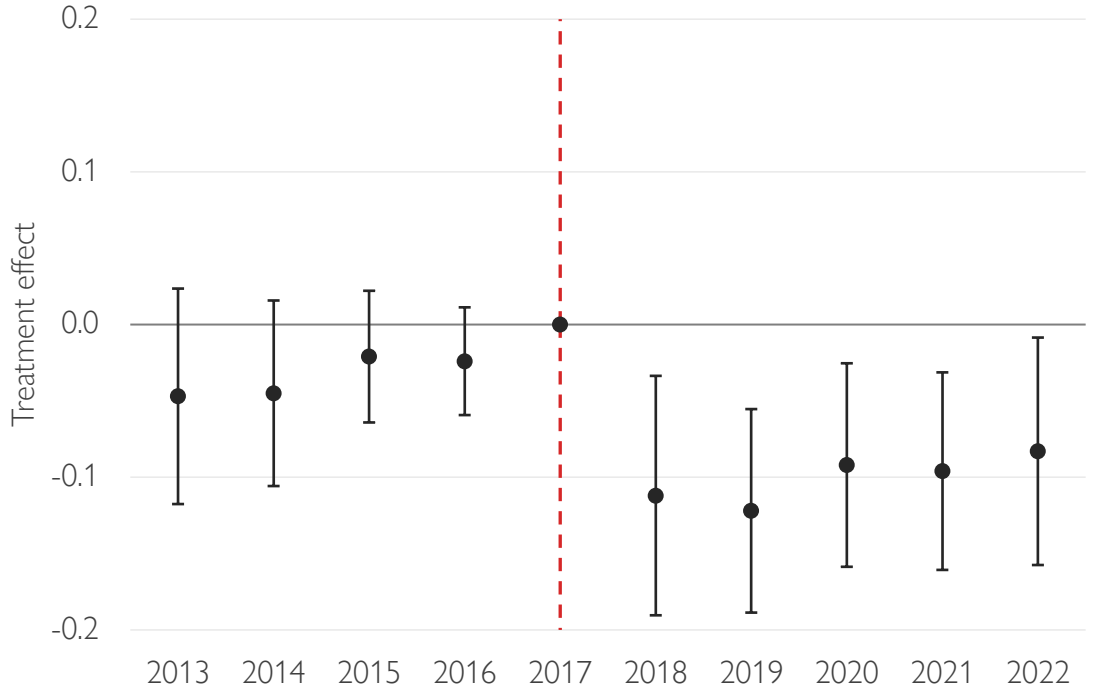
Sample

- 48 insurance groups (26 treated, 22 control), representing 55.3% of U.S. P&C industry assets in 2017

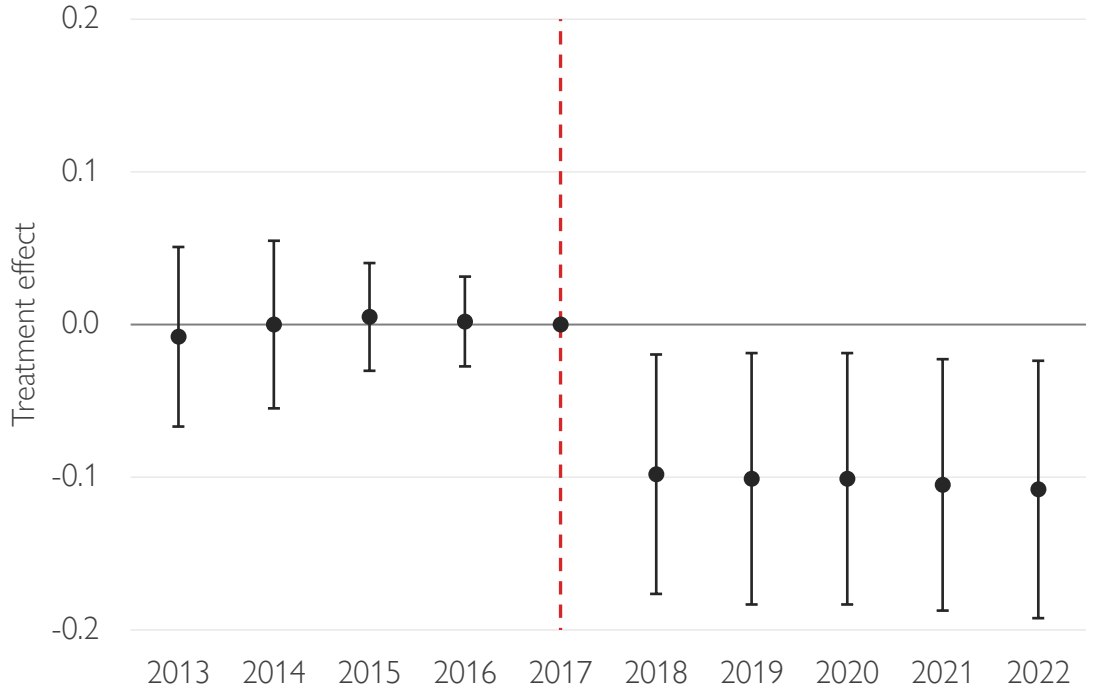
The Aggregate Effect of the BEAT: An Event Study

Within the same group and year, BEAT-exposed cessions fall by about 10 p.p. of GPW from 2018, with no pre-trend.

A. Between-group event study (foreign affiliates)



B. Within-group counterparty event study

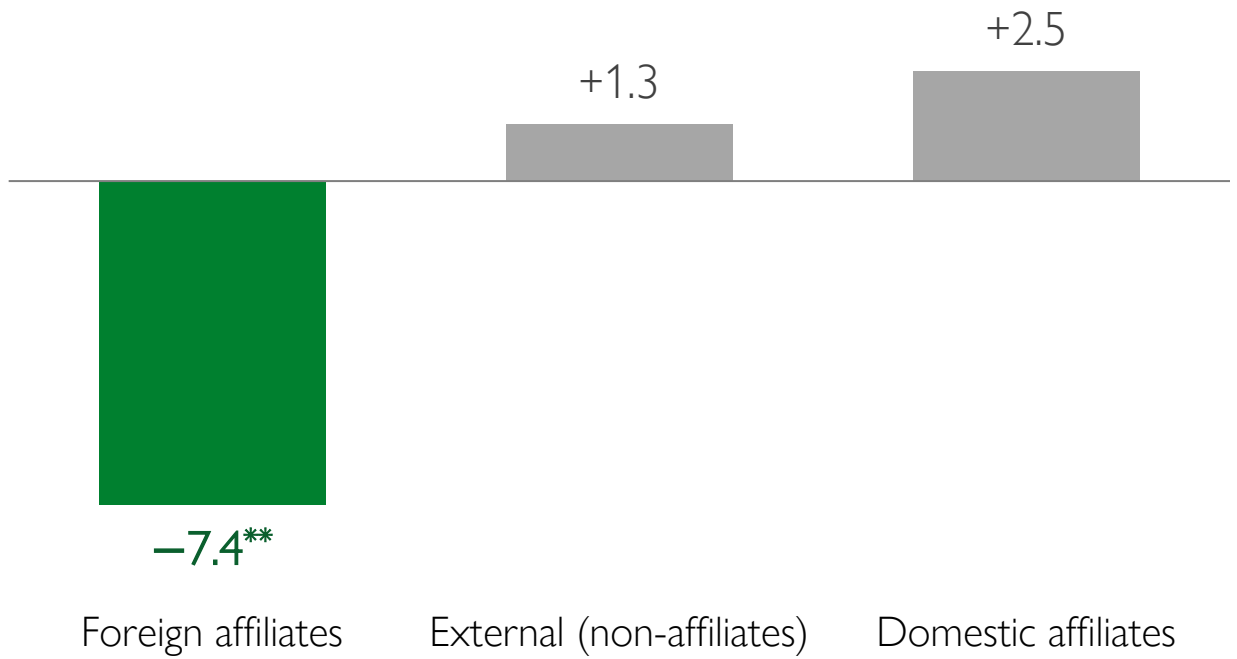


Dots: point estimates; bars: 95% confidence intervals; 2017 is the omitted reference year.

Substitution Toward Other Reinsurance Markets

Substitution gap: external reinsurers replaced less than one fourth of the lost internal capacity.

Change in reinsurance cessions after the BEAT, treated vs. control groups, p.p. of GPW



Net change
foreign affiliates + external

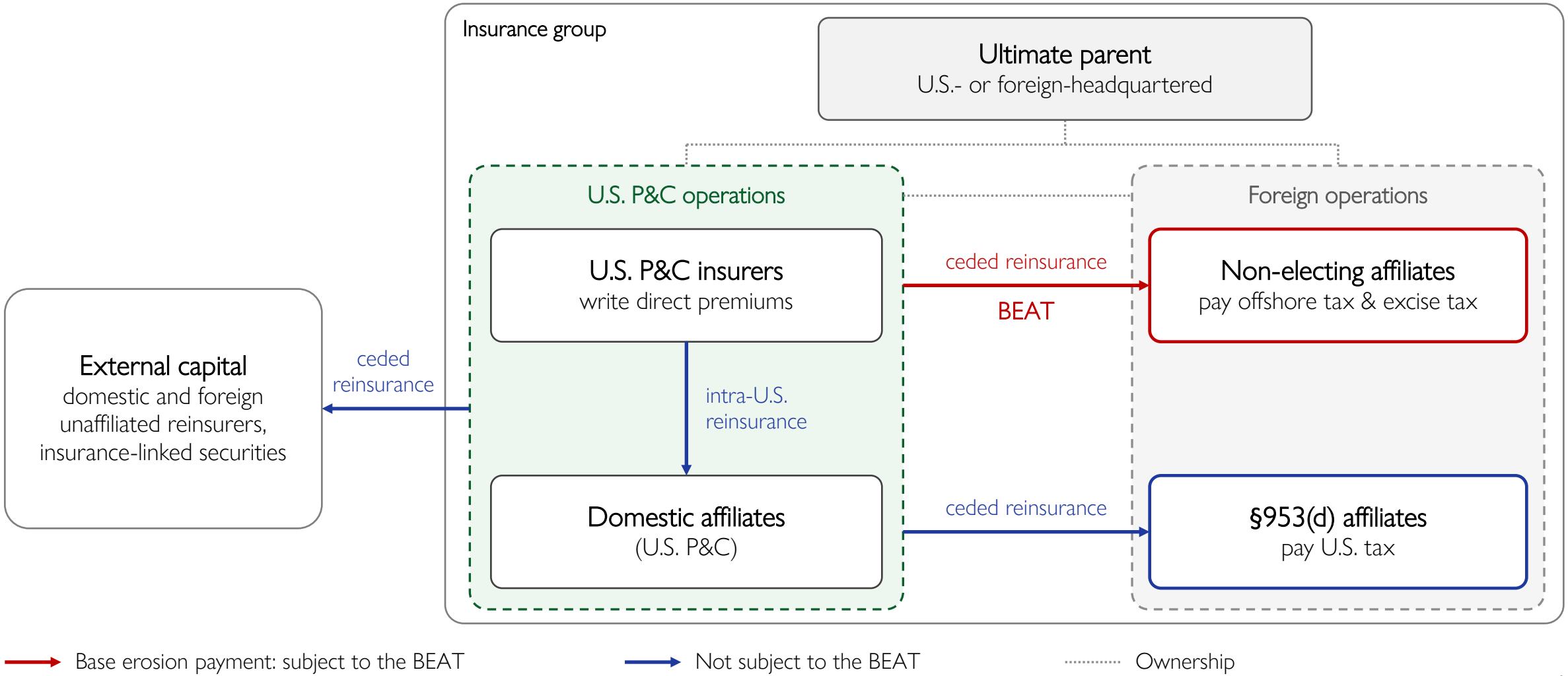
−6.1*
p.p. of GPW

* p < 0.10, ** p < 0.05, *** p < 0.01; standard errors clustered by insurance group.

Replacement Through Offshore Affiliates

Redirecting Reinsurance to U.S.-Taxed §953(d) Affiliates

The §953(d) Election: Paying U.S. Tax While Remaining Offshore



About One-Third of the Displaced Internal Flow Is Preserved

Insurance groups redirect part of the taxed flow to §953(d) affiliates and accept full U.S. taxation

A. Two-stage least squares

First stage

$$\text{Non953d}_{i,t} = \alpha_i + \lambda_t + \pi(\text{Post}_t \times \text{Treated}_i^{\text{aff}}) + \beta X_{i,t} + \eta_{i,t}$$

Second stage

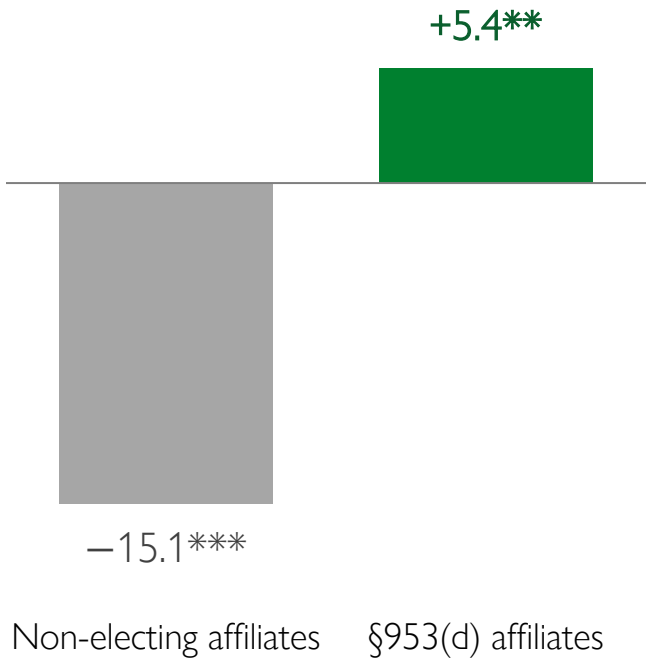
$$953\text{d}_{i,t} = \gamma_i + \delta_t + \sigma\widehat{\text{Non953d}}_{i,t} + \mu X_{i,t} + \varepsilon_{i,t}$$

Policy-induced substitution ratio

$$\omega \equiv -\sigma = \frac{\Delta 953\text{d}}{-\Delta \text{Non953d}}$$

Share of the BEAT-induced drop in non-electing cessions that reappears as §953(d) cessions

B. BEAT-induced change in cessions, p.p. of GPW



Substitution ratio

$\omega = 36\%$

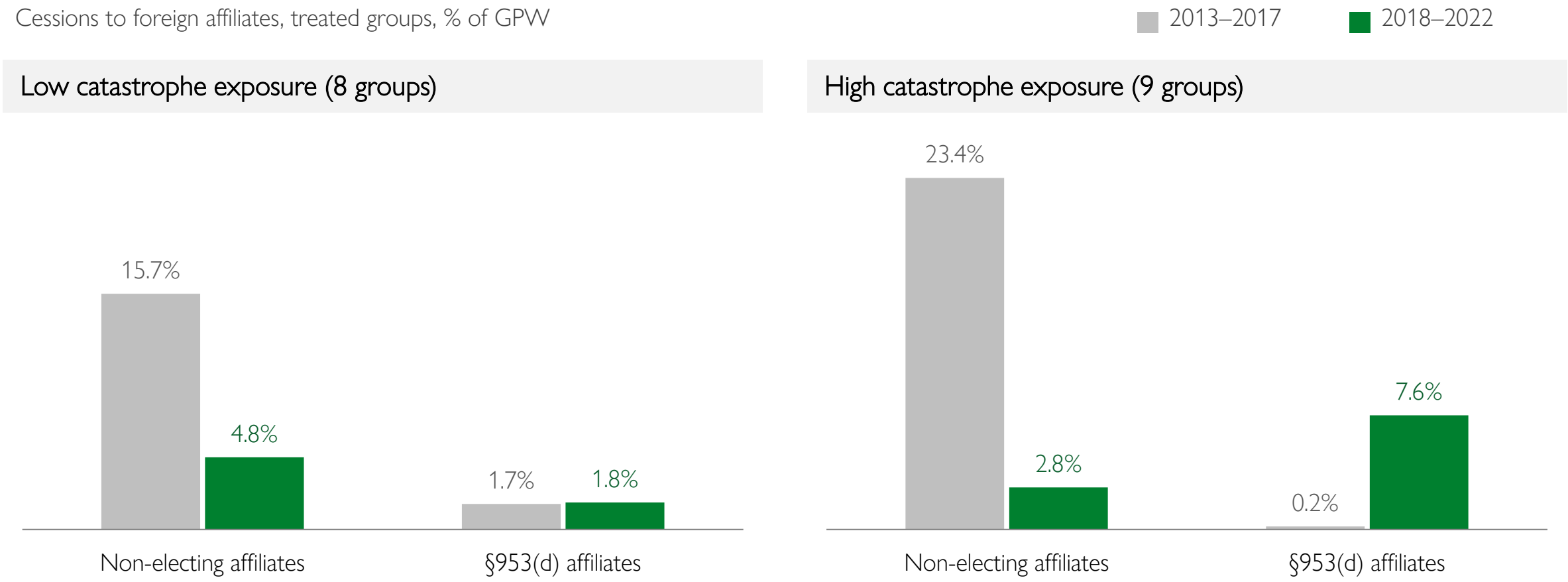
= 5.4 / 15.1

95% AR set
[0.03, 0.69]

* p < 0.10, ** p < 0.05, *** p < 0.01.

The Preserved Flow Appears Where Diversification Matters Most

Groups with high catastrophe exposure redirect to §953(d) affiliates; groups with low exposure simply exit.

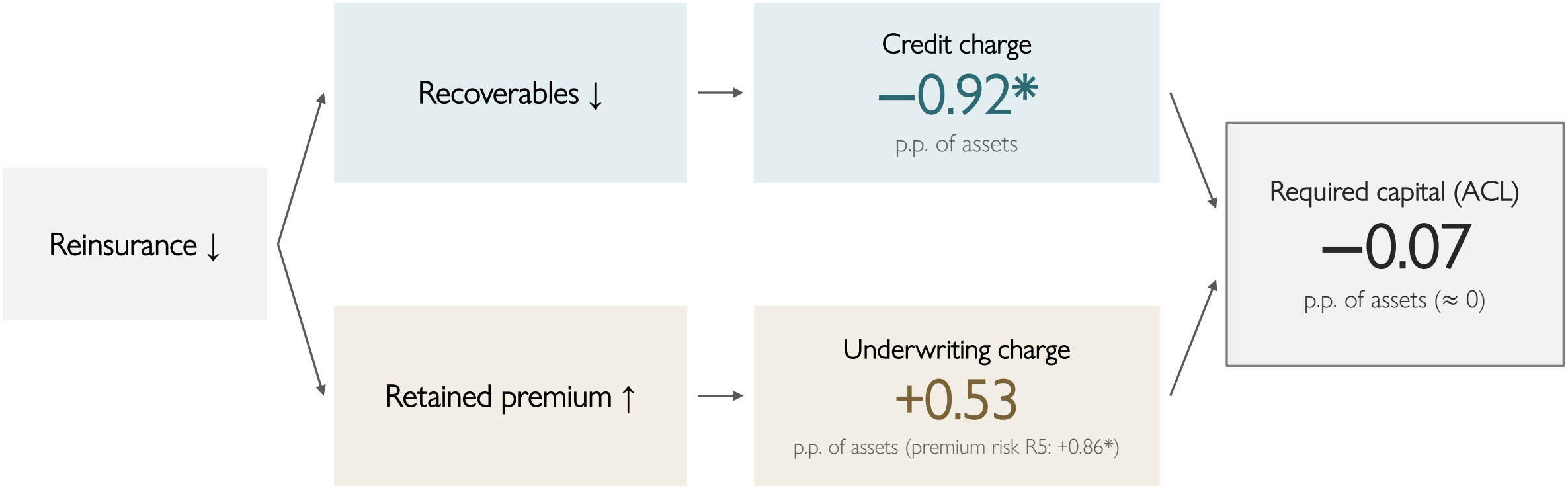


Risk Repatriation and Regulatory Capital

Does RBC Capital Follow the Risk Retained in the U.S.?

Economic Risk Moves; Required Capital Barely Does

The net-to-gross ratio of unpaid losses rises by 11.8 p.p., yet the two capital charges largely offset.



* p < 0.10, ** p < 0.05, *** p < 0.01.

Conclusion

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1. **Contraction of the taxed internal channel**
   Cessions to foreign affiliates decline by 7.4 p.p. of GPW relative to control groups.

2. **Limited substitution toward external reinsurance**
   Non-affiliated cessions rise by 1.3 p.p., offsetting less than one fourth of the decline.

3. **Partial preservation through §953(d) affiliates**
   A substitution ratio of $\omega = 36\%$, concentrated among groups with high catastrophe exposure.

4. **Decoupling of economic risk and regulatory capital**
   Net-to-gross current-year unpaid losses rise by 11.8 p.p., while required capital is unchanged (ACL ≈ 0).

The BEAT reallocates risk to U.S. balance sheets without a commensurate change in required capital.