When the Country Map Ages

A Vintage-Sensitivity Audit of Japan's Overseas Securities Exposure

Research outline for the NBER Japan Project Meeting, August 3-4, 2027
Shivam Gupta | Independent Researcher, Dubai
shivam1720406@gmail.com | 21 October 2026

Question and relevance to the Japanese economy

How robust are conclusions about Japan's overseas securities exposure when the country map used to interpret offshore issuance is older than the holdings being measured? Residence-based statistics locate the legal counterparty; an analytical restatement may instead seek the nationality of the underlying issuer. Combining updated positions with an unchanged allocation map can make a classification change look like portfolio adjustment, or conceal an adjustment that has occurred. This project proposes a Japan-focused measurement audit that separates those objects and identifies which conclusions remain stable under explicitly stated mapping uncertainty.

The Ministry of Finance publishes Japan's annual international investment position and country/region detail for portfolio-investment assets, with calculable counterpart economies available from end-2016 onward. These data provide a documented route into the Japanese case. The contribution would be a reproducible sensitivity layer for the interpretation of Japan's external balance sheet: asset-class-specific exposure intervals, direction-of-change checks and a prioritized list of mapping information that would most improve those checks.

Analytical foundation

The project extends my working paper, *When Portfolio Maps Go Stale: Offshore Restatement and Measured External Adjustment*. That study evaluates older versus contemporaneous estimated maps within the December 2022 Global Capital Allocation Project release for 2007-2020. Its principal application is U.S. common equity, supplemented by other U.S. asset classes and seven non-U.S. bond books. It establishes a reproducible audit framework and conditional exposure bounds. Japan-specific empirical results are the next research step proposed here.

Let w(t) be Japan's normalized residence-based holdings vector and M(s) a row-stochastic issuer-allocation map observed at date s. The restated shares are w(t)' M(s). At a fixed holdings date, the difference between two map vintages isolates the map component. A two-factor accounting decomposition then separates changes in holdings weights from changes in mapping. For a target country set, row-level allocation intervals yield a sharp interval for its portfolio share by weighting each row's feasible minimum and maximum with current holdings. A directional statement is robust only when the corresponding change interval excludes zero.

Data and implementation plan

First, I will assemble a dated Japan holdings panel from MOF/Bank of Japan releases and reconcile it with the IMF's Portfolio Investment Positions by Counterpart Economy dataset. The initial target window is 2016-2025, with actual comparisons restricted to common years and compatible asset definitions. Each observation will retain its release date, revision status, unit, coverage and source. Equity securities, investment-fund shares and debt categories will be treated separately wherever disclosure permits; discrepancies and suppressed entries will be carried explicitly into the sensitivity analysis.

Second, I will inventory publicly released issuer-allocation maps and their investor, asset and year coverage before choosing admissible comparisons. A map estimated for another investor will not be treated as a Japanese benchmark. Where a Japan-specific contemporaneous map is unavailable, the output will be a conditional sensitivity analysis, with externally calibrated drift ranges labeled as assumptions and tested across a range of values. Residence data alone will not be presented as identifying ultimate issuer nationality.

Third, I will compute exposure intervals for Japan's main disclosed counterpart economies, compare current versus older admissible map inputs where available, and test whether measured changes retain their sign. Negative positions, fund look-through, home-nationality return routes, missing rows and exchange-rate/unit

reconciliation will receive separate diagnostics. Historical experiments will distinguish estimated-map benchmarks from independently observed portfolio truth.

Finally, I will rank residence routes by their contribution to uncertainty in the specific Japanese exposure query. This turns the audit into an information-acquisition problem: which additional mapping observation would most reduce the relevant interval under a fixed refresh budget? The ranking will be compared with a simple holdings-size rule and evaluated on held-out historical transitions where the data permit.

Expected contribution and deliverables

The intended paper will provide a documented Japanese holdings panel, an auditable mapping-coverage inventory, reproducible interval calculations and a compact reporting template for exposure claims. Its policy value is to distinguish a robust external-adjustment finding from one that depends on an old or transported country allocation. Success would create a reusable maintenance protocol for Japan-focused international-finance research and a basis for comparison with other creditor economies. The study is an accounting and measurement exercise; causal interpretations would require a separate identification design.

I plan to complete data reconciliation and coverage assessment first, circulate initial diagnostics for feedback, and develop the full analysis ahead of the August 2027 meeting. The feasibility gate is the publicly verified overlap between Japanese holdings categories and usable mapping inputs. If that overlap is narrow, the paper will report the resulting identification limits and the value of targeted new information rather than substitute an unvalidated map.

Acknowledgment and professional interests

No external funding supported preparation of this research outline. The author is founder and CEO of Siloed, a software and AI consultancy, and holds contract AI engineering roles at Khoros/IgniteTech and micro1. These organizations do not sponsor the proposed study.

Sources and existing research artifact

Ministry of Finance, Japan: International Investment Position, annual and regional releases

IMF: Portfolio Investment Positions by Counterpart Economy, formerly CPIS

Gupta: Offshore-map-expiry working paper and replication code