Capital Flows in an Exchange-Rate Reversal: Evidence from Korea

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Evidence cutoff: September 14, 2026; exchange-rate data through August 31, 2026

Abstract

The Korean won weakened through the first half of 2026 and then appreciated sharply in July and August. This paper asks how much of that path can be organized with public data and where causal attribution fails. I combine exchange rates, two official measures of foreign equity flow, listed-market transactions, dollar-futures trading, corporate filings, and audited results from firm and fund disclosures. A fixed-coefficient global benchmark accounts for only 2.37 of the won's 7.39 log-point depreciation in January–June and 1.73 of its 12.41 log-point appreciation in July–August. An equal-weight JPY–TWD–SGD comparator also moves much less: 11.32 log points of the July–August appreciation remain after subtraction, the most negative 42-trading-interval difference among 282 recent overlapping windows. Yet the residual cannot be named as a domestic structural shock. In July, balance-of-payments equity liabilities record a USD 5.982 billion inflow while a foreign-exchange-market report records USD 20.700 billion of outflow. A USD 26.5071 billion overseas primary issue can almost reconcile those numbers only under full monthly attribution, whose actual share and spot conversion are unobserved. Settlement-date adjustments, daily stock and futures associations, firm accounts, and public hedge positions do not close the chain from transaction to currency order. The contribution is therefore an evidence audit: it identifies robust descriptive features, rules out several common readings of flow data, and states the linked data and timing tests needed for a causal account.

Keywords: Korean won; exchange rates; portfolio flows; settlement timing; equity issuance; hedging.
JEL codes: F31; F32; G15.

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1 Introduction

The Korean won followed an unusually sharp two-sided path in 2026. The Bank of Korea's 15:30 KRW/USD series ended 2025 at 1,439.0, rose to 1,549.4 at the end of June, reached an ex-post sample maximum of 1,555.8 on July 2, and then fell to 1,424.0 at the end of July and 1,368.6 at the end of August. Because a rise in KRW/USD is a depreciation, the first six months produced 7.39 log percentage points of won depreciation and the next two months produced 12.41 log points of appreciation. The reversal was both faster and larger than the preceding cumulative depreciation.

That path invites a simple question: what caused the won to weaken and then turn? It also invites answers that public aggregate data cannot support. A balance-of-payments inflow need not be a secondary-market purchase of existing Korean shares. A reported settlement flow need not have the same monthly clock as an economic-ownership transaction. A dollar-futures sale need not be the hedge of the equity purchase recorded in another aggregate series. A corporate foreign-currency asset is not necessarily cash available to pay for a dated transaction, and a disclosed dollar receipt is not necessarily converted into won. These distinctions become quantitatively important in July 2026.

This paper reframes the question in a way that the evidence can answer. First, which features of the 2026 path are directly observed? Second, how much of the path is shared with limited global and Asian-currency benchmarks? Third, do official and market-based flow measures describe the same economic action when their signs or magnitudes differ? Fourth, what additional links must be observed before a primary issue, a hedge adjustment, or an investor flow can be assigned a causal exchange-rate contribution?

The empirical literature gives strong reasons to study capital flows and exchange rates together. Equity rebalancing, currency returns, and asset prices are jointly determined in models and data (Hau and Rey, 2006; Froot and Ramadorai, 2005; Camanho et al., 2022). Emerging-market evidence also shows that feedback trading, market segmentation, and timing can make the observed sign of a flow-return relation difficult to read structurally (Gyntelberg et al., 2009; Krohn et al., 2023). In intermediary models, limited risk-bearing capacity can amplify currency demand shocks (Gabaix and Maggiori, 2015); in the hedging channel, asset demand can induce currency trades that differ from the direction suggested by the underlying acquisition (Liao and Zhang, 2020). These mechanisms make the Korean episode economically plausible without making any one mechanism empirically identified.

The paper therefore takes an audit approach. It does not estimate a new structural model. It fixes the data vintage, date conventions, units, and claim boundaries; reconciles four monthly equity-flow measures; traces a large overseas share issue across filing, pricing, payment, accounting, and possible balance-of-payments clocks; and reports negative and superseding evidence from daily trading, firm accounts, payment cases, and public hedge positions. Most of the analysis was designed after the 2026 episode had been observed. Conditional fits, ranks, and event windows are described as retrospective diagnostics rather than prospective tests.

Four findings organize the paper. First, limited global and regional benchmarks leave large

differences. A global regression using a common-dollar factor, VIX, and the Korea–U.S. short-rate differential produces a January–June conditional fit of 2.37 log points against an actual 7.39 and a July–August fit of −1.73 against an actual −12.41. A fixed equal-weight average of JPY, TWD, and SGD changes produces only −1.09 log points in July–August. The won-minus-Asia-3 change is −11.32, and its sign and magnitude survive every two-currency leave-one-out basket. This is evidence that the won moved differently from that comparator, not evidence that the difference is a Korean structural shock.

Second, measurement changes the economic reading of July. Balance-of-payments nonresident equity liabilities record USD 5.982 billion of inflow, while the Bank of Korea foreign-exchange-market report records USD 20.700 billion of foreign-equity-funds outflow. A confirmed USD 26.5071 billion overseas primary issue by SK hynix is close to the difference. If the full gross issue is attributed to July balance-of-payments equity liabilities, subtracting it changes the BOP number to −20.5251 billion, only USD 0.1749 billion from the FX-report figure. But the actual attribution share, net bank receipt, use of proceeds, hedge, and spot conversion are not public. The arithmetic changes an interpretation; it does not trace the money.

Third, a calendar T+2 adjustment is not a general reconciliation. It brings a listed-trade comparator closer to the FX report in three of seven months and farther away in four. Excluding July, the mean absolute gap rises from USD 2.560 billion on a trade-date basis to USD 3.772 billion after the rule-based shift. Timing matters, but a mechanical shift does not substitute for actual settlement and foreign-exchange records.

Fourth, the broader evidence narrows claims rather than selecting a single cause. Same-day equity trading and dollar-futures positions are conditionally associated with the won in 2026, but lagged relations are weak and large monthly residuals remain. An independently rebuilt firm panel does not reproduce an early strong relation between overseas investment and net dollar balances. Public ETF records connect positions conditionally on only three of ten planned dates and allow opposite hedge-rate changes for the same observed balance movement. None of seven dated issuance and market-structure events satisfies a prespecified intraday event-study rule.

The resulting contribution is bounded but useful. For the 2026 Korean episode, the paper provides a reproducible map from published numbers to the economic propositions they can and cannot support. It shows how a primary issue and different statistical clocks can reverse the apparent sign of "foreign equity flow," preserves counterevidence that weakens attractive causal stories, and turns the remaining uncertainty into concrete data requirements. The aim is to improve the evidentiary basis of the public discussion and to define a research design that could later support causal attribution.

2 The 2026 Episode

2.1 The path and macroeconomic context

Figure 1 shows the daily path. The won did not depreciate smoothly. January and February were almost flat on an end-of-month basis, March produced 6.09 log points of depreciation, April reversed

3.11, and May and June added 1.64 and 2.71. July then produced 8.44 log points of appreciation and August another 3.97. The July 2 maximum is useful for describing the realized path, but it was selected after observing the full sample. It is not treated as a prespecified break date.

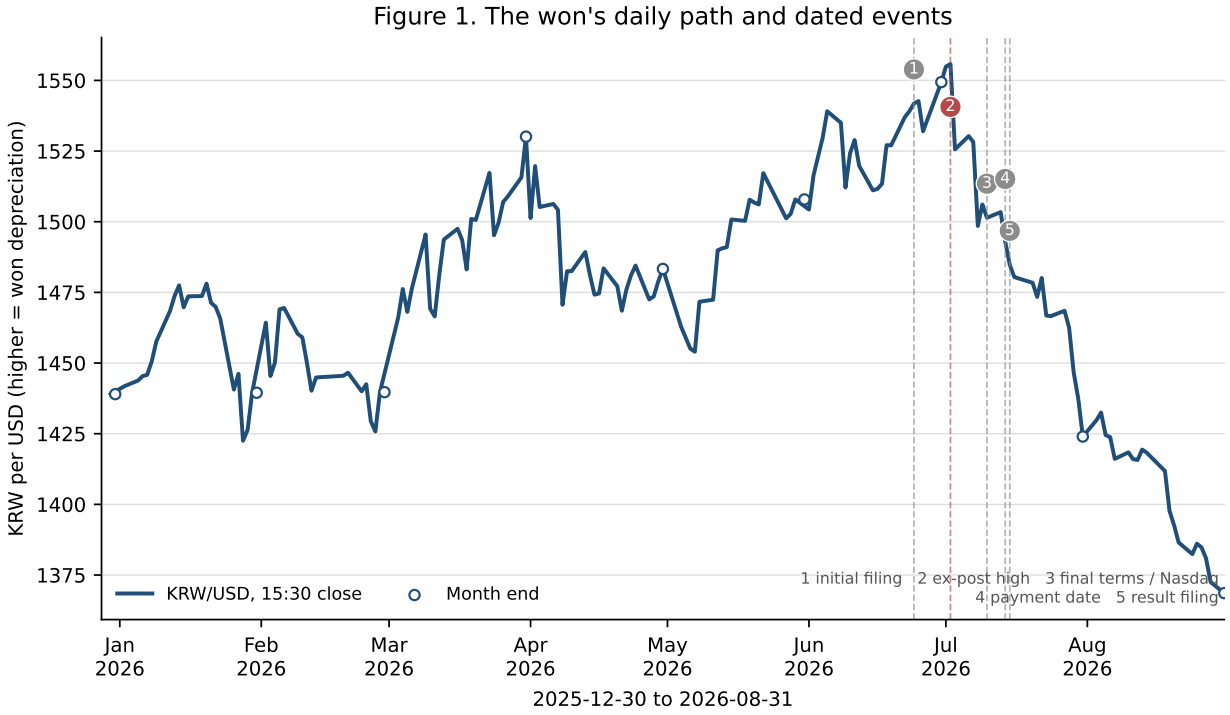


Figure 1: **The won's daily path and dated events.** The line is the Bank of Korea ECOS KRW/USD rate at the 15:30 date label; a higher value denotes won depreciation. Open circles mark the last available observation in each month. Numbered markers denote (1) the June 24 initial overseas-equity filing, (2) the July 2 ex-post maximum in the frozen sample, (3) July 10 final terms and the U.S.-dated start of Nasdaq trading, (4) the July 14 disclosed payment date, and (5) the July 15 issuance-result filing. Except for the 15:30 exchange-rate observations, the public records generally identify days rather than times comparable to the exchange-rate close. The markers document chronology and do not estimate causal effects. Data through August 31, 2026; source vintage retrieved September 13, 2026.

Real activity was not contracting throughout the depreciation. Real GDP increased 1.83 percent quarter on quarter in the first quarter and 0.62 percent in the second; household consumption increased 0.61 and 0.27 percent. These observations reject a description of the first-half episode as a simple contemporaneous output collapse. They do not establish an equilibrium or "fair" exchange rate. Exchange rates can move with expected future fundamentals, global risk, portfolio demand, hedging, and intermediary balance sheets even when current output grows. The empirical question is which of those channels leaves a trace in the available data.

2.2 Two limited benchmarks

The first benchmark is a fixed-coefficient monthly regression estimated from February 2015 through December 2025. The regressors are an eight-currency common-dollar change, the VIX change, and the change in a Korea–U.S. short-rate differential. Applying the coefficients to realized 2026 regressors gives a conditional fit, not a real-time forecast. In January–June the actual cumulative depreciation is 7.39 log points, the fitted depreciation is 2.37, and actual minus fit is 5.02. In July–August the actual appreciation is 12.41 log points, the fitted appreciation is 1.73, and the difference is 10.68. Changing the beginning of the estimation window leaves the July–August difference between -10.10 and -11.09 log points within this restricted model family.

The second benchmark is deliberately simpler. On each Korean stock-date interval, I calculate '100 times log change' for JPY/USD, TWD/USD, and SGD/USD, where a positive number is depreciation of the local currency, and take their equal-weight average. The common observation rate is 162 of 162 intervals from January 2 through August 31. The won depreciates 7.39 log points in January–June while Asia-3 depreciates 2.03, leaving 5.36. In July–August the won appreciates 12.41 log points while Asia-3 appreciates 1.09, leaving -11.32, or 91.2 percent of the absolute won movement. All three two-peer baskets leave a relative appreciation between -11.19 and -11.46.

The 42-interval July–August difference is the most negative among 282 overlapping 42-interval windows available from May 7, 2025, through August 31, 2026. Its lower-tail empirical share is 1/282 and the mechanically doubled tail share is 0.00709. Because the comparison sample is short and the windows overlap heavily, this is a descriptive rank rather than a p-value or long-run event probability.

Figure 2 puts the two benchmarks together. Both say that the 2026 won movement was much larger than the movement represented by their selected variables. Neither says why. The global residual can contain omitted international factors, nonlinearities, parameter change, Korean news, timing mismatch, and measurement error. The Asia-3 difference can additionally contain differences in market closing times and country exposures. "Unexplained by this benchmark" is the conclusion; "caused by a domestic flow shock" is not.

3 Data and Measurement

3.1 Sources, vintages, and signs

The evidence package combines five source families. Exchange rates, interest rates, national accounts, and balance-of-payments observations come from the Bank of Korea ECOS system and archived releases (Bank of Korea, 2026b,a). The monthly foreign-equity-funds item comes from the Bank of Korea's foreign-exchange-market reports (Bank of Korea, 2026c). Listed equity and USD-futures investor transactions come from ECOS and the Korea Exchange (Korea Exchange, 2026). Corporate issuance dates and amounts come from archived DART filings and an issuer release (Financial Supervisory Service, 2026; SK hynix, 2026). Firm, fund, insurer, deposit, and payment-

Figure 2. Actual won changes and two limited benchmarks

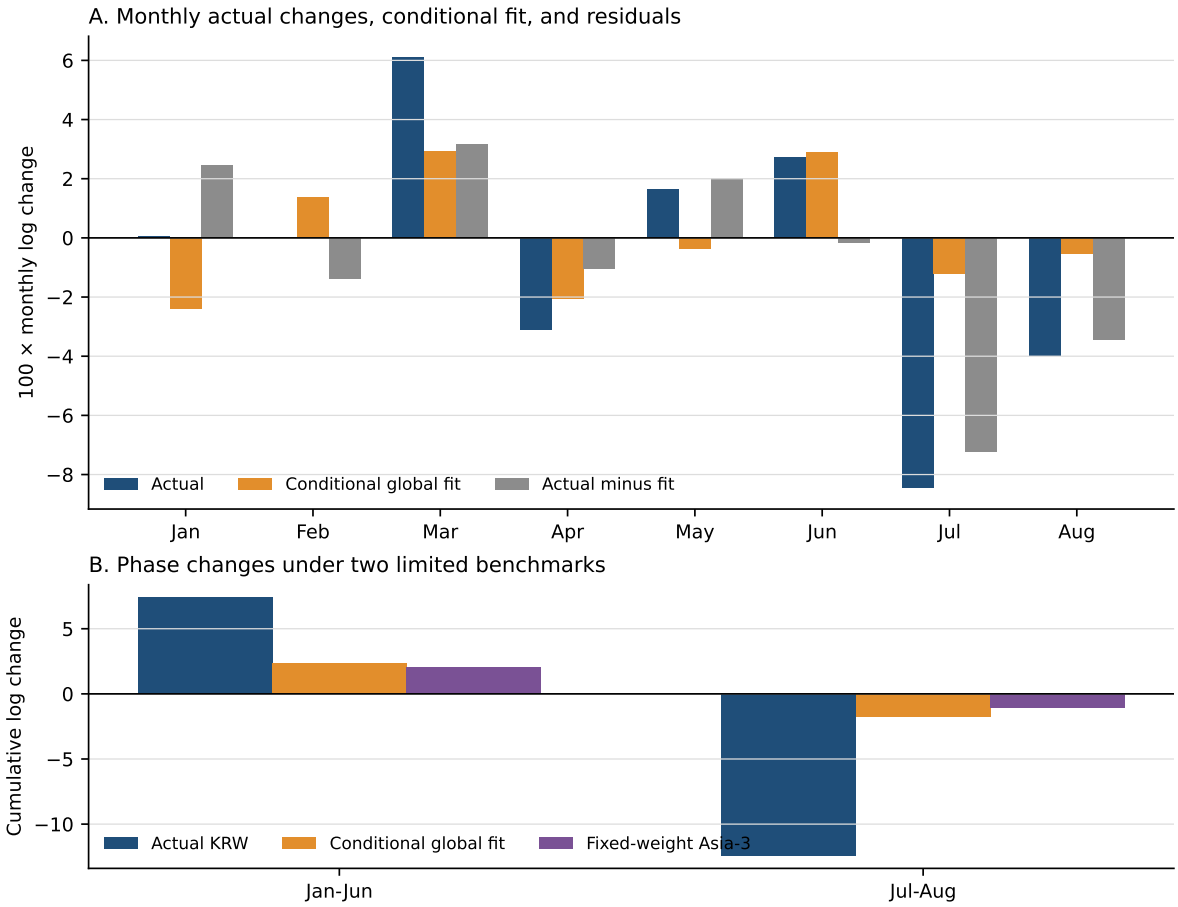


Figure 2: **Actual won changes and two limited benchmarks.** Panel A reports the actual monthly 100 × log change in KRW/USD, a fixed-coefficient conditional fit using realized common-dollar, VIX, and Korea–U.S. short-rate-differential changes, and actual minus fit. The coefficients were estimated through December 2025; the 2026 fitted values are conditional retrospective diagnostics rather than real-time forecasts. Panel B compares cumulative actual changes with the conditional global fit and a fixed equal-weight average of JPY, TWD, and SGD changes on the Korean stock-date grid. Positive values denote depreciation against the U.S. dollar. Neither the regression residual nor the difference from Asia-3 identifies a Korea-specific structural shock.

case evidence comes from the project's prior public-data extraction and subsequent independent reconstruction.

The information set is frozen as of September 14, 2026. The exchange-rate episode ends August 31. July BOP data were first released September 4 and are used as ex-post evidence about the July transaction month. The August FX-market report was scheduled for September 17 and August BOP for October 8, so neither value is present in this version. Before release, two August listed-trade comparators were frozen: USD −8.6249 billion on the trade-date construction and USD −1.1140 billion under the calendar T+2 construction. Later versions can add first-release observations but must not change those comparator definitions after seeing the release.

All exchange-rate changes are

$$r_t = 100\,[\log(S_t) - \log(S_{t-1})], \tag{1}$$

where S_t is local currency per U.S. dollar. Thus $r_t > 0$ is depreciation. Flows and transactions are reported in USD billions, with positive values denoting inflow or net purchase. Missing or unreleased values are left blank; they are never coded as zero. Fit measures are compared only when the dependent variable, sample, and evaluation period are the same.

3.2 Four clocks and four equity-flow measures

The main measurement problem is that economically related events use different clocks. A trade has a trade date and a settlement date. A corporate issue has a board decision, public filing, price determination, subscription, payment, legal effectiveness, and listing. A balance-of-payments compiler records a transaction under an economic-ownership/accrual principle rather than simply copying a payment date citepIMFBPM6. A market report can use a settlement basis. A spot conversion can occur before, on, after, or never around any of these dates. Public aggregate data do not reveal all clocks for the same transaction.

Let B_m denote BOP nonresident equity-liability transactions in month m, and F_m the foreign-equity-funds item in the FX-market report. Let q_d be listed KOSPI and KOSDAQ net purchases by foreign investors on trade date d, converted to dollars using the frozen daily convention. The trade-month comparator is

$$U(T,T)_m = \sum_{d \in m} q_d. \tag{2}$$

The rule-based settlement comparator maps each trade date to the second eligible KRX trading day and groups the same transactions by that assigned settlement month:

$$U(S,S)_m = \sum_{d:\, s(d) \in m} q_d, \tag{3}$$

where $s(d)$ is the reconstructed T+2 date. This is a calendar counterfactual, not an observed bank settlement or FX trade. An intermediate $U(S,T)$ construction separates date assignment and

conversion-rate choices in the audit, but the figures emphasize $U(T,T)$ and $U(S,S)$.

The four measures do not have an equality restriction. B_m can include primary issues and transactions outside the listed-market comparator. F_m has its own market, instrument, residency, and settlement coverage. $U(T,T)_m$ and $U(S,S)_m$ cover the same selected listed trades under alternative clocks. A difference can reflect scope as well as behavior. The purpose of reconciliation is to discover what additional information would make the numbers comparable, not to force them to match.

3.3 Retrospective design and evidence grades

The 2026 episode was visible before much of this analysis was designed. Model comparisons, the 42-day regional rank, the SK hynix case, and several robustness exercises are therefore post-event diagnostics. To constrain interpretation, each result is assigned a grade: A for a directly verified official observation or disclosure; B for independently checked arithmetic from those sources; C for a conditional association or retrospective fit; D for a scenario or partial-identification construction; and E for a missing link, superseded result, negative identification decision, or research gate. The grade describes the evidence path, not the economic importance of the claim.

The working rule is that causal verbs require more than chronology or correlation. An event-time analysis proceeds only if the public timestamp, time zone, comparable pre/post KRW price, and separation from overlapping events are available. A flow mechanism requires the transaction or exposure to be connected to a settlement, a currency order, and a price window. If the link is absent, the paper records the absence as a measurement result rather than imputing the transaction.

4 Reconciliation Evidence

4.1 Monthly comparisons

Figure 3 shows the four measures. Their broad directions agree in February, March, May, and June, when all indicate foreign equity selling or outflow. Their magnitudes are not identical. The most striking disagreement is July: $B_{Jul} = 5.982$, $F_{Jul} = -20.700$, $U(T,T)_{Jul} = -6.137$, and $U(S,S)_{Jul} = -20.252$ billion. A reader who calls the BOP number "foreign purchases of Korean shares" would infer an inflow and possible won demand; a reader of the FX report or listed-market comparator would infer outflow or net selling. The labels alone do not decide which economic action occurred.

Table 1 reports the exchange-rate and flow facts in compact form. The BOP and FX-report series are close at their published precision in several months despite their different definitions, but that empirical proximity is not an identity. January also illustrates why a later-vintage appendix cannot silently replace information available at the time: the initial report and the later appendix both show about USD -0.05 billion, but the BOP observation comes from a different release and compilation path.

The T+2 exercise gives a useful counterexample to a simple timing explanation. Relative to F_m, moving listed trades from trade month to the rule-based settlement month reduces the absolute gap

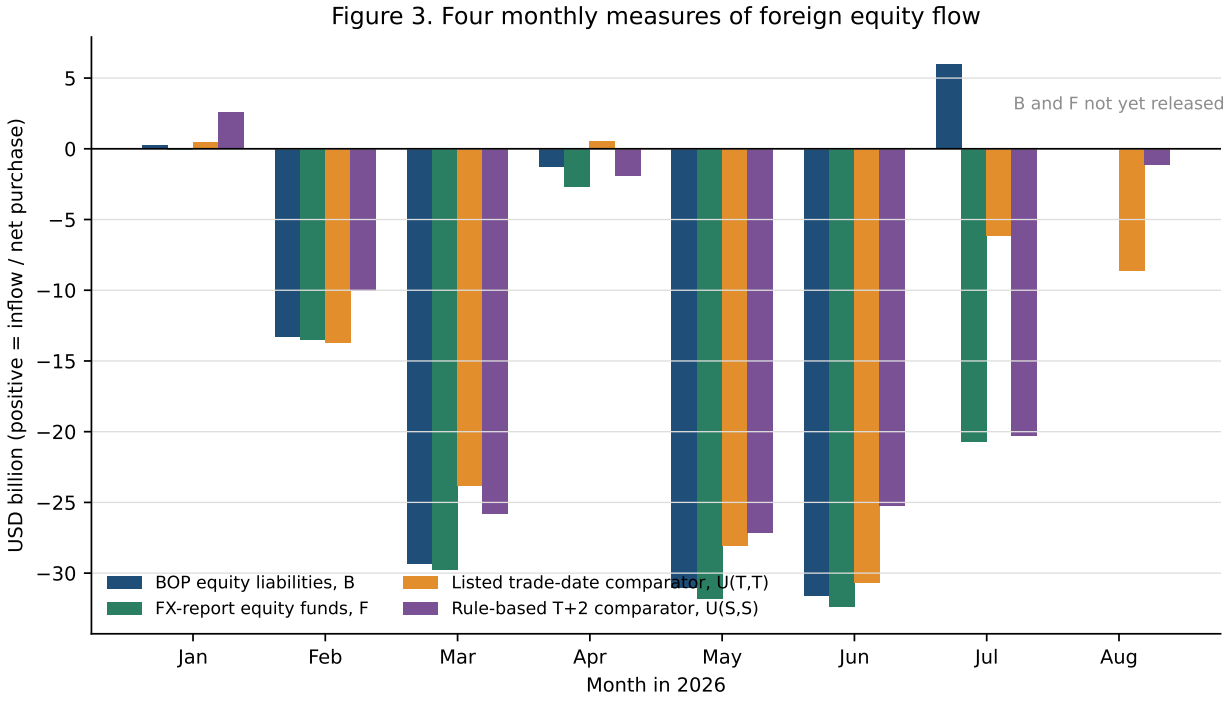


Figure 3: **Four monthly measures of foreign equity flow.** B is the balance-of-payments measure of nonresident equity liabilities on an economic-ownership/accrual basis; F is the foreign-equity-funds item in the Bank of Korea foreign-exchange-market report on its stated settlement basis; $U(T,T)$ converts listed KOSPI and KOSDAQ net purchases by trade month; and $U(S,S)$ moves the same listed trades to a rule-based T+2 month before conversion. Positive values denote inflow or net purchase. The series differ in market, instrument, residency, issuance, timing, conversion, and revision coverage and must not be added or spliced. August B and F were not public at the September 14 cutoff and are left missing rather than plotted as zero.

Table 1: Monthly facts for the 2026 episode

Panel A. Exchange rates and limited benchmarks

Month	KRW/USD close	KRW change	Dollar-8	Asia-3
Jan	1439.5	0.03	−3.30	−1.17
Feb	1439.7	0.01	1.34	0.54
Mar	1530.1	6.09	3.00	2.38
Apr	1483.3	−3.11	−2.22	−0.61
May	1507.9	1.64	−0.33	−0.59
Jun	1549.4	2.71	3.34	1.48
Jul	1424.0	−8.44	−1.66	−0.21
Aug	1368.6	−3.97	−0.47	−0.88

Panel B. Equity-flow measures and foreign USD-futures trading

Month	BOP B	FX report F	$U(T,T)$	$U(S,S)$	Foreign futures
Jan	0.220	−0.050	0.444	2.550	0.976
Feb	−13.268	−13.500	−13.674	−10.011	0.489
Mar	−29.327	−29.780	−23.788	−25.797	0.464
Apr	−1.242	−2.680	0.512	−1.919	−0.095
May	−31.051	−31.830	−28.035	−27.173	0.892
Jun	−31.612	−32.370	−30.655	−25.228	1.165
Jul	5.982	−20.700	−6.137	−20.252	−1.381
Aug	–	–	−8.625	−1.114	−2.900

Notes: Panel A changes are $100 \times$ log changes; positive values denote depreciation against the U.S. dollar. Panel B entries are USD billions; positive values denote inflow or net purchase. The BOP, FX-report, listed-equity and futures columns have different scopes. August official flow observations were not released at the evidence cutoff and are shown as –, not zero.

in March, April, and July, but increases it in January, February, May, and June. Excluding July, the mean absolute gap increases from 2.560 to 3.772 billion dollars. In April, the adjustment changes the listed comparator from +0.512 to −1.919 billion, aligning its sign with B and F. In January, it moves the comparator farther from F. A real settlement ledger might perform differently, but the public calendar rule alone does not reconcile the series.

The remaining May and June gaps after the T+2 construction are economically nontrivial: USD −4.657 and −7.142 billion for $F - U(S, S)$. A targeted search of available reports and selected disclosures did not assign those amounts to verified transactions. That failure does not prove that no relevant transaction occurred; the document search was incomplete and the statistical universes differ. It establishes that the current public-data package cannot explain the gaps transaction by transaction.

4.2 The July primary issue

The DART record identifies a large new overseas equity issue by SK hynix. The initial filing dates to June 24; final terms were dated July 9 in the United States and filed July 10 in Korea; Nasdaq trading began on the U.S. July 10 date; subscription and payment were dated July 14; and the result filing was dated July 15. The completed gross amount is 177.9 million ADR units at USD 149 each, or USD 26.5071 billion. Domestic residents were excluded under the priced prospectus, but the ultimate allocation register and the compiler's transaction record are not public.

Let $I = 26.5071$ be the gross issue and let $\alpha \in [0, 1]$ be the share attributed to July BOP equity liabilities. The issuance-adjusted quantity is

$$\widetilde{B}_{Jul}(\alpha) = B_{Jul} - \alpha I. \tag{4}$$

This quantity becomes negative when

$$\alpha > \frac{B_{Jul}}{I} = \frac{5.982}{26.5071} = 0.225675. \tag{5}$$

Under the full-attribution scenario, $\widetilde{B}_{Jul}(1) = -20.5251$ billion and

$$\widetilde{B}_{Jul}(1) - F_{Jul} = 0.1749 \text{ billion}. \tag{6}$$

The small remainder is striking, but it is conditional arithmetic. It does not observe α, and it uses the gross issue rather than a verified net bank receipt. Fees were estimated in won in the prospectus; actual bank receipts, internal transfers, and spot conversions are unknown. Nor does near equality imply that the two statistical systems would otherwise have identical coverage.

Figure 4 provides a second restriction. The won was already 3.43 log points stronger on July 13 than at the July 2 high, before the disclosed payment date. A story in which only a post-payment cash conversion begins the reversal cannot fit that ordering. Expectations, pre-positioning, other news, or unrelated forces could move the won earlier; the chronology does not identify which one.

The intraday audit also finds that none of seven relevant events has the combination of a public timestamp, comparable pre/post price, and clean separation required for an event study.

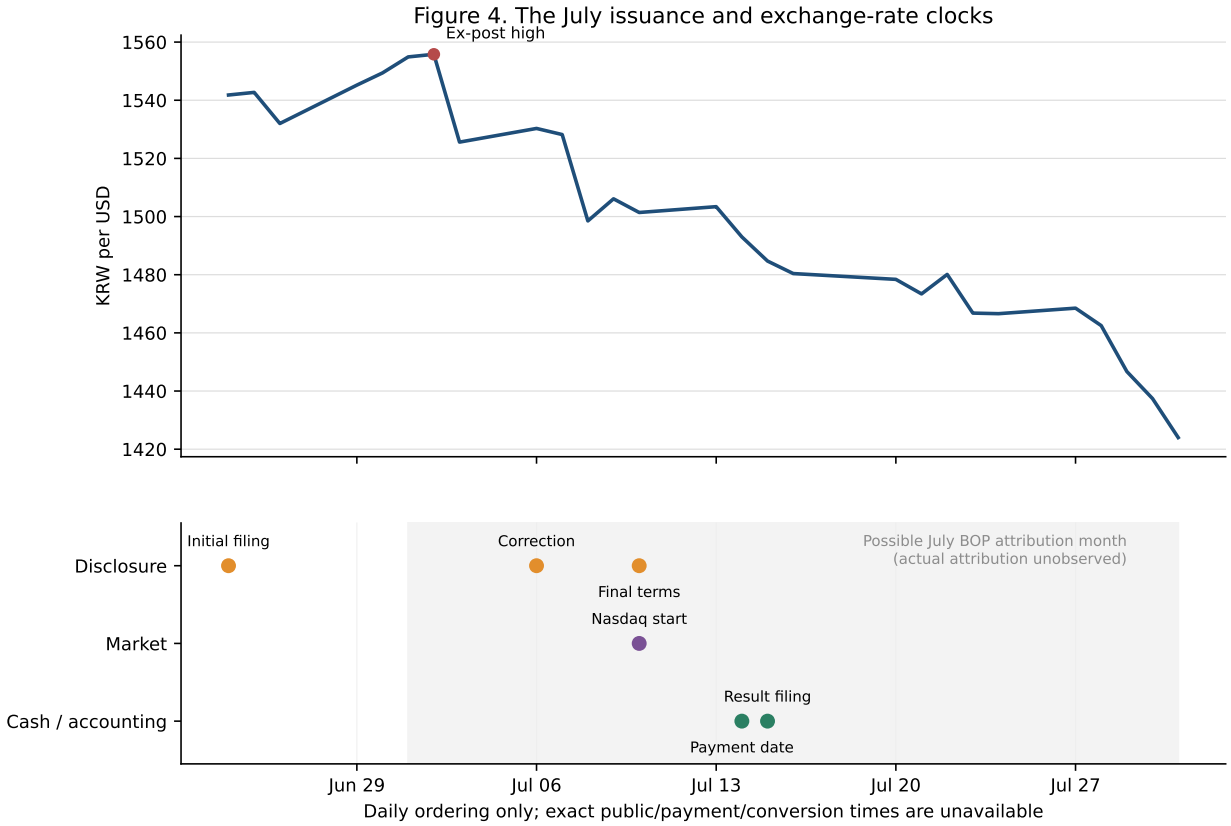


Figure 4: **The July issuance and exchange-rate clocks.** The upper panel shows the 15:30 KRW/USD date-label series from June 24 through July 31; the July 2 point is the ex-post maximum in the frozen sample. The lower panel separates disclosure dates, market dates, and cash/accounting dates for the SK hynix overseas equity issue. The shaded area is July, a possible BOP attribution month under economic-ownership rules; transaction-level attribution is not observed. The July 14 payment was confirmed by a July 15 result filing, and neither payment time nor spot conversion is public. None of the seven audited events met the prespecified intraday event-study rule, so the figure supports daily ordering only.

The July case supports a narrower conclusion than a causal event narrative. A BOP equity inflow can be dominated by primary issuance while listed secondary-market trading and an FX-market flow measure remain negative. Therefore, the sign of aggregate "equity inflow" cannot by itself establish a change in demand for existing listed shares or an immediate spot-dollar sale. The case also explains why a transaction can be relevant to an exchange-rate hypothesis before the public record is adequate to test that hypothesis.

5 Market Associations

5.1 Monthly model comparisons

Exploratory monthly specifications asked whether the level or change of foreign equity flow improves the conditional fit of 2026 end-of-month won changes. On the January–July end-of-month outcome, a flow-change specification has RMSE 2.004 compared with 3.279 for the global benchmark. That ordering disappears when the dependent variable is the monthly-average exchange-rate change: the corresponding RMSE is 1.203 for flow change and 1.195 for the global model. The result therefore does not support a general claim that flow changes dominate global variables. It says that one post-event specification fits one aggregation better.

The July flow change is also far outside historical support, approximately 10.3 historical standard deviations under the selected construction. A linear fitted value in that month is an extrapolation, not a stable marginal effect. Subtracting the issue amount under a fixed-coefficient sensitivity exercise raises rather than lowers the RMSE of both flow-level and flow-change models (from 3.137 to 4.029 and from 2.004 to 2.521). This does not disprove an issuance mechanism because the historical estimation period does not separately code comparable issues; it does show that an after-the-fact issue subtraction is not a general fit improvement.

5.2 Daily equity and futures transactions

In 162 stock-trading intervals in 2026, the same-day foreign listed-equity net-purchase coefficient is -0.102 log percentage points per KRW trillion, with a confidence interval from -0.139 to -0.064, conditional on the selected controls. The sign associates net buying with won appreciation. The lagged equity coefficient interval includes zero. Same-day stock flows and the exchange rate are jointly determined, and the date labels do not establish whether the currency trade precedes the equity trade or follows it.

Foreign investors' USD-futures transactions add another market association. Their monthly net purchase of dollar futures is USD 1.165 billion in June, -1.381 billion in July, and -2.900 billion in August. Thus foreign investors are net sellers of dollar futures during the won appreciation. Adding daily futures to the same 162-interval stock specification raises R^2 from 0.395 to 0.443. The combined model nevertheless fits only -2.67 of the actual -8.44 July log-point move, leaving -5.77. The aggregate KRX "foreign" category does not link the same account's equity, futures, forwards, NDF, deposits, and spot FX. Calling the futures sales a hedge of a particular stock position would add an unobserved identity.

Longer monthly KRX samples provide background rather than a 2026 causal estimate. On average, corporate and individual USD-futures transactions are contrarian to won depreciation, with effect-size summaries of about -67.5 and -68.0 USD million per log point, while foreign transactions are trend-following at about $+124.8$ million. Distributed-lag summaries for corporate transactions vary with the chosen horizon: the three-lag sum is 30.39 and the six-lag sum 47.49 in the project's sign convention, while the confidence interval for the full six-lag total includes zero.

These are conditional trading patterns, not recovered risk-bearing quantities.

The stress-state extension is similarly mixed. In 1,866 daily observations, a primary joint test of common stress-dependent changes across domestic investor groups yields a HAC p-value of 0.128 and a block-bootstrap value of 0.182. A post-2020 period comparison yields a smaller joint value, 0.00614, but is a post-pattern diagnostic with session gaps and changing state support. The primary result takes precedence: the evidence does not establish a common structural change in domestic risk absorption. The period difference is a reason to collect better session-aligned data, not a result to relabel as a regime break.

This evidence leaves several explanations open. Foreign futures selling could be directional, part of a cross-market hedge, an offset to an unobserved forward or cash position, or a response to the exchange rate. Same-day equity buying could transmit to currency demand, respond to won appreciation, or share news with it. A linked-account or clean-timing design is required to distinguish these directions.

6 Corporate and Hedging Evidence

6.1 Deposits, firm accounts, and payment clocks

Korea-specific work reports that corporate spot-FX behavior and resident foreign-currency deposits can buffer exchange-rate movements (Kim and Pyun, 2025; Lee and Jeon, 2024). Both sources are written in Korean. I use them as institutional background and identify their language in the references; none of this paper's new quantitative claims depends only on an inaccessible statement in those papers. Historical project estimates also find that resident foreign-currency deposits tend to fall when the won depreciates, with elasticities around -1.1 to -1.5, and that a partial correlation between deposit changes and corporate dollar-futures transactions is larger for year-end balances than for full-sample averages (0.508 versus 0.218). Holder definitions and currency coverage differ, so these associations do not identify the same firms moving cash and futures.

The firm-level investigation produced an instructive supersession. An early 17-firm, 160-quarter panel reported a coefficient of 0.46 with a t-statistic of 4.3 between overseas-investment events and a net-dollar-exposure construction. An independent rebuild revisited currency classification, balance-sheet location, contiguous quarters, and event dates. In the rebuilt 135-observation, seven-firm panel, the net USD financial-balance coefficient is -0.0162 with a confidence interval from -0.1948 to 0.1624. For the post-2022 asset measure, the coefficient is 0.1117, but the wild-bootstrap p-value is 0.097 and the estimate uses 73 observations from six firms. Most decisively, the main payment-timing regression contains no stable positive scheduled-payment observations. The early strong coefficient is therefore retained as research history, not as current evidence that foreign investment creates usable dollar cash before payment.

Targeted payment cases explain why. In the AVEO acquisition record, a documented USD 400 million borrowing occurs after closing, so it cannot be assigned as pre-closing acquisition funding without further evidence. In the NAND acquisition record, USD 6.109 billion of 2021 accounting

recognition partly reflects the conversion of earlier prepayments, while a separate USD 500 million price adjustment appears in the first quarter of 2022. Contract, internal contribution, external borrowing, bank payment, asset recognition, and later liquidity replenishment can have different dates. Quarterly accounting balances cannot reconstruct all of them.

6.2 Public hedge positions and observational equivalence

Public fund and insurer disclosures contain real position information, but their coverage is partial. The fund audit records eight hedge-ratio observations and the insurer extraction 41 numeric cells under heterogeneous definitions. For one ETF month-end, a conditional reconstruction links the disclosed amount to 12,008 futures contracts under a single contract month, price date, rounding rule, and denominator. An attempted ten-date extension connects only three dates; 14 documents or daily values for the other seven dates remain unavailable.

More fundamentally, a futures balance is not a hedge ratio. In a constructed counterexample, an observed asset-value change of -3.4522 percent is compatible with a lower, unchanged, or higher hedge ratio depending on the unobserved foreign-asset value and the rest of the hedge book. The same reported futures decrease can accompany opposite changes in currency exposure. To separate acquisition hedging from rehedging of an existing portfolio, one needs the currency-specific asset value, full derivative positions, contract direction, mandate, and timing.

Figure 5 summarizes the identification chain for the July issue. Only the first box is directly observed at the required level. BOP eligibility is plausible and July attribution is a scenario. Some derivative positions are observable for other investors, but the issuer's hedge is not linked. Net receipt, internal transfer, and spot conversion are missing. With those links absent, a causal price effect cannot be assigned even though the issue is large enough to be economically relevant.

The result is not that hedging or corporate dollar supply is unimportant. It is that public accounting balances and selected contract notionals do not identify the timing and direction of spot currency demand. This is an empirical finding about the observation system. A model can map a foreign-asset acquisition into a predicted hedge trade, but testing the model requires measuring both the acquisition and the adjustment of the existing hedge book.

7 What Can Be Inferred?

Table 2 separates the strongest allowed statement in each evidence family from a nearby inference the evidence does not support. Three layers matter. Direct facts establish the exchange-rate path, official published values, and issue terms. Checked arithmetic establishes what happens under a stated monthly-attribution or settlement rule. Conditional estimates organize co-movement. None of these layers by itself supplies the missing identity between a published transaction and a spot currency order.

Figure 5. From a disclosed security issue to an exchange-rate effect

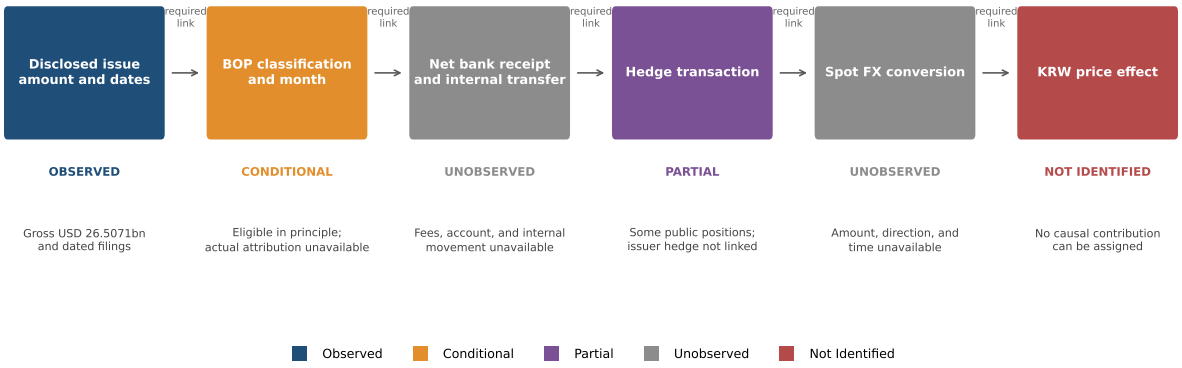


Figure 5: **From a disclosed security issue to an exchange-rate effect.** Each arrow is a link that would have to be observed to assign an exchange-rate effect; it is not a documented transfer. Public filings identify the gross issue amount and dated corporate actions. BOP eligibility and July attribution remain conditional, some public position data provide only partial hedge evidence, and the issuer's net bank receipt, internal transfer, spot-conversion amount, direction, and time are unavailable. Consequently, the issue's causal contribution to KRW/USD is not identified from the public record.

Table 2: Evidence grades and claim boundaries

Family	Key evidence	Grade/status	Supported statement	Unsupported inference
KRW path	1439.0 end-2025; 1549.4 end-June; 1368.6 end-August	A–B, descriptive	The won weakened and then reversed.	Mispricing or a causal break date.
Macro context	GDP rose q/q in Q1 and Q2	A, context	Output and consumption increased.	A fair-value exchange rate.
Global benchmark	Residual 5.02 in H1; −10.68 in Jul–Aug	C, conditional fit	The limited fit leaves a large gap.	The residual is a domestic shock.
Asia-3	Jul–Aug difference −11.32; rank 1 of 282	B–C, comparison	The reversal was much larger than in this basket.	A structurally identified Korea shock.
Monthly flows	T+2 helps three of seven months	B, diagnostic	Timing changes some comparisons.	T+2 reconciles the statistics.
July issue	BOP 5.982; issue 26.5071; FX report −20.700	A–B, conditional arithmetic	A large primary issue can change the reading of BOP inflow.	All proceeds entered BOP or spot FX.
Daily markets	Same-day relations; lagged stock interval includes zero	C, association	Market variables co-moved with the won.	Investor trades caused the exchange rate.
Firm rebuild	−0.0162; CI $[-0.1948, 0.1624]$	C–E, negative	The early strong panel result is not reproduced.	Foreign investment created usable dollar cash.
ETF hedges	Three of ten planned dates connected	A–D, partial	Public reports reveal part of positions.	A balance change identifies the hedge ratio.
Intraday effect	Zero of seven events passes the rule	E, not identified	Only daily chronology is supported.	The issue caused same-day appreciation.

Notes: A denotes a direct official observation or disclosure; B, checked arithmetic; C, a conditional association or retrospective fit; D, a scenario or partial-identification construction; and E, a missing link, supersession, negative identification decision, or research gate. Grade does not rank economic importance.

7.1 What the evidence confirms and excludes

The evidence confirms that the July–August appreciation is large relative to two limited benchmarks and robust to simple leave-one-out variants of the Asian basket. It confirms that July's BOP equity inflow coexists with net outflow or selling in three other measures. It confirms a large overseas primary issue, and it confirms that full issue subtraction nearly matches the FX-report number as an arithmetic scenario. It confirms that much of the appreciation occurred before the disclosed payment date.

These facts exclude several shortcuts. They do not support treating the July BOP inflow as a net purchase of existing listed shares. They do not support treating a calendar settlement shift as a general solution to cross-statistic discrepancies. They do not support calling the global residual a domestic financial shock. They do not support identifying foreign futures sales as the hedge of the observed equity transactions or corporate foreign-currency assets as dated spot supply. Finally, they do not support a post-payment-only explanation of the reversal's start.

The exclusions leave combinations of mechanisms possible. Global and domestic news can change expectations. A primary issue can affect anticipated currency supply before payment, remain in dollars after payment, or be hedged through instruments not observed here. The relaxation of an earlier selling pressure can appreciate the won without a positive observed flow. Foreign equity, futures, and currency trades can share investors without sharing the same aggregate category. Dealers and other intermediaries can absorb or transmit orders. The current evidence does not rank these possibilities by causal contribution.

7.2 Tests that could distinguish the explanations

Table 3 turns the open explanations into falsifiable next steps. The most valuable data are linked rather than merely more numerous. Another unlinked quarterly report may add a balance but not connect it to a payment or FX order. A smaller dataset linking a dated issue, bank receipt, internal transfer, hedge, and spot conversion would add more identifying content.

8 Research Agenda and Conclusion

The first priority is to complete the prospective August check. The first August FX-report observation should be archived after its scheduled September 17 release and compared only with the frozen $U(T,T) = -8.6249$ and $U(S,S) = -1.1140$ billion benchmarks. The August BOP first release, scheduled for October 8, should be preserved as a separate vintage. Neither release should overwrite this version or trigger a retrospective change in the comparator.

The second priority is synchronized price and news measurement. The Asia-3 result is strong descriptively but uses common date labels, not guaranteed common instants. A prespecified panel should align KRW spot or NDF, neighboring currencies, global risk, equity indices, and policy or transaction news in KST. Event windows should be fixed for a complete event list, not centered

Table 3: Candidate explanations and decisive next evidence

Candidate	Currently compatible evidence	Required next data	Result that would weaken it
Global and regional factors	Some co-movement, but large global-fit and Asia-3 gaps remain.	Synchronized peer FX, policy/news timestamps, and a prespecified broader donor set.	The gap disappears under a synchronized fixed comparison.
Secondary equity demand	Same-day association; monthly measures disagree.	Linked trade, settlement, custody, and FX-order records.	Lagged and event-time flows do not precede the won.
Primary overseas issue	The July issue is large enough to change the BOP reading.	Compiler attribution, bank receipt, fees, internal transfers, and conversions.	Little July attribution, or proceeds remain in dollars.
Settlement timing	T+2 helps three months but hurts four.	Actual settlement and FX-conversion ledger.	Actual timing does not reduce cross-statistic gaps.
Derivatives and hedging	Foreign futures sales accompany the reversal; accounts are unlinked.	Linked cash, futures, forwards/NDF, and mandate-level exposures.	Positions follow FX or are offsetting directional trades.
Expectations and news	Appreciation starts before disclosed payment.	Exact public timestamps, NDF and intraday KRW prices, and a fixed news set.	No adjustment occurs around clean information arrivals.
Corporate dollar supply	Historical patterns exist; rebuilt payment panel lacks variation.	Currency-specific cash, debt, payment schedules, and actual FX transactions.	Expanded linked data show no conversion response.

Notes: Compatibility is not confirmation. The explanations are not mutually exclusive. A weakening result is specified to prevent the next data collection from becoming a search only for confirming examples.

only on the realized July 2 high. If the relative won movement shrinks under synchronization or a broader fixed donor set, the claim of a Korea-related residual should be reduced.

The third priority is transaction linkage. For primary issues, the needed fields are the compiling category and month, net receipt after fees, receiving legal entity and bank account, internal transfers, intended dollar expenditures, derivative hedges, and spot conversions. For secondary transactions, anonymized links among stock trade, settlement, custody, futures/forwards/NDF, and FX orders would identify whether the same investor generated the positions. If confidentiality prevents account-level access, aggregated linked cells or bounds on conversion and hedge shares could support partial identification.

The fourth priority is a panel with real payment variation. Firm-quarter accounting reports should be augmented only when they add a currency-specific cash stock, debt draw, externally verified payment schedule, or transaction-level cash movement. The current rebuilt sample has no stable positive scheduled-payment variation in the main regression. Adding more reports with the same missing links is unlikely to solve that identification problem. A smaller event panel with verified timing is preferable to a larger unlinked balance panel.

The 2026 won episode remains economically interesting. The won's first-half depreciation occurred alongside positive output growth, and its July–August appreciation was much larger than the movement in selected global and Asian benchmarks. But "puzzle" should describe a failure of a specified benchmark, not an assertion that depreciation was theoretically impossible. The paper documents two such benchmark gaps and states their limits.

The central empirical lesson comes from the flow data. In July, a positive BOP equity number, a negative FX-report number, negative listed-market transactions, and a large primary issue can

all be true. Under full attribution, subtracting the issue almost reconciles the first two official values, yet the attribution and currency conversion are unobserved. The result weakens a common interpretation of the BOP inflow without proving an alternative causal channel.

The remaining analyses reinforce that boundary. A T+2 rule does not generally reconcile the monthly data. Daily equity and futures variables co-move with the won but do not establish temporal direction. Firm accounting and public hedge positions do not connect exposures to dated conversions. The issuance chronology restricts a post-payment-only story, but the timestamps are inadequate for an intraday event study.

Accordingly, this working paper does not identify one cause of the 2026 fluctuation. It identifies which parts of the fluctuation are robust descriptive facts, which widely available numbers measure different objects, which attractive causal claims fail under an evidence audit, and which linked observations would let the research proceed. That narrower result is the basis for the issue note: the public evidence leaves a Korea-related component to explain, while disciplined measurement prevents that component from being assigned prematurely to a single flow, hedge, firm, or policy.

Data Availability, Version, and Declarations

This is Expanded Version 3 with an evidence cutoff of September 14, 2026. Exchange-rate and daily market results use data through August 31, 2026; official monthly equity-flow observations are available through July. The project folder contains a result-level evidence ledger, source-vintage ledger, event timeline, claim-evidence matrix, figure data, table data, and validation records. Public-source files that can be redistributed should accompany a public release; copyrighted official documents may instead be represented by source links, retrieval dates, and hashes. API credentials and any nonpublic material must be excluded. The August official releases will be added only in a separately dated version. Funding: This research received no external funding. Conflicts of interest: The author declares no conflicts of interest.

A Analysis Decision Map

Table 4 records the full set of major analyses used to construct the paper. The map prevents favorable estimates from silently replacing later negative or superseding evidence and keeps unlike fit statistics out of a common ranking.

Table 4: Analysis decision map

Analysis	Sample	Main result	Causal status	Use
Monthly global fit	2015-02–2025-12 training; 2026 target	Large H1 and Jul-Aug residual sums	Conditional fit	Main benchmark
Fixed Asia-3	162 intervals in 2026	Jul-Aug relative -11.32; rank 1/282 recent windows	Descriptive comparison	Main robustness
Monthly flow model comparison	2026-01–07	Month-end improvement vanishes for monthly-average target	Post-sample model comparison	Limit only
BOP/FX/listed-trade reconciliation	2026-01–08; official flows through July	Definitions and timing do not generally reconcile	Measurement diagnostic	Main
July issuance attribution	2026-07	Full-attribution remainder 0.1749; actual share unknown	Conditional arithmetic	Main case
Daily equity association	162 intervals in 2026	Same-day beta -0.102; lagged interval includes zero	Simultaneous association	Supporting
Daily futures supplement	162 intervals in 2026	R-squared 0.395 to 0.443; large July residual remains	Post-pattern supplement	Supporting
Long-run KRX investor groups	About 200 months	Corporate/individual contrarian; foreign trend-following on average	Conditional association	Background
Market-stress interactions	1,866 trading days	Primary joint p-values 0.128 and 0.182	Negative primary test	Research agenda
Firm accounting rebuild	135 observations, 7 firms	Net-USD coefficient small and imprecise	Conditional association	Negative evidence
Payment cases	AVEO and NAND	Financing, payment, and recognition dates differ	Timeline restriction	Appendix
ETF hedge reconstruction	3 of 10 planned days connected	Opposite hedge directions fit the same public balance change	Partial identification failure	Main limit
Intraday issuance audit	7 dated events	0 passes event-study GO rule	Not identified	Main limit
Broader model audits	Two G0 design audits	Stopped for contribution/design limits	Research gate	Appendix

Notes: The map retains completed, negative, superseded, and stopped analyses. Fit statistics from different outcomes, frequencies, samples, and information sets are not ranked.

B Additional Measurement and Robustness Notes

Asia-3 coverage and rank. All 162 main-sample intervals have KRW, JPY, TWD, and SGD observations on the selected date grid. The daily KRW–Asia-3 correlation is 0.569 over that sample, but it falls to 0.145 in July–August. The January–June relative difference is positive for every two-peer basket; the July–August difference is negative for every two-peer and single-peer comparator. The 282 rolling windows overlap, so their empirical rank is reported without a formal independent-window significance interpretation.

Flow scope. $U(T,T)$ and $U(S,S)$ are derived from selected listed KOSPI and KOSDAQ transactions. They do not reproduce the BOP universe or the FX-report universe. $U(S,S)$ uses the KRX T+2 rule and trading calendar; it is not an observed settlement file. The BOP and FX-report values are kept in their own release vintages. The July issue adjustment is separate from both listed

comparators.

Intraday audit. The initial June 24 filing, July 6 correction, July 9 U.S./July 10 Korean pricing, July 10 Nasdaq event, July 14 payment, and July 15 result filing lack exact timestamps comparable with the frozen 15:30 KRW series. The July 6 foreign-exchange-market operating change has a 06:00 effective time, but it is an implementation rule rather than a clean surprise announcement and overlaps a corrected filing. Consequently, all seven rows receive a no-go event-study decision.

Superseded and stopped results. The early firm coefficient and calibrated policy contributions are not used as current causal evidence because the independent rebuild does not recover the payment variation or net-dollar result needed for their interpretation. Two broader model-design projects stopped at their initial contribution gate. Those decisions mean that the attempted designs did not obtain a new testable restriction; they do not show that no exchange-rate model can explain the episode.

C Complete Figure Atlas from the Research Process

The following atlas retains every analytical figure associated with the evidence families registered for this working paper, in addition to Figures 1–5 in the main text. Page previews, screenshots used only to verify source documents, and graphics from unrelated projects are excluded. Current, exploratory, illustrative, and superseded outputs are all shown; each caption states its evidentiary status so that visual inclusion does not revive a rejected causal interpretation.

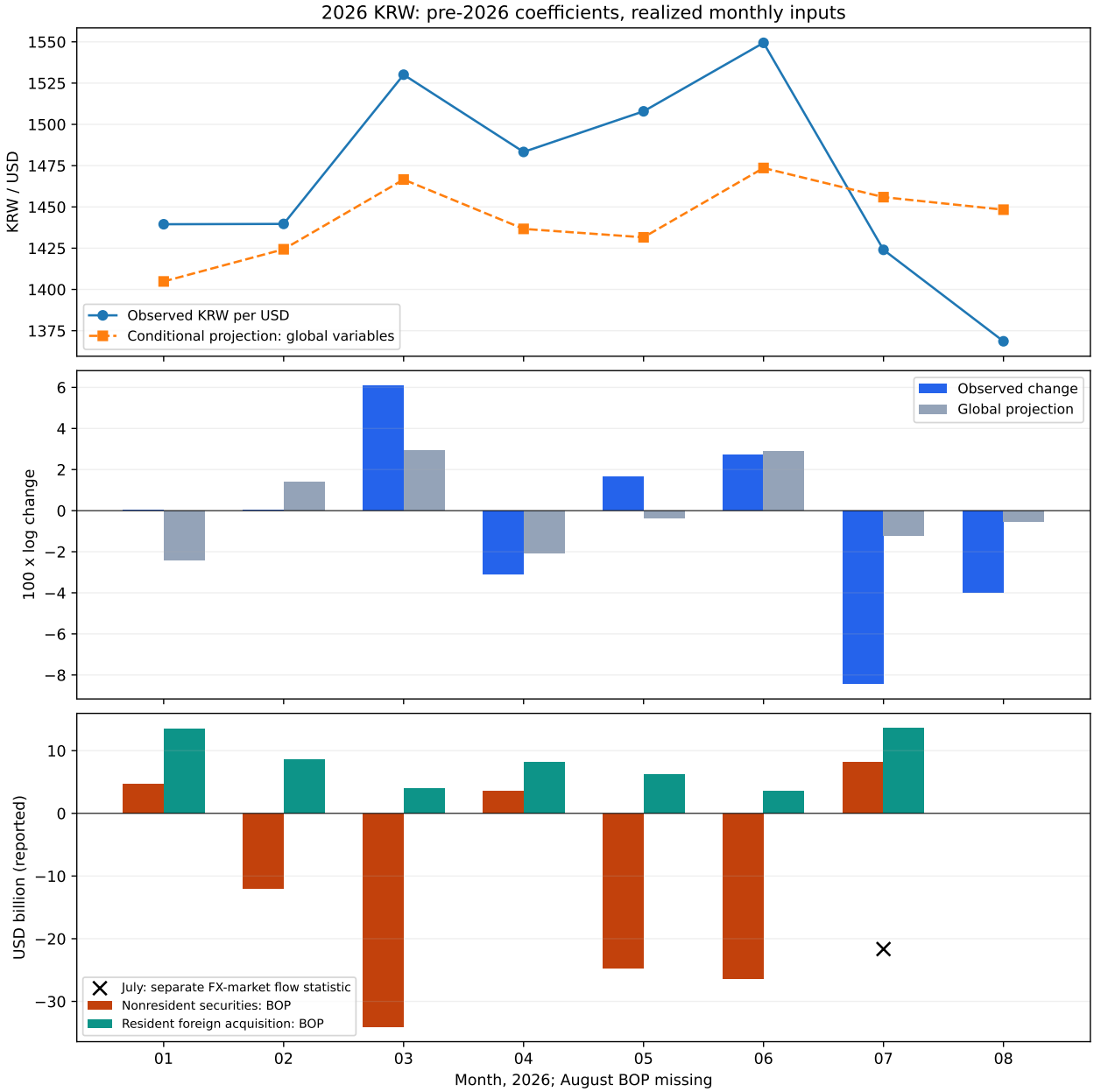


Figure 6: Exploratory data-first diagnostics. Monthly 2026 outcomes, conditional fits, residuals, and the first comparison of official and listed-market equity-flow measures. This is an exploratory diagnostic using realized inputs, not a real-time forecast or a causal decomposition. *Status: current-with-limits.*

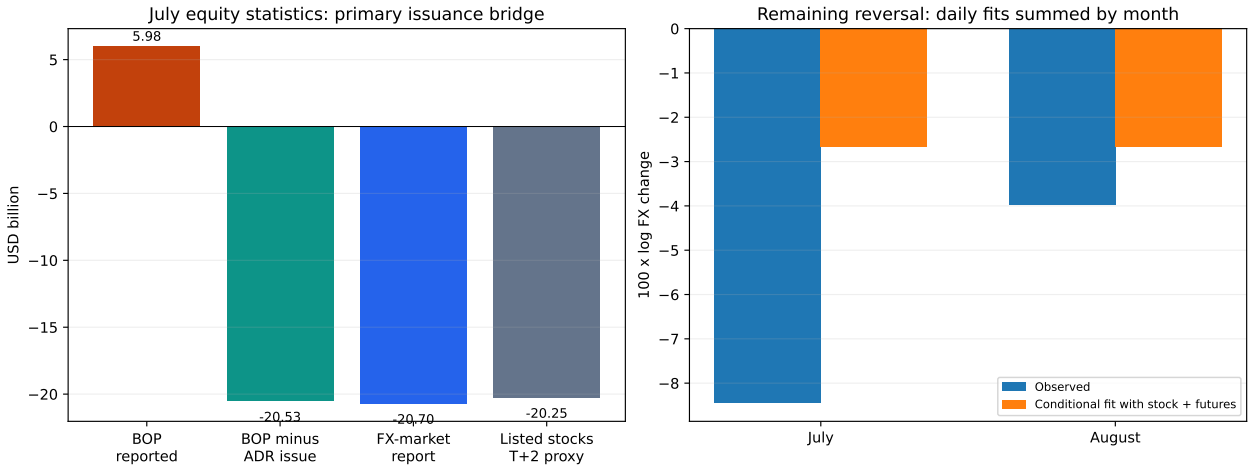


Figure 7: Primary-issue reconciliation and remaining daily fit. The left panel records the July primary-issue arithmetic under the stated full-attribution scenario. The right panel compares the observed July and August exchange-rate changes with a conditional stock-and-futures fit. Neither panel identifies transaction-level spot conversion. *Status: current-with-limits.*

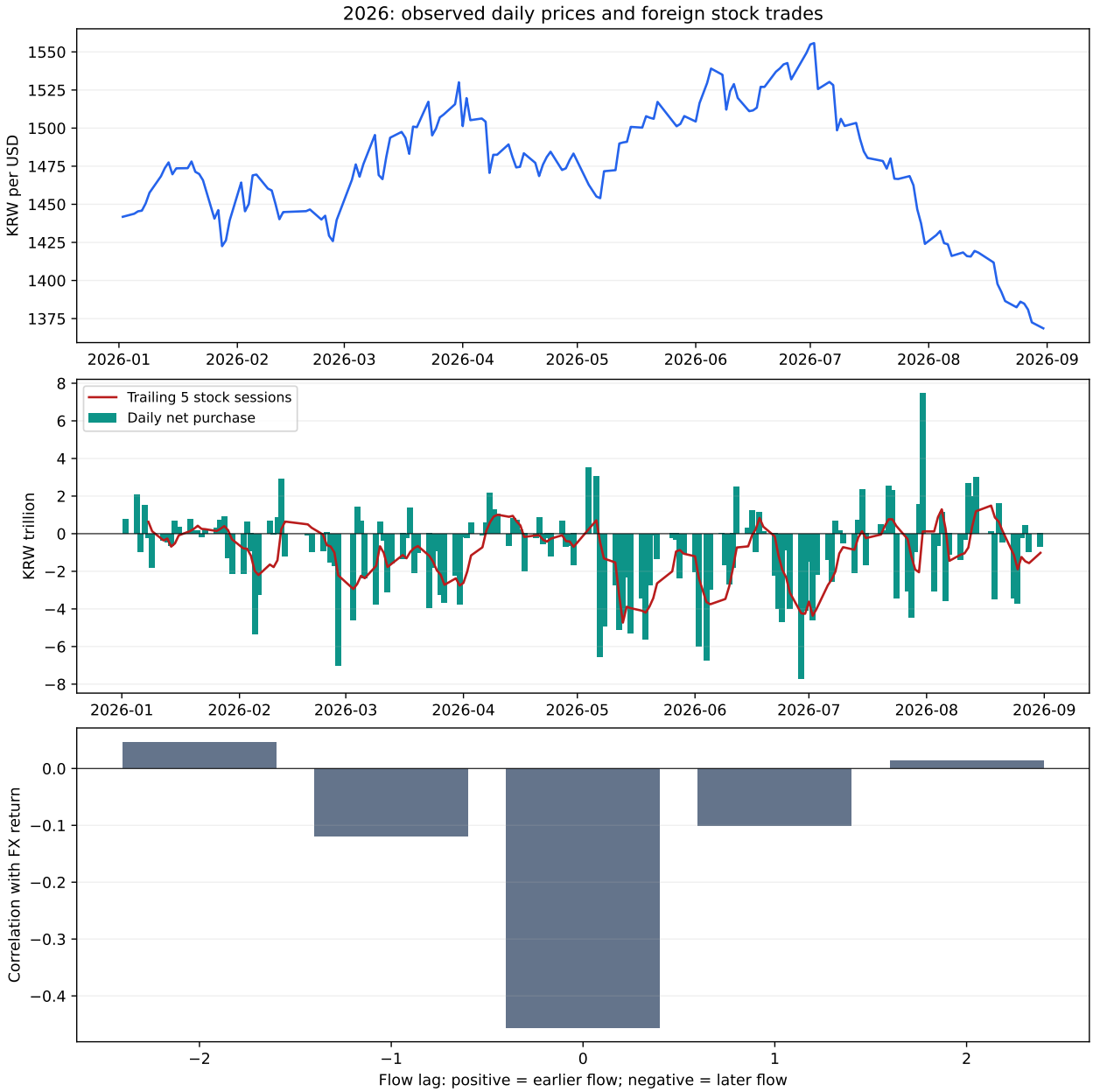


Figure 8: Daily timing diagnostics. Daily KRW/USD, stock-flow timing, and cross-correlation diagnostics from the frozen 2025–2026 sample. Same-day relationships can reflect simultaneous adjustment and do not establish temporal direction. *Status: current-with-limits.*

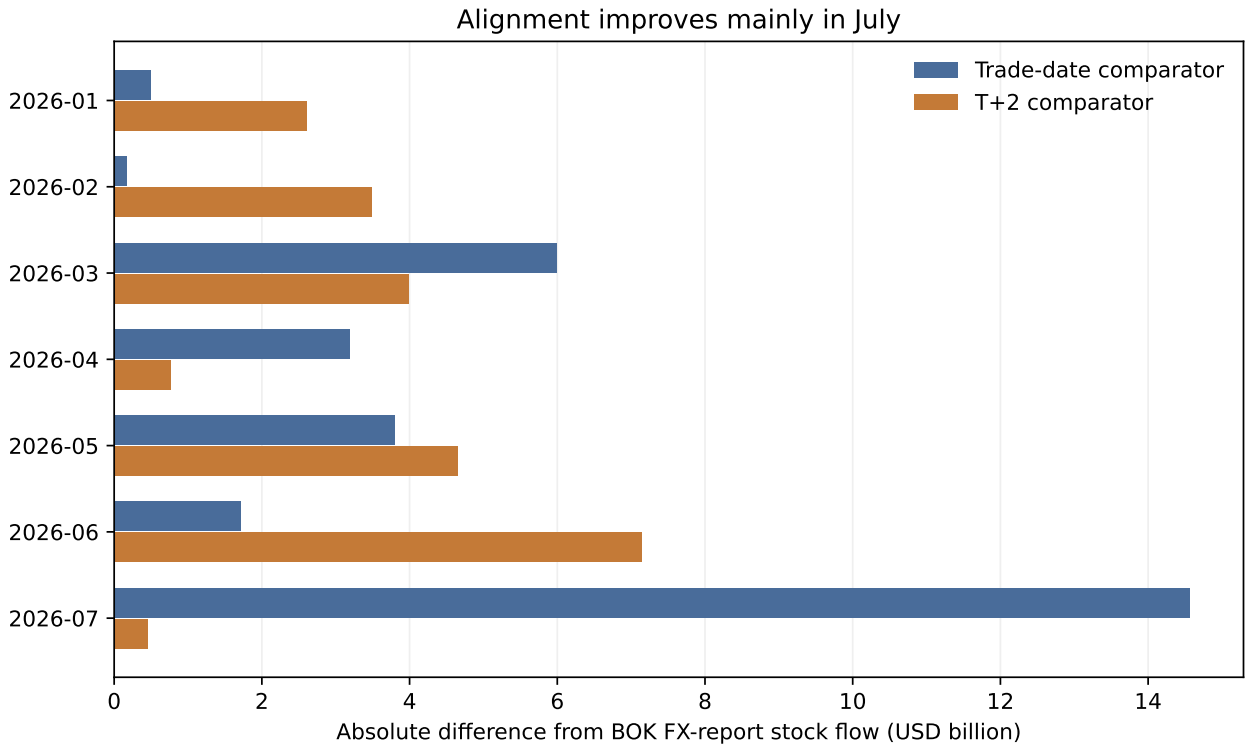


Figure 9: Monthly alignment diagnostic. Absolute differences between the official FX-report equity-flow item and listed-market trade-date and rule-based T+2 comparators. The T+2 rule improves some months and worsens others; it is not an observed settlement ledger. *Status: current.*

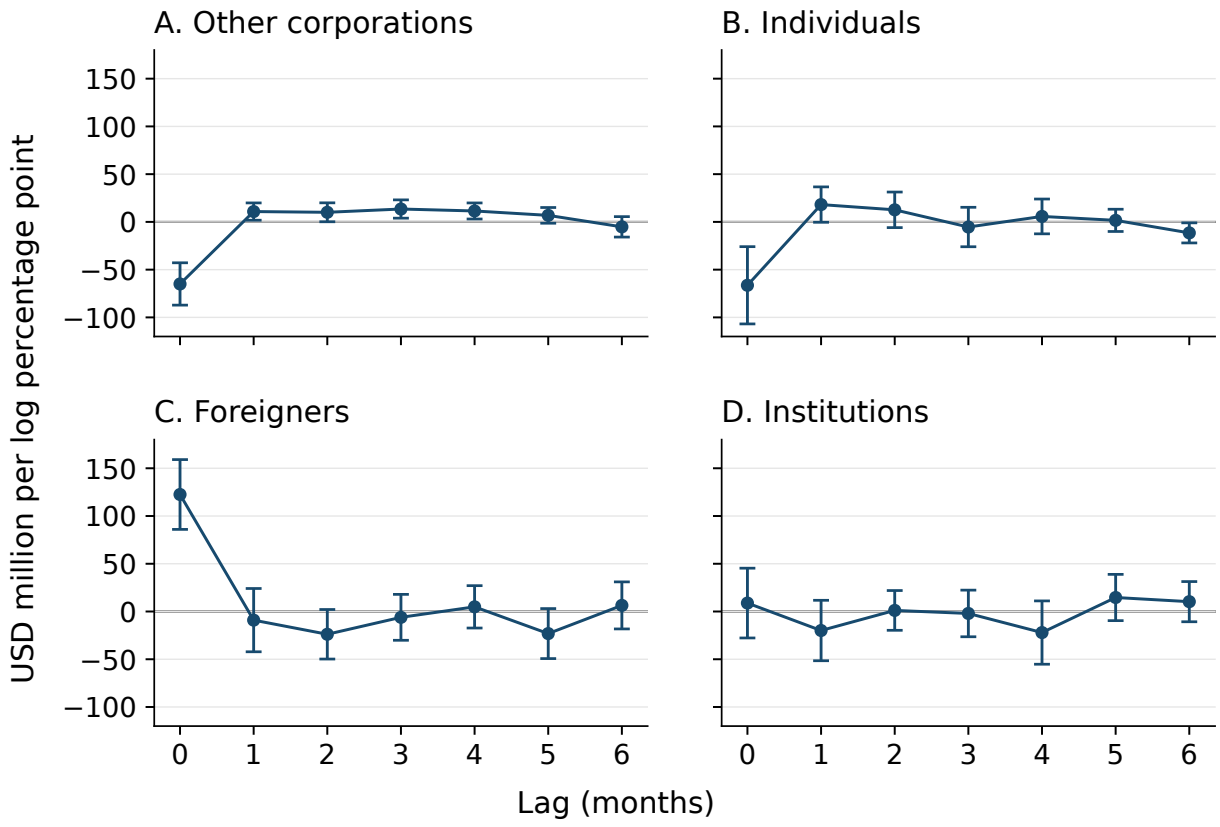


Figure 10: Long-run investor-group lag coefficients. Monthly investor-group net purchases on current and lagged depreciation, January 2010–August 2026. Bars are 95 percent HAC intervals. The estimates describe group-level conditional associations and do not trace individual inventories. *Status: current-background.*

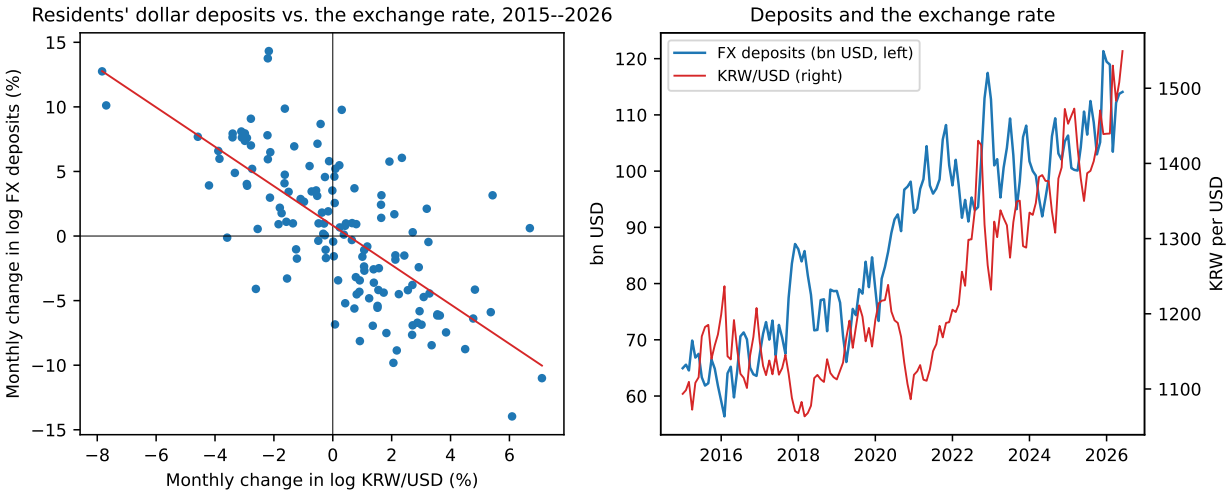


Figure 11: Resident FX deposits and the exchange rate. The original deposit diagnostic: a contemporaneous scatter and the levels of resident foreign-currency deposits and KRW/USD. Deposit balances combine purchases, sales, retained receipts, valuation, and reporting effects; the figure is retained as descriptive background. *Status: archived-background.*

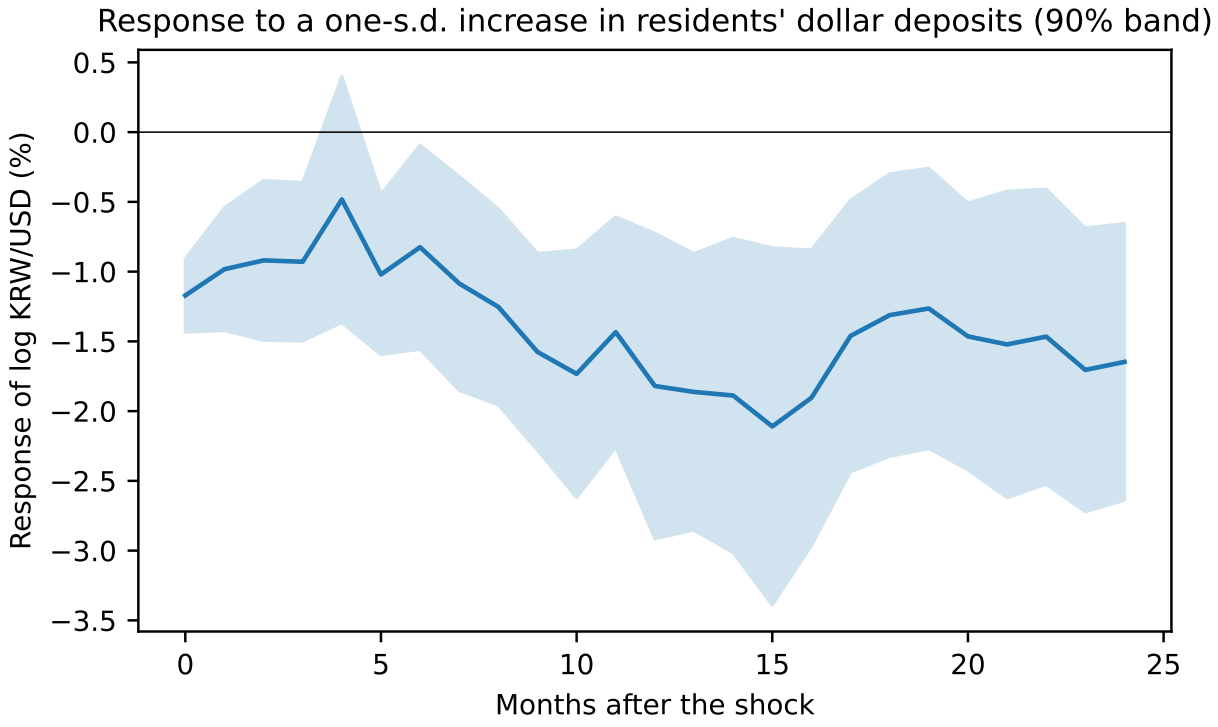


Figure 12: Local-projection response using resident deposits. Local-projection estimates from the original integrated analysis. Because deposit changes are not transaction-level FX orders and are jointly determined with the exchange rate, this plot is retained as a conditional association rather than a structural impulse response. *Status: archived-limited.*

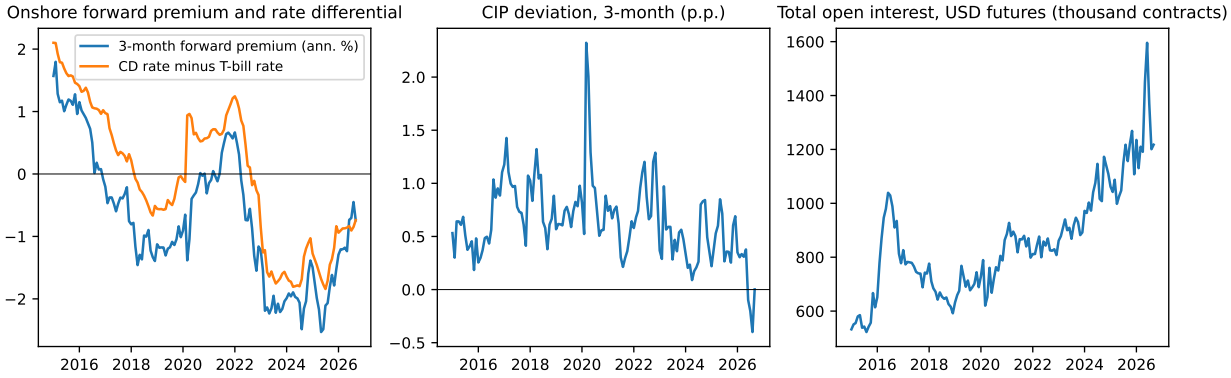


Figure 13: Onshore forward premium, CIP deviation, and open interest. KRX USD-futures diagnostics for the onshore forward premium, covered-interest-parity deviation, and open interest. They document market conditions but do not identify the direction of spot FX demand. *Status: current-background.*

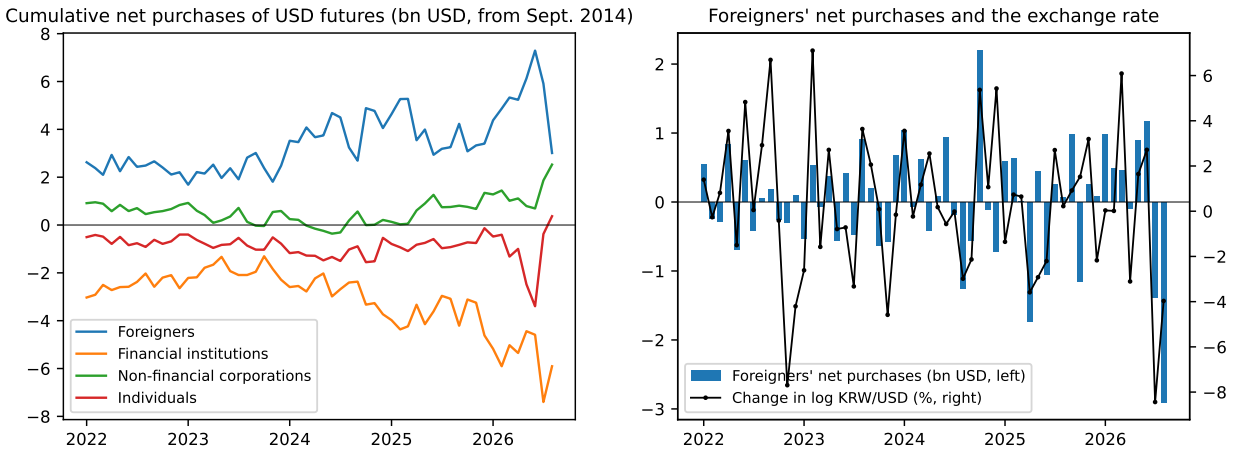


Figure 14: Original investor-group histories. Cumulative and monthly investor-group USD-futures purchases from the original integrated analysis. Figure 10 contains the later inferential update; this plot is retained for the underlying histories. *Status: archived-history.*

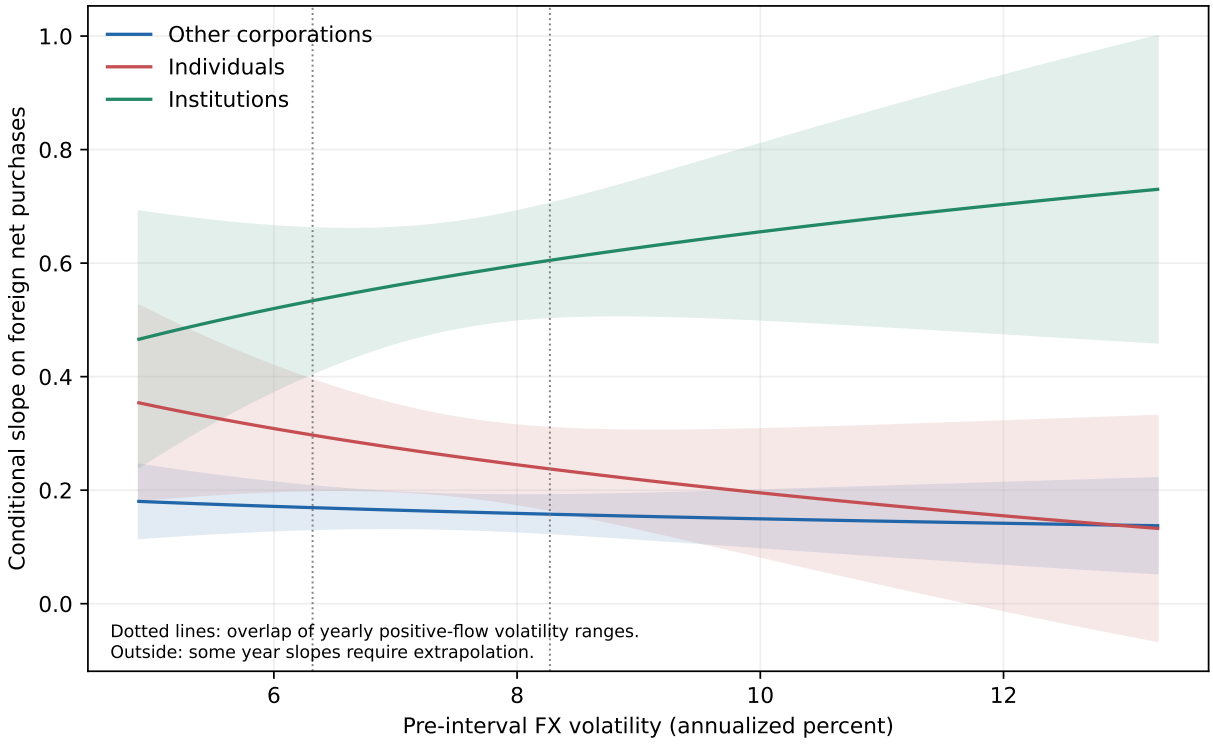


Figure 15: Stress-conditioned investor-group slopes. Conditional slopes across prior FX volatility. The primary joint HAC and block-resampling tests are weak, and parts of the plotted state range have limited within-year support. *Status: current-negative-test.*

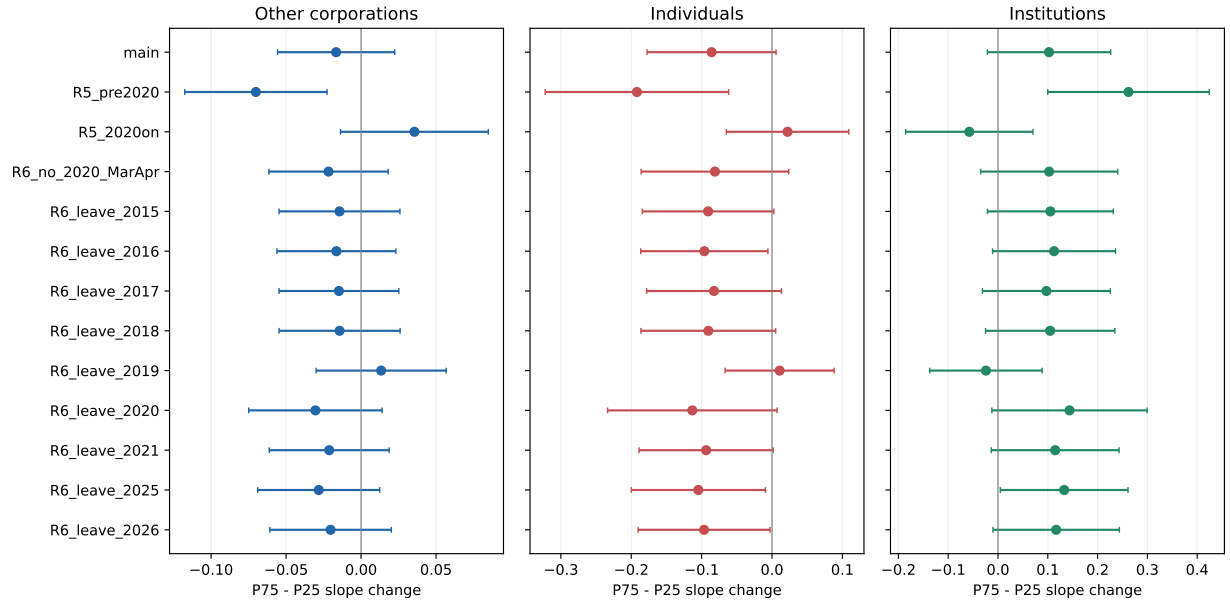


Figure 16: Influence and specification sensitivity of stress results. Baseline, period-split, and leave-one-year-out changes in stress-conditioned slopes. Intervals are specification-specific rather than simultaneous across the displayed search set. *Status: current-sensitivity.*

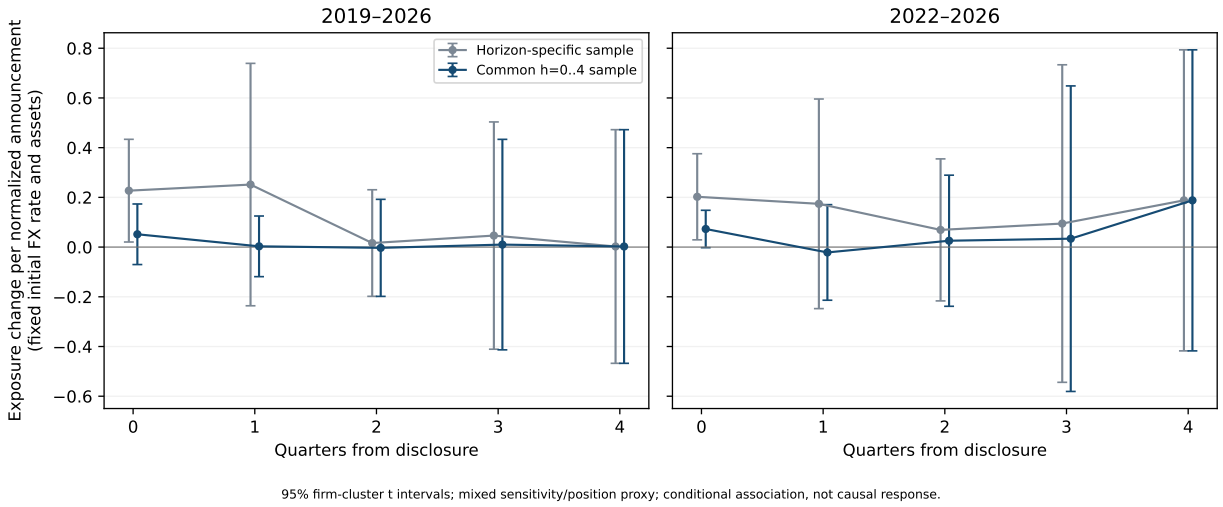


Figure 17: Rebuilt accounting common-sample paths. Common-sample coefficient paths after rebuilding the firm-quarter accounting panel. Wide intervals and sensitivity to the common sample prevent a stable dynamic or payment-response interpretation. *Status: current-negative-evidence.*

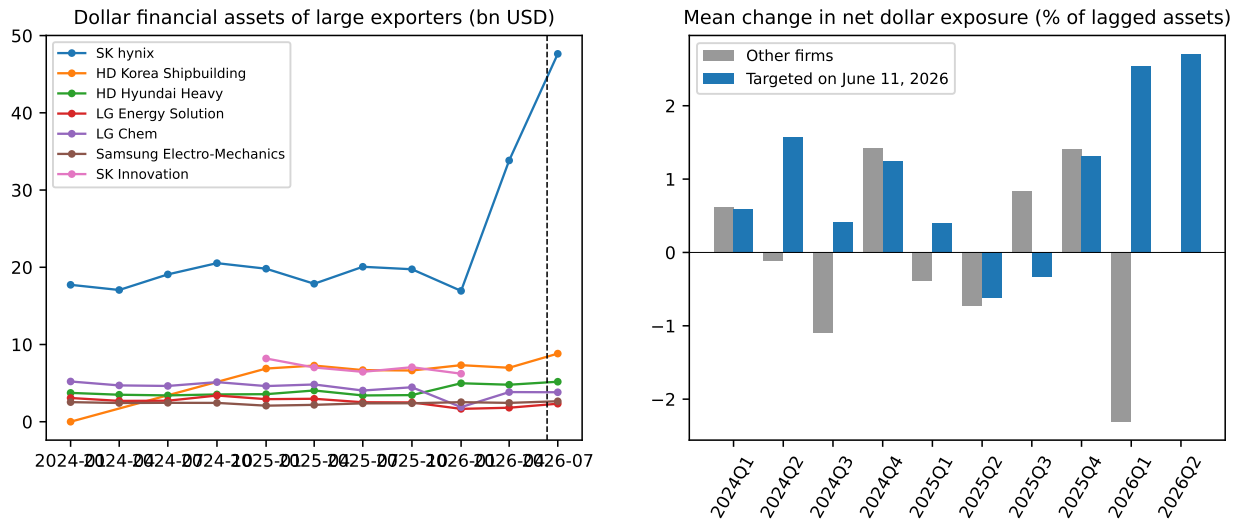


Figure 18: Original firm-exposure histories. Firm-level USD financial assets and the original targeted-firm comparison. This figure predates the independent accounting rebuild and is retained only as audit history; it is not current evidence for a payment or conversion mechanism. *Status: superseded.*

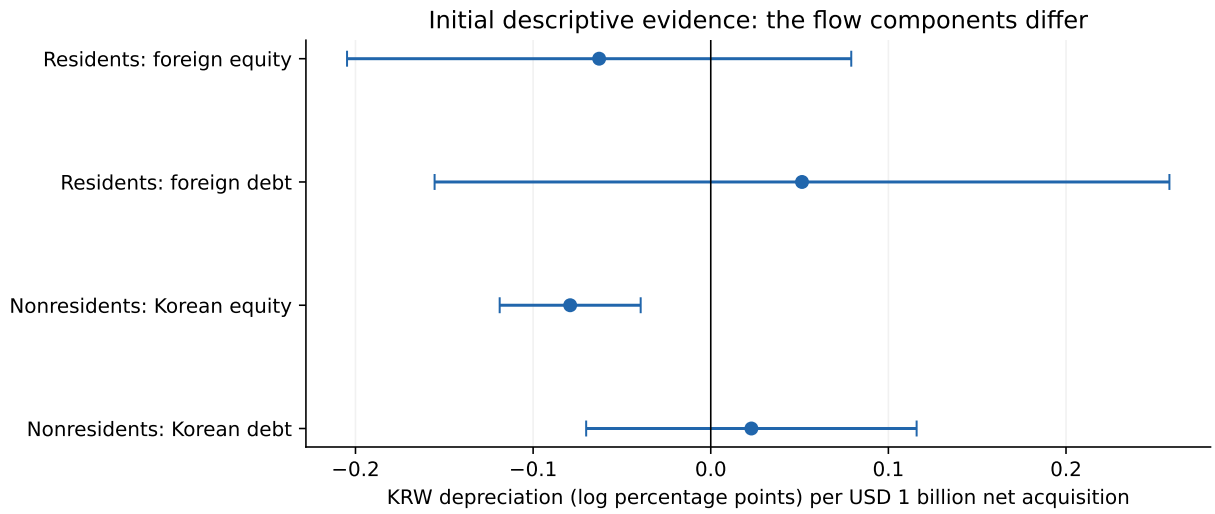


Figure 19: Initial portfolio-flow associations. Initial descriptive associations between acquisition measures and FX-related flows. The estimates are observational and do not identify hedge adjustment or spot orders. *Status: archived-exploratory.*

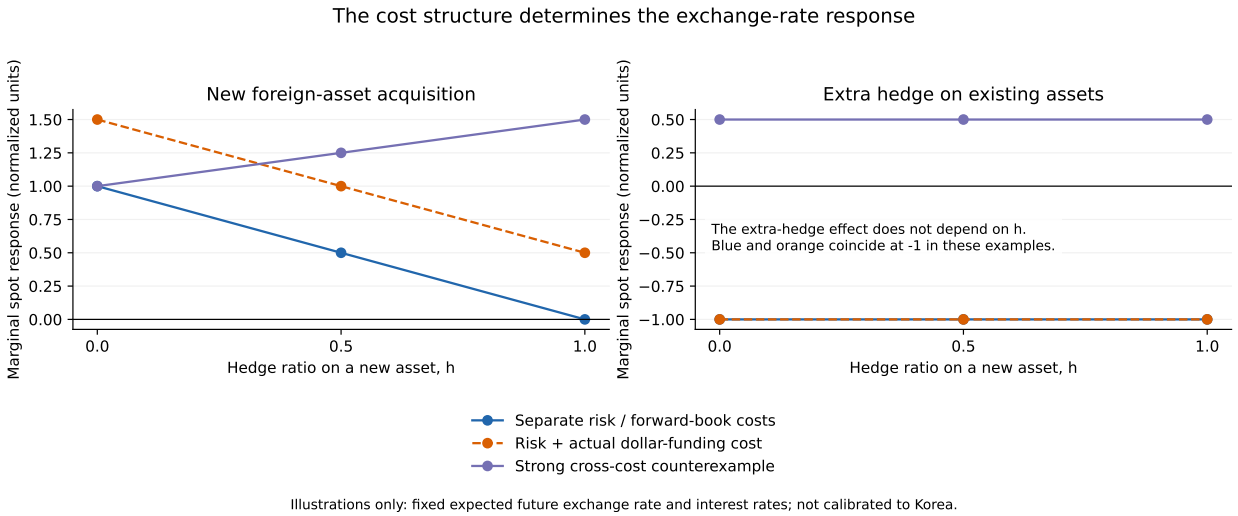
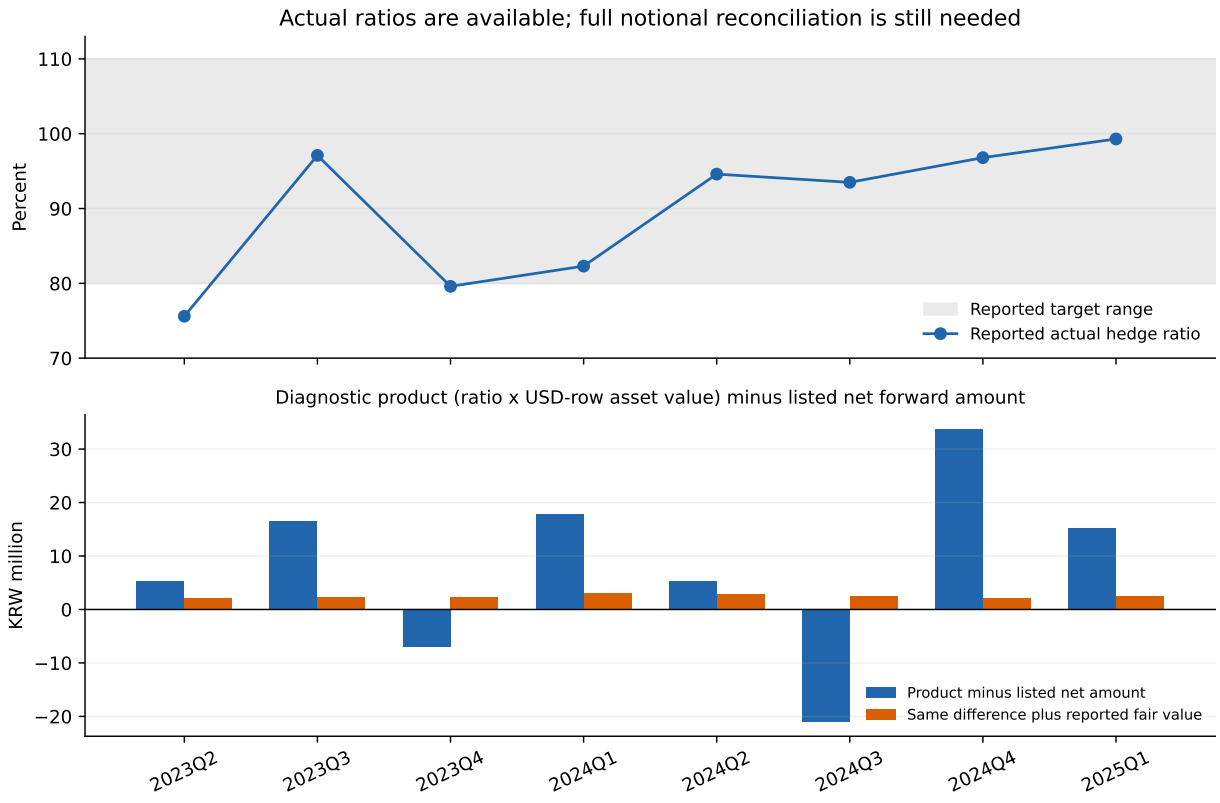


Figure 20: Illustrative acquisition and rehedging responses. Illustrative model responses under alternative cost structures. These are theoretical comparative statics, not estimates calibrated to the Korean episode. *Status: illustrative-theory.*



One fund: Samsung US Core Balance Pension H (AU413). Eight official quarterly reports, p. 5.
Both differences are measurement diagnostics. Neither is an observed hedge-demand shock.

Figure 21: Public-fund measurement audit. Reported and reconstructed hedge ratios and diagnostic profit-and-loss decompositions for the limited public-fund sample. The public records do not provide a complete fund-level hedge panel. *Status: partial-measurement.*

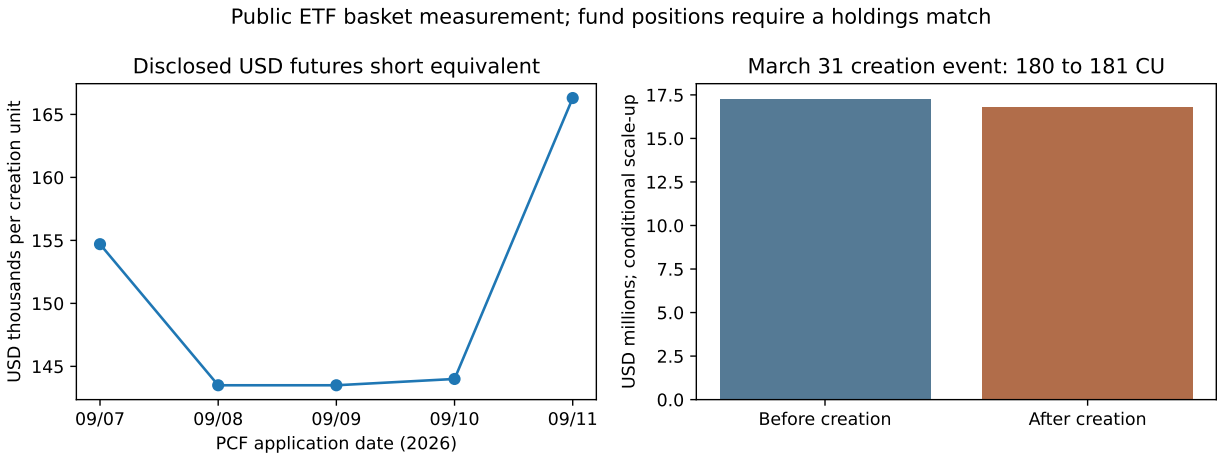


Figure 22: Pilot ETF contract measurement. Public ETF basket measurements and the March 31 creation comparison. Conditional contract reconstruction is possible for selected dates, while total hedge coverage and the full planned date panel remain unavailable. *Status: partial-measurement.*

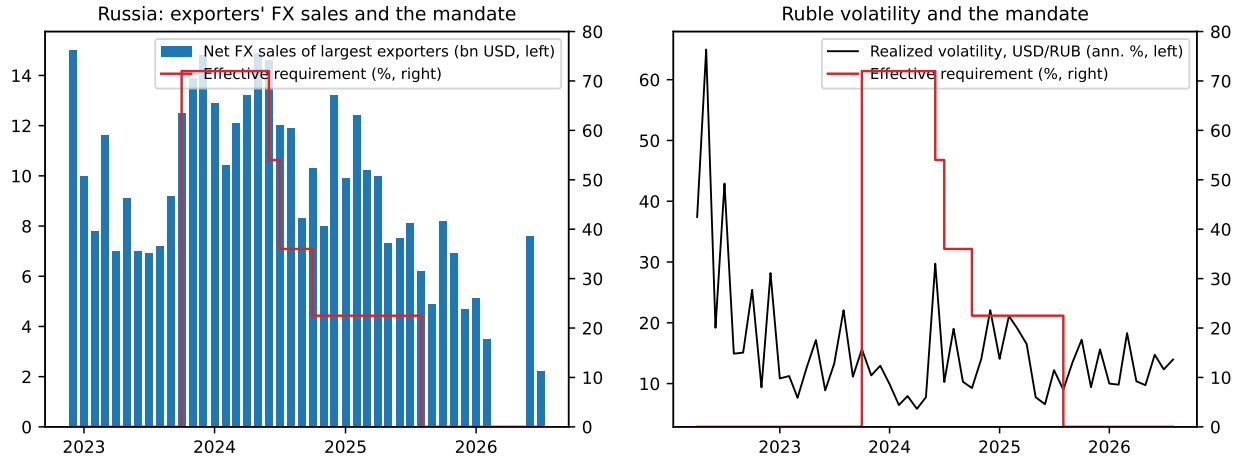


Figure 23: Russia conversion-mandate comparison. Russian exporters' aggregate FX sales and realized ruble volatility across changing conversion requirements. The regime comparison is confounded by sanctions and other simultaneous changes and is not a causal estimate for Korea. *Status: external-comparison.*

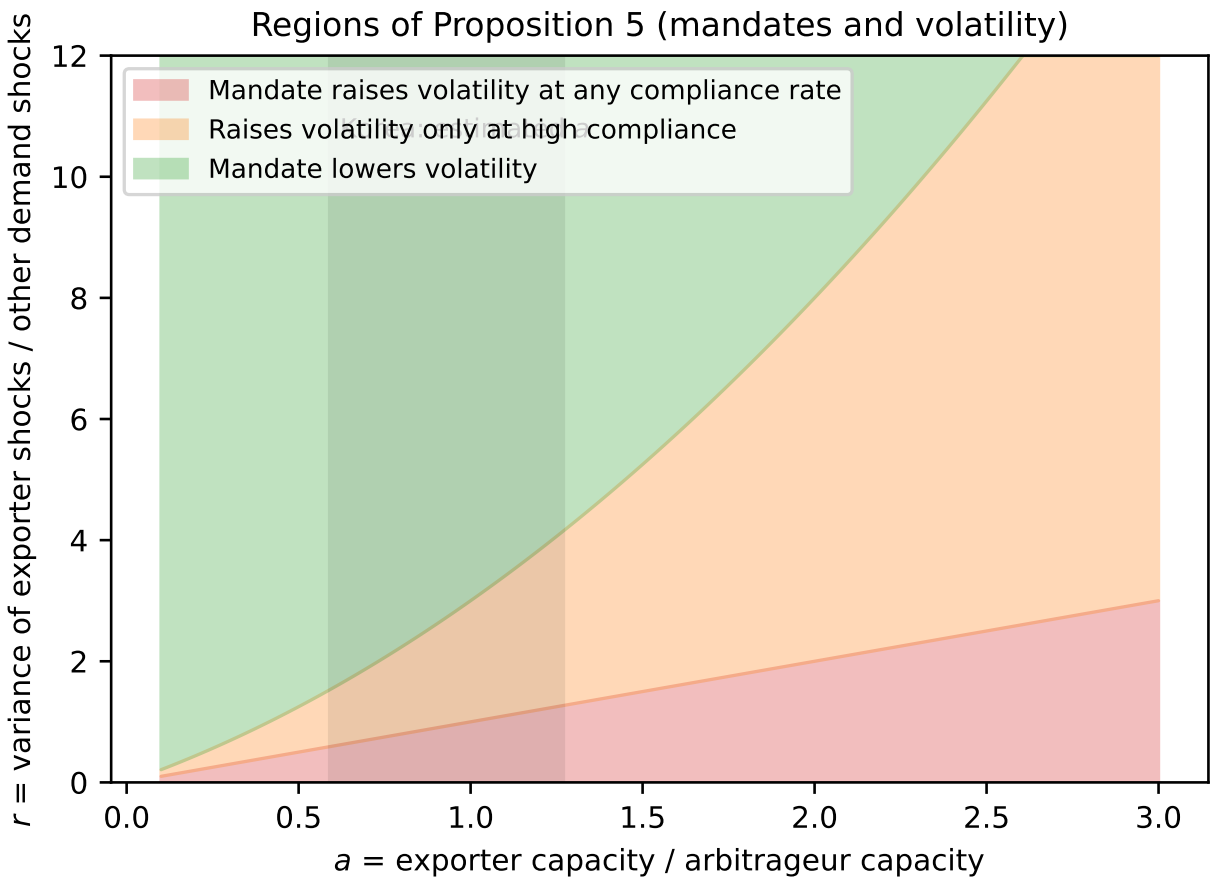


Figure 24: Original model region diagram. Regions of the original stylized intermediary-capacity model. The diagram records a theoretical restriction considered during the project; later empirical audits did not identify its proposed transmission channel. *Status: archived-theory.*

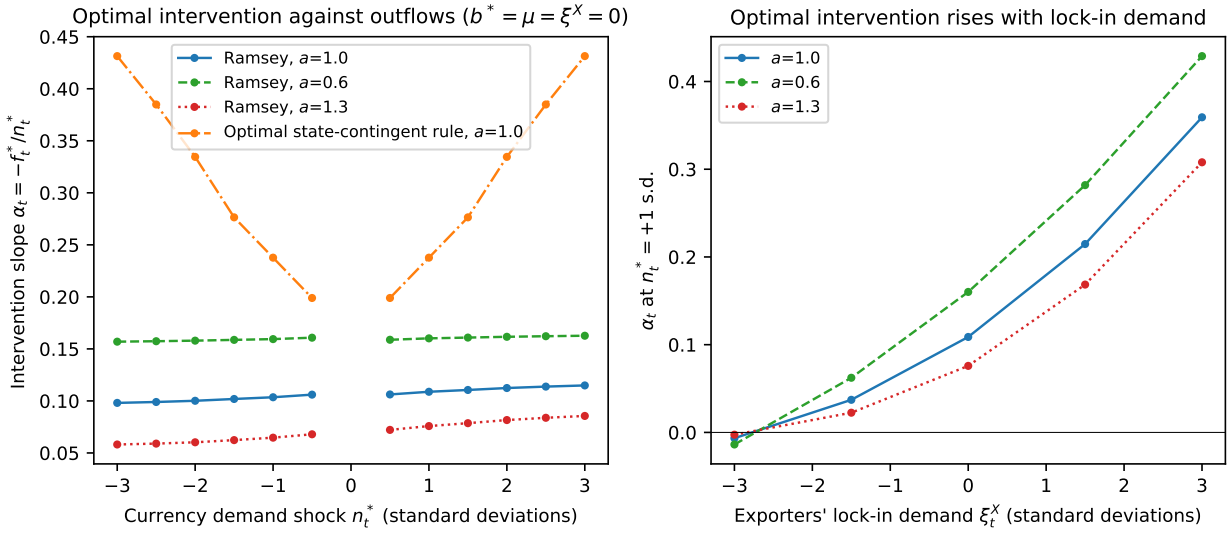


Figure 25: Original state-contingent intervention calculation. Optimal intervention schedules inside the original calibrated model. They are model-contingent scenarios and are not estimates of actual 2026 policy effects. *Status: archived-theory.*

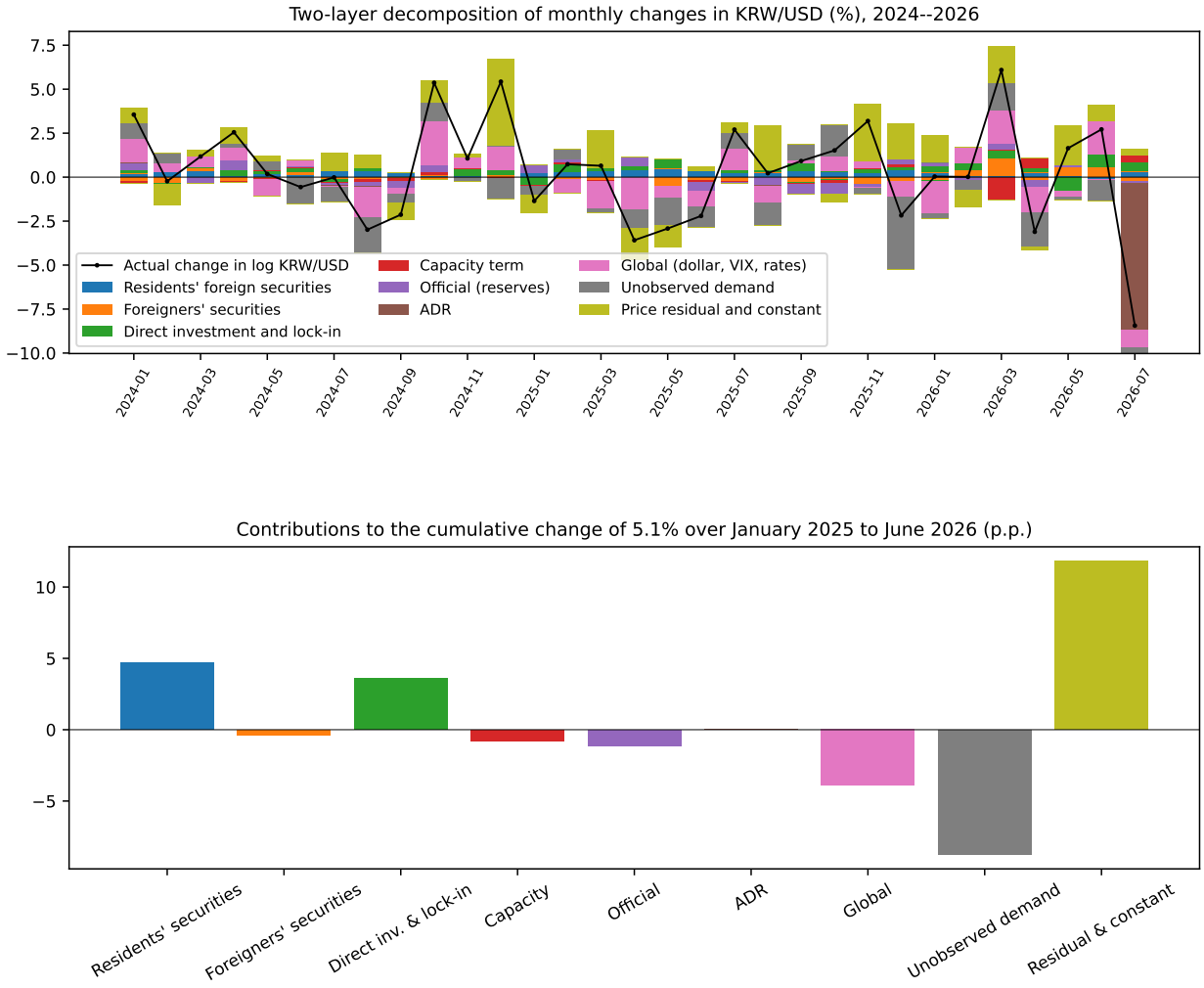


Figure 26: Original two-layer historical decomposition. The original monthly two-layer decomposition. Subsequent measurement work showed that the flow layer and July issue attribution do not support a structural causal decomposition, so this figure is retained as a superseded analytical path. *Status: superseded.*

D Selected Tables Retained from Earlier Drafts

These tables retain the formatted outputs that motivated later data audits. Their inclusion documents the research path. The notes identify results that remain descriptive and results superseded by later measurement work.

Table 5: Original resident-deposit regressions (archived conditional associations)

Dependent variable: change in deposits (percent)	Coef. on depreciation	t	R^2	N
Deposits, 2005:01–2026:06	−1.14	−5.5	0.32	257
With rate differential, VIX, and dollar controls	−1.19	−5.6	0.33	257
Deposits, 2015:01–2026:06	−1.53	−8.8	0.51	138
With controls	−1.69	−8.0	0.52	138
Deposits, 2022:01–2026:06	−1.28	−6.0	0.47	54
Press-release totals, 2024:12–2026:07: all holders	−1.20	−3.0	–	19
Corporations	−1.54	−4.9	–	19
Individuals	−1.26	−5.7	–	19

Notes: Newey–West standard errors with 12 lags in the original analysis. Deposit changes are balance changes and do not isolate spot purchases, sales, or retained export receipts. The table is therefore descriptive background.

Table 6: Original spot-rate regressions on resident deposits (archived)

Dependent variable: KRW/USD change	2005:01–2026:06	2015:01–2026:06	2022:01–2026:06
Current deposit change	−0.185 (−7.0)	−0.253 (−7.3)	−0.182 (−4.8)
Lag 1 deposit change	0.001 (0.0)	−0.024 (−1.2)	0.013 (0.4)
Lag 2 deposit change	0.012 (0.5)	−0.020 (−1.0)	–
Dollar index	0.779 (6.5)	0.549 (5.5)	0.793 (8.4)
Change in log VIX	0.006 (0.9)	0.007 (1.0)	0.024 (2.7)
Change in rate differential	0.60 (0.7)	0.49 (0.5)	1.02 (1.0)
R^2	0.58	0.70	0.74
N	255	136	54

Notes: Original Newey–West t statistics are in parentheses. Joint determination and the balance nature of deposits preclude a structural price-impact interpretation.

Table 7: Original UIP and CIP responses to deposit changes (archived)

Dependent variable	Regressor and sample	Coefficient	t
Change in realized UIP deviation	Deposit change, 2005–2026	−0.88	−6.0
	With controls, 2005–2026	−0.67	−4.8
	Deposit change, 2015–2026	−1.36	−6.2
	With controls, 2015–2026	−1.04	−4.8
	KRX sample, 2015:02–2026:06	−1.60	−6.4
Change in three-month CIP deviation	Deposit change, 2015:02–2026:06	0.010	2.2
Change in three-month forward premium	Deposit change, 2015:02–2026:06	−0.004	−1.8

Notes: These are conditional regressions from the original integrated analysis. Realized UIP includes future exchange-rate changes and must not be read as an ex ante expected-return response.

Table 8: Original monthly USD-futures purchases by investor type (archived descriptive table)

	Corporations	Individuals	Foreigners	Institutions
Net purchase on depreciation, USD bn per log point	−0.073	−0.059	0.114	0.018
t statistic	−7.0	−4.5	6.5	1.0
R^2	0.51	0.26	0.25	0.01
Correlation with deposit change	0.76	0.60	−0.45	−0.25
July 2026 net purchase, USD bn	1.17	3.02	−1.38	−2.81

Notes: Group totals sum to zero by construction. The later lag analysis and stress audit provide the current inferential treatment.

Table 9: Current long-run investor-group estimates

Investor group	Impact b_0 [95% CI]	Three-lag sum S_3 [95% CI]	Offset k
Other corporations	−68 [−90, −45]	30 [12, 49]	−0.686
Individuals	−68 [−111, −25]	26 [−2, 55]	−0.493
Foreigners	125 [88, 161]	−34 [−86, 17]	0.575
Institutions	11 [−29, 50]	−22 [−58, 13]	0.058

Notes: OLS with three lags and HAC(3), January 2010–August 2026, $N = 200$. Amounts are USD million per log percentage point depreciation.

Table 10: Corporate lag sums across current specifications

Specification	S_L [95% CI]	Offset ratio [95% CI]
Baseline, three lags, $N = 200$	30 [12, 49]	45.0 [16.0,74.0]
Six lags, $N = 200$	47 [20, 75]	73.1 [33.9,112.3]
Exclude 2026, $N = 192$	34 [17, 52]	56.0 [26.3,85.8]
Fixed-eight control, $N = 200$	30 [11, 48]	39.9 [13.0,66.9]
From August 2012, $N = 169$	35 [13, 57]	44.6 [15.7,73.6]
Volume-normalized, $N = 200$	0.052 [0.024,0.080]	58.0 [28.9,87.2]

Notes: Other corporations; HAC(3) intervals. Amount specifications are USD million; the last row uses percentage points of total volume.

Table 11: Archived two-layer monthly decomposition estimates

Price layer Regressor	Coef.	t	Demand layer Regressor	Coef.	t
Deposit change	−0.247	−7.8	Resident foreign equity	−0.13	−0.6
Capacity interaction	0.493	2.9	Resident foreign debt	−0.42	−1.2
Dollar index	0.547	6.1	Foreign equity sales	−0.17	−1.4
Change in log VIX	0.008	1.0	Foreign debt sales	−0.28	−1.4
Rate differential	0.70	0.7	Net direct investment outflow	−0.34	−1.1
July issue indicator	−5.51	−15.9	Reserve accumulation	−0.61	−3.1
			Lock-in proxy	−0.43	−2.6
			July issue indicator	11.6	7.1
R^2	0.72		R^2	0.14	

Status: superseded for causal use. The later reconciliation audit shows that monthly flow scope, issue attribution, retained receipts, and actual conversion are not linked well enough to interpret these coefficients as a structural decomposition.

Table 12: Archived cumulative contribution calculation

	2025:01–2026:06	2026:01–06	2026:07	2022:01–10	Variance share 2022–26
Cumulative exchange-rate change	5.1	7.4	−8.4	18.1	–
Resident foreign equity and debt	4.7	0.7	0.3	1.0	−1.5
Foreign equity and debt	−0.4	2.0	−0.3	−1.1	2.1
Direct investment and lock-in proxy	3.6	1.4	0.5	−1.0	−0.3
Official reserves	−1.1	0.1	−0.1	4.9	7.2
Capacity term	−0.8	−0.8	0.4	−1.4	1.2
Global variables	−3.9	1.1	−1.0	7.2	31.0
July issue indicator	0	0	−8.4	0	13.1
Unobserved demand shift	−8.7	−2.7	−0.3	−4.0	19.2
Constant and price residual	11.8	5.6	0.4	12.5	27.9

Status: superseded for causal use. These numbers are retained to document the model path and must not be presented as the causes of the 2026 episode.

Table 13: Russia conversion-mandate regime comparison

Regime	Requirement	Net sales	Sales/revenue	FX volatility	Exchange-rate change	Days
No mandate, Apr. 2022–Sep. 2023	0	9.1	72	25.2	15.5	374
Oct. 2023–May 2024	72	13.1	94	10.3	−9.2	161
June 2024	54	14.6	116	29.7	−5.1	20
Jul.–Sep. 2024	36	10.7	83	13.9	6.0	65
Oct. 2024–Jul. 2025	22.5	9.7	89	15.6	−13.0	205
Abolished, Aug. 2025–Aug. 2026	0	5.5	89	13.3	6.4	268

Notes: Net sales are USD billions per month; volatility is annualized percent. Sanctions and other concurrent changes prevent a causal policy interpretation or direct transfer to Korea.

E Complete Result and Measurement Tables

The tables below reproduce the complete rows of the compact result files used by the evidence audit. They are intentionally extensive. They preserve negative, exploratory, and superseded results alongside the main findings. Fit statistics should be compared only within the same outcome, frequency, sample, and information set.

Table 14: Complete standardized quantitative-result registry (part 1 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R001	Episode path	Last 2025 close	1439	–	–	KRW per USD	2025-12-30	MAIN
R002	Episode path	June month-end close	1549.4	–	–	KRW per USD	2026-06-30	MAIN
R003	Episode path	Sample maximum close	1555.8	–	–	KRW per USD	2026-07-02	MAIN
R004	Episode path	July month-end close	1424	–	–	KRW per USD	2026-07-31	MAIN

Table 15: Complete standardized quantitative-result registry (part 2 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R005	Episode path	August month-end close	1368.6	–	–	KRW per USD	2026-08-31	MAIN
R006	Episode phase	Actual Jan-Jun change	7.3919	–	–	log percentage points	2026-01 to 2026-06	MAIN
R007	Global benchmark	Conditional Jan-Jun fit	2.3749	–	–	log percentage points	2026-01 to 2026-06	MAIN
R008	Global benchmark	Jan-Jun residual	5.017	–	–	log percentage points	2026-01 to 2026-06	MAIN

Table 16: Complete standardized quantitative-result registry (part 3 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R009	Episode phase	Actual Jul-Aug change	-12.4079	–	–	log percentage points	2026-07 to 2026-08	MAIN
R010	Global benchmark	Conditional Jul-Aug fit	-1.7293	–	–	log percentage points	2026-07 to 2026-08	MAIN
R011	Global benchmark	Jul-Aug residual	-10.6787	–	–	log percentage points	2026-07 to 2026-08	MAIN
R012	Macro context	Real GDP quarter-on-quarter growth Q1	1.831	–	–	percent	2026Q1	MAIN CONTEXT

Table 17: Complete standardized quantitative-result registry (part 4 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R013	Macro context	Real GDP quarter-on-quarter growth Q2	0.6222	–	–	percent	2026Q2	MAIN CONTEXT
R014	Monthly fit	Global-model RMSE for month-end change	3.2794	–	–	log percentage points	2026-01 to 2026-07; 7 months	MAIN WITH LIMITS
R015	Monthly fit	Flow-change-model RMSE for month-end change	2.0035	–	–	log percentage points	2026-01 to 2026-07; 7 months	MAIN WITH LIMITS
R016	Aggregation sensitivity	Global-model RMSE for monthly-average change	1.1953	–	–	log percentage points	2026-01 to 2026-07; 7 months	MAIN COUNTEREVIDENCE

Table 18: Complete standardized quantitative-result registry (part 5 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R017	Aggregation sensitivity	Flow-change-model RMSE for monthly-average change	1.2026	–	–	log percentage points	2026-01 to 2026-07; 7 months	MAIN COUNTEREVIDENCE
R018	Extrapolation	July equity-flow change relative to historical standard deviation	10.3	–	–	historical standard deviations	Historical support through 2025 and July 2026 realization	MAIN WARNING
R019	July reconciliation	BOP equity liabilities	5.982	–	–	USD billion	2026-07	MAIN
R020	July reconciliation	FX-market-report foreign equity funds	-20.7	–	–	USD billion	2026-07	MAIN

Table 19: Complete standardized quantitative-result registry (part 6 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R021	July issuance	Confirmed gross overseas equity issue	26.5071	–	–	USD billion	2026-07	MAIN
R022	July issuance scenario	BOP less full issue attribution	-20.5251	–	–	USD billion	2026-07	MAIN CONDITIONAL
R023	July issuance scenario	Full-attribution remainder versus FX report	0.1749	–	–	USD billion	2026-07	MAIN CONDITIONAL
R024	July issuance scenario	Attribution share at sign-change threshold	22.5675	–	–	percent of gross issue	2026-07	MAIN CONDITIONAL

Table 20: Complete standardized quantitative-result registry (part 7 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R025	July issuance	Observed spot-conversion amount	–	–	–	USD billion	2026-07	MAIN GAP
R026	Settlement alignment	Months with smaller absolute gap under T+2	3	–	–	months	2026-01 to 2026-07	MAIN
R027	Settlement alignment	Months with larger absolute gap under T+2	4	–	–	months	2026-01 to 2026-07	MAIN
R028	Settlement alignment	Trade-date MAE excluding July	2.5604	–	–	USD billion	2026-01 to 2026-06	MAIN

Table 21: Complete standardized quantitative-result registry (part 8 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R029	Settlement alignment	T+2 MAE excluding July	3.7721	–	–	USD billion	2026-01 to 2026-06	MAIN
R030	Unresolved reconciliation	May remaining FX-report-minus-T+2 gap	-4.6569	–	–	USD billion	2026-05	MAIN GAP
R031	Unresolved reconciliation	June remaining FX-report-minus-T+2 gap	-7.1423	–	–	USD billion	2026-06	MAIN GAP
R032	Daily equity association	Same-day foreign-equity coefficient	-0.102	-0.139	-0.064	log pp per KRW trillion	162 stock-trading intervals in 2026	MAIN ASSOCIATION

Table 22: Complete standardized quantitative-result registry (part 9 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R033	USD futures	Foreign net USD-futures purchase June	1.1647	–	–	USD billion notional	2026-06	MAIN CONTEXT
R034	USD futures	Foreign net USD-futures purchase July	-1.3809	–	–	USD billion notional	2026-07	MAIN CONTEXT
R035	USD futures	Foreign net USD-futures purchase August	-2.9001	–	–	USD billion notional	2026-08	MAIN CONTEXT
R036	Daily augmented fit	R-squared before adding current futures	0.395	–	–	R-squared	162 stock-trading intervals in 2026	SUPPORTING

Table 23: Complete standardized quantitative-result registry (part 10 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R037	Daily augmented fit	R-squared after adding current futures	0.443	–	–	R-squared	162 stock-trading intervals in 2026	SUPPORTING
R038	July daily-model aggregation	Actual July change	-8.4398	–	–	log percentage points	2026-07	MAIN
R039	July daily-model aggregation	Stock-and-current-futures fitted change	-2.6703	–	–	log percentage points	2026-07	MAIN CONDITIONAL
R040	July daily-model aggregation	Residual	-5.7695	–	–	log percentage points	2026-07	MAIN

Table 24: Complete standardized quantitative-result registry (part 11 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R041	KRX investor groups	Other-corporation same-month coefficient	-67.53	-90.2	-44.87	USD million per log pp	2010-01 to 2026-08; 200 months	SUPPORTING
R042	KRX investor groups	Individual same-month coefficient	-68.03	-110.65	-25.41	USD million per log pp	2010-01 to 2026-08; 200 months	SUPPORTING
R043	KRX investor groups	Foreign same-month coefficient	124.75	88.05	161.45	USD million per log pp	2010-01 to 2026-08; 200 months	SUPPORTING
R044	Firm panel rebuild	Net USD financial-item coefficient	-0.0162	-0.1948	0.1624	asset share	135 observations; 7 firms	MAIN NEGATIVE

Table 25: Complete standardized quantitative-result registry (part 12 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R045	Firm panel rebuild	Post-2022 USD asset coefficient	0.1117	–	–	asset share	73 observations; 6 firms	SUPPORTING WITH LIMITS
R046	Firm payment evidence	Positive stable payment observations	0	–	–	observations	50 observations; 6 firms	MAIN GAP
R047	AVEO case	Acquisition debt facility	400	–	–	USD million	2023-01	APPENDIX
R048	NAND case	Initial accounting recognition	6109	–	–	USD million	2021	APPENDIX

Table 26: Complete standardized quantitative-result registry (part 13 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R049	NAND case	Adjusted purchase price	500	–	–	USD million	2022Q1	APPENDIX
R050	BOP-flow association	Same-month nonresident domestic-security coefficient	-0.0456	-0.0827	-0.0084	log pp per USD billion	138 months	BACKGROUND
R051	ETF conditional reconstruction	Reconstructed contracts	12008	–	–	contracts	One disclosed month-end in 2025-12	APPENDIX CONDITIONAL
R052	ETF source coverage	Planned dates with conditional reconstruction	3	–	–	of 10 planned days	2025-03 to 2025-04	MAIN LIMIT

Table 27: Complete standardized quantitative-result registry (part 14 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R053	ETF observational equivalence	Asset-value change in counterexample	-3.4522	–	–	percent	One conditional event	MAIN COUNTEREXAMPLE
R054	Market stress primary	Joint stress-response HAC p-value	0.128	–	–	p-value	1866 trading days	MAIN NEGATIVE
R055	Market stress primary	Joint stress-response block-bootstrap p-value	0.1815	–	–	p-value	1866 trading days	MAIN NEGATIVE
R056	Market stress period comparison	Post-2020 interaction comparison p-value	0.00614	–	–	p-value	Period-comparison specification	RESEARCH AGENDA

Table 28: Complete standardized quantitative-result registry (part 15 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R057	Russia comparison	Actual exporter sale ratio	67 to 76	–	–	percent	2023 to 2025	APPENDIX
R058	Russia comparison	Counterfactual duty ratio	22.5 to 42	–	–	percent	2023 to 2025	APPENDIX
R059	Asia comparison	Asia-3 Jan-Jun change	2.0331	–	–	log percentage points	2026-01-02 to 2026-06-30	MAIN DESCRIPTIVE
R060	Asia comparison	KRW minus Asia-3 Jan-Jun change	5.3588	–	–	log percentage points	2026-01-02 to 2026-06-30	MAIN DESCRIPTIVE

Table 29: Complete standardized quantitative-result registry (part 16 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R061	Asia comparison	Asia-3 Jul-Aug change	-1.0874	–	–	log percentage points	2026-07-01 to 2026-08-31	MAIN DESCRIPTIVE
R062	Asia comparison	KRW minus Asia-3 Jul-Aug change	-11.3206	–	–	log percentage points	2026-07-01 to 2026-08-31	MAIN DESCRIPTIVE
R063	Asia comparison	Absolute relative share of Jul-Aug KRW move	0.9124	–	–	share	2026-07-01 to 2026-08-31	MAIN DESCRIPTIVE
R064	Asia comparison	Jul-Aug 42-interval relative-change ascending rank	1	–	–	of 282 overlapping windows	2025-05-07 to 2026-08-31	MAIN DIAG NOSTIC

Table 30: Complete standardized quantitative-result registry (part 17 of 17)

ID	Topic	Estimate	Value	CI low	CI high	Unit	Sample	Use
R065	Asia comparison	Two-sided empirical tail share	0.00709	–	–	empirical share	282 overlapping windows	MAIN DIAG NOSTIC
R066	Asia comparison	Common observation coverage	1	–	–	share	162 intervals in 2026	MEASUREMENT CHECK
R067	Intraday identification audit	Events meeting event-study GO rule	0	–	–	of 7 audited events	2026-06-24 to 2026-07-15	MAIN LIMIT

Notes: All 67 standardized result rows from N2 and N3. Units and samples remain analysis-specific; blank confidence limits mean that the item is an observed value, arithmetic result, rank, or other quantity without an estimated interval.

Table 31: Complete evidence-family register (part 1 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E001	1439.0 to 1549.4 to 1368.6; 7 2 1555.8	KRW per USD	2025-12 to 2026-08	A	DESCRIPTIVE	CURRENT PRIMARY	Episode
E002	+7.3919 / -12.4079	log percentage points	2026-01 to 2026-08	B	ARITHMETIC	CURRENT PRIMARY	Episode
E003	GDP qoq 1.83% / 0.62%	percent	2026Q1-Q2	A	DESCRIPTIVE	CURRENT CONTEXT	Episode
E004	actual 7.39; fit 2.37; residual 5.02	log percentage points	2026-01 to 2026-06	C	CONDITIONAL FIT	CURRENT EXPLORATORY	Global benchmark
E005	actual -12.41; fit -1.73; residual -10.68	log percentage points	2026-07 to 2026-08	C	CONDITIONAL FIT	CURRENT EXPLORATORY	Global benchmark
E006	-10.10 to -11.09	log percentage points	2026-07 to 2026-08	C	SENSITIVITY	CURRENT EXPLORATORY	Global benchmark

Table 32: Complete evidence-family register (part 2 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E007	2.004 vs global 3.279	log percentage points RMSE	2026-01 to 2026-07	C	CONDITIONAL FIT	CURRENT WITH LIMITS	Market associations
E008	1.203 vs global 1.195	log percentage points RMSE	2026-01 to 2026-07	C	SENSITIVITY	CURRENT COUNTEREVIDENCE	Market associations
E009	about 10.3	historical standard deviations	2015-02 to 2026-07	B	EXTRAPOLATION DIAGNOSTIC	CURRENT WARNING	Market associations
E010	5.982 vs -20.700	USD billion	2026-07	A	DESCRIPTIVE	CURRENT PRIMARY	Reconciliation
E011	26.5071	USD billion	2026-07	A	DISCLOSURE FACT	CURRENT PRIMARY	July case
E012	B-I=-20.5251; remainder=0.1749	USD billion	2026-07	B	CONDITIONAL ARITHMETIC	CURRENT PRIMARY	July case

Table 33: Complete evidence-family register (part 3 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E013	0.225675	share	2026-07	B	THRESHOLD SENSITIVITY	CURRENT PRIMARY	July case
E014	–	USD	2026-07	E	NOT IDEN TIFIED	CURRENT GAP	July case
E015	-0.05	USD billion	2026-01	A	DESCRIPT IVE	CURRENT PRIMARY	Reconciliati on
E016	3/7 improve	months	2026-01 to 2026-07	B	MEASUREM ENT DIAG NOSTIC	CURRENT PRIMARY	Reconciliati on
E017	2.5604 to 3.7721	USD billion MAE	2026-01 to 2026-06	B	MEASUREM ENT DIAG NOSTIC	CURRENT PRIMARY	Reconciliati on
E018	0.5118 to -1.9188	USD billion	2026-04	B	ARITHMETIC	CURRENT SUPPORTING	Reconciliati on

Table 34: Complete evidence-family register (part 4 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E019	May -4.6569; June -7.1423	USD billion	2026-05 to 2026-06	E	NOT IDEN TIFIED	CURRENT GAP	Reconciliati on
E020	level 3.137 to 4.029; change 2.004 to 2.521	log percenta ge points RMSE	2026-01 to 2026-07	C	FIXED PARA METER SENS ITIVITY	CURRENT WITH LIMITS	Market asso ciations
E021	beta -0.102; CI [-0.139,-0.064]	log pp per KRW tril lion	162 trading days in 2026	C	CONDITIO NAL ASSO CIATION	CURRENT EXPLORAT ORY	Market asso ciations
E022	–	log pp	162 trading days in 2026	C	CONDITIO NAL ASSO CIATION	CURRENT NEGATIVE	Market asso ciations
E023	June 1.165; July -1.381; August -2.900	USD billion notional	2026-06 to 2026-08	A	DESCRIPT IVE	CURRENT PRIMARY	Market asso ciations
E024	0.395 to 0.443	R squared	162 trading days in 2026	C	POST PATT ERN SUPP LEMENT	CURRENT EXPLORAT ORY	Market asso ciations

Table 35: Complete evidence-family register (part 5 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E025	actual -8.44; fit -2.67; residual -5.77	log percentage points	2026-07	C	CONDITIONAL FIT	CURRENT PRIMARY	Market associations
E026	-3.43	log percentage points	2026-07-02 to 2026-07-13	B	RETROSPECTIVE TIMELINE	CURRENT RESTRICTION	July case
E027	corporate -67.53; individual -68.03; foreign 124.75	USD million per log pp	2010-01 to 2026-08	C	CONDITIONAL ASSOCIATION	CURRENT SUPPORTING	Market associations
E028	S3 30.39; S6 47.49; total C6 CI includes zero	USD million per log pp	200 months	C	DISTRIBUTED LAG ASSOCIATION	CURRENT WITH LIMITS	Market associations
E029	partial corr 0.508 vs 0.218	correlation	198 months	C	CONDITIONAL ASSOCIATION	CURRENT WITH LIMITS	Corporate evidence
E030	about -1.1 to -1.5	elasticity	2005 to 2026	C	CONDITIONAL ASSOCIATION	CURRENT BACKGROUND	Corporate evidence

Table 36: Complete evidence-family register (part 6 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E031	UIP -1.60; CIP 0.010	percentage points	monthly historical sample	C	CONDITIONAL ASSOCIATION	CURRENT BACKGROUND	Corporate evidence
E032	0.46; t 4.3	asset share	17 firms 160 firm-quarters	E	CONDITIONAL ASSOCIATION	SUPERSEDED BY REBUILD	Corporate evidence
E033	-0.0162; CI [-0.1948,0.1624]	asset share	135 observations 7 firms	C	CONDITIONAL ASSOCIATION	CURRENT PRIMARY	Corporate evidence
E034	0.1117; wild p 0.097	asset share	73 observations 6 firms	C	CONDITIONAL ASSOCIATION	CURRENT WITH LIMITS	Corporate evidence
E035	0	positive payment observations	50 observations 6 firms	E	NOT IDENTIFIED	CURRENT GAP	Corporate evidence
E036	about +7.1 pp	asset share	3 treated firms	E	CONDITIONAL ASSOCIATION	NOT FOR CURRENT CLAIM	Appendix

Table 37: Complete evidence-family register (part 7 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E037	400	USD mill ion	2023-01	A	TIMELINE RESTRICT ION	CURRENT SUPPORTING	Corporate evidence
E038	6109 in 2021; 500 in 2022Q1	USD mill ion	2021 to 2022Q1	A	ACCOUNTI NG TIME LINE	CURRENT SUPPORTING	Corporate evidence
E039	-0.0456; CI [-0.0827,-0.0084]	log pp per USD billion	138 months	C	CONDITIO NAL ASSO CIATION	CURRENT BACKGROU ND	Market asso ciations
E040	fund 8 observat ions; insurance 41 numeric cells	observat ions	selected public disclosures	A	PARTIAL OBSERVAT ION	CURRENT WITH LIMITS	Hedging evid ence
E041	12008	contracts	2025-12	A	CONDITIO NAL MEAS UREMENT	CURRENT SUPPORTING	Hedging evid ence
E042	3 of 10 planned days	days	2025-03 to 2025-04	D	CONDITIO NAL MEAS UREMENT	CURRENT WITH LIMITS	Hedging evid ence

Table 38: Complete evidence-family register (part 8 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E043	H -3.4522%	percent	one conditional event	D	NONIDENT IFICATION COUNTERE XAMPLE	CURRENT PRIMARY	Hedging evid ence
E044	HAC p 0.1280; bootstrap p 0.1815	p value	1866 trading days	C	CONDITIO NAL ASSO CIATION	CURRENT NEGATIVE	Market asso ciations
E045	joint p 0.00614	p value	period comparis on	C	POST PATT ERN DIAG NOSTIC	CURRENT HYPOTHESIS	Research agenda
E046	–	decision	design audit	E	NOT EMPI RICAL RESU LT	STOPPED SCOPE	Appendix
E047	–	decision	literature and design audit	E	NOT EMPI RICAL RESU LT	STOPPED SCOPE	Appendix
E048	67–116 vs 22.5–72	percent	2023 to 2025	C	DESCRIPT IVE COMP ARISON	CURRENT BACKGROU ND	Appendix

Table 39: Complete evidence-family register (part 9 of 9)

ID	Recorded estimate	Unit	Sample	Grade	Causal status	Current status	Section
E049	capacity share about 10–15%	model cont ribution	2025 to 2026	D	CALIBRATED SCENARIO	NOT FOR CAUSAL CLAI M	Appendix
E050	NO GO SSCI FULL PAPER EXPANSION	decision	M3 evidence set	E	RESEARCH GATE	CURRENT SCOPE DECI SION	Introduction
E051	H1 residual 5.3588; Jul-Aug residual -11.3206; Jul-Aug share 0.9124	log percenta ge points and share	2026-01-02 to 2026-08-31	B	DESCRIPT IVE COMP ARISON	CURRENT PRIMARY	Regional comparison
E052	rank 1/282; two-sided tail share 0.00709	rank and empirical share	2025-05-07 to 2026-08-31	C	DESCRIPT IVE RANK	CURRENT SUPPORTING	Regional comparison
E053	0 of 7	eligible even ts	2026-06-24 to 2026-07-15	E	IDENTIFI CATION AUDIT	CURRENT GAP	July case
E054	FX due 2026-09-17; BOP due 2026-10-08	scheduled release	2026-08	E	RELEASE GATE	PENDING UPDATE	Prospective update

Notes: The 54 evidence families define the inclusion universe for this working paper. Korean-language question and result descriptions remain in the machine-readable ledger; this English-facing table retains the estimates and classification fields.

Table 40: Complete claim-to-evidence matrix (part 1 of 10)

ID	Section	Permitted claim	Evid ence	Grad e	Status	Inference not supported
C001	The 2026 Episode	The KRW/USD close rose from 1439.0 at the end of 2025 to 1549.4 at end-June before falling to 1424.0 at end-July and 1368.6 at end-August.	E001; E002	A	CONF IRMED DESCRIPT IVE	structural break; mispric ing; causal reversal date
C002	The 2026 Episode	Real GDP and household cons umption increased in both 2026Q1 and 2026Q2 even while the won weakened through June.	E003	A	CONF IRMED CONTEXT	a healthy economy prov es the exchange rate was irrational
C003	The 2026 Episode	A limited global benchmark fits 2.37 log points of the 7.39 log-poin t January-June depreciation and leaves a 5.02-point residual.	E004	C	CONDITIO NAL FIT	global factors did not matter; residual is a domestic shock
C004	The 2026 Episode	The same benchmark fits -1.73 log points of the -12.41 log-point July-August change and leaves a -10.68-point residual.	E005	C	CONDITIO NAL FIT	global factors cannot expl ain the appreciation; resi dual identifies the cause

Table 41: Complete claim-to-evidence matrix (part 2 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C005	The 2026 Episode	The large negative July-August residual remains between -10.10 and -11.09 log points across the inspected training-window starts.	E006	C	SENSITIVITY	all exchange-rate models fail
C006	Market Associations	The apparent 2026 fit gain from monthly equity-flow changes is present for month-end exchange-rate changes but disappears for monthly-average changes.	E007; E008	C	AGGREGATION SENSITIVITY	the flow model is generally superior or inferior
C007	Market Associations	The July equity-flow change is about 10.3 historical standard deviations from its earlier support.	E009	B	EXTRAPOLATION WARNING	a large standardized value proves data error or a structural shock
C008	Reconciliation Evidence	For July the BOP equity-liability series records a USD 5.982 billion inflow while the FX-market report records a USD 20.700 billion outflow.	E010	A	CONFIRMED MEASUREMENT CONTRAST	one series is wrong; the difference is hidden intervention

Table 42: Complete claim-to-evidence matrix (part 3 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C009	Reconciliation Evidence	The confirmed SK hynix overseas primary issue had a gross amount of USD 26.5071 billion.	E011	A	CONFIRMED DISCLOSURE FACT	net cash received; converted dollars; BOP-recorded amount
C010	Reconciliation Evidence	Under full July BOP attribution the BOP series net of the issue is -20.5251 billion dollars and differs from the FX-market report by 0.1749 billion dollars.	E012	B	SCENARIO ARITHMETIC	the issue explains or caused the entire discrepancy
C011	Reconciliation Evidence	The BOP series net of attributed issuance becomes negative if the July attribution share exceeds 22.5675 percent.	E013	B	THRESHOLD SENSITIVITY	the share did exceed the threshold
C012	Reconciliation Evidence	Public disclosures do not identify how much of the issue was converted into won or the timing of any such conversion.	E014	E	NOT IDENTIFIED	no conversion occurred; conversion caused appreciation

Table 43: Complete claim-to-evidence matrix (part 4 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C013	Data and Measurement	The January FX-market report records a 0.05 billion dollar equity outflow and the same displayed value appears in the August appendix.	E015	A	VINTAGE CHECK	all BOP and FX histories were unrevised
C014	Reconciliation Evidence	Moving daily equity trades to a T+2 calendar reduces the absolute FX-report gap in three of seven months and increases it in four.	E016; E017	B	MEASUREMENT DIAGNOSTIC	T+2 reconciles the series generally
C015	Reconciliation Evidence	In April the T+2 shift changes the transaction comparator to the same sign as the BOP measure but January provides a counterexample to a general timing explanation.	E018; E016	B	MIXED TIMING EVIDENCE	settlement timing generally explains the discrepancies
C016	Reconciliation Evidence	After the timing adjustment the May and June gaps remain -4.6569 and -7.1423 billion dollars and cannot be assigned to a documented public transaction.	E019	E	NOT IDENTIFIED	the missing amounts are unreported corporate conversions

Table 44: Complete claim-to-evidence matrix (part 5 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C017	Market Associations	Subtracting the confirmed July issue from the flow regressors raises rather than lowers the fixed-coefficient RMSE in the level and change specifications.	E020	C	FIXED PARAMETER SENSITIVITY	the issue is irrelevant or the model is structurally rejected
C018	Market Associations	Same-day foreign equity purchases are associated with won appreciation in the 2026 daily sample while the preceding-day coefficient includes zero.	E021; E022	C	CONDITIONAL ASSOCIATION	equity purchases caused appreciation; lag evidence proves no dynamics
C019	Market Associations	Foreign investors bought net dollar-futures notional in June and sold net notional in July and August.	E023	A	CONFIRMED DESCRIPTIVE	the trades were hedges or spot-FX orders
C020	Market Associations	Adding same-day dollar-futures transactions raises the in-sample daily R-squared from 0.395 to 0.443.	E024	C	POST PATTERN FIT	futures predict or cause exchange-rate changes

Table 45: Complete claim-to-evidence matrix (part 6 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C021	Market Associations	The stock-and-current-futures daily specification fits -2.67 of the actual -8.44 July log-point change and leaves a -5.77-point residual.	E025	C	CONDITIONAL FIT	the residual is a missing structural shock
C022	Reconciliation Evidence	The won had already appreciated 3.43 log points from the July 2 high by the last close before the July 14 payment date.	E026	B	RETROSPECTIVE TIMELINE	payment initiated the entire reversal; anticipation is identified
C023	Market Associations	In the 2010-2026 monthly KRX data other corporations and individuals sell dollar futures as the won depreciates while foreign investors move in the opposite direction.	E027	C	CONDITIONAL ASSOCIATION	other corporations are exporters; positions reveal hedging motives
C024	Market Associations	The distributed-lag pattern for other corporations changes with the lag horizon and its six-lag cumulative interval includes zero.	E028	C	DISTRIBUTED LAG SENSITIVITY	stable structural response or causal reversal

Table 46: Complete claim-to-evidence matrix (part 7 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C025	Corporate and Hedging Evidence	Foreign-currency deposits are more strongly correlated with corporate dollar-futures activity at year end than over the full sample but ownership and currency scopes differ.	E029; E030	C	CONDITIONAL ASSOCIATION	deposits finance the same investors' hedges
C026	Corporate and Hedging Evidence	The historical UIP association is sizable while the measured CIP association is small in the available construction.	E031	C	CONDITIONAL ASSOCIATION	UIP or CIP explains the 2026 reversal
C027	Corporate and Hedging Evidence	An independent rebuild does not reproduce the early strong firm-panel result: the net-USD coefficient is -0.0162 with a confidence interval from -0.1948 to 0.1624.	E032; E033; E034	C	SUPERSESSION AND REBUILD	foreign investment raises usable dollar cash
C028	Corporate and Hedging Evidence	The rebuilt panel contains no stable positive payment-timing observations and therefore cannot identify a 2026 payment effect.	E035; E036	E	NOT IDENTIFIED	firms made no payments; the early policy DiD is valid

Table 47: Complete claim-to-evidence matrix (part 8 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C029	Corporate and Hedging Evidence	The AVEO and NAND disclosures constrain financing and accounting dates but do not trace fungible cash to every payment or conversion.	E037; E038	A	TIMELINE RESTRICTION	the facilities funded exact payments or caused FX transactions
C030	Market Associations	Historically a one-billion-dollar increase in nonresident purchases of domestic securities is associated with about 0.0456 log points of won appreciation in the BOP regression.	E039	C	CONDITIONAL ASSOCIATION	exogenous asset demand causes the coefficient-sized movement
C031	Corporate and Hedging Evidence	Public fund and insurer reports provide partial position amounts; ETF reconstruction succeeds conditionally for three of ten planned dates and an observed asset-value change is compatible with opposite hedge directions.	E040; E041; E042; E043	A-D	PARTIAL AND NONIDENTIFIED	aggregate disclosures identify hedge ratio direction or acquisition versus rehedging
C032	What Can Be Inferred?	The primary joint tests do not establish a common stress-dependent response but a post-2020 period comparison motivates a narrower follow-up hypothesis.	E044; E045	C	NEGATIVE PRIMARY WITH HYPOTHESIS	stress regime change is proven

Table 48: Complete claim-to-evidence matrix (part 9 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C033	Research Agenda and Conclusion	Two broader model-design exercises stopped because comparable evidence or a new testable restriction was not obtained.	E046; E047	E	RESEARCH GATE	no suitable exchange-rate model exists
C034	Research Agenda and Conclusion	Russian exporter-sale ratios illustrate how observable surrender rules differ from Korea's public data environment.	E048	C	DESCRIPTIVE COMPARISON	Russia provides direct evidence for Korea
C035	Research Agenda and Conclusion	Earlier calibrated capacity and policy decompositions are retained only as research history because the rebuilt firm and payment evidence does not identify their inputs.	E049	D	SUPERSEDED MODEL INTERPRETATION	observed contribution; identified policy effect
C036	Introduction	The M3 evidence did not meet the gate for an SSCI regular-paper expansion; the present working paper instead documents the episode evidence and measurement limits.	E050	E	RESEARCH SCOPE DECISION	the evidence has no research value or guarantees SSRN quality

Table 49: Complete claim-to-evidence matrix (part 10 of 10)

ID	Section	Permitted claim	Evidence	Grade	Status	Inference not supported
C037	Regional Comparison	The won depreciated by 7.39 log points in January-June and then appreciated by 12.41 log points in July-August; 5.36 and -11.32 log points respectively remain after subtracting an equal-weight JPY-TWD-SGD comparison.	E002; E051	B	DESCRIPTIVE COMPARISON	Korea-specific structural shock; causal contribution; fair value gap
C038	Regional Comparison	The July-August relative appreciation has the same sign for every two-peer basket and is the most negative 42-interval observation among 282 recent overlapping windows.	E051; E052	B-C	DESCRIPTIVE ROBUSTNESS	formal statistical significance; long-run rarity; identified domestic news
C039	July Case	None of the seven audited issuance and market-structure events meets the fixed intraday event-study rule, so the record supports a daily chronology but not an intraday causal effect.	E053	E	NOT IDENTIFIED	the issuance caused same-day or intraday won appreciation
C040	Prospective Update	The August FX-market and BOP observations remain missing at the September 14 cutoff and will be compared only with the frozen pre-release benchmarks after their first official publication.	E054	E	PENDING RELEASE	zero values; estimated official observations; retrospective benchmark changes

Notes: All 40 candidate claims are retained, including limits and research-gate statements. The final prose can be more cautious than this matrix but must not be stronger.

Table 50: Complete episode and release timeline (part 1 of 6)

ID	Date KST	Time	Type	Event	KRW/ USD	Date accuracy	Use
T001	2025-12-30	15:30	FX ANCHOR	Last observed 2025 KRW/USD close	1439	EXACT DAY AND ITEM TIME	DESCRIPTIVE ONLY
T002	2026-01-09	–	CORPORATE PAYMENT	ABL Bio private-placement payment	1457.6	EXACT DAY TIME UNKNOWN	NO CAUSAL ATTRIBUTION
T003	2026-01-16	–	CORPORATE DISCLOSURE	ABL Bio amended issuance result	1473.6	EXACT DAY TIME UNKNOWN	NO CAUSAL ATTRIBUTION
T004	2026-01-30	15:30	FX ANCHOR	January month-end KRW/USD close	1439.5	EXACT DAY AND ITEM TIME	DESCRIPTIVE ONLY
T005	2026-02-12	–	STATISTICAL RELEASE	BOK FX-market report released	1440.2	EXACT DAY TIME NOT RECORDED	NOT INFORMATION AVAILABLE DURING REFERENCE MONTH
T006	2026-02-27	15:30	FX ANCHOR	February month-end KRW/USD close	1439.7	EXACT DAY AND ITEM TIME	DESCRIPTIVE ONLY
T007	2026-03-06	–	STATISTICAL RELEASE	BOP January release date	1476.4	OFFICIAL SCHEDULE DAY ONLY	NOT INFORMATION AVAILABLE DURING REFERENCE MONTH

Table 51: Complete episode and release timeline (part 2 of 6)

ID	Date KST	Time	Type	Event	KRW/ USD	Date accuracy	Use
T008	2026-03-12	–	STAT ISTICAL RELEASE	BOK FX-market report released	1481.2	EXACT DAY TIME NOT RECORDED	NOT INFO RMATION AVAILABL E DURING REFERENCE MONTH
T009	2026-03-31	15:30	FX ANCH OR	March month-end KRW/USD close	1530.1	EXACT DAY AND ITEM TIME	DESCRIPT IVE ONLY
T010	2026-04-08	–	STAT ISTICAL RELEASE	BOP February release date	1470.6	OFFICIAL SCHEDULE DAY ONLY	NOT INFO RMATION AVAILABL E DURING REFERENCE MONTH
T011	2026-04-09	–	STAT ISTICAL RELEASE	BOK FX-market report released	1482.5	CONFIRME D DAY TIME NOT RECO RDED	NOT INFO RMATION AVAILABL E DURING REFERENCE MONTH
T012	2026-04-30	15:30	FX ANCH OR	April month-end KRW/USD clos e	1483.3	EXACT DAY AND ITEM TIME	DESCRIPT IVE ONLY
T013	2026-05-08	–	STAT ISTICAL RELEASE	BOP March released	1471.7	CONFIRME D DAY TIME NOT RECO RDED	NOT INFO RMATION AVAILABL E DURING REFERENCE MONTH
T014	2026-05-15	–	STAT ISTICAL RELEASE	BOK FX-market report released	1500.8	CONFIRME D DAY TIME NOT RECO RDED	NOT INFO RMATION AVAILABL E DURING REFERENCE MONTH

Table 52: Complete episode and release timeline (part 3 of 6)

ID	Date KST	Time	Type	Event	KRW/ USD	Date accuracy	Use
T015	2026-05-29	15:30	FX ANCHOR	May month-end KRW/USD close	1507.9	EXACT DAY AND ITEM TIME	DESCRIPTIVE ONLY
T016	2026-06-05	–	STATISTICAL RELEASE	BOP April released	1539.1	CONFIRMED DAY TIME NOT RECORDED	NOT INFORMATION AVAILABLE DURING REFERENCE MONTH
T017	2026-06-15	–	STATISTICAL RELEASE	BOK FX-market report released	1511.1	CONFIRMED DAY TIME NOT RECORDED	NOT INFORMATION AVAILABLE DURING REFERENCE MONTH
T018	2026-06-24	–	CORPORATE DISCLOSURE	SK hynix board decision and initial overseas equity filing	1541.8	EXACT DAY TIME NOT EXTRACTED	EVENT TIMING ONLY
T019	2026-06-30	15:30	FX ANCHOR	June month-end KRW/USD close	1549.4	EXACT DAY AND ITEM TIME	DESCRIPTIVE ONLY
T020	2026-07-02	15:30	FX EXTREME	Highest observed 15:30 close in the frozen 2026 episode	1555.8	EXACT DAY AND ITEM TIME	NOT A PRESELECTED BREAK DATE
T021	2026-07-06	–	CORPORATE DISCLOSURE	SK hynix corrected securities filing	1530.3	EXACT DAY TIME NOT EXTRACTED	EVENT TIMING ONLY

Table 53: Complete episode and release timeline (part 4 of 6)

ID	Date KST	Time	Type	Event	KRW/ USD	Date accuracy	Use
T022	2026-07-06	06:00	MARKET STRUCTURE	Won market begins Monday-to-Saturday continuous operating schedule	1530.3	EXACT EFFECTIVE DAY AND SUMMER TIME RULE	NOT AN EXCHANGE RATE CAUSE CLAIM
T023	2026-07-08	–	STATISTICAL RELEASE	BOP May released	1498.5	CONFIRMED DAY TIME NOT RECORDED	NOT INFORMATION AVAILABLE DURING REFERENCE MONTH
T024	2026-07-10	–	CORPORATE PRICING	SK hynix ADR price fixed on July 9 US / July 10 Korea	1501.4	EXACT DAY TIMEZONE PAIR TIME NOT EXTRACTED	NO INTRADAY CAUSAL ORDER
T025	2026-07-10	–	MARKET EVENT	SK hynix ADR begins Nasdaq trading	1501.4	EXACT DAY US TIME NOT EXTRACTED	NO INTRADAY CAUSAL ORDER
T026	2026-07-14	–	STATISTICAL RELEASE	BOK FX-market report released	1493	CONFIRMED DAY TIME NOT RECORDED	NOT INFORMATION AVAILABLE DURING REFERENCE MONTH
T027	2026-07-14	–	CORPORATE PAYMENT	SK hynix ADR subscription and payment	1493	EXACT DAY TIME UNKNOWN	NO SPOT CONVERSION OBSERVED
T028	2026-07-15	–	CORPORATE EFFECTIVE	SK hynix new shares effective and issuance result filed	1484.7	EXACT DAY TIME UNKNOWN	NO BOP OR FX ATTRIBUTION OBSERVED

Table 54: Complete episode and release timeline (part 5 of 6)

ID	Date KST	Time	Type	Event	KRW/ USD	Date accuracy	Use
T029	2026-07-29	–	SCHEDULED LISTING	SK hynix underlying KRX share listing date stated in filing	1446.7	SCHEDULED EXACT DAY UNCONFIRMED COMPLETION	DO NOT TREAT AS CONFIRMED NEW EVENT
T030	2026-07-31	15:30	FX ANCHOR	July month-end KRW/USD close	1424	EXACT DAY AND ITEM TIME	DESCRIPTIVE ONLY
T031	2026-08-06	–	STATISTICAL RELEASE	BOP June released	1423.8	CONFIRMED DAY TIME NOT RECORDED	NOT INFORMATION AVAILABLE DURING REFERENCE MONTH
T032	2026-08-13	12:00	STATISTICAL RELEASE	BOK FX-market report released	1419.4	CONFIRMED DAY AND RELEASE TIME	NOT INFORMATION AVAILABLE DURING REFERENCE MONTH
T033	2026-08-31	15:30	FX ANCHOR	August month-end KRW/USD close and episode cutoff	1368.6	EXACT DAY AND ITEM TIME	DESCRIPTIVE ONLY
T034	2026-09-04	08:00	STATISTICAL RELEASE	BOP July released	–	CONFIRMED DAY AND RELEASE TIME	EX POST RELATIVE TO JULY MARKET
T035	2026-09-13	–	RESEARCH FREEZE	Daily sources and pre-release August benchmarks frozen	–	EXACT RETRIEVAL DATE; TIMESTAMPS IN MANIFESTS	REPRODUCIBILITY MARKER

Table 55: Complete episode and release timeline (part 6 of 6)

ID	Date KST	Time	Type	Event	KRW/ USD	Date accuracy	Use
T036	2026-09-17	12:00	SCHEDULED RELEASE	BOK FX-market report scheduled	–	OFFICIAL SCHEDULE	KEEP MISSING IN V1
T037	2026-10-08	08:00	SCHEDULED RELEASE	BOP August scheduled	–	OFFICIAL SCHEDULE	KEEP MISSING IN V1

Notes: The timeline distinguishes observation, trade, payment, accounting, effective, and public-release dates. A same-date row is not evidence of an intraday causal ordering.

Table 56: Monthly model comparison (part 1 of 4)

Outcome	Model	Train N	Train RMSE	Hist. RMSE	Target N	Target RMSE	Target MAE	All avail. RMSE
return eom	no change	131	2.56654	2.66546	8	4.27691	3.14921	4.23955
return eom	dollar	131	1.85858	1.88195	8	3.31096	2.56473	3.36329
return eom	global	131	1.83248	1.98798	8	3.27944	2.48946	3.30062
return eom	global return lag	131	1.83195	1.99475	8	3.24945	2.44891	3.29458

Table 57: Monthly model comparison (part 2 of 4)

Outcome	Model	Train N	Train RMSE	Hist. RMSE	Target N	Target RMSE	Target MAE	All avail. RMSE
return eom	global flow level	131	1.81206	2.03462	7	3.13661	2.53777	3.13661
return eom	global flow change	131	1.74319	1.9646	7	2.00351	1.67007	2.00351
return eom	global flow lag	131	1.78149	2.03868	8	2.8237	2.25413	3.1725
return avg	no change	131	1.86094	1.9691	8	1.80794	1.46081	2.67102

Table 58: Monthly model comparison (part 3 of 4)

Outcome	Model	Train N	Train RMSE	Hist. RMSE	Target N	Target RMSE	Target MAE	All avail. RMSE
return avg	dollar	131	1.58582	1.65456	8	1.13274	0.96781	2.31541
return avg	global	131	1.48412	1.61972	8	1.1953	1.04357	2.23312
return avg	global return lag	131	1.22163	1.39808	8	1.59142	1.4096	1.75316
return avg	global flow level	131	1.41931	1.66695	7	2.14867	1.8436	2.14867

Table 59: Monthly model comparison (part 4 of 4)

Outcome	Model	Train N	Train RMSE	Hist. RMSE	Target N	Target RMSE	Target MAE	All avail. RMSE
return avg	global flow change	131	1.44086	1.65017	7	1.20259	0.86332	1.20259
return avg	global flow lag	131	1.47553	1.70603	8	1.49409	0.96968	2.39509

Notes: Complete model-comparison file. Month-end and monthly-average outcomes are different and their fit statistics must not be pooled. Target-period comparisons were inspected after observing the episode.

Table 60: Global-benchmark training-window sensitivity

Start	End	N	Dollar beta	Jan–Jun residual	Jul–Aug residual	Target RMSE
2005-02	2019-12	179	0.95973	5.44247	-10.10374	3.20918
2005-02	2025-12	251	0.92404	5.13892	-10.42616	3.26268
2015-02	2019-12	59	0.86333	5.37985	-10.18333	3.19626
2020-01	2025-12	72	0.83209	4.35332	-11.08823	3.38517

Notes: The large July–August residual remains across the recorded estimation windows. These are specification diagnostics, not independent hypothesis tests.

Table 61: Complete daily and monthly coefficient file from the data-driven stage (part 1 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	global ar	const	0.00105	0.02917	-0.05613	0.05823	305	0.28038
daily	recent 2025 2026	global ar	dollar	0.77745	0.07407	0.63226	0.92263	305	0.28038
daily	recent 2025 2026	global ar	vix change	0.00787	0.00501	-0.00196	0.0177	305	0.28038
daily	recent 2025 2026	global ar	r lag	-0.18351	0.05826	-0.29769	-0.06933	305	0.28038

Table 62: Complete daily and monthly coefficient file from the data-driven stage (part 2 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	current flow	const	-0.04875	0.02939	-0.10634	0.00885	305	0.35195
daily	recent 2025 2026	current flow	dollar	0.69084	0.07339	0.547	0.83468	305	0.35195
daily	recent 2025 2026	current flow	vix change	0.00422	0.00451	-0.00463	0.01307	305	0.35195
daily	recent 2025 2026	current flow	r lag	-0.2003	0.05728	-0.31258	-0.08803	305	0.35195

Table 63: Complete daily and monthly coefficient file from the data-driven stage (part 3 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	current flow	flow	-0.09659	0.01657	-0.12907	-0.06411	305	0.35195
daily	recent 2025 2026	flow change	const	0.00069	0.02747	-0.05315	0.05452	305	0.32218
daily	recent 2025 2026	flow change	dollar	0.74327	0.07539	0.59552	0.89103	305	0.32218
daily	recent 2025 2026	flow change	vix change	0.0049	0.00492	-0.00474	0.01455	305	0.32218

Table 64: Complete daily and monthly coefficient file from the data-driven stage (part 4 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	flow change	r lag	-0.12085	0.05746	-0.23348	-0.00823	305	0.32218
daily	recent 2025 2026	flow change	flow change	-0.07042	0.01907	-0.1078	-0.03304	305	0.32218
daily	recent 2025 2026	lag flow	const	-0.00949	0.02744	-0.06328	0.0443	305	0.28342
daily	recent 2025 2026	lag flow	dollar	0.76895	0.0731	0.62567	0.91224	305	0.28342

Table 65: Complete daily and monthly coefficient file from the data-driven stage (part 5 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	lag flow	vix change	0.00796	0.00501	-0.00186	0.01778	305	0.28342
daily	recent 2025 2026	lag flow	r lag	-0.20546	0.06087	-0.32476	-0.08616	305	0.28342
daily	recent 2025 2026	lag flow	flow lag	-0.02064	0.02438	-0.06842	0.02713	305	0.28342
daily	recent 2025 2026	current and lag	const	-0.04056	0.02796	-0.09536	0.01425	305	0.3564

Table 66: Complete daily and monthly coefficient file from the data-driven stage (part 6 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	current and lag	dollar	0.6919	0.07317	0.54849	0.8353	305	0.3564
daily	recent 2025 2026	current and lag	vix change	0.00367	0.00459	-0.00533	0.01266	305	0.3564
daily	recent 2025 2026	current and lag	r lag	-0.17286	0.05636	-0.28333	-0.06239	305	0.3564
daily	recent 2025 2026	current and lag	flow	-0.10811	0.01945	-0.14623	-0.06999	305	0.3564

Table 67: Complete daily and monthly coefficient file from the data-driven stage (part 7 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	current and lag	flow lag	0.02768	0.02496	-0.02123	0.0766	305	0.3564
daily	recent 2025 2026	reverse price lag	const	-0.28737	0.08882	-0.46145	-0.1133	305	0.25488
daily	recent 2025 2026	reverse price lag	flow lag	0.44702	0.08021	0.28982	0.60423	305	0.25488
daily	recent 2025 2026	reverse price lag	r lag	0.30154	0.13619	0.03461	0.56846	305	0.25488

Table 68: Complete daily and monthly coefficient file from the data-driven stage (part 8 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	reverse price lag	dollar	-0.71277	0.20928	-1.12295	-0.30259	305	0.25488
daily	recent 2025 2026	reverse price lag	vix change	-0.03972	0.0123	-0.06384	-0.0156	305	0.25488
daily	recent 2025 2026	current flow lagged dollar	const	-0.06467	0.03442	-0.13213	0.00278	305	0.18536
daily	recent 2025 2026	current flow lagged dollar	r lag	-0.1866	0.0731	-0.32987	-0.04332	305	0.18536

Table 69: Complete daily and monthly coefficient file from the data-driven stage (part 9 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	current flow lagged dollar	flow	-0.12449	0.0197	-0.1631	-0.08588	305	0.18536
daily	recent 2025 2026	current flow lagged dollar	dollar lag	0.0428	0.09894	-0.15111	0.23672	305	0.18536
daily	recent 2025 2026	current flow lagged dollar	vix change	0.01227	0.0053	0.00189	0.02266	305	0.18536
daily	recent 2025 2026	current flow asia	const	-0.05485	0.03003	-0.11371	0.00401	305	0.3688

Table 70: Complete daily and monthly coefficient file from the data-driven stage (part 10 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	current flow asia	dollar	0.45566	0.12408	0.21247	0.69886	305	0.3688
daily	recent 2025 2026	current flow asia	vix change	0.00195	0.00426	-0.00641	0.0103	305	0.3688
daily	recent 2025 2026	current flow asia	r lag	-0.21993	0.05509	-0.32791	-0.11195	305	0.3688
daily	recent 2025 2026	current flow asia	flow	-0.09825	0.01652	-0.13064	-0.06587	305	0.3688

Table 71: Complete daily and monthly coefficient file from the data-driven stage (part 11 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	recent 2025 2026	current flow asia	asia	0.50045	0.20027	0.10792	0.89298	305	0.3688
daily	2026 only	global ar	const	-0.0346	0.0447	-0.12221	0.05301	162	0.30141
daily	2026 only	global ar	dollar	0.8283	0.09814	0.63595	1.02065	162	0.30141
daily	2026 only	global ar	vix change	0.00994	0.00802	-0.00578	0.02567	162	0.30141

Table 72: Complete daily and monthly coefficient file from the data-driven stage (part 12 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	global ar	r lag	-0.16234	0.07075	-0.30101	-0.02368	162	0.30141
daily	2026 only	current flow	const	-0.13889	0.04616	-0.22935	-0.04843	162	0.39482
daily	2026 only	current flow	dollar	0.67963	0.1035	0.47678	0.88249	162	0.39482
daily	2026 only	current flow	vix change	0.0063	0.00725	-0.0079	0.0205	162	0.39482

Table 73: Complete daily and monthly coefficient file from the data-driven stage (part 13 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	current flow	r lag	-0.18451	0.07331	-0.32819	-0.04083	162	0.39482
daily	2026 only	current flow	flow	-0.10182	0.01913	-0.13932	-0.06432	162	0.39482
daily	2026 only	flow change	const	-0.03264	0.0415	-0.11398	0.0487	162	0.34678
daily	2026 only	flow change	dollar	0.77584	0.10211	0.5757	0.97597	162	0.34678

Table 74: Complete daily and monthly coefficient file from the data-driven stage (part 14 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	flow change	vix change	0.00812	0.00775	-0.00707	0.02331	162	0.34678
daily	2026 only	flow change	r lag	-0.08605	0.07343	-0.22997	0.05788	162	0.34678
daily	2026 only	flow change	flow change	-0.06495	0.0201	-0.10434	-0.02556	162	0.34678
daily	2026 only	lag flow	const	-0.06344	0.04712	-0.1558	0.02891	162	0.30739

Table 75: Complete daily and monthly coefficient file from the data-driven stage (part 15 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	lag flow	dollar	0.81045	0.098	0.61838	1.00253	162	0.30739
daily	2026 only	lag flow	vix change	0.00973	0.00795	-0.00585	0.02532	162	0.30739
daily	2026 only	lag flow	r lag	-0.20044	0.07701	-0.35137	-0.04951	162	0.30739
daily	2026 only	lag flow	flow lag	-0.02736	0.02925	-0.08469	0.02998	162	0.30739

Table 76: Complete daily and monthly coefficient file from the data-driven stage (part 16 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	current and lag	const	-0.12883	0.04795	-0.22281	-0.03485	162	0.39625
daily	2026 only	current and lag	dollar	0.68173	0.10358	0.47871	0.88475	162	0.39625
daily	2026 only	current and lag	vix change	0.00623	0.00727	-0.00801	0.02048	162	0.39625
daily	2026 only	current and lag	r lag	-0.16556	0.0747	-0.31197	-0.01915	162	0.39625

Table 77: Complete daily and monthly coefficient file from the data-driven stage (part 17 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	current and lag	flow	-0.10681	0.02098	-0.14793	-0.06569	162	0.39625
daily	2026 only	current and lag	flow lag	0.01439	0.02759	-0.03968	0.06846	162	0.39625
daily	2026 only	reverse price lag	const	-0.61218	0.15867	-0.92317	-0.3012	162	0.24389
daily	2026 only	reverse price lag	flow lag	0.39084	0.08885	0.2167	0.56498	162	0.24389

Table 78: Complete daily and monthly coefficient file from the data-driven stage (part 18 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	reverse price lag	r lag	0.32652	0.19651	-0.05864	0.71167	162	0.24389
daily	2026 only	reverse price lag	dollar	-1.20514	0.33819	-1.86798	-0.54229	162	0.24389
daily	2026 only	reverse price lag	vix change	-0.03276	0.01962	-0.07122	0.0057	162	0.24389
daily	2026 only	current flow lagged dollar	const	-0.17058	0.05335	-0.27515	-0.06602	162	0.26409

Table 79: Complete daily and monthly coefficient file from the data-driven stage (part 19 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	current flow lagged dollar	r lag	-0.12069	0.09469	-0.30628	0.0649	162	0.26409
daily	2026 only	current flow lagged dollar	flow	-0.1337	0.02222	-0.17725	-0.09014	162	0.26409
daily	2026 only	current flow lagged dollar	dollar lag	-0.07707	0.13258	-0.33692	0.18277	162	0.26409
daily	2026 only	current flow lagged dollar	vix change	0.01729	0.00796	0.00169	0.0329	162	0.26409

Table 80: Complete daily and monthly coefficient file from the data-driven stage (part 20 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	current flow asia	const	-0.13885	0.04739	-0.23174	-0.04597	162	0.46159
daily	2026 only	current flow asia	dollar	0.12772	0.16686	-0.19932	0.45475	162	0.46159
daily	2026 only	current flow asia	vix change	0.00031	0.00663	-0.01268	0.0133	162	0.46159
daily	2026 only	current flow asia	r lag	-0.19673	0.06585	-0.3258	-0.06767	162	0.46159

Table 81: Complete daily and monthly coefficient file from the data-driven stage (part 21 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
daily	2026 only	current flow asia	flow	-0.10043	0.01895	-0.13757	-0.06328	162	0.46159
daily	2026 only	current flow asia	asia	1.26542	0.26828	0.73959	1.79124	162	0.46159
weekly	recent 2025 2026	global ar	const	0.01469	0.11391	-0.20856	0.23794	65	0.45579
weekly	recent 2025 2026	global ar	dollar	0.8081	0.10958	0.59333	1.02287	65	0.45579

Table 82: Complete daily and monthly coefficient file from the data-driven stage (part 22 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	global ar	vix change	0.00297	0.00671	-0.01018	0.01612	65	0.45579
weekly	recent 2025 2026	global ar	r lag	0.06128	0.11819	-0.17037	0.29294	65	0.45579
weekly	recent 2025 2026	current flow	const	-0.06228	0.11998	-0.29744	0.17287	65	0.4786
weekly	recent 2025 2026	current flow	dollar	0.75193	0.11527	0.526	0.97786	65	0.4786

Table 83: Complete daily and monthly coefficient file from the data-driven stage (part 23 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	current flow	vix change	0.00309	0.00654	-0.00972	0.0159	65	0.4786
weekly	recent 2025 2026	current flow	r lag	0.05418	0.11884	-0.17874	0.28711	65	0.4786
weekly	recent 2025 2026	current flow	flow	-0.03182	0.02023	-0.07147	0.00782	65	0.4786
weekly	recent 2025 2026	flow change	const	0.00653	0.10548	-0.20022	0.21327	65	0.50122

Table 84: Complete daily and monthly coefficient file from the data-driven stage (part 24 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	flow change	dollar	0.77101	0.11638	0.54291	0.99912	65	0.50122
weekly	recent 2025 2026	flow change	vix change	0.00039	0.00702	-0.01337	0.01416	65	0.50122
weekly	recent 2025 2026	flow change	r lag	0.13199	0.10929	-0.08221	0.34619	65	0.50122
weekly	recent 2025 2026	flow change	flow change	-0.04115	0.02276	-0.08575	0.00345	65	0.50122

Table 85: Complete daily and monthly coefficient file from the data-driven stage (part 25 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	lag flow	const	0.05646	0.10273	-0.14489	0.2578	65	0.46307
weekly	recent 2025 2026	lag flow	dollar	0.82435	0.10858	0.61155	1.03716	65	0.46307
weekly	recent 2025 2026	lag flow	vix change	0.00172	0.00745	-0.01288	0.01632	65	0.46307
weekly	recent 2025 2026	lag flow	r lag	0.0978	0.11896	-0.13535	0.33095	65	0.46307

Table 86: Complete daily and monthly coefficient file from the data-driven stage (part 26 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	lag flow	flow lag	0.01881	0.02378	-0.02779	0.06541	65	0.46307
weekly	recent 2025 2026	current and lag	const	-0.01296	0.10301	-0.21486	0.18894	65	0.50227
weekly	recent 2025 2026	current and lag	dollar	0.76021	0.11483	0.53514	0.98528	65	0.50227
weekly	recent 2025 2026	current and lag	vix change	0.00071	0.0073	-0.0136	0.01502	65	0.50227

Table 87: Complete daily and monthly coefficient file from the data-driven stage (part 27 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	current and lag	r lag	0.12234	0.11376	-0.10062	0.3453	65	0.50227
weekly	recent 2025 2026	current and lag	flow	-0.04506	0.02483	-0.09372	0.0036	65	0.50227
weekly	recent 2025 2026	current and lag	flow lag	0.03663	0.02681	-0.01591	0.08917	65	0.50227
weekly	recent 2025 2026	reverse price lag	const	-1.54054	0.5927	-2.7022	-0.37888	65	0.21233

Table 88: Complete daily and monthly coefficient file from the data-driven stage (part 28 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	reverse price lag	flow lag	0.39554	0.11585	0.16847	0.6226	65	0.21233
weekly	recent 2025 2026	reverse price lag	r lag	0.54472	0.52405	-0.48239	1.57183	65	0.21233
weekly	recent 2025 2026	reverse price lag	dollar	-1.42349	0.56256	-2.52608	-0.32089	65	0.21233
weekly	recent 2025 2026	reverse price lag	vix change	-0.02239	0.03141	-0.08396	0.03918	65	0.21233

Table 89: Complete daily and monthly coefficient file from the data-driven stage (part 29 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	current flow lagged dollar	const	-0.15828	0.15137	-0.45497	0.1384	65	0.22534
weekly	recent 2025 2026	current flow lagged dollar	r lag	0.05519	0.19747	-0.33184	0.44223	65	0.22534
weekly	recent 2025 2026	current flow lagged dollar	flow	-0.06183	0.01954	-0.10012	-0.02354	65	0.22534
weekly	recent 2025 2026	current flow lagged dollar	dollar lag	-0.27379	0.19529	-0.65655	0.10897	65	0.22534

Table 90: Complete daily and monthly coefficient file from the data-driven stage (part 30 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	current flow lagged dollar	vix change	0.01893	0.00939	0.00053	0.03733	65	0.22534
weekly	recent 2025 2026	current flow asia	const	-0.08915	0.11629	-0.31707	0.13877	65	0.49658
weekly	recent 2025 2026	current flow asia	dollar	0.50863	0.2086	0.09978	0.91749	65	0.49658
weekly	recent 2025 2026	current flow asia	vix change	0.00131	0.00644	-0.01131	0.01393	65	0.49658

Table 91: Complete daily and monthly coefficient file from the data-driven stage (part 31 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	recent 2025 2026	current flow asia	r lag	0.04111	0.12086	-0.19577	0.278	65	0.49658
weekly	recent 2025 2026	current flow asia	flow	-0.03254	0.0203	-0.07232	0.00724	65	0.49658
weekly	recent 2025 2026	current flow asia	asia	0.48258	0.37237	-0.24725	1.21241	65	0.49658
weekly	2026 only	global ar	const	-0.09586	0.1698	-0.42867	0.23695	35	0.50327

Table 92: Complete daily and monthly coefficient file from the data-driven stage (part 32 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	global ar	dollar	0.9595	0.17542	0.61569	1.30332	35	0.50327
weekly	2026 only	global ar	vix change	-0.00232	0.01564	-0.03298	0.02834	35	0.50327
weekly	2026 only	global ar	r lag	0.14772	0.11949	-0.08648	0.38193	35	0.50327
weekly	2026 only	current flow	const	-0.29041	0.22546	-0.73231	0.15149	35	0.54099

Table 93: Complete daily and monthly coefficient file from the data-driven stage (part 33 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	current flow	dollar	0.84273	0.16546	0.51842	1.16703	35	0.54099
weekly	2026 only	current flow	vix change	-0.00023	0.01478	-0.02919	0.02873	35	0.54099
weekly	2026 only	current flow	r lag	0.11494	0.12166	-0.12351	0.35339	35	0.54099
weekly	2026 only	current flow	flow	-0.03963	0.02711	-0.09276	0.01351	35	0.54099

Table 94: Complete daily and monthly coefficient file from the data-driven stage (part 34 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	flow change	const	-0.09434	0.15567	-0.39946	0.21077	35	0.55251
weekly	2026 only	flow change	dollar	0.92399	0.17501	0.58097	1.26701	35	0.55251
weekly	2026 only	flow change	vix change	-0.00605	0.01755	-0.04046	0.02835	35	0.55251
weekly	2026 only	flow change	r lag	0.22401	0.10426	0.01966	0.42836	35	0.55251

Table 95: Complete daily and monthly coefficient file from the data-driven stage (part 35 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	flow change	flow change	-0.03589	0.02518	-0.08524	0.01346	35	0.55251
weekly	2026 only	lag flow	const	0.00813	0.18644	-0.35729	0.37356	35	0.51209
weekly	2026 only	lag flow	dollar	1.00061	0.1751	0.65742	1.34381	35	0.51209
weekly	2026 only	lag flow	vix change	-0.00562	0.01882	-0.0425	0.03127	35	0.51209

Table 96: Complete daily and monthly coefficient file from the data-driven stage (part 36 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	lag flow	r lag	0.20974	0.1211	-0.02762	0.4471	35	0.51209
weekly	2026 only	lag flow	flow lag	0.021	0.02987	-0.03754	0.07954	35	0.51209
weekly	2026 only	current and lag	const	-0.17174	0.21303	-0.58928	0.24579	35	0.55555
weekly	2026 only	current and lag	dollar	0.88633	0.15924	0.57423	1.19844	35	0.55555

Table 97: Complete daily and monthly coefficient file from the data-driven stage (part 37 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	current and lag	vix change	-0.00432	0.01821	-0.04001	0.03137	35	0.55555
weekly	2026 only	current and lag	r lag	0.19259	0.12095	-0.04446	0.42964	35	0.55555
weekly	2026 only	current and lag	flow	-0.04291	0.02796	-0.09771	0.01189	35	0.55555
weekly	2026 only	current and lag	flow lag	0.02722	0.03246	-0.03641	0.09084	35	0.55555

Table 98: Complete daily and monthly coefficient file from the data-driven stage (part 38 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	reverse price lag	const	-4.19222	1.08656	-6.32183	-2.0626	35	0.16701
weekly	2026 only	reverse price lag	flow lag	0.14484	0.13832	-0.12627	0.41594	35	0.16701
weekly	2026 only	reverse price lag	r lag	-0.39964	0.70647	-1.7843	0.98502	35	0.16701
weekly	2026 only	reverse price lag	dollar	-2.6634	0.92241	-4.47129	-0.85552	35	0.16701

Table 99: Complete daily and monthly coefficient file from the data-driven stage (part 39 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	reverse price lag	vix change	0.03019	0.0878	-0.1419	0.20229	35	0.16701
weekly	2026 only	current flow lagged dollar	const	-0.49548	0.23554	-0.95713	-0.03384	35	0.28444
weekly	2026 only	current flow lagged dollar	r lag	0.10967	0.21453	-0.3108	0.53015	35	0.28444
weekly	2026 only	current flow lagged dollar	flow	-0.07689	0.02576	-0.12738	-0.02641	35	0.28444

Table 100: Complete daily and monthly coefficient file from the data-driven stage (part 40 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	current flow lagged dollar	dollar lag	-0.2535	0.25756	-0.75831	0.25131	35	0.28444
weekly	2026 only	current flow lagged dollar	vix change	0.02202	0.01925	-0.01571	0.05976	35	0.28444
weekly	2026 only	current flow asia	const	-0.25784	0.21025	-0.66993	0.15425	35	0.60348
weekly	2026 only	current flow asia	dollar	0.40112	0.2979	-0.18275	0.98498	35	0.60348

Table 101: Complete daily and monthly coefficient file from the data-driven stage (part 41 of 41)

Freq.	Period	Model	Term	Beta	HAC SE	CI low	CI high	N	R^2
weekly	2026 only	current flow asia	vix change	-0.01145	0.01349	-0.03788	0.01498	35	0.60348
weekly	2026 only	current flow asia	r lag	0.12995	0.11128	-0.08816	0.34806	35	0.60348
weekly	2026 only	current flow asia	flow	-0.03303	0.02502	-0.08207	0.016	35	0.60348
weekly	2026 only	current flow asia	asia	1.14777	0.54105	0.08733	2.2082	35	0.60348

Notes: All 164 coefficient rows are shown. Flow coefficients describe conditional co-movement; current flows and exchange rates can be jointly determined.

Table 102: Stock and USD-futures supplement comparison

Model	N	R^2	RMSE
stock only	162	0.39482	0.55509
stock and current futures	162	0.44271	0.53267
stock and lag1 futures	162	0.40087	0.5523
stock and lag2 futures	162	0.39722	0.55398

Notes: All models use the same 162-interval sample. The comparison is descriptive and does not link stock and futures positions to the same accounts.

Table 103: Monthly fit of the stock and USD-futures supplements (part 1 of 3)

Model	Month	Actual	Conditional fit	Residual
stock only	2026-01	0.03474	-4.94558	4.98032
stock only	2026-02	0.01389	0.63808	-0.62419
stock only	2026-03	6.08983	1.94381	4.14602
stock only	2026-04	-3.10638	-4.49082	1.38444
stock only	2026-05	1.64486	1.1361	0.50877
stock only	2026-06	2.71498	3.70172	-0.98673
stock only	2026-07	-8.43979	-1.87082	-6.56898
stock only	2026-08	-3.96815	-1.1285	-2.83965
stock and current futures	2026-01	0.03474	-4.23529	4.27003
stock and current futures	2026-02	0.01389	0.91959	-0.9057
stock and current futures	2026-03	6.08983	2.52697	3.56286
stock and current futures	2026-04	-3.10638	-4.66191	1.55553
stock and current futures	2026-05	1.64486	1.48098	0.16388
stock and current futures	2026-06	2.71498	4.2932	-1.57822

Table 104: Monthly fit of the stock and USD-futures supplements (part 2 of 3)

Model	Month	Actual	Conditional fit	Residual
stock and current futures	2026-07	-8.43979	-2.67033	-5.76947
stock and current futures	2026-08	-3.96815	-2.66924	-1.29891
stock and lag1 futures	2026-01	0.03474	-4.73857	4.77331
stock and lag1 futures	2026-02	0.01389	0.719	-0.70511
stock and lag1 futures	2026-03	6.08983	1.82714	4.26269
stock and lag1 futures	2026-04	-3.10638	-4.3473	1.24093
stock and lag1 futures	2026-05	1.64486	1.27504	0.36982
stock and lag1 futures	2026-06	2.71498	3.87711	-1.16213
stock and lag1 futures	2026-07	-8.43979	-2.09249	-6.3473
stock and lag1 futures	2026-08	-3.96815	-1.53594	-2.43221
stock and lag2 futures	2026-01	0.03474	-4.83168	4.86642
stock and lag2 futures	2026-02	0.01389	0.69032	-0.67643
stock and lag2 futures	2026-03	6.08983	1.892	4.19784
stock and lag2 futures	2026-04	-3.10638	-4.42832	1.32195

Table 105: Monthly fit of the stock and USD-futures supplements (part 3 of 3)

Model	Month	Actual	Conditional fit	Residual
stock and lag2 futures	2026-05	1.64486	1.2496	0.39526
stock and lag2 futures	2026-06	2.71498	3.86341	-1.14843
stock and lag2 futures	2026-07	-8.43979	-2.07798	-6.36181
stock and lag2 futures	2026-08	-3.96815	-1.37335	-2.5948

Notes: All 32 model-month rows are retained. Monthly sums of a daily conditional fit do not constitute an identified causal decomposition.

Table 106: Asia-comparator sensitivity (part 1 of 2)

Period	Peers	N	KRW	Peer	Difference	Abs. share	Daily corr.
2026H1	JPY TWD SGD EQUAL	120	7.39193	2.03315	5.35879	0.72495	0.64964
2026H1	JPY TWD EQUAL	120	7.39193	2.76844	4.62349	0.62548	0.61233
2026H1	JPY SGD EQUAL	120	7.39193	2.14033	5.2516	0.71045	0.61659
2026H1	TWD SGD EQUAL	120	7.39193	1.19067	6.20127	0.83892	0.66106
2026H1	JPY	120	7.39193	3.71811	3.67382	0.497	0.53562
2026H1	TWD	120	7.39193	1.81878	5.57315	0.75395	0.56805
2026H1	SGD	120	7.39193	0.56255	6.82938	0.9239	0.65448

Table 107: Asia-comparator sensitivity (part 2 of 2)

Period	Peers	N	KRW	Peer	Difference	Abs. share	Daily corr.
2026JULAUG	JPY TWD SGD EQUAL	42	-12.40794	-1.08736	-11.32058	0.91236	0.14544
2026JULAUG	JPY TWD EQUAL	42	-12.40794	-0.94939	-11.45856	0.92349	0.12141
2026JULAUG	JPY SGD EQUAL	42	-12.40794	-1.21873	-11.18921	0.90178	0.19315
2026JULAUG	TWD SGD EQUAL	42	-12.40794	-1.09398	-11.31397	0.91183	0.0342
2026JULAUG	JPY	42	-12.40794	-1.07414	-11.3338	0.91343	0.18137
2026JULAUG	TWD	42	-12.40794	-0.82463	-11.58331	0.93354	-0.09591
2026JULAUG	SGD	42	-12.40794	-1.36332	-11.04462	0.89013	0.17766

Notes: All 14 fixed peer definitions and periods are shown. Common date labels do not guarantee synchronized market instants.

Table 108: Primary stress-slope coefficients

Group	Term	Coefficient	HAC(20) SE	p	CI low	CI high
C	z fp	-0.04294	0.05145	0.404	-0.14378	0.05791
C	z fm	-0.09624	0.05979	0.10747	-0.21343	0.02094
I	z fp	-0.22168	0.12065	0.06614	-0.45815	0.01478
I	z fm	-0.26006	0.11424	0.02283	-0.48397	-0.03614
B	z fp	0.26462	0.16315	0.10482	-0.05515	0.58439
B	z fm	0.3563	0.16518	0.031	0.03255	0.68005

Notes: The joint primary test has HAC p=0.1280 and block-resampling p=0.1815. Individual rows are not independent evidence because group positions sum to zero.

Table 109: Complete stress-analysis robustness file (part 1 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
main	C	1866	-0.04294	0.05145	-0.01663	-0.05569	0.02243	0.12801	z20
main	I	1866	-0.22168	0.12065	-0.08587	-0.17747	0.00573	0.12801	z20
main	B	1866	0.26462	0.16315	0.1025	-0.02136	0.22637	0.12801	z20
R1 common flow slopes	C	1866	0.00828	0.04986	0.00321	-0.03465	0.04106	0.00449	z20

Table 110: Complete stress-analysis robustness file (part 2 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R1 common flow slopes	I	1866	-0.22808	0.14724	-0.08835	-0.20014	0.02343	0.00449	z20
R1 common flow slopes	B	1866	0.2198	0.1917	0.08514	-0.0604	0.23069	0.00449	z20
R2 HAC5	C	1866	-0.04294	0.04746	-0.01663	-0.05266	0.0194	0.09096	z20
R2 HAC5	I	1866	-0.22168	0.1078	-0.08587	-0.16772	-0.00403	0.09096	z20

Table 111: Complete stress-analysis robustness file (part 3 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R2 HAC5	B	1866	0.26462	0.14506	0.1025	-0.00763	0.21264	0.09096	z20
R2 HAC60	C	1866	-0.04294	0.05146	-0.01663	-0.0557	0.02244	0.17536	z20
R2 HAC60	I	1866	-0.22168	0.13135	-0.08587	-0.1856	0.01385	0.17536	z20
R2 HAC60	B	1866	0.26462	0.17471	0.1025	-0.03014	0.23515	0.17536	z20

Table 112: Complete stress-analysis robustness file (part 4 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R3 current gross	C	1866	-0.05467	0.03696	-0.02118	-0.04924	0.00689	0.04007	z20
R3 current gross	I	1866	-0.29326	0.11638	-0.1136	-0.20195	-0.02524	0.04007	z20
R3 current gross	B	1866	0.34793	0.13818	0.13477	0.02987	0.23968	0.04007	z20
R3 USD million	C	1866	0.0443	0.04501	0.01716	-0.01701	0.05133	0.01139	z20

Table 113: Complete stress-analysis robustness file (part 5 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R3 USD million	I	1866	-0.07659	0.10707	-0.02967	-0.11095	0.05162	0.01139	z20
R3 USD million	B	1866	0.03229	0.14686	0.01251	-0.09899	0.12401	0.01139	z20
R4 quadratic	C	1866	-0.08635	0.08521	-0.03345	-0.09814	0.03125	0.59221	z20
R4 quadratic	I	1866	-0.05796	0.18252	-0.02245	-0.16103	0.11612	0.59221	z20

Table 114: Complete stress-analysis robustness file (part 6 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R4 quadratic	B	1866	0.14431	0.23304	0.0559	-0.12103	0.23283	0.59221	z20
R5 pre2020	C	1202	-0.18102	0.06252	-0.07012	-0.11758	-0.02265	0.00487	z20
R5 pre2020	I	1202	-0.4955	0.17166	-0.19194	-0.32227	-0.06161	0.00487	z20
R5 pre2020	B	1202	0.67652	0.21355	0.26206	0.09993	0.42419	0.00487	z20

Table 115: Complete stress-analysis robustness file (part 7 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R5 2020on	C	664	0.09179	0.06491	0.03556	-0.01373	0.08484	0.26394	z20
R5 2020on	I	664	0.05701	0.11452	0.02208	-0.06486	0.10903	0.26394	z20
R5 2020on	B	664	-0.1488	0.16831	-0.05764	-0.18543	0.07015	0.26394	z20
R6 no 2020 MarApr	C	1824	-0.05599	0.05238	-0.02169	-0.06146	0.01808	0.31467	z20

Table 116: Complete stress-analysis robustness file (part 8 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R6 no 2020 MarApr	I	1824	-0.20926	0.13812	-0.08106	-0.18593	0.02381	0.31467	z20
R6 no 2020 MarApr	B	1824	0.26525	0.18123	0.10275	-0.03484	0.24034	0.31467	z20
R6 leave 2015	C	1643	-0.03712	0.05307	-0.01438	-0.05467	0.02591	0.08919	z20
R6 leave 2015	I	1643	-0.23442	0.12302	-0.09081	-0.18421	0.00259	0.08919	z20

Table 117: Complete stress-analysis robustness file (part 9 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R6 leave 2015	B	1643	0.27155	0.16651	0.10519	-0.02123	0.23161	0.08919	z20
R6 leave 2016	C	1620	-0.04238	0.05222	-0.01642	-0.05606	0.02323	0.05229	z20
R6 leave 2016	I	1620	-0.24832	0.11902	-0.09619	-0.18655	-0.00582	0.05229	z20
R6 leave 2016	B	1620	0.29069	0.16268	0.1126	-0.0109	0.23611	0.05229	z20

Table 118: Complete stress-analysis robustness file (part 10 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R6 leave 2017	C	1623	-0.03813	0.05262	-0.01477	-0.05472	0.02518	0.17417	z20
R6 leave 2017	I	1623	-0.21267	0.12611	-0.08238	-0.17812	0.01336	0.17417	z20
R6 leave 2017	B	1623	0.25079	0.16909	0.09715	-0.03123	0.22553	0.17417	z20
R6 leave 2018	C	1622	-0.03693	0.05313	-0.0143	-0.05464	0.02603	0.08403	z20

Table 119: Complete stress-analysis robustness file (part 11 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R6 leave 2018	I	1622	-0.23365	0.12607	-0.09051	-0.18622	0.00521	0.08403	z20
R6 leave 2018	B	1622	0.27057	0.17102	0.10481	-0.02503	0.23465	0.08403	z20
R6 leave 2019	C	1620	0.0346	0.05713	0.0134	-0.02997	0.05678	0.80955	z20
R6 leave 2019	I	1620	0.02786	0.10205	0.01079	-0.06669	0.08827	0.80955	z20

Table 120: Complete stress-analysis robustness file (part 12 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R6 leave 2019	B	1620	-0.06246	0.1486	-0.02419	-0.13702	0.08863	0.80955	z20
R6 leave 2020	C	1618	-0.07853	0.0586	-0.03042	-0.07491	0.01407	0.18312	z20
R6 leave 2020	I	1618	-0.29225	0.15861	-0.11321	-0.23363	0.00721	0.18312	z20
R6 leave 2020	B	1618	0.37078	0.20531	0.14363	-0.01225	0.2995	0.18312	z20

Table 121: Complete stress-analysis robustness file (part 13 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R6 leave 2021	C	1726	-0.05481	0.05267	-0.02123	-0.06122	0.01876	0.12678	z20
R6 leave 2021	I	1726	-0.24165	0.12551	-0.09361	-0.18889	0.00168	0.12678	z20
R6 leave 2021	B	1726	0.29646	0.16905	0.11484	-0.01351	0.24318	0.12678	z20
R6 leave 2025	C	1752	-0.07291	0.05361	-0.02824	-0.06894	0.01246	0.0925	z20

Table 122: Complete stress-analysis robustness file (part 14 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R6 leave 2025	I	1752	-0.27015	0.12539	-0.10465	-0.19984	-0.00945	0.0925	z20
R6 leave 2025	B	1752	0.34306	0.16891	0.13289	0.00465	0.26113	0.0925	z20
R6 leave 2026	C	1704	-0.05248	0.05335	-0.02033	-0.06083	0.02018	0.09605	z20
R6 leave 2026	I	1704	-0.24915	0.12344	-0.09651	-0.19022	-0.0028	0.09605	z20

Table 123: Complete stress-analysis robustness file (part 15 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R6 leave 2026	B	1704	0.30162	0.16704	0.11684	-0.00998	0.24366	0.09605	z20
R7 sigma60	C	1866	-0.03206	0.05615	-0.01242	-0.05505	0.03021	0.0059	z60
R7 sigma60	I	1866	-0.33771	0.14468	-0.13082	-0.24066	-0.02097	0.0059	z60
R7 sigma60	B	1866	0.36978	0.19274	0.14324	-0.0031	0.28957	0.0059	z60

Table 124: Complete stress-analysis robustness file (part 16 of 16)

Model	Group	N	Slope	SE	IQR change	CI low	CI high	Joint p	State
R8 no expiry pm1	C	1590	-0.05476	0.04855	-0.02121	-0.05807	0.01564	0.099	z20
R8 no expiry pm1	I	1590	-0.2796	0.13416	-0.10831	-0.21016	-0.00645	0.099	z20
R8 no expiry pm1	B	1590	0.33436	0.17237	0.12952	-0.00135	0.26039	0.099	z20

Notes: All 63 group-specification rows are shown. P-values are specification-specific and are not adjusted for selecting among the robustness rows.

Table 125: Complete rebuilt firm-accounting regression file (part 1 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
accounting asset quantity all	all	asset quantity	ann	-0.00684	0.06972	0.92509	135	7	16
accounting asset quantity all	all	asset quantity	dom	0.72025	0.10113	0.00039	135	7	16
accounting asset quantity pre22	pre22	asset quantity	ann	-0.05861	0.08838	0.53181	62	7	8
accounting asset quantity pre22	pre22	asset quantity	dom	-8.33452	5.05289	0.15015	62	7	8

Table 126: Complete rebuilt firm-accounting regression file (part 2 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
accounting asset quantity post22	post22	asset quantity	ann	0.11174	0.01639	0.00104	73	6	8
accounting asset quantity post22	post22	asset quantity	dom	0.61677	0.0686	0.00028	73	6	8
accounting liab quantity all	all	liab quantity	ann	0.00934	0.08929	0.92012	135	7	16
accounting liab quantity all	all	liab quantity	dom	-0.14996	0.05544	0.03535	135	7	16

Table 127: Complete rebuilt firm-accounting regression file (part 3 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
accounting liab quantity pre22	pre22	liab quantity	ann	-0.084	0.04569	0.11563	62	7	8
accounting liab quantity pre22	pre22	liab quantity	dom	2.93765	3.21703	0.39637	62	7	8
accounting liab quantity post22	post22	liab quantity	ann	0.08408	0.06941	0.27987	73	6	8
accounting liab quantity post22	post22	liab quantity	dom	-0.16407	0.03898	0.00842	73	6	8

Table 128: Complete rebuilt firm-accounting regression file (part 4 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
accounting quantity all	all	quantity	ann	-0.01617	0.073	0.832	135	7	16
accounting quantity all	all	quantity	dom	0.8702	0.08513	5.109e-05	135	7	16
accounting quantity pre22	pre22	quantity	ann	0.02538	0.08116	0.76505	62	7	8
accounting quantity pre22	pre22	quantity	dom	-11.27217	3.06759	0.0104	62	7	8

Table 129: Complete rebuilt firm-accounting regression file (part 5 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
accounting quantity post22	post22	quantity	ann	0.02766	0.081	0.74665	73	6	8
accounting quantity post22	post22	quantity	dom	0.78083	0.08418	0.00024	73	6	8
accounting valuation all	all	valuation	ann	0.00543	0.00632	0.4228	135	7	16
accounting valuation all	all	valuation	dom	0.08615	0.02457	0.01273	135	7	16

Table 130: Complete rebuilt firm-accounting regression file (part 6 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
accounting valuation pre22	pre22	valuation	ann	0.00528	0.00533	0.36064	62	7	8
accounting valuation pre22	pre22	valuation	dom	-0.14674	0.05411	0.03502	62	7	8
accounting valuation post22	post22	valuation	ann	0.00785	0.0182	0.68435	73	6	8
accounting valuation post22	post22	valuation	dom	0.08597	0.03177	0.04248	73	6	8

Table 131: Complete rebuilt firm-accounting regression file (part 7 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
accounting total all	all	total	ann	-0.01074	0.07442	0.88998	135	7	16
accounting total all	all	total	dom	0.95635	0.07986	2.056e-05	135	7	16
accounting total pre22	pre22	total	ann	0.03066	0.07715	0.70482	62	7	8
accounting total pre22	pre22	total	dom	-11.41891	3.09832	0.01026	62	7	8

Table 132: Complete rebuilt firm-accounting regression file (part 8 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
accounting total post 22	post22	total	ann	0.0355	0.09791	0.73172	73	6	8
accounting total post 22	post22	total	dom	0.86681	0.08521	0.00016	73	6	8
legacy threshold all	all	quantity	ann	-0.01617	0.073	0.832	135	7	16
legacy threshold all	all	quantity	dom	0.8702	0.08513	5.109e-05	135	7	16

Table 133: Complete rebuilt firm-accounting regression file (part 9 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
legacy threshold pre22	pre22	quantity	ann	0.02538	0.08116	0.76505	62	7	8
legacy threshold pre22	pre22	quantity	dom	-11.27217	3.06759	0.0104	62	7	8
legacy threshold post 22	post22	quantity	ann	0.02766	0.081	0.74665	73	6	8
legacy threshold post 22	post22	quantity	dom	0.78083	0.08418	0.00024	73	6	8

Table 134: Complete rebuilt firm-accounting regression file (part 10 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
schedule broad all	all	quantity	ann	0.06129	0.10647	0.58573	107	7	9
schedule broad all	all	quantity	dom	-9.84512	3.1588	0.02067	107	7	9
schedule broad all	all	quantity	pay broad	-0.14545	0.27439	0.61509	107	7	9
schedule broad pre22	pre22	quantity	ann	0.04027	0.09616	0.68997	61	7	7

Table 135: Complete rebuilt firm-accounting regression file (part 11 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
schedule broad pre22	pre22	quantity	dom	-11.57259	3.19185	0.01102	61	7	7
schedule broad pre22	pre22	quantity	pay broad	-0.16041	0.24816	0.54194	61	7	7
schedule sample broad all	all	quantity	ann	0.04881	0.08534	0.58812	107	7	9
schedule sample broad all	all	quantity	dom	-9.52573	3.10501	0.022	107	7	9

Table 136: Complete rebuilt firm-accounting regression file (part 12 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
schedule sample broad pre22	pre22	quantity	ann	0.02848	0.07842	0.7289	61	7	7
schedule sample broad pre22	pre22	quantity	dom	-11.20401	3.06285	0.0106	61	7	7
path available h0 all	all	cum h0	ann	-0.01617	0.073	0.832	135	7	16
path available h0 all	all	cum h0	dom	0.8702	0.08513	5.109e-05	135	7	16

Table 137: Complete rebuilt firm-accounting regression file (part 13 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path available h0 pre22	pre22	cum h0	ann	0.02538	0.08116	0.76505	62	7	8
path available h0 pre22	pre22	cum h0	dom	-11.27217	3.06759	0.0104	62	7	8
path available h0 post22	post22	cum h0	ann	0.02766	0.081	0.74665	73	6	8
path available h0 post22	post22	cum h0	dom	0.78083	0.08418	0.00024	73	6	8

Table 138: Complete rebuilt firm-accounting regression file (part 14 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path common h0 all	all	cum h0	ann	-0.12357	0.13291	0.38837	93	7	11
path common h0 all	all	cum h0	dom	-9.92191	2.18601	0.00394	93	7	11
path common h0 pre22	pre22	cum h0	ann	0.02538	0.08116	0.76505	62	7	8
path common h0 pre22	pre22	cum h0	dom	-11.27217	3.06759	0.0104	62	7	8

Table 139: Complete rebuilt firm-accounting regression file (part 15 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path available h1 all	all	cum h1	ann	-0.13516	0.08651	0.16922	125	7	15
path available h1 all	all	cum h1	dom	1.79371	0.12545	7.321e-06	125	7	15
path available h1 pre22	pre22	cum h1	ann	-0.12781	0.12336	0.34009	62	7	8
path available h1 pre22	pre22	cum h1	dom	-13.89439	3.90001	0.01189	62	7	8

Table 140: Complete rebuilt firm-accounting regression file (part 16 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path available h1 post22	post22	cum h1	ann	0.00064	0.11584	0.9958	63	6	7
path available h1 post22	post22	cum h1	dom	1.60597	0.11752	3.763e-05	63	6	7
path common h1 all	all	cum h1	ann	-0.19445	0.11933	0.15434	93	7	11
path common h1 all	all	cum h1	dom	-11.76795	2.40679	0.00274	93	7	11

Table 141: Complete rebuilt firm-accounting regression file (part 17 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path common h1 pre22	pre22	cum h1	ann	-0.12781	0.12336	0.34009	62	7	8
path common h1 pre22	pre22	cum h1	dom	-13.89439	3.90001	0.01189	62	7	8
path available h2 all	all	cum h2	ann	-0.0941	0.12269	0.4722	114	7	14
path available h2 all	all	cum h2	dom	-7.96933	6.16207	0.24347	114	7	14

Table 142: Complete rebuilt firm-accounting regression file (part 18 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path available h2 pre22	pre22	cum h2	ann	-0.09168	0.11781	0.46601	62	7	8
path available h2 pre22	pre22	cum h2	dom	-11.97089	5.90404	0.08896	62	7	8
path common h2 all	all	cum h2	ann	-0.09727	0.10595	0.39396	93	7	11
path common h2 all	all	cum h2	dom	-9.49352	6.49656	0.19424	93	7	11

Table 143: Complete rebuilt firm-accounting regression file (part 19 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path common h2 pre22	pre22	cum h2	ann	-0.09168	0.11781	0.46601	62	7	8
path common h2 pre22	pre22	cum h2	dom	-11.97089	5.90404	0.08896	62	7	8
path available h3 all	all	cum h3	ann	0.06072	0.16141	0.71974	103	7	13
path available h3 all	all	cum h3	dom	-5.93073	8.41291	0.50727	103	7	13

Table 144: Complete rebuilt firm-accounting regression file (part 20 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path available h3 pre22	pre22	cum h3	ann	-0.04838	0.12616	0.71457	62	7	8
path available h3 pre22	pre22	cum h3	dom	-9.85826	8.08699	0.26858	62	7	8
path common h3 all	all	cum h3	ann	0.03168	0.12253	0.80464	93	7	11
path common h3 all	all	cum h3	dom	-7.6828	8.39275	0.39528	93	7	11

Table 145: Complete rebuilt firm-accounting regression file (part 21 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path common h3 pre22	pre22	cum h3	ann	-0.04838	0.12616	0.71457	62	7	8
path common h3 pre22	pre22	cum h3	dom	-9.85826	8.08699	0.26858	62	7	8
path available h4 all	all	cum h4	ann	-0.07407	0.17732	0.69071	93	7	11
path available h4 all	all	cum h4	dom	-6.67039	9.39899	0.50453	93	7	11

Table 146: Complete rebuilt firm-accounting regression file (part 22 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path available h4 pre22	pre22	cum h4	ann	-0.20478	0.12457	0.1513	62	7	8
path available h4 pre22	pre22	cum h4	dom	-10.88289	7.43931	0.19382	62	7	8
path common h4 all	all	cum h4	ann	-0.07407	0.17732	0.69071	93	7	11
path common h4 all	all	cum h4	dom	-6.67039	9.39899	0.50453	93	7	11

Table 147: Complete rebuilt firm-accounting regression file (part 23 of 23)

Model	Period	Outcome	Regressor	Estimate	SE	$p t$	N	Firms	Positive qtrs.
path common h4 pre22	pre22	cum h4	ann	-0.20478	0.12457	0.1513	62	7	8
path common h4 pre22	pre22	cum h4	dom	-10.88289	7.43931	0.19382	62	7	8

Notes: All 90 reported coefficient rows are retained. Standard-error conventions, small firm counts, assumed payment allocations, and failed specifications are documented in the source project; the estimates do not identify spot conversion.

Table 148: Firm-accounting sample attrition (part 1 of 3)

Period	Step	N	Firms	Positive announcement qtrs.	Announcement firms	Positive verified-payment qtrs.	Payment firms
all	calendar grid	480	16	16	6	0	0
all	eligible accounting level	181	10	16	6	0	0
all	consecutive same definition	155	7	16	6	0	0
all	announcement complete	135	7	16	6	0	0
all	direct cash schedule complete	50	6	1	1	0	0
all	acquisition schedule complete	107	7	9	5	0	0
all	all horizons complete	93	7	11	5	0	0

Table 149: Firm-accounting sample attrition (part 2 of 3)

Period	Step	N	Firms	Positive announcement qtrs.	Announcement firms	Positive verified-payment qtrs.	Payment firms
pre22	calendar grid	192	16	8	4	0	0
pre22	eligible accounting level	75	10	8	4	0	0
pre22	consecutive same definition	63	7	8	4	0	0
pre22	announcement complete	62	7	8	4	0	0
pre22	direct cash schedule complete	32	6	1	1	0	0
pre22	acquisition schedule complete	61	7	7	4	0	0
pre22	all horizons complete	62	7	8	4	0	0

Table 150: Firm-accounting sample attrition (part 3 of 3)

Period	Step	N	Firms	Positive announcement qtrs.	Announcement firms	Positive verified-payment qtrs.	Payment firms
post22	calendar grid	288	16	8	4	0	0
post22	eligible accounting level	106	10	8	4	0	0
post22	consecutive same definition	92	7	8	4	0	0
post22	announcement complete	73	6	8	4	0	0
post22	direct cash schedule complete	18	2	0	0	0	0
post22	acquisition schedule complete	46	4	2	2	0	0
post22	all horizons complete	31	6	3	2	0	0

Notes: All 21 attrition rows are shown. The complete direct-payment samples contain no positive verified-payment observations, so a payment coefficient is not identified.

Table 151: Complete AVEO and NAND payment-funding fact register (part 1 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
aveo	LG AVEO 2023Q1	AVF01	exchange fund depositor	LG Chem / LS or alternative wholly owned Delaware subsidiary	at or prior to Effective Time	USD	LS or another wholly owned Delaware subsidiary	legal instruction	contractual not actual
aveo	LG AVEO 2023Q1	AVF02	dtc wire objective	Exchange Agent to DTC or nominees	first business day after Closing Date	USD	1	business day after closing	contractual not actual
aveo	LG AVEO 2023Q1	AVF03	shareholder instructions deadline	LG Chem causes Exchange Agent	after Effective Time	–	3	business days	contractual not actual
aveo	LG AVEO 2023Q1	AVF04	option payroll deadline	AVEO surviving corporation	following Effective Time	USD	10	business days	contractual not actual

Table 152: Complete AVEO and NAND payment-funding fact register (part 2 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
aveo	LG AVEO 2023Q1	AVF05	unclaimed fund return	Exchange Agent to surviving corporation	after Effective Time	–	12	months	contractual not actual
aveo	LG AVEO 2023Q1	AVF06	financing representation	LG Chem and specified subsidiary	2022-10-18 and Effective Time	–	cash OR other liquid resources OR undrawn financing commitments	representation	contractual not actual
aveo	LG AVEO 2023Q1	AVF07	usd external borrowing actual	LG Chem Ltd.	2023-01-26	USD	400	million	reported actual
aveo	LG AVEO 2023Q1	AVF08	usd external borrowing 2yr	LG Chem Ltd.	2023-01-26; maturity 2025-01-26	USD	200	million	reported actual

Table 153: Complete AVEO and NAND payment-funding fact register (part 3 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
aveo	LG AVEO 2023Q1	AVF09	usd external borrowing 3yr	LG Chem Ltd.	2023-01-26; maturity 2026-01-26	USD	200	million	reported actual
aveo	LG AVEO 2023Q1	AVF10	krw bond issue actual	LG Chem Ltd.	2023-01-27	KRW	800000	million	reported actual
aveo	LG AVEO 2023Q1	AVF11	financing management decision	LG Chem Ltd.	2023-01-03	–	foreign currency loans and KRW bond issuance	decision	reported decision
aveo	LG AVEO 2023Q1	AVF12	ls usd capital contribution completion report	LG Chem Ltd. to LS	acquisition completion reported 2023-01-20	USD	571	million	reported actual amount completion date

Table 154: Complete AVEO and NAND payment-funding fact register (part 4 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
aveo	LG AVEO 2023Q1	AVF13	ls capital payment date field	LG Chem Ltd. to LS	2023-01-18	USD	571	million	reused disclosed payment date not bank trace
aveo	LG AVEO 2023Q1	AVF14	ls cash capital contribution q1	LG Chem Ltd. to LS	2023Q1	KRW	707183	million	reused reported actual
aveo	LG AVEO 2023Q1	AVF15	aggregate shares options consideration	LG Chem in AVEO completion 8-K	2023-01-19 US completion	USD	570.6	million approximate	reused reported actual aggregate
aveo	LG AVEO 2023Q1	AVF16	acquisition funding description	LG Chem / AVEO completion 8-K	2023-01-19	–	cash on hand	qualitative	reused reported funding description

Table 155: Complete AVEO and NAND payment-funding fact register (part 5 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
aveo	LG AVEO 2023Q1	AVF17	parent operating credit facility limit usd	LG Chem Ltd.	2022-12-31	USD	725	million	reported facility limit
aveo	LG AVEO 2023Q1	AVF18	parent operating credit facility limit krw	LG Chem Ltd.	2022-12-31	KRW	800000	million	reported facility limit
aveo	LG AVEO 2023Q1	AVF19	green notes face terms	LG Chem Ltd. issuer	expected issue 2022-07-14; maturity 2025-07-14	USD	300	million	offering terms not aveo trace
aveo	LG AVEO 2023Q1	AVF20	green notes expected net proceeds	LG Chem Ltd.	2022-07-07 document	USD	297.99	million	expected offering proceeds

Table 156: Complete AVEO and NAND payment-funding fact register (part 6 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
aveo	LG AVEO 2023Q1	AVF21	green notes unallocated funds policy	LG Chem Ltd.	2022-07-07 document	–	general liquidity management including cash/cash equivalents/securities	policy	declared policy not actual allocation
aveo	LG AVEO 2023Q1	AVF22	parent cash total fy22	LG Chem Ltd.	2022-12-31	KRW	1323209	million presentation	reused reported all currency balance
aveo	LG AVEO 2023Q1	AVF23	parent cash total q1	LG Chem Ltd.	2023-03-31	KRW	797502	million presentation	reused reported all currency balance
aveo	LG AVEO 2023Q1	AVF24	parent usd cash balance	LG Chem Ltd.	2022-12-31 to 2023-01 closing	USD	–	–	unidentified in reviewed disclosures

Table 157: Complete AVEO and NAND payment-funding fact register (part 7 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
aveo	LG AVEO 2023Q1	AVF25	ls usd cash and debt	LG Chem Life Sciences Innovation Center Inc.	2022-12-31 to 2023-01 closing	USD	–	–	unidentified after bounded primary search
aveo	LG AVEO 2023Q1	AVF26	actual parent lsfx or cash pool flow	LG Chem Ltd. / LS	2022Q4 to 2023Jan	–	–	–	unidentified after bounded search
aveo	LG AVEO 2023Q1	AVF27	actual exchange agent identity accounts	Exchange Agent / DTC / holders	2023Jan	–	–	–	unidentified in contract and search
aveo	LG AVEO 2023Q1	AVF28	postclosing loan aveo attribution	LG Chem Ltd.	2023-01-26	USD	–	–	unidentified use of proceeds

Table 158: Complete AVEO and NAND payment-funding fact register (part 8 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF01	operating cash flow	SK hynix Inc.	2021FY	KRW	17746280	million	reported actual cash flow
nand funding	NAND funding trace	NF02	investing cash flow	SK hynix Inc.	2021FY	KRW	-23624691	million	reported actual cash flow
nand funding	NAND funding trace	NF03	other noncurrent assets cash increase	SK hynix Inc.	2021FY	KRW	-6193292	million	reported actual cash flow
nand funding	NAND funding trace	NF04	subsidiary equity cash acquisition	SK hynix Inc.	2021FY	KRW	-3908727	million	reported actual cash flow

Table 159: Complete AVEO and NAND payment-funding fact register (part 9 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF05	other receivables cash increase	SK hynix Inc.	2021FY	KRW	-797111	million	reported actual cash flow
nand funding	NAND funding trace	NF06	borrowing cash proceeds	SK hynix Inc.	2021FY	KRW	8196908	million	reported actual cash flow
nand funding	NAND funding trace	NF07	borrowing cash repayments	SK hynix Inc.	2021FY	KRW	-1934368	million	reported actual cash flow
nand funding	NAND funding trace	NF08	financing cash flow	SK hynix Inc.	2021FY	KRW	5259365	million	reported actual cash flow

Table 160: Complete AVEO and NAND payment-funding fact register (part 10 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF09	operating cash flow	SK hynix Inc.	2022Q1	KRW	4110151	million	reported actual cash flow
nand funding	NAND funding trace	NF10	investing cash flow	SK hynix Inc.	2022Q1	KRW	-3737064	million	reported actual cash flow
nand funding	NAND funding trace	NF11	subsidiary equity cash acquisition	SK hynix Inc.	2022Q1	KRW	-39449	million	reported actual cash flow
nand funding	NAND funding trace	NF12	other receivables cash increase	SK hynix Inc.	2022Q1	KRW	-12821	million	reported actual cash flow

Table 161: Complete AVEO and NAND payment-funding fact register (part 11 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF13	other receivables cash decrease	SK hynix Inc.	2022Q1	KRW	9092	million	reported actual cash flow
nand funding	NAND funding trace	NF14	other noncurrent assets cash decrease	SK hynix Inc.	2022Q1	KRW	75068	million	reported actual cash flow
nand funding	NAND funding trace	NF15	borrowing cash repayments	SK hynix Inc.	2022Q1	KRW	-66740	million	reported actual cash flow
nand funding	NAND funding trace	NF16	lease cash repayments	SK hynix Inc.	2022Q1	KRW	-43051	million	reported actual cash flow

Table 162: Complete AVEO and NAND payment-funding fact register (part 12 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF17	financing cash flow	SK hynix Inc.	2022Q1	KRW	-109791	million	reported actual cash flow
nand funding	NAND funding trace	NF18	borrowing cash proceeds	SK hynix Inc.	2022Q1	KRW	0	million	blank current cell zero for cashflow reconciliation
nand funding	NAND funding trace	NF19	dalian equity addition recognized	SK hynix Inc. investment in Dalian	2022Q1	KRW	1101784	million	reported accounting addition
nand funding	NAND funding trace	NF20	gauss labs equity addition	SK hynix Inc.	2022Q1	KRW	33488	million	reported accounting addition

Table 163: Complete AVEO and NAND payment-funding fact register (part 13 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF21	ventures america equity addition	SK hynix Inc.	2022Q1	KRW	5961	million	reported accounting addition
nand funding	NAND funding trace	NF22	gauss plus ventures equals equity cash flow	SK hynix Inc.	2022Q1	KRW	39449	million	derived accounting crosscheck
nand funding	NAND funding trace	NF23	long term advance balance	SK hynix Inc.	2021-12-31	KRW	6261485	million	reported balance
nand funding	NAND funding trace	NF24	operating cash flow	SK hynix Inc.	2025Q1	KRW	7251937	million	reported actual cash flow

Table 164: Complete AVEO and NAND payment-funding fact register (part 14 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF25	investing cash flow	SK hynix Inc.	2025Q1	KRW	-7668696	million	reported actual cash flow
nand funding	NAND funding trace	NF26	business acquisition cash outflow	SK hynix Inc.	2025Q1	KRW	-1454406	million	reported actual cash flow
nand funding	NAND funding trace	NF27	borrowing cash proceeds	SK hynix Inc.	2025Q1	KRW	997092	million	reported actual cash flow
nand funding	NAND funding trace	NF28	borrowing cash repayments	SK hynix Inc.	2025Q1	KRW	-878844	million	reported actual cash flow

Table 165: Complete AVEO and NAND payment-funding fact register (part 15 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF29	lease cash repayments	SK hynix Inc.	2025Q1	KRW	-131552	million	reported actual cash flow
nand funding	NAND funding trace	NF30	treasury stock cash proceeds	SK hynix Inc.	2025Q1	KRW	15620	million	reported actual cash flow
nand funding	NAND funding trace	NF31	financing cash flow	SK hynix Inc.	2025Q1	KRW	2316	million	reported actual cash flow
nand funding	NAND funding trace	NF32	opening cash and cash equivalents	SK hynix Inc.	2025Q1	KRW	2992694	million	reported balance

Table 166: Complete AVEO and NAND payment-funding fact register (part 16 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF33	ending cash and cash equivalents	SK hynix Inc.	2025Q1	KRW	2585600	million	reported balance
nand funding	NAND funding trace	NF34	short term financial instruments cash decrease	SK hynix Inc.	2025Q1	KRW	1630000	million	reported actual cash flow
nand funding	NAND funding trace	NF35	short term financial instruments cash increase	SK hynix Inc.	2025Q1	KRW	-280000	million	reported actual cash flow
nand funding	NAND funding trace	NF36	parent cashflow note28 links to nand	SK hynix Inc.	2025Q1	–	cross reference observed	text	reported cross reference

Table 167: Complete AVEO and NAND payment-funding fact register (part 17 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF37	business combination cash outflow	SK hynix Inc.	2025Q1	KRW	-3063035	million	reported actual cash flow
nand funding	NAND funding trace	NF38	notes 2024 estimated net proceeds	SK hynix Inc.	2021-01-13 as-of	USD	496530000	USD	offering estimated net proceeds
nand funding	NAND funding trace	NF39	notes 2026 estimated net proceeds	SK hynix Inc.	2021-01-13 as-of	USD	993610000	USD	offering estimated net proceeds
nand funding	NAND funding trace	NF40	notes 2031 estimated net proceeds	SK hynix Inc.	2021-01-13 as-of	USD	984880000	USD	offering estimated net proceeds

Table 168: Complete AVEO and NAND payment-funding fact register (part 18 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF41	green bond proceeds management	SK hynix Inc.	2021-01-13 as-of	USD	general funding accounts and allocation register	text	contractual or offering plan
nand funding	NAND funding trace	NF42	notes 2024 year end reported principal krw	SK hynix Inc.	2021-12-31	KRW	592750	million	reported bond balance
nand funding	NAND funding trace	NF43	notes 2026 year end reported principal krw	SK hynix Inc.	2021-12-31	KRW	1185500	million	reported bond balance
nand funding	NAND funding trace	NF44	notes 2031 year end reported principal krw	SK hynix Inc.	2021-12-31	KRW	1185500	million	reported bond balance

Table 169: Complete AVEO and NAND payment-funding fact register (part 19 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF45	syndicated loan due 20251229 balance	SK hynix Inc.	2021-12-31	KRW	2371000	million	reported borrowing balance
nand funding	NAND funding trace	NF46	syndicated loan due 20271228 balance	SK hynix Inc.	2021-12-31	KRW	1185500	million	reported borrowing balance
nand funding	NAND funding trace	NF47	additional payment characterization	SK hynix Inc.	first nine months of 2022	USD	500	million	issuer retrospective actual payment description
nand funding	NAND funding trace	NF48	second closing funding plan	SK hynix Inc.	2023-01-10 as-of	–	cash and borrowings other options	text	announced funding plan

Table 170: Complete AVEO and NAND payment-funding fact register (part 20 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand funding	NAND funding trace	NF49	second closing funding plan	SK hynix Inc.	2024-01-08 as-of	–	cash and borrowings other options	text	announced funding plan
nand contracts	intel nand contract and seller bridge	C01	contract parents	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	Intel Seller Parent; SK hynix Buyer Parent	text	verified contract only
nand contracts	intel nand contract and seller bridge	C02	buyer definition and entity transfer plan	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	Buyer Parent plus designated subsidiaries in separately agreed entity plan	text	verified contract only
nand contracts	intel nand contract and seller bridge	C03	entity specific transfer allocation	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	separately agreed seller-asset/liability-buyer mapping	text	verified contract only

Table 171: Complete AVEO and NAND payment-funding fact register (part 21 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	C04	first closing payment method	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	wire transfer of immediately available funds by designated Buyers	text	verified contract only
nand contracts	intel nand contract and seller bridge	C05	initial first closing base price	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	USD	7000	USD million less estimated CapEx adjustment	verified contract only
nand contracts	intel nand contract and seller bridge	C06	final first closing base price	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	USD	7000	USD million less final CapEx adjustment	verified contract only
nand contracts	intel nand contract and seller bridge	C07	capex adjustment definition	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	max(Target CapEx minus Closing CapEx,0)	formula	verified contract only

Table 172: Complete AVEO and NAND payment-funding fact register (part 22 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	C08	postclosing adjustment payment	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	buyer or seller pays difference by wire within five Business Days	text	verified contract only
nand contracts	intel nand contract and seller bridge	C09	cash excluded first closing assets	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	all Cash and preclosing trade receivables excluded	text	verified contract only
nand contracts	intel nand contract and seller bridge	C10	first price future supply allocation	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	part of first price allocated to OpCo future goods and services	text	verified contract only
nand contracts	intel nand contract and seller bridge	C11	second closing price formula	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	USD	2000	USD million plus Undistributed Deferred Revenue Amount	verified contract only

Table 173: Complete AVEO and NAND payment-funding fact register (part 23 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	C12	undistributed deferred revenue definition	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	China OpCo receipt less specified taxes/distributions; limited to its closing cash	formula	verified contract only
nand contracts	intel nand contract and seller bridge	C13	second closing statement	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	seller estimate at least 90 days before closing; 30-day objection window	text	verified contract only
nand contracts	intel nand contract and seller bridge	C14	second buyer identity	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	updated entity-to-entity plan at least 120 days before closing; substitutions possible	text	verified contract only
nand contracts	intel nand contract and seller bridge	C15	China OpCo identity	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	seller-side person to be formed in China under Restructuring Agreement	text	verified contract only

Table 174: Complete AVEO and NAND payment-funding fact register (part 24 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	C16	withholding treatment	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	legally required withholding paid to government counts as paid to recipient	text	verified contract only
nand contracts	intel nand contract and seller bridge	C17	VAT separate from price	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	price excludes VAT unless expressly otherwise; VAT may be additionally payable	text	verified contract only
nand contracts	intel nand contract and seller bridge	C18	VAT financing reimbursement	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	quarterly VAT financing charges reimbursed by Seller Parent	text	verified contract only
nand contracts	intel nand contract and seller bridge	C19	no right of setoff	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	parties waive setoff/ netting/ offset rights for agreement payments	text	verified contract only

Table 175: Complete AVEO and NAND payment-funding fact register (part 25 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	C20	manufacturing sale agreement	Intel Corporation / SK hynix Inc. and designated affiliates	2020-10-19	–	to be executed at first closing substantially in form Exhibit E	text	verified contract only
nand contracts	intel nand contract and seller bridge	D01	public contract omissions	Intel	2020-10-20	–	schedules and exhibits omitted under Item 601(a)(5)	text	verified public omission
nand contracts	intel nand contract and seller bridge	D02	first close reported receipt	Intel	2021-12-29	USD	7000	USD million; reported as 7.0bn	reported receipt not bank record
nand contracts	intel nand contract and seller bridge	D03	manufacturing accounting deferral	Intel	2021 first closing	USD	583	USD million	verified accounting deferral not unpaid cash

Table 176: Complete AVEO and NAND payment-funding fact register (part 26 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	D04	remaining receivable includes short term inventory transfer	Intel	2022Q1 disclosure	USD	1900	USD million; reported as 1.9bn	verified receivable scope not payment link
nand contracts	intel nand contract and seller bridge	D05	second closing net consideration	Intel	2025-03-27	USD	1900	USD million approximate	reported actual net receipt
nand contracts	intel nand contract and seller bridge	D06	second closing cash proceeds	Intel	2025Q1	USD	1900	USD million rounded	reported actual net cash proceeds
nand contracts	intel nand contract and seller bridge	D07	manufacturing final settlement paid charge	Intel	2025Q1	USD	94	USD million	reported paid and net charge

Table 177: Complete AVEO and NAND payment-funding fact register (part 27 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	D08	annual manufacturing settlement charge	Intel	2025 full year	USD	229	USD million	reported annual expense not incremental cash
nand contracts	intel nand contract and seller bridge	D09	annual net cash proceeds	Intel	2025 full year	USD	1800	USD million rounded	reported annual net cash
nand contracts	intel nand contract and seller bridge	D10	receipt timing regulatory caution	Intel	2021-12-29	–	receipt timing could be affected by FX controls or regulatory requirements	text	forward looking risk not observed delay
nand contracts	intel nand contract and seller bridge	D11	buyer 500m postclosing adjustments	SK hynix	2022	USD	500	USD million; stated as0.5bn	verified issuer characterization not itemized adjustment

Table 178: Complete AVEO and NAND payment-funding fact register (part 28 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	B01	buyer reported period payment	SK hynix	2021 full year	USD	6109	USD million	verified prior DART payment window
nand contracts	intel nand contract and seller bridge	B02	buyer reported period payment	SK hynix	2022Q1	USD	500	USD million	verified prior DART payment window
nand contracts	intel nand contract and seller bridge	B03	buyer reported period payment	SK hynix	2025Q1	USD	2235	USD million	verified prior DART payment window
nand contracts	intel nand contract and seller bridge	U01	public amendment or final settlement text	Intel / SK hynix	2025 closing	–	not located in reviewed public exhibits	text	not found within bounded search

Table 179: Complete AVEO and NAND payment-funding fact register (part 29 of 29)

Module	Case	Fact	Variable	Entity	Date/period	Curr.	Value	Unit	Status
nand contracts	intel nand contract and seller bridge	U02	escrow terms in public MPA	Intel / SK hynix	2020-10-19	–	escrow word absent in entire public MPA text	text	automated absence check not no escrow

Notes: All 113 verified fact rows are included. Contractual obligations, decisions, actual financing, payments, and accounting recognition have different status labels and must not be collapsed into one cash-flow date.

Table 180: Complete planned-date ETF measurement panel (part 1 of 3)

Valuation date	Report/ PCF	PCF	Daily	CU	Conditional contracts	PCF scaled	Gap	Status
20250324	20250325	False	False	181	–	–	–	missing source
20250325	20250326	False	False	181	–	–	–	missing source
20250326	20250327	False	False	180	–	–	–	missing source
20250327	20250328	True	True	180	1551	1551.6	0.6	supported conditionally

Table 181: Complete planned-date ETF measurement panel (part 2 of 3)

Valuation date	Report/ PCF	PCF	Daily	CU	Conditional contracts	PCF scaled	Gap	Status
20250328	20250331	True	True	181	1738	1737.6	-0.4	supported conditionally
20250331	20250401	True	True	181	1678	1677.87	-0.13	supported conditionally
20250401	20250402	False	False	181	–	–	–	missing source
20250402	20250403	False	False	182	–	–	–	missing source

Table 182: Complete planned-date ETF measurement panel (part 3 of 3)

Valuation date	Report/ PCF	PCF	Daily	CU	Conditional contracts	PCF scaled	Gap	Status
20250403	20250404	False	False	186	–	–	–	missing source
20250404	20250407	False	False	193	–	–	–	missing source

Notes: All ten prespecified dates are shown. Three support conditional reconstruction and seven lack the required public source pair; missing is not zero.

Table 183: ETF observational-equivalence examples

Scenario	Initial h	Final h	Change pp	Initial exposure	Final exposure	Hedge change	Illustrative
hedge ratio decrease	0.869	0.839	-3	2.000e+07	2.000e+07	-600000	True
unchanged hedge ratio	0.869	0.869	0	2.000e+07	1.931e+07	-600000	True
hedge ratio increase	0.869	0.879	1	2.000e+07	1.909e+07	-600000	True

Notes: The same observed USD 0.6 million futures-balance decline is compatible with a lower, unchanged, or higher hedge ratio. The examples are illustrative and not calibrated to all positions.

Table 184: Complete intraday event-study eligibility audit (part 1 of 2)

ID	Date	Event	Time	Grade	FX observation	Decision	Reason
N3T01	2026-06-24	Initial overseas equity filing	–	DAY ONLY	Same-day 15:30 close 1541.8	NO GO	The filing day is known but its public time and a like-for-like pre/post KRW price are unavailable
N3T02	2026-07-06	Corrected securities filing	–	DAY ONLY	Same-day 15:30 close 1530.3	NO GO	The filing time is unavailable and the market-operation change shares the date
N3T03	2026-07-06	24-hour FX-market operation begins	06:00 KST	EXACT TIME	Same-day 15:30 close 1530.3	NO GO	The known time is an effective market rule rather than a discrete surprise timestamp and no comparable event-time KRW series is frozen
N3T04	2026-07-09 US to 2026-07-10 KST	ADR pricing and final terms	–	CROSS ZONE DAY ONLY	July 10 15:30 close 1501.4	NO GO	US and Korean date labels are known but the exact timestamp relative to the Korean close is unavailable
N3T05	2026-07-10 US	Nasdaq trading begins	–	CROSS ZONE DAY ONLY	July 10 15:30 KST close 1501.4	NO GO	The US trading event is not aligned to a timestamped Korean pre/post price
N3T06	2026-07-14	Subscription and payment	–	CONFIRMED AFTER EVENT	Same-day 15:30 close 1493.0	NO GO	Completion was confirmed on July 15 and neither the payment time nor any spot conversion is observed

Table 185: Complete intraday event-study eligibility audit (part 2 of 2)

ID	Date	Event	Time	Grade	FX observation	Decision	Reason
N3T07	2026-07-15	Issuance result filing	–	DAY ONLY	Same-day 15:30 close 1484.7	NO GO	The filing day is known but the public time and the underlying cash-conversion time are unavailable

Notes: Zero of seven events pass the prespecified intraday rule. The rows remain useful for daily chronology only.

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