**Adjacent**

Event Contract Benchmarking and Indexing

# Event Contract Reference Rate Methodology

2026-09

# Event Contract Reference Rate Methodology

## Overview

The recent growth in new event contract exchanges, interest and volume in trading event contracts, and exponential growth in new contracts being listed, Adjacent Markets has developed standardized reference rates and real time indices. This document covers Reference Rates.

## Definitions

**Accepted Quote Asset:** A quote or collateral asset approved as a 1:1 substitute for USD. Accepted Quote Assets are listed in Section 3.

**AIC:** The Adjacent Index Committee, or its successor.

**Basis Event:** Occurs when the Primary Venue and at least one other Constituent Venue contribute Relevant Transactions and the absolute difference between their TWAP volume-weighted medians exceeds the Potentially Erroneous Band in the Rate Specification. The band is measured in Points. The Calculation Agent retains the Primary Venue and each non-primary venue within the band, excludes each non-primary venue outside the band, and reports the event to AIC.

**Calculation Agent:** The party responsible for retrieving venue data and calculating the rate.

**Calculation Day:** Any day on which this Reference Rate is published.

**Constituent Venue:** A trading venue identified as eligible in the rate specification. A venue's quote asset must be an Accepted Quote Asset. Eligibility does not require a venue to report a trade each day.

**Effective Time (`T`):** The end of the TWAP Period.

**Identity:** A published binding indicating that two venue contracts concern the same economic event. A match does not establish that the venues' claims are the same instrument.

**Numeraire:** USD. Accepted Quote Assets are treated solely as 1:1 substitutes for USD.

**Point:** One unit on the published 0-100 scale. One Point equals 0.01 in the `[0, 1]` domain. All thresholds in this methodology are measured in Points.

**Occupied Partition:** A Partition with a total transaction size, measured in contracts, equal to or greater than the Occupied-Partition Floor.

**Occupied-Partition Floor:** The minimum transaction size required for a Partition to be occupied. A Partition below this floor is treated as empty.

**Occupied-Partition Minimum:** The minimum number of Occupied Partitions required to use the standard calculation. If fewer Occupied Partitions exist than this minimum, the thin-tape fallback applies.

**Partition:** One equal-duration segment of the TWAP Period, such that `K = τ / τ̂`. Each Partition excludes its start time and includes its end time, with timestamps truncated to milliseconds.

**Primary Venue:** The Constituent Venue designated in the rate specification as the reference venue for the basis screen.

**Relevant Contract:** The designated Yes contract, named-outcome contract, or threshold claim for an economic event. A threshold claim may be listed directly or constructed from Outcome Bins under the Stacked-Bin Rule.

**Outcome Bin:** A contract that pays if the official outcome falls within one stated value, range, or tail. Bins used in one stack must be mutually exclusive.

**Stacked-Bin Rate:** The sum of the rates for every Outcome Bin whose settlement set satisfies a stated threshold. A raw bin rate is not a threshold rate and is not blended with one.

**Relevant Transaction:** An executed trade in the Relevant Contract on a Constituent Venue during the TWAP Period, excluding the start time and including the end time, with timestamps truncated to milliseconds.

**Retrieval Time:** One minute after the end of the TWAP Period.

**TWAP Period:** A window of length `τ` ending at `T`. The window excludes its start time and includes its end time.

**Sampled Claim Rate:** A claim-rate series observed at the cadence in the Rate Specification during the TWAP Period. The Rate Specification names the series, time zone, cadence, minimum valid observations, gap rule, fallback, and rounding. A missing observation is omitted unless the Rate Specification permits carry-forward. If the minimum is not met and no fallback applies, the rate has a calculation failure.

**Void:** A cancelled contract. A Void is neither 0 nor 1. AIC stops publication or marks the rate as void.

## Methodology and Rules

Adjacent Markets Reference Rates are calculated based on Relevant Transactions of all Constituent Exchanges. Exchanges are screened and accepted by the AIC based on their regulatory status, accepted quote assets, and market breadth and activity.

### Venues and Identity

Event contracts are not fungible between and across exchanges, additionally there is little standardization to market structure, settlement rules, and listing cadence. Due to this Adjacent Markets accepts a venue and identifies economically equivalent markets on, but not limited to, the following criteria:

#### Venues

##### Accepted Quote Assets

Constituent Venues do not all quote in cash dollars. For example, Kalshi and Polymarket US settle in USD but Polymarket international collateral is pUSD, a 1:1 wrapper of native USDC.

The AIC maintains a list of accepted quote assets.

| Asset | 1:1 with USD | Status |
|---|---|---|
| **USD** | Yes | Accepted |
| **USDC** | Yes, if 1:1 redeemable through the issuer | Accepted |
| **pUSD** | Yes, via USDC | Accepted |
| **USDC.e** | Yes | Accepted |
| **USDT** | No | Not accepted |

1. Convertibility needs to be 1:1 with reserves published transparently.
2. Peg break, redemption halt, or wrapping halt is a Market Failure Event subject to AIC review.

#### Reasonably Defined Settlement Rules

An accepted venue should either be CFTC regulated or, if not regulated, have clearly defined and consistently applied settlement rules. At a minimum, the venue should publish settlement procedures, dispute-resolution and appeals processes, and objective criteria for handling edge cases (for example, data-source outages, market halts, or late amendments to the underlying event definition). The venue should also demonstrate a track record of settling comparable markets over time, including a documented history of how disputes were resolved, so that the AIC can evaluate precedent and the reliability of outcomes.

### Identity

Identity is a published binding that venue contracts represent the same economic claim. For thresholds and Outcome Bins, Identity requires the same series, reference period, publication precision, boundary, settlement source, finality, timing, and void treatment. A stack is equivalent to a threshold only when its bins cover that threshold's settlement set without a gap or overlap. For a series published to one decimal place, "Above 4.0%" and "at least 4.1%" have the same boundary. Contracts are determined equivalent under the following guidelines:

- Contracts are economically equivalent only when they reference the same economic event and the same designated claim.
- Equivalence is a **precondition** to blending. If a contract is amended, or a venue changes its rule text such that equivalence breaks, stop blending that venue and report to AIC.
- Titles, descriptions, and similarity scores can screen candidates, but equivalence must be justified by the rule text (event definition, settlement source, finality, timing, and void path).
- The designated contract must be explicit (one Yes / one named outcome). The No sibling is not a second source, and `1-p` inversion is not permitted.

### Example

Contracts on the Republican party winning the 2028 election are listed below.

| Venue | Contract | Settlement | Settlement time | Source |
|---|---|---|---|---|
| Kalshi | `KXPRESPARTY-2028-R` | A Republican is inaugurated for the term beginning 20 Jan 2029. | Inauguration January 20, 2029 | Office of the Presidency |
| Polymarket | `which-party-wins-2028-us-presidential-election` | Race is called for the same party by AP, Fox News, and NBC; if not called by inauguration day, who is inaugurated. | Inauguration January 20, 2029 | AP, Fox News, NBC; else inauguration |
| Polymarket US | `ewc-usp-party-2028-11-07-rep` | Republican nominee wins by electoral-college majority; if none, first formally selected (non-acting) under the constitutional process. | “Usually within 25 minutes of closing” with the close date “By end of Nov 7, 2028” | Relevant government authorities |

Comparing the contracts above there is ambiguity in

- Polymarket US settlement time while Kalshi and Polymarket match exact
- Settlement sources are different across all three contracts yet represent the same underlying
- All are on party winner

While not one for one all three of these contracts are economically equivalent and would be included in a single rate.

The table below illustrates contracts that can look similar enough to belong in one “CPI” rate family, but are **not** economically equivalent.

| Venue | Contract | Settlement (what it measures) | Not economically equivalent because |
|---|---|---|---|
| Kalshi | `KXCPI-26AUG` | Headline CPI MoM (Aug 2026) | Headline vs core, and MoM vs YoY are different economic claims. |
| Polymarket | `core-cpi-yoy-august-2026` | Core CPI YoY (Aug 2026) | Different CPI series and measurement window. |
| Polymarket US | (Example) Core CPI MoM (Aug 2026) | Core CPI MoM (Aug 2026) | Even if MoM matches, core is not headline. Same release date is not equivalence. |

### Rate Specification

Each Reference Rate has a published Rate Specification. It contains the operative terms below.

| Field | Required terms |
|---|---|
| Claim | Economic event, designated claim, Identity binding, and contracts |
| Venues | Constituent Venues, Primary Venue, and venue weighting |
| Clock | Time zone, Effective Time, Retrieval Time, `τ`, and `τ̂` |
| Liquidity | Occupied-Partition Floor and Occupied-Partition Minimum |
| Controls | Potentially Erroneous Band, sample cadence, valid-sample minimum, gap rule, and fallback |
| Output | Internal precision, published precision, and publication time |

## Calculation

Calculation steps are as follows:

1. **Retrieve or construct:** For a directly listed claim, aggregate every Relevant Transaction held at Retrieval Time. For a threshold constructed from Outcome Bins, calculate each bin's rate, then sum the bins whose settlement sets satisfy the threshold. The stack is valid only when every required bin has a valid rate and

the bins cover the threshold without a gap or overlap. Treat a valid stack as one venue input. Do not put raw bin transactions on the threshold joint list. The Rate Specification states how direct and stacked venue inputs are weighted.

2. **Drop erroneous prints:** Responses such as but not limited to: Non-numeric payload, unparsable payload, execution time more than one minute in the future of the Calculation Agent clock, price outside [0, 1], size ≤ 0 are dropped.
3. **Equivalence check:** Confirm all included venue contracts still satisfy the equivalence guidelines above (event definition, settlement source/finality, market structure, timing, void rules). If a change breaks equivalence, stop including that venue and report to AIC.
4. **Basis screen:** For each Constituent Venue, compute that venue's volume-weighted median over the TWAP Period.
5. **Joint list:** Put remaining prints on one list.
6. **Partition:** Split the TWAP Period into `K` equal intervals of length `τ̂`. A print belongs to the partition whose window contains its execution time. A partition is Occupied if total size ≥ Occupied-Partition Floor. Let `K'` be the Occupied count. `K = τ / τ̂`.
7. **Average or thin-tape:**
   - If `K'` ≥ Occupied-Partition Minimum: `RR_T` is the equally weighted average of the Occupied partition VW-medians.
   - If `K'` is below the Occupied-Partition Minimum and the joint list is non-empty, `RR_T` is the VW-median of the full TWAP joint list.
   - If the joint list is empty there is a calculation failure.

## Worked Examples

An example of calculation:

- Parameters: `τ = 60` minutes, `τ̂ = 15` minutes, so `K = 4` partitions
- Each partition has total size `≥` the Occupied-Partition Floor, so `K' = 4`
- For each partition, compute the partition VW-median
- Publish `RR_T` as the equally weighted average of the `K'` occupied partition VW-medians

If `K'` is below the Occupied-Partition Minimum and the joint list is non-empty, the rate is the VW-median of the full TWAP joint list:

- Same parameters, but only two partitions are occupied (`K' = 2`) and the joint list is non-empty
- Publish `RR_T` as the VW-median of the full joint list

## Contingency Rules

- **Missing venue prints:** A Constituent Venue that reports no usable Relevant Transactions during the TWAP Period contributes nothing that day. Eligibility does not require a venue to print every day
- **Erroneous prints:** Drop prints that fail the erroneous-print rules (non-numeric/unparsable payload, price outside [0, 1], size ≤ 0, or timestamps inconsistent with the Calculation Agent clock)
- **Economic Equivalence break:** If venue contracts cease to be economically equivalent, stop including the non-equivalent venue and report to AIC

## Version History

- v0.1 (2026-09-02): Initial document