

COT Data API — User Guide

How to authenticate, query, and parse the COT Data API. Revision: 27 May 2026 · cotdata.net

1. Quick start

After subscribing, you receive an email containing one personal API token. Pass it in every request as an **Authorization: Bearer** header. All endpoints are HTTPS and return JSON.

Base URL: `https://cotdata.net/api/cot`

Smallest possible call (no auth — latest week only):

```
curl "https://cotdata.net/api/cot?instrument=088691"
```

Same call with a token (gives you 3 years of history):

```
curl "https://cotdata.net/api/cot?instrument=088691&from=2024-01-01" \  
-H "Authorization: Bearer YOUR_TOKEN_HERE"
```

2. Authentication

Every request that includes a `from` or `to` parameter must carry a Bearer token. Requests without one are still allowed for the latest week — useful for testing — but anything historical requires the header.

Two ways to pass the token. Header is recommended; the query-string form exists for tools like Excel Power Query that cannot easily set headers.

Recommended — Authorization header:

```
Authorization: Bearer YOUR_TOKEN_HERE
```

Fallback — token in URL (Excel, Power Query, browser):

```
https://cotdata.net/api/cot  
?instrument=088691  
&from=2024-01-01  
&token=YOUR_TOKEN_HERE
```

Keep the token private. It grants access to your full subscription. If it leaks, email `hello@cotdata.net` and we'll rotate it.

3. Code examples

Pick the snippet that matches your environment. Replace `YOUR_TOKEN_HERE` with the token from your welcome email.

3.1 PowerShell (Windows)

PowerShell needs the header inside a hashtable. A plain `-Headers "Authorization: Bearer ..."` string will NOT work — this is the most common cause of 401 errors on Windows.

```
$headers = @{ "Authorization" = "Bearer YOUR_TOKEN_HERE" }
Invoke-RestMethod `
  -Uri "https://cotdata.net/api/cot?instrument=088691&from=2024-01-01" `
  -Headers $headers
```

Tip: if you copy a token that contains hyphens, do not let your editor convert them to en-dashes. Tokens are plain ASCII.

3.2 curl (Windows, macOS, Linux)

```
curl "https://cotdata.net/api/cot?instrument=088691&from=2024-01-01" \
  -H "Authorization: Bearer YOUR_TOKEN_HERE"
```

On Windows command prompt, replace the backslash-newline with everything on one line, or use PowerShell's backtick continuation as in 3.1.

3.3 Python (requests)

```
import requests

TOKEN = "YOUR_TOKEN_HERE"
r = requests.get(
    "https://cotdata.net/api/cot",
    params={"instrument": "088691", "from": "2024-01-01"},
    headers={"Authorization": f"Bearer {TOKEN}"},
    timeout=30,
)
r.raise_for_status()
data = r.json()
print(data["count"], "rows")
```

3.4 Node.js / JavaScript (fetch)

```
const TOKEN = 'YOUR_TOKEN_HERE';
const url = 'https://cotdata.net/api/cot'
  + '?instrument=088691&from=2024-01-01';

const res = await fetch(url, {
  headers: { Authorization: `Bearer ${TOKEN}` },
});
if (!res.ok) throw new Error(`HTTP ${res.status}`);
const data = await res.json();
console.log(data.count, 'rows');
```

3.5 Excel Power Query

Excel's *Data* → *From Web* dialog cannot set headers reliably. Use the `token=` query parameter instead.

```
let
  Source = Json.Document(Web.Contents(
    "https://cotdata.net/api/cot?"
    & "instrument=088691"
    & "&from=2024-01-01"
    & "&token=YOUR_TOKEN_HERE"
  )),
  rows = Source[rows],
  Table = Table.FromRecords(rows)
in
  Table
```

3.6 Google Sheets (Apps Script)

```
function getCOT() {
  const TOKEN = 'YOUR_TOKEN_HERE';
  const res = UrlFetchApp.fetch(
    'https://cotdata.net/api/cot?instrument=088691&from=2024-01-01',
    { headers: { Authorization: 'Bearer ' + TOKEN } }
  );
  const data = JSON.parse(res.getContentText());
  return data.rows;
}
```

4. Endpoint reference

There is one endpoint: `GET /api/cot`. Behaviour depends on which query parameters you pass.

Parameter	Type	Required	Notes
instrument	string	yes	CFTC contract market code (e.g. 088691)
table	string	no	legacy (default) tff disaggregated
from	date	no	YYYY-MM-DD — paid only, except DXY (098662)
to	date	no	YYYY-MM-DD — paid only, except DXY
token	string	no	Alternative to Authorization header

Two response shapes

Latest mode — no `from/to`: returns one dense object for the most recent report.

History mode — with `from` or `to`: returns `{ instrument, table, count, rows: [...] }` with one row per weekly report.

History is capped at a 3-year rolling window. If you pass a `from` earlier than that, it is silently clamped.

5. The three report tables

CFTC publishes the same week-of-Tuesday data three different ways. Pick the table that matches the market type — not every code exists in every table.

Table	Trader groups	Covers	Use for
legacy	Commercials, Non-Commercials, Non-Reportables	ALL markets, back to 1986	Anything. Default starting point.
tff	Dealer/Intermediary, Asset Manager, Leveraged Funds, Other Reportables, Non-Reportables	Financial futures only — FX, indices, bonds, crypto	Tracking hedge-fund positioning (Leveraged Funds)
disaggregated	Producer/Merchant, Swap Dealers, Managed Money, Other Reportables, Non-Reportables	Physical commodities only — metals, energy, grains, softs, livestock	Tracking specs vs. hedgers in commodity markets

Common pitfall: requesting `table=tff` for Gold (088691) returns a 404 — Gold is a commodity, so it lives in legacy and disaggregated but not in TFF. Always start with `table=legacy` if you are unsure.

6. CFTC codes for popular markets

A subset of the most commonly requested instruments. Every instrument page on cotdata.net shows its CFTC code; the API supports 900+ legacy markets in total.

FX

Code	Market	Available tables
098662	US Dollar Index (DXY)	legacy, tff
099741	Euro FX	legacy, tff
096742	British Pound	legacy, tff
097741	Japanese Yen	legacy, tff
232741	Australian Dollar	legacy, tff
133741	Bitcoin	legacy, tff

Equity indices

Code	Market	Available tables
13874+	S&P 500 — Consolidated (all venues)	legacy, tff
13874A	S&P 500 — E-mini only	legacy, tff
20974+	Nasdaq 100 — Consolidated	legacy, tff
12460+	Dow Jones — Consolidated	legacy, tff
239742	Russell 2000 — E-mini	legacy, tff
1170E1	VIX	legacy, tff

Codes ending in + are consolidated across all contract sizes (e.g. mini + micro). Codes ending in a letter are single-venue (E-mini, etc.).

Bonds

Code	Market	Available tables
042601	2Y Treasury Note	legacy, tff
044601	5Y Treasury Note	legacy, tff
043602	10Y Treasury Note	legacy, tff
020601	30Y Treasury Bond	legacy, tff

Metals

Code	Market	Available tables
088691	Gold	legacy, disaggregated
084691	Silver	legacy, disaggregated

085692	Copper	legacy, disaggregated
076651	Platinum	legacy, disaggregated

Energy

Code	Market	Available tables
067651	Crude Oil WTI	legacy, disaggregated
023651	Natural Gas	legacy, disaggregated
022651	Heating Oil	legacy, disaggregated
111659	Gasoline RBOB	legacy, disaggregated

Grains and softs

Code	Market	Available tables
002602	Corn	legacy, disaggregated
005602	Soybeans	legacy, disaggregated
001602	Wheat (SRW)	legacy, disaggregated
033661	Cotton	legacy, disaggregated
080732	Sugar #11	legacy, disaggregated
083731	Coffee C	legacy, disaggregated
073732	Cocoa	legacy, disaggregated

7. Response shape (latest mode)

Example — Gold legacy:

```
{
  "cftc_code": "088691",
  "market_name": "GOLD",
  "exchange": "CMX",
  "report_date": "2026-05-19",
  "table": "legacy",
  "non_commercial": {
    "long": 211018, "short": 51185, "net": 159833,
    "net_change": -11789,
    "cot_index_26w": 40, "cot_index_52w": 40, "cot_index_3y": 40,
    "zscore_26w": -0.88, "zscore_52w": -0.88,
    "pct_long": 80.48
  },
  "commercial": { "long": ..., "short": ..., "net": ..., "pct_long": 21.02 },
  "small_traders": { "long": ..., "short": ..., "net": ... },
  "open_interest": 379325
}
```

Group keys by table

Table	Speculator group (has indicators)	Hedger group	Other groups
legacy	non_commercial	commercial	small_traders
tff	leveraged_funds	dealer_intermediary	asset_mgr, other_rept, small_traders
disaggregated	managed_money	producer_merchant	swap_dealer, other_rept, small_traders

Per-group fields

Field	Type	Range	Notes
long, short, net	integer	—	Raw contracts (net = long – short)
net_change	integer	—	Week-on-week change in net
cot_index_26w / 52w / 3y	number	0–100	Percentile rank of current net within the rolling window
zscore_26w / 52w	number	—	(current – mean) / population std over the window
pct_long	number	0–100	long / (long + short) × 100, two decimals

Indicators (cot_index_*, zscore_*, pct_long) are only attached to the primary speculator group of each table — see the table above. The hedger group always gets pct_long.

8. Rate limits

Tier	Per minute	Per day	History
Free (no token)	10	Unlimited	Latest week only (DXY is exempt)
Paid	60	500	3-year rolling window

When you hit a limit the API returns HTTP 429 with a `Retry-After` header (seconds). Headers `X-RateLimit-Remaining` and `X-RateLimit-Daily-Remaining` are on every response, so you can self-throttle.

9. Troubleshooting

9.1 HTTP 401 — Unauthorized

Either no token was sent, the token doesn't exist in our system, or it expired. Most common cause on Windows is PowerShell's header syntax — see section 3.1. Double-check that the header value starts with `Bearer` (with a space) before the token.

9.2 HTTP 404 — No data found for this instrument

Either the CFTC code is wrong, or the code exists but not in the table you asked for. Gold (088691) is not in TFF; the S&P; 500 (13874+) is not in disaggregated. Drop the `table` parameter — legacy covers everything.

9.3 HTTP 429 — Rate limit exceeded

Slow down. The error response says whether you hit the per-minute or per-day cap. If your job legitimately needs more than 500/day, reply to the welcome email and we'll discuss.

9.4 PowerShell — "The remote server returned an error: 401"

Almost always the header is being sent as a single string rather than a hashtable. Use the form in section 3.1 verbatim. If you're using `curl.exe` inside PowerShell, quote the URL with double quotes and the header with double quotes too.

9.5 Got null or unexpected zero values

For some thinly-traded markets, certain trader groups may genuinely have zero open positions in a given week — that's the raw CFTC data, not a bug. Crypto perpetual-style contracts in particular often have zero institutional positioning.

10. Support

Email hello@cotdata.net with your token (or its last 6 characters) and a copy-pasted example of the request you sent. Most issues are resolved within a few hours during UK business days.

Cancellation is one click from the Stripe receipt email. Your token continues to work until the end of the billing period, then is automatically revoked.