



# QSTMARKETS Terminal user manual

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# Section 1 - Introduction

## 1. What is QSTMarkets?

QSTMarkets is an professional financial terminal that brings institutional-grade market analysis tools to retail investors and students. Inspired by the layout and philosophy of the principal Financial Terminals available in the market, QSTMarkets provides a unified workspace where users can monitor real-time prices, study company fundamentals, read curated financial news, and track macroeconomic indicators - all from a single, keyboard-driven interface.

The terminal runs entirely in the browser. Its workspace is built on a panel system that the user can arrange freely by dragging and resizing each panel. Every panel is activated by typing a command into the Command Bar at the top of the screen.

### Core design principles:

- **Command-first navigation.** Every feature has a short command mnemonic (e.g., GP for a price chart, DES for a company description, FA for financial statements). Users familiar with professional terminals will feel at home immediately; newcomers will find the HELP command a useful starting point.
- **Open data, no subscriptions.** QSTMarkets aggregates data from free and freemium public APIs (yFinance, SEC EDGAR, FRED, Alpaca, Finnhub, Tiingo, and others).
- **Panel workspace.** Each command opens a panel. Multiple panels can be open simultaneously and arranged side by side. Panels are persistent across page reloads; the layout is saved automatically per user account.
- **Real-time and historical.** Price data updates in real time during market hours via WebSocket. Historical charts cover up to ten years of daily OHLCV data plus intraday intervals from 1-minute to 1-hour.

### Supported asset classes:

Asset class	Examples	Coverage
US equities	AAPL, MSFT, JPM	Full (price, fundamentals, news, screener)
Crypto (spot)	BTCUSD, ETHUSD	Price chart, description, news

Precious metals	XAUUSD, XAGUSD	Price chart, description, metals news
Energy commodities	WTIUSD, BRENTUSD, NGUSD	Price chart, description, energy news

### Navigation basics:

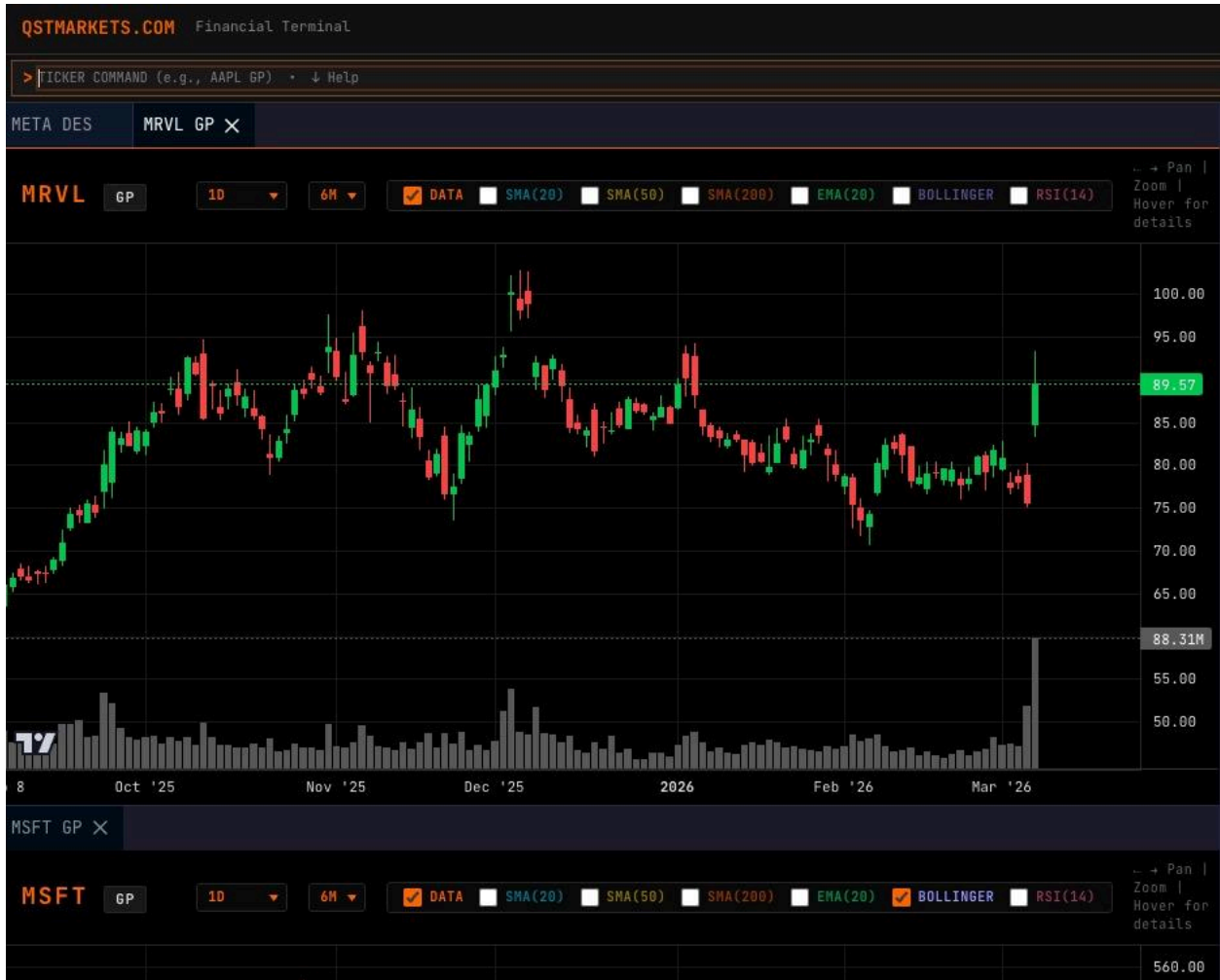
1. Click the **Command Bar** at the top of the screen (or press / as a shortcut).
2. Type a command, optionally followed by a ticker symbol (e.g., AAPL GP or WEI).
3. Press **Enter**. The corresponding panel opens in the workspace.
4. Type HELP at any time to browse all available commands with descriptions and examples.

## Panel focus and command routing

When you execute a command from the Command Bar, the resulting data needs a place to display. QSTMarkets uses a "focus" system to determine where new commands are opened.

At any given time, one panel in your workspace is the active or focused panel. You can easily identify this focused panel by its distinct orange top border. By default, the next command you execute from the Command Bar will open directly within this active panel.

If you want to open a command in a different panel, changing the destination is simple. Just click anywhere inside the panel you want to use as your target. Its top border will immediately turn orange to confirm it has focus. Once the desired panel is highlighted, any new command you type into the Command Bar will load in that specific location.



## Section 2 - Commands by category

### 2.1 Charts

Commands in this category open price and comparison charts. They all require a ticker symbol to function properly.

#### GP - Graph price

Command: GP

Category: Charts

Requires ticker: Yes

Overview

The Graph price command generates an interactive candlestick chart for a specified asset, providing a visual representation of historical and real-time price action. Traders and analysts use this fundamental tool to identify trends, support and resistance levels, and potential entry or exit points using built-in technical overlays.

## How to use it

Focus the Command Bar, type a ticker symbol followed by GP (for example, AAPL GP), and press Enter. The terminal will spawn a new chart panel. You can interact with the chart by zooming in and out using your mouse wheel or trackpad, and panning across historical data by clicking and dragging. The timeframe selector at the top of the panel allows you to switch between intraday intervals and longer-term daily views.

## Reading the output

The central area displays traditional candlestick bars (green for up days, red for down days) mapped against a price axis on the right. Volume is represented by the bar chart at the bottom of the price graph. By default, the chart automatically overlays several key technical indicators: Simple Moving Averages (20, 50, and 200 periods), an Exponential Moving Average (20 periods), and Bollinger Bands to help visualize volatility.

## Data sources and refresh rate

Live price updates are streamed continuously via WebSocket connections during active market hours. Intraday and historical OHLCV (Open, High, Low, Close, Volume) data are fetched on demand when the chart is instantiated or when the timeframe is altered.

## Tips and caveats

- The GP command supports a wide variety of assets beyond US equities, including crypto spot pairs (BTCUSD GP), precious metals (XAUUSD GP), and energy commodities (WTIUSD GP).
- For after-hours or weekend viewing, the chart will display the last recorded closing price and halt real-time updates until the market reopens.
- Use this in conjunction with the DES command to view the technical chart alongside fundamental corporate data.



## COMPARE - Compare two tickers

**Command:** COMPARE

**Category:** Charts

**Requires ticker:** Yes (Requires two tickers)

### Overview

The Compare two tickers command allows users to chart the relative performance of two different assets over a specified timeframe. This is essential for pairs trading analysis, evaluating a stock's performance against a benchmark ETF, or correlating different asset classes to observe market divergence.

### How to use it

Type COMPARE followed by the two ticker symbols you wish to analyze (for example, COMPARE AAPL MSFT). Once the panel opens, you can adjust the lookback window using the timeframe toggles (1M, 3M, 6M, 1Y, 3Y, 5Y) located at the top of the chart.

### Reading the output

Instead of absolute prices, the Y-axis displays normalized percentage returns. Both asset series are anchored to 0% at the start date of the selected timeframe. As time progresses along the X-axis, the lines diverge, clearly illustrating which asset outperformed the other on a relative

basis over that exact period. A legend indicates which color corresponds to which ticker.

## Data sources and refresh rate

Data is sourced from historical daily close prices. The chart calculates the percentage change dynamically based on the starting date of the chosen timeframe. This data does not auto-refresh continuously; it calculates once upon execution and upon timeframe changes.

## Tips and caveats

- You can cross-compare different asset classes. For instance, comparing a tech stock against a cryptocurrency (COMPARE NVDA BTCUSD) to view risk-on asset correlation.
- Since the chart relies on a common start date, ensure both assets were publicly trading during the selected timeframe. If one asset went public halfway through the requested window, the chart may behave unexpectedly or throw an error.



## 2.2 Fundamentals

Commands in this category display company-level fundamental data: descriptions, financial statements, earnings, dividends, ownership, and insider activity.

### DES - Description

**Command:** DES

**Category:** Fundamentals

**Requires ticker:** Yes

## Overview

The Description command serves as the primary tear sheet for any publicly traded company. It aggregates high-level corporate information, current valuation metrics, and institutional ownership into a single, easily digestible view. It is typically the first command an analyst runs when researching a new stock.

## How to use it

Type a ticker symbol followed by DES (for example, MSFT DES). The panel will populate with several distinct sections detailing the company's profile. You can scroll through the panel to review different fundamental blocks.

## Reading the output

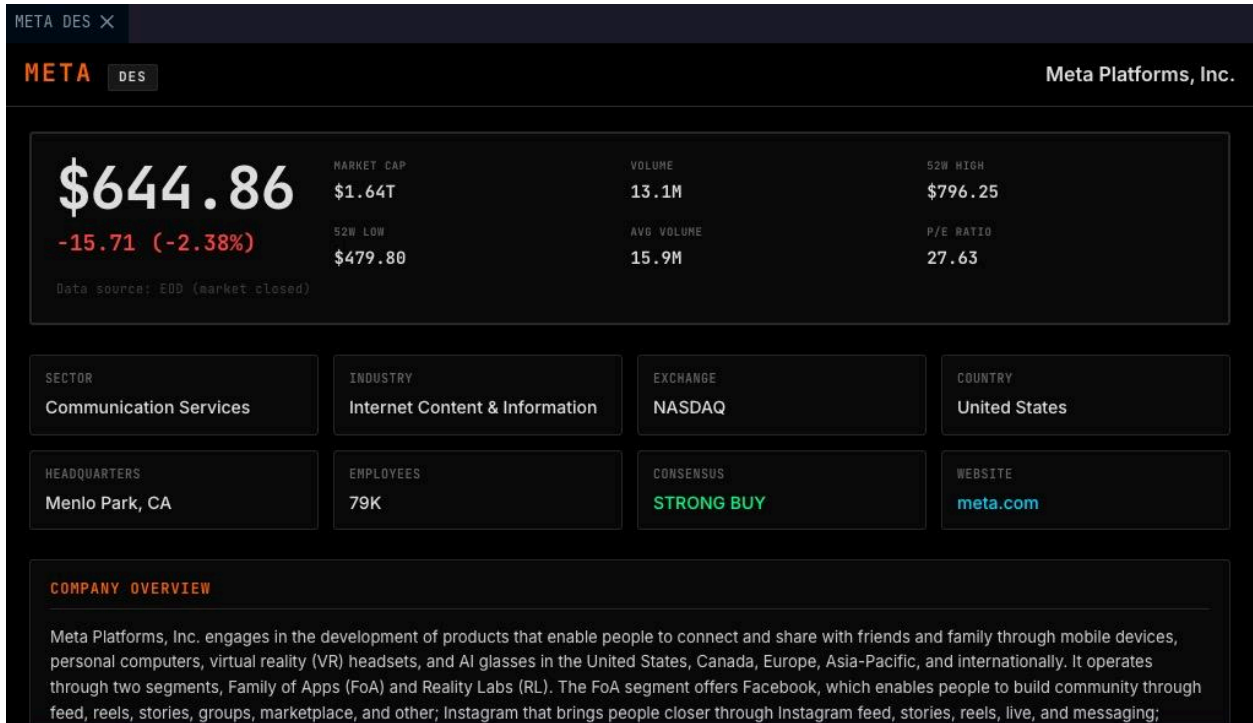
The top section provides the company's sector, industry classification, headquarters location, and employee count. Below this, you will find key valuation metrics like P/E ratio, Earnings Per Share (EPS), and Dividend Yield. A section on management lists key executives alongside their disclosed compensation. Further down, the panel highlights major institutional holders (sourced from 13F filings), analyst consensus (Buy/Hold/Sell ratings), and upcoming catalyst dates for earnings and dividends.

## Data sources and refresh rate

Data is aggregated across multiple APIs to provide a comprehensive view. The fundamental profile data is largely static and updated periodically, while pricing multiples and upcoming dates are refreshed daily based on the latest market close and corporate announcements.

## Tips and caveats

- This command is highly recommended as a starting point before diving into deep financial statements via the FA command.
- Executive compensation figures reflect the most recently completed fiscal year's disclosures and may not represent real-time salaries.



## FA - Financial analysis

**Command:** FA

**Category:** Fundamentals

**Requires ticker:** Yes

### Overview

The Financial analysis command provides access to a company's core financial statements. It replaces the need to manually parse through complex SEC 10-K or 10-Q filings by presenting standardized Income Statements, Balance Sheets, and Cash Flow statements.

### How to use it

Enter your ticker followed by FA (for example, GOOGL FA). The panel uses a tabbed interface. Click the tabs at the top to navigate between the Income Statement, Balance Sheet, and Cash Flow views. A toggle allows you to switch between Annual and Quarterly reporting periods.

### Reading the output

Each statement displays line items organized chronologically. In addition to raw reported figures, the panel calculates derived margins, Compound Annual Growth Rates (CAGR), Return on Equity (ROE), and Return on Assets (ROA). To the right of key line items, you will notice trend sparklines - tiny, inline charts that instantly visualize the directional trend of that specific metric

over the displayed periods.

## Data sources and refresh rate

Financial data is sourced from standardized public filings. The data is updated quarterly as companies release their earnings reports.

## Tips and caveats

- Standardized financial data may occasionally group unique, company-specific line items into broader categories for comparability. Always refer to the raw SEC filings if a highly specific accounting treatment is critical to your thesis.

METRIC	TREND	FY 2025	FY 2024	FY 2023	FY 2022
Total Revenue		\$185.02B	\$187.44B	\$171.84B	\$156.74B
Gross Profit		N/A	N/A	N/A	N/A
Operating Income		\$2.91B	\$12.78B	\$9.30B	\$10.31B
Net Income		\$2.70B	\$6.01B	\$10.13B	\$9.93B
EPS Basic		\$3.33	\$6.45	\$7.35	\$6.17
EPS Diluted		\$3.27	\$6.37	\$7.32	\$6.13
DERIVED METRIC					
Gross Margin		N/A	N/A	N/A	N/A
Operating Margin		1.57%	6.82%	5.41%	6.58%

SOURCE: SEC | YEARS COVERED: 10

## RV - Relative valuation

Command: RV

Category: Fundamentals

Requires ticker: Yes

## Overview

The Relative valuation command automatically builds a peer-comparison matrix. It helps investors determine if a stock is trading at a premium or a discount compared to its closest competitors within the same sector, a crucial step in fundamental equity research.

## How to use it

Type a ticker followed by RV (for example, NVDA RV). The panel will generate a data table comparing your target company against peers.

## Reading the output

The target company is displayed alongside its 7 closest sector peers. These peers are selected algorithmically based on the log-distance of their market capitalizations to ensure realistic comparisons. The table displays key valuation multiples: Price-to-Earnings (P/E), Price-to-Book (P/B), Enterprise Value-to-EBIT (EV/EBIT), and Price-to-Sales (P/S). Sector medians are calculated and highlighted at the bottom, allowing you to quickly spot if your target stock is overvalued (red/higher than median) or undervalued (green/lower than median) relative to the group.

## Data sources and refresh rate

Calculations rely on the latest closing prices and trailing twelve-month (TTM) fundamental data. Multiples are recalculated dynamically upon command execution.

## Tips and caveats

- The algorithmic peer selection is strictly sector and market-cap driven. It may occasionally pull in a company with a different core business model if it shares the same broad sector classification.

NVDA DES		ACLX DES		BG DES		DOW RV		IBM RV X	
<b>IBM</b> <span>RV</span> TECHNOLOGY								7 PEERS	
MEDIAN P/E		MEDIAN P/B		MEDIAN EV/EBIT		MEDIAN P/S			
61.8		11.4		54.6		9.3			
SYMBOL	COMPANY	PRICE	MKT CAP	REVENUE	P/E	P/B	EV/EBIT	P/S	
IBM	International Business Machines...	\$245.28	\$228.7B	\$67.5B	21.6	7.0	N/A	3.39	
TXN	Texas Instruments Incorporated ...	\$282.67	\$185.3B	\$17.7B	37.0	11.4	32.5	10.48	
SHOP	Shopify Inc. - Class A Subordin...	\$121.87	\$157.9B	\$11.6B	128.3	11.7	106.5	13.67	
ANET	Arista Networks, Inc. Common St...	\$124.60	\$156.8B	\$9.0B	44.7	12.7	40.2	17.41	
QCOM	QUALCOMM Incorporated - Common ...	\$138.13	\$151.6B	\$44.3B	27.4	N/A	13.0	3.42	
PLTR	Palantir Technologies Inc. - CL...	\$147.22	\$346.7B	\$4.5B	213.4	46.9	244.2	77.47	
ACN	Accenture plc Class A Ordinary ...	\$209.89	\$130.7B	\$17.6B	92.5	4.2	58.2	7.43	
GLW	Corning Incorporated Common Sto...	\$147.57	\$126.0B	\$15.6B	78.9	10.7	54.6	8.06	
Sector median					61.8	11.4	54.6	9.27	

## EE - Earnings estimates

Command: EE

Category: Fundamentals

Requires ticker: Yes

### Overview

The Earnings estimates command tracks a company's historical ability to beat, meet, or miss Wall Street consensus estimates. Analyzing a company's earnings surprise history can provide insight into management's tendency to under-promise and over-deliver.

### How to use it

Type a ticker followed by EE (for example, AMZN EE). The panel will display historical performance data and forward-looking estimates.

### Reading the output

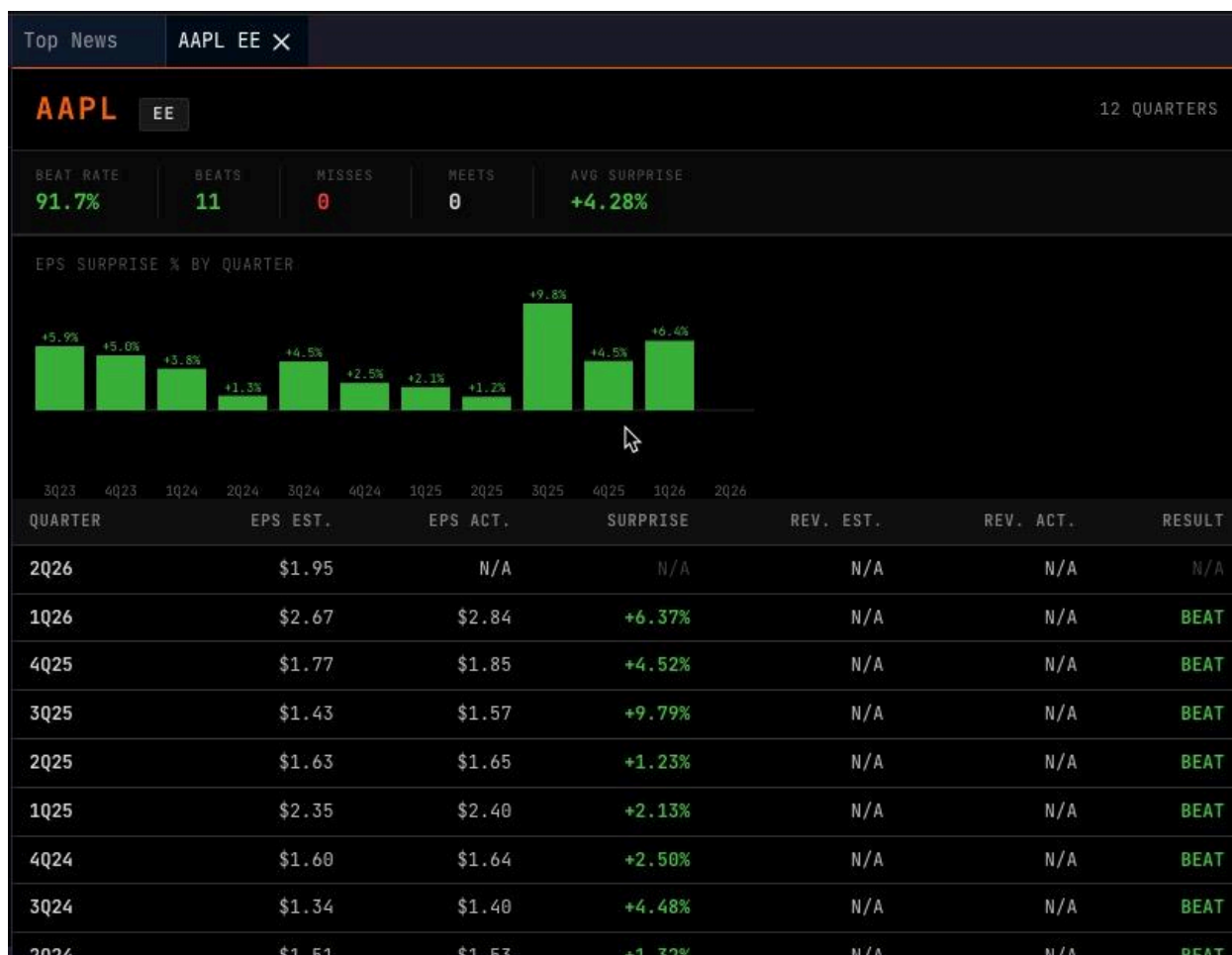
The visual centerpiece is a bar chart displaying the last 12 quarters of Earnings Per Share (EPS), plotting the reported actuals against the analyst estimates. A percentage surprise metric accompanies each quarter. The panel also calculates the aggregate "beat rate" (how often they exceed estimates) and the average surprise magnitude. Below the EPS data, revenue estimates for upcoming quarters are also provided.

### Data sources and refresh rate

Consensus estimate data is aggregated from major financial data providers. Actuals are updated immediately following quarterly earnings announcements.

### Tips and caveats

- A high historical beat rate does not guarantee future beats. Use this tool to gauge the predictability of a company's earnings rather than as a strict forecasting mechanism.



## DVDF - Dividends & yield

**Command:** DVDF

**Category:** Fundamentals

**Requires ticker:** Yes

### Overview

Designed for income-focused investors, the Dividends & yield command provides a comprehensive view of a company's dividend payout history, yield trends, and critical

upcoming dates required for dividend capture strategies.

### **How to use it**

Type a ticker followed by DVDF (for example, JNJ DVDF).

### **Reading the output**

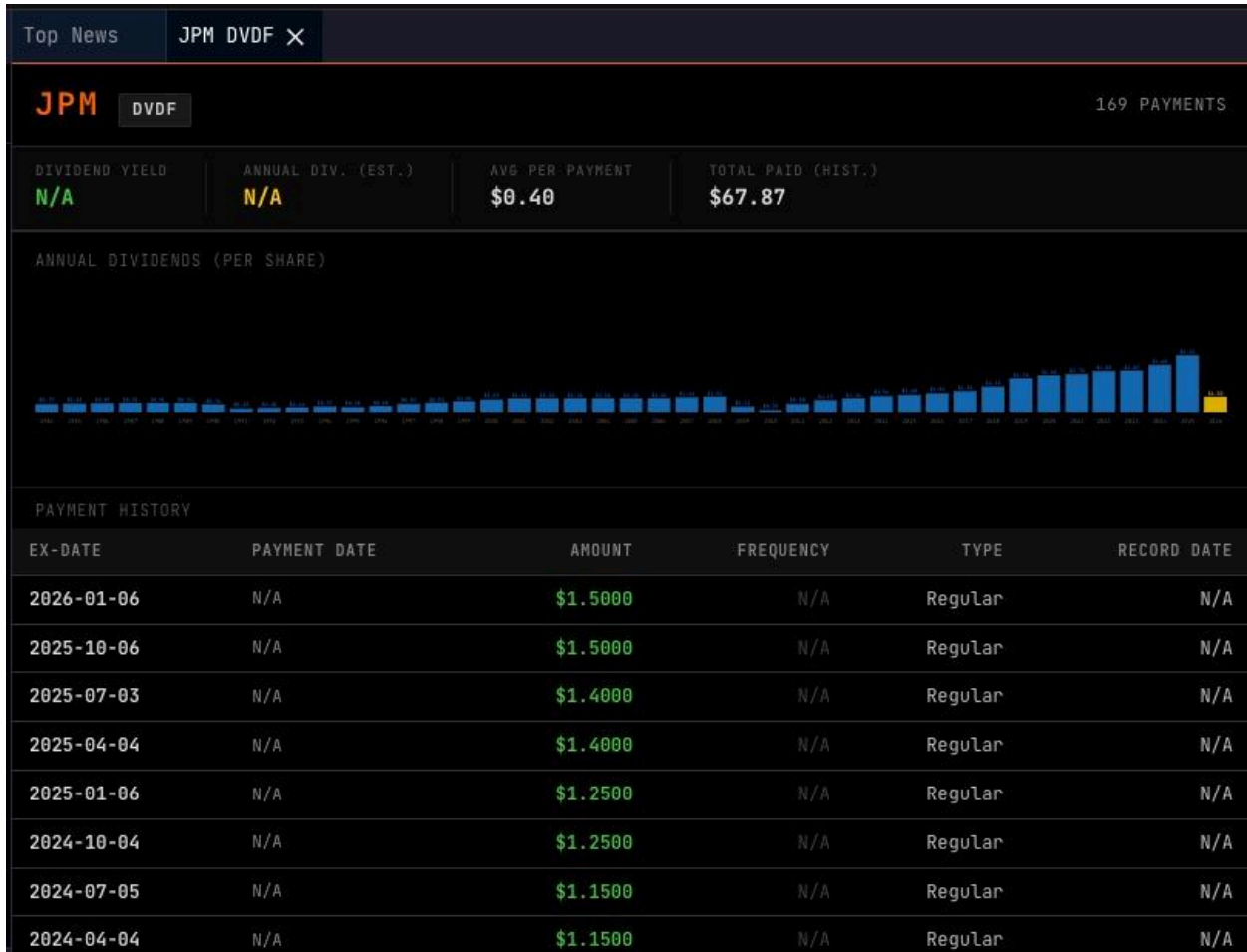
The top of the panel displays the current forward dividend yield, calculated dynamically using the latest traded price. Below this, you will find the critical dates for the current or upcoming payout: the Ex-date (the date you must hold the stock to receive the dividend), Record date, and Payment date, along with the payout frequency (e.g., Quarterly, Annual). The bottom section features a trend chart visualizing the annual dividend growth over the available historical period.

### **Data sources and refresh rate**

Dividend declarations and historical payout records are sourced from corporate actions databases. Yields update continuously based on current market prices.

### **Tips and caveats**

- Be aware that special, one-time dividends might spike the historical trend chart. Focus on the standard recurring payout frequency for long-term income planning.
- If a stock does not pay a dividend, the panel will return a "No dividend history found" message.



## REC - Analyst recommendations

**Command:** REC

**Category:** News

**Requires ticker:** Yes

### Overview

The REC command displays the latest analyst ratings and recommendations for a specific stock from major investment firms. It shows the full history of rating changes, including upgrades, downgrades, reiterations, and coverage initiations, along with the corresponding price targets. This is essential information for investors who want to track Wall Street sentiment around a

stock and see how major firms are positioning their outlook.

While the standalone UPDN command shows recent rating changes across the broader market, REC is focused on a single ticker, providing the complete analyst coverage history for that specific company.

## How to use it

Type the ticker symbol followed by REC (for example, NVDA REC, AAPL REC, TSLA REC). The panel opens and immediately displays up to 50 of the most recent analyst ratings for the stock, sorted from newest to oldest.

## Reading the output

The panel shows a table with the following columns:

- **Date:** the date the rating was published.
- **Firm:** the investment firm or analyst house issuing the rating (Citigroup, Jefferies, RBC Capital, Morgan Stanley, etc.).
- **Action:** the type of rating change, displayed as a colored badge. Upgrade badges are green, indicating the firm raised its rating. Downgrade badges are red, signaling a reduction. Maintain and Reiterate badges are gray, meaning the firm restated its existing view. Initiation badges (green) mean the firm is starting coverage on the stock.
- **From:** the previous rating (Buy, Hold, Sell, Neutral, Outperform, Overweight, etc.). For initiations, this column is empty.
- **To:** the new rating after the change. Color-coded for quick visual scanning.
- **PT From:** the previous price target in dollars, if available.
- **PT To:** the new price target, color-coded green if the target was raised, red if lowered, gray if unchanged. Dashes indicate no target was set.

The header shows the stock ticker in orange, a REC badge indicating the active command, and a total count of ratings on the right side (e.g., "50 ratings"). The footer credits the data source.

## Data sources and refresh rate

All analyst ratings come from yfinance, which aggregates public rating data from Yahoo Finance. No API key is required. Results are cached for 2 hours in Redis, so subsequent lookups for the same ticker are instant. The cache refresh interval balances data freshness with respect for the upstream source.

## Tips and caveats

- REC is a ticker-specific view. If you want a market-wide feed of the latest upgrades and downgrades across all major US stocks, use the **UPDN** command (singleton, no ticker required) which shows the last 21 days of activity for approximately 55 S&P 100 stocks.
- The price target colors are relative to the previous target, not to the current market price. A green "PT To" means the firm raised its target, regardless of whether the stock is trading above or below it.
- Maintain and Reiterate actions are not sentiment changes, but they do signal that the firm continues to cover the stock and has refreshed its view. A sudden flurry of Maintains often happens around earnings.
- Initiations of coverage can be particularly significant for smaller or newer stocks, as they indicate growing institutional attention.
- Some smaller stocks may have very few or no analyst ratings in the history. This is normal and simply means the stock has limited Wall Street coverage.
- The From/To rating terminology varies by firm (Buy vs Outperform vs Overweight all roughly mean "bullish"). The table preserves each firm's specific vocabulary to avoid losing nuance.

PLTR		REC	50 ratings				
DATE	FIRM	ACTION	FROM	TO	PT FROM	PT TO	
2026-04-16	DA Davidson	MAINTAIN	Neutral	Neutral	\$180	\$180	
2026-04-14	Mizuho	MAINTAIN	Outperform	Outperform	\$195	\$185	
2026-04-10	Wedbush	REITERATE	Outperform	Outperform	\$230	\$230	
2026-03-25	Rosenblatt	MAINTAIN	Buy	Buy	\$200	\$200	
2026-03-18	UBS	MAINTAIN	Buy	Buy	\$180	\$200	
2026-03-16	Wedbush	REITERATE	Outperform	Outperform	\$230	\$230	
2026-03-03	Rosenblatt	MAINTAIN	Buy	Buy	\$150	\$200	
2026-02-27	Rosenblatt	INITIATION	--	Buy	--	\$150	
2026-02-26	UBS	UPGRADE	Neutral	Buy	\$180	\$180	
2026-02-18	Mizuho	UPGRADE	Neutral	Outperform	--	\$195	
2026-02-13	Freedom Broker	UPGRADE	Sell	Buy	\$170	\$170	
2026-02-03	DA Davidson	MAINTAIN	Neutral	Neutral	\$215	\$180	
2026-02-03	Citigroup	MAINTAIN	Buy	Buy	\$235	\$260	
2026-02-03	UBS	MAINTAIN	Neutral	Neutral	\$205	\$180	
2026-01-22	Phillip Securities	INITIATION	--	Buy	--	\$208	

yfinance - analyst ratings sourced from Yahoo Finance

## **INS - Insider trades**

**Command:** INS

**Category:** Fundamentals

**Requires ticker:** Yes

### **Overview**

The Insider trades command lists recent transactions made by corporate insiders (directors, officers, and major shareholders). Tracking whether executives are buying or selling their own company's stock is a powerful signal of internal confidence.

### **How to use it**

Type a ticker followed by INS (for example, AAPL INS). The panel presents a chronological ledger of recent insider activity.

### **Reading the output**

The table details the transaction date, the insider's name and title, the transaction type (Buy, Sell, or Award/Grant), the number of shares transacted, and the execution price. Direct links to the original SEC Form 4 filings are provided for verification.

### **Data sources and refresh rate**

Data is sourced primarily from finvizfinance for rapid delivery, with an automatic fallback mechanism to direct SEC EDGAR database queries to ensure accuracy and completeness.

### **Tips and caveats**

- Not all insider sales are bearish signals; executives often sell shares on pre-scheduled 10b5-1 plans for tax or diversification purposes. However, cluster buying by multiple insiders on the open market is generally considered a strong bullish indicator.

Top News		BAC INS X								
BAC		INS	Bank of America Corporation Common Stock					FINVIZ		
TRANSACTIONS	BUYS	SALES						PAGE		
68	29	39	DATE	OWNER	RELATIONSHIP	TYPE	SHARES	PRICE	VALUE	TOTAL HELD
Mar 03 '26	Athanasia Dean C	Co-President	SALE	136.6K	\$50.21	\$6.86M	558.5K			
Mar 05 '26	Thomas Scrivener	Officer	SALE	50.0K	\$49.80	\$2.49M	-			
Mar 05 '26	Sheri Bronstein	Officer	SALE	60.0K	\$50.00	\$3.00M	-			
Mar 04 '26	James DeMare	Officer	SALE	83.8K	\$50.10	\$4.20M	-			
Feb 27 '26	Borthwick Alastair M	Executive Vice President & CFO	SALE	68.0K	\$50.24	\$3.42M	327.8K			
Mar 03 '26	Dean Athanasia	officer	SALE	136.6K	\$49.73	\$6.79M	-			
Feb 27 '26	Alastair Borthwick	Officer	SALE	68.0K	\$50.24	\$3.42M	-			
Feb 25 '26	BANK OF AMERICA CORP /DE/	10% Owner	BUY	8	\$12.88	\$103.00	8			
Feb 25 '26	BANK OF AMERICA CORP /DE/	10% Owner	SALE	8	\$12.96	\$104.00	0			
Feb 17 '26	BANK OF AMERICA CORP /DE/	10% Owner	BUY	1.4K	\$10.74	\$15.0K	1.4K			
Feb 17 '26	BANK OF AMERICA CORP /DE/	10% Owner	SALE	1.4K	\$10.74	\$15.0K	0			
Feb 02 '26	BANK OF AMERICA CORP /DE/	10% Owner	SALE	2.9K	\$3.05	\$8.9K	231.1K			
Jan 26 '26	BANK OF AMERICA CORP /DE/	10% Owner	BUY	343	\$12.54	\$4.3K	343			

Finviz - SEC EDGAR Form 4 - directors, officers, 10% owners CACHED

## INSB - Insider buys feed

**Command:** INSB

**Category:** Fundamentals

**Requires ticker:** No

### Overview

The Insider buys feed acts as a market-wide scanner, aggregating the latest open-market purchases by corporate insiders across all publicly traded US equities. It helps users discover new investment ideas backed by management conviction.

### How to use it

Simply type INSB in the Command Bar and press Enter.

### Reading the output

The panel displays a continuous, sorted feed of up to 200 of the most recent insider purchase transactions. It includes the ticker symbol, company name, insider name, transaction value, and share count.

### **Data sources and refresh rate**

Sourced from market-wide aggregator feeds (Finviz). The feed is automatically cached and refreshed every 10 minutes to balance speed and API rate limits.

### **Tips and caveats**

- Use this command to find tickers to research further. Once you spot an interesting large purchase on INSB, run DES and FA on that specific ticker to understand the underlying business.

NVDA CN		Top Movers	Insider Sales	Insider Buys X			
<b>INSB</b> Latest insider buys				<b>FINVIZ</b>			
TRANSACTIONS		PAGE		CACHED			
200		1 / 8					
TICKER	DATE	OWNER	RELATIONSHIP	TYPE	SHARES	PRICE	
LEE	Mar 03 '26	Hoffmann David Henry	Director	BUY	19.0K	\$9.16	
LEE	Mar 02 '26	Hoffmann David Henry	Director	BUY	19.0K	\$8.85	
LEE	Feb 27 '26	Hoffmann David Henry	Director	BUY	15.2K	\$9.11	
TPL	Mar 02 '26	HORIZON KINETICS ASSET ...	10% Owner	BUY	1	\$524.01	
SKWD	Feb 27 '26	McHarg Taryn Leonie	CFD - Apollo	BUY	200	\$46.60	
GCBC	Mar 02 '26	Cannucciari Christopher	Director	BUY	1.3K	\$22.05	
SRBK	Mar 03 '26	Viotto Neil C	EVP and COO	BUY	1.0K	\$16.83	
AVBC	Mar 02 '26	Cozzone Robert D	President & CEO	BUY	1.1K	\$18.79	
BHB	Mar 02 '26	Colter David M	Director	BUY	500	\$32.54	
AVBC	Mar 02 '26	Karmelek Nicolas	EVP and CRO	BUY	1.1K	\$18.59	
LEE	Mar 02 '26	Quint Digital Ltd	10% Owner	BUY	20.5K	\$8.87	
SKWD	Mar 02 '26	Peirce Christopher Locke	Director	BUY	3.2K	\$47.30	
IVR	Feb 27 '26	Waldner Robert	Director	BUY	1.0K	\$8.45	
FOSE	Mar 02 '26	Mastrangelo Joe	Chief Executive Officer	BUY	40.0K	\$5.75	
Source: Finviz - SEC Form 4 - directors, officers, 10%+ owners							REFRESH

## INSS - Insider sales feed

Command: INSS

Category: Fundamentals

Requires ticker: No

### Overview

The counterpart to INSB, the Insider sales feed aggregates the latest insider selling activity across the broader market. It allows users to monitor heavy selling volume by executives, which

could highlight overvalued sectors or individual companies.

### **How to use it**

Type INSS and press Enter.

### **Reading the output**

Similar in structure to INSB, this panel shows the most recent 200 insider sales transactions sorted chronologically. It details the ticker, insider role, transaction size, and price.

### **Data sources and refresh rate**

Sourced from Finviz and cached automatically every 10 minutes.

### **Tips and caveats**

- As mentioned in the INS command, insider sales are less predictive than insider buys. Look for unusually large liquidations or coordinated selling by multiple executives rather than routine algorithmic sales.

NVDA CN		Top Movers		Insider Sales X		
<b>INSS</b>		Latest insider sales				<b>FINVIZ</b>
TRANSACTIONS		PAGE		CACHED		
200		1 / 8				
TICKER	DATE	OWNER	RELATIONSHIP	TYPE	SHARES	PRICE
<b>MATX</b>	Mar 03 '26	Park Kuuhaku T	Officer	<b>SALE</b>	2.0K	\$169.38
<b>VZ</b>	Mar 02 '26	Stillwell Mary-Lee	SVP and Controller	<b>SALE</b>	8.6K	\$50.00
<b>VST</b>	Mar 03 '26	Kirby Carrie Lee	Officer	<b>SALE</b>	60.0K	\$154.68
<b>WM</b>	Mar 02 '26	Watson Michael J.	Sr. VP-Chief Customer ...	<b>SALE</b>	17.3K	\$241.81
<b>WM</b>	Mar 02 '26	Hemmer Tara J.	SVP & Chief Sustainabi...	<b>SALE</b>	4.8K	\$241.83
<b>MATX</b>	Mar 03 '26	Taylor Jason Lee	Officer	<b>SALE</b>	3.0K	\$165.70
<b>VICR</b>	Mar 02 '26	Fendelelet Quentin A.	Corp. VP - CAO	<b>SALE</b>	2.3K	\$204.72
<b>CBLL</b>	Mar 03 '26	Chao Xingjuan	Officer	<b>SALE</b>	39.0K	\$17.80
<b>LSCC</b>	Mar 02 '26	Stevens Tonya	CVP, Chief Accounting ...	<b>SALE</b>	3.2K	\$95.38
<b>FMAO</b>	Mar 02 '26	Faust Eric D	Chief Risk Officer	<b>SALE</b>	275	\$25.92
<b>MATX</b>	Mar 03 '26	Rascon Laura L	Officer	<b>SALE</b>	1.0K	\$168.88
<b>AVBH</b>	Mar 02 '26	ROSINUS MIKE	Director	<b>SALE</b>	2.5K	\$29.01
<b>MEG</b>	Mar 03 '26	Afsari Nasym	Officer	<b>SALE</b>	43.3K	\$28.37
<b>BOOT</b>	Mar 03 '26	Allison Jonathan	Officer	<b>SALE</b>	3.0K	\$47.88
Source: Finviz - SEC Form 4 - directors, officers, 10%+ owners						<b>REFRESH</b>

## UPDN - Upgrades & downgrades

Command: UPDN

Category: Fundamentals

Requires ticker: Optional

### Overview

The Upgrades & downgrades command tracks the shifting sentiment of Wall Street analysts. Changes in analyst ratings often act as short-term price catalysts, making this a valuable tool

for swing traders and active investors.

### **How to use it**

This command has two modes. Type UPDN without a ticker to view a market-wide summary of recent rating changes. Alternatively, type a ticker followed by UPDN (for example, AAPL UPDN) to see the specific history of analyst actions for that single company.

### **Reading the output**

In standalone mode, the panel shows recent actions for roughly 55 major S&P 100 stocks over the last 21 days. Action badges are color-coded for quick scanning: green indicates an Upgrade or Initiation of coverage, red indicates a Downgrade, and gray signifies a Maintain or Reiterate rating. The table includes the firm issuing the rating and the new price target if available.

### **Data sources and refresh rate**

Data is sourced from yfinance. To optimize performance, the data is cached for 2 hours.

### **Tips and caveats**

- Market-wide UPDN is best checked pre-market to gauge the morning's narrative. Ticker-specific UPDN is useful when trying to understand why a specific stock might be experiencing unusual volume.

Crypto News		Analyst Ratings X			
UPDN		ANALYST RATINGS		100 ratings	
DATE	SYMBOL	FIRM	ACTION	FROM	TO
2026-03-06	SBUX	DA Davidson	INITIATION	--	Neutral
2026-03-06	ORCL	Jefferies	MAINTAIN	Buy	Buy
2026-03-06	ORCL	TD Cowen	MAINTAIN	Buy	Buy
2026-03-06	NFLX	CFRA	UPGRADE	Hold	Buy
2026-03-06	NFLX	B of A Securities	MAINTAIN	Buy	Buy
2026-03-06	MCD	Tigress Financial	MAINTAIN	Buy	Buy
2026-03-06	COST	JP Morgan	MAINTAIN	Overweight	Overweight
2026-03-06	COST	BMO Capital	MAINTAIN	Outperform	Outperform
2026-03-06	COST	Telsey Advisory Group	MAINTAIN	Outperform	Outperform
2026-03-06	COST	DA Davidson	MAINTAIN	Neutral	Neutral
2026-03-06	COST	Truist Securities	MAINTAIN	Hold	Hold
2026-03-06	COST	BTIG	MAINTAIN	Buy	Buy
2026-03-06	AVGO	Morgan Stanley	MAINTAIN	Overweight	Overweight
2026-03-06	ADBE	Citigroup	MAINTAIN	Neutral	Neutral

yfinance - analyst ratings for major US equities (S&P 100, last 21 days) CACHED

## 2.3 News

Commands in this category surface curated news feeds segmented by topic or asset class.

### CN - Company news

**Command:** CN

**Category:** News

**Requires ticker:** Yes

#### Overview

The Company news command streams the latest headlines and press releases specifically related to your targeted ticker. Staying updated on company-specific news is vital for

understanding sudden price movements and tracking corporate developments.

### **How to use it**

Type a ticker followed by CN (for example, TSLA CN). The panel provides a scrolling list of news articles. Use the interactive filters at the top to narrow results by publication source, date range, and analyzed sentiment.

### **Reading the output**

Each news item displays a headline, timestamp, source publication, and a brief snippet. When available (via MarketAux), an automated sentiment score is attached, giving a quick indication of whether the news is generally perceived as positive, negative, or neutral. Clicking an article headline opens the full story in a new browser tab.

### **Data sources and refresh rate**

News is primarily sourced from Finnhub, with MarketAux serving as a secondary provider that includes sentiment scoring capabilities.


### **Tips and caveats**


- The sentiment score is generated by natural language processing algorithms and is not foolproof. Always read the actual article context, especially for highly technical or regulatory news.


NVDA CN ✕


CN NVDA Company News 50 articles Finnhub + Sentiment


DATE 7d 14d 30d SOURCE SeekingAlpha Yahoo


 YAHOO · Today 18:46 · company  
**Is AMD Stock Going to \$300?**  
 Rapid income growth and an attractive forward P/E ratio could lead to more investors buying.

 YAHOO · Today 18:35 · company  
**Could Buying Chewy Today Set You Up for Life?**  
 Chewy stock offers investors an opportunity right now.

 YAHOO · Today 18:23 · company  
**This International Bond ETF Could Offer High Yields -- and Higher Risk**  
 What if a bond fund could earn 10% or more per year? It's possible -- but there are downsides.

 YAHOO · Today 18:07 · company  
**Nvidia Stock Has Fallen Almost 5% This Year. Is Now a Good Time to Buy?**  
 Accelerating growth and stellar guidance haven't been enough to help the stock in 2026.

 YAHOO · Today 18:00 · company  
**What Drove Polestar Stock Down 29% This Week?**  
 The answer isn't obvious, but there are clues.

 YAHOO · Today 17:56 · company  
**The Trade Desk vs. AppLovin: Which AI-Powered Adtech Stock Is the Better Buy?**  
 Both stocks have been hit hard by competitive pressure, but one is

Source: Finnhub · 2026-02-05 to 2026-03-07

## TOP - Top news

Command: TOP

Category: News

**Requires ticker:** No

## **Overview**

The Top news command provides a persistent, always-on feed of the most important macroeconomic and general market headlines. It acts as the terminal's global news ticker, keeping you aware of breaking developments that could impact the broader market.

## **How to use it**

Type TOP and press Enter. Leave this panel open on the side of your workspace to act as a live ticker.

## **Reading the output**

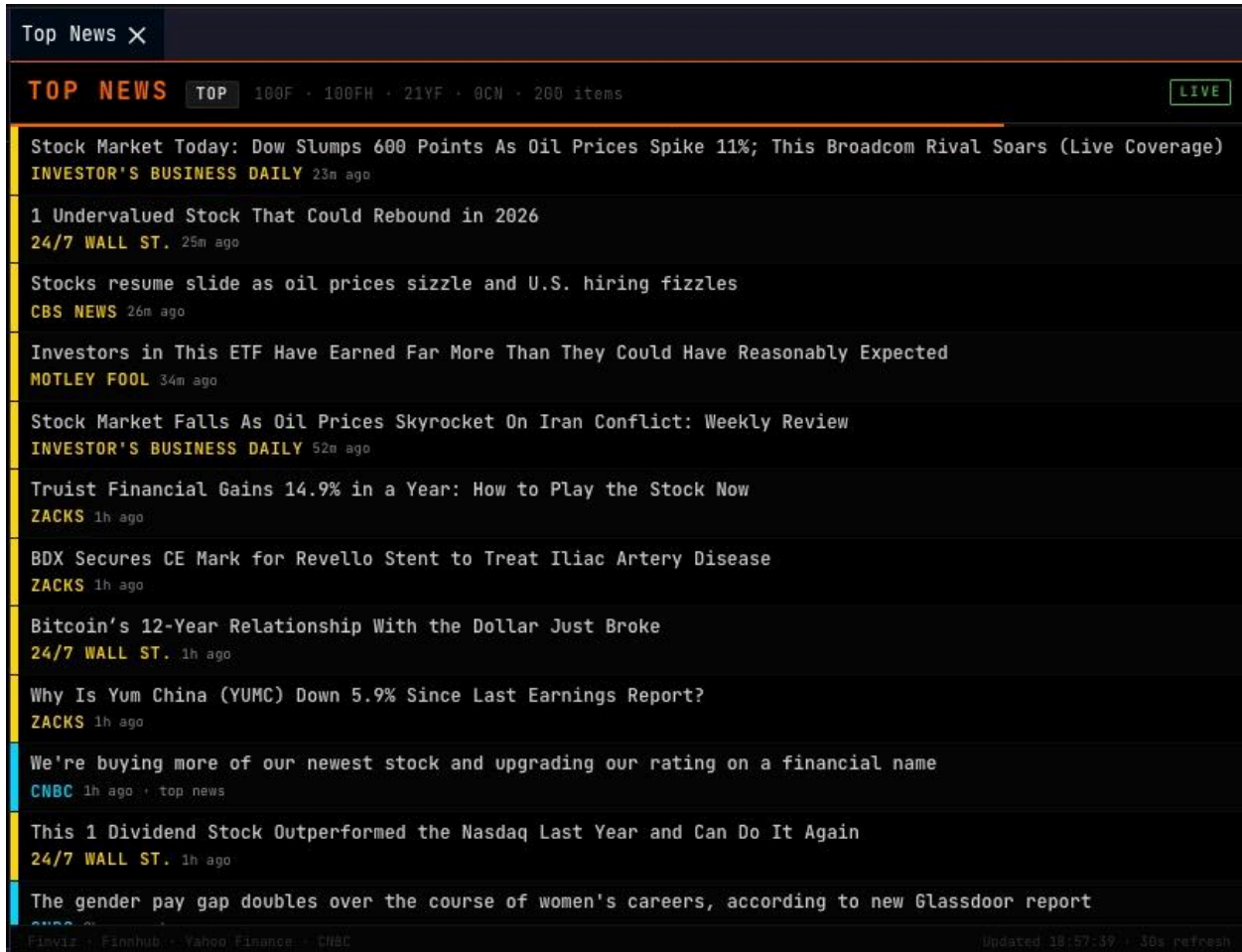
The panel displays a continuous, chronological list of headlines. The feed interleaves articles on a 1-for-1 basis from different aggregator sources to ensure a diverse perspective without being dominated by a single publisher.

## **Data sources and refresh rate**

Headlines are aggregated from Finviz and Finnhub. The panel automatically refreshes every 30 seconds to ensure you see breaking news almost instantly.

## **Tips and caveats**

- Due to the high refresh rate, this panel is ideal for day traders who need to react instantly to macroeconomic headlines, central bank announcements, or geopolitical events.



## TOPCRYP - Top crypto news

**Command:** TOPCRYP

**Category:** News

**Requires ticker:** No

### Overview

Top crypto news filters the noise of the broader market to focus specifically on the cryptocurrency sector. It tracks regulatory developments, protocol updates, and major movements in the digital asset space.

### How to use it

Type TOPCRYP in the Command Bar.

### Reading the output

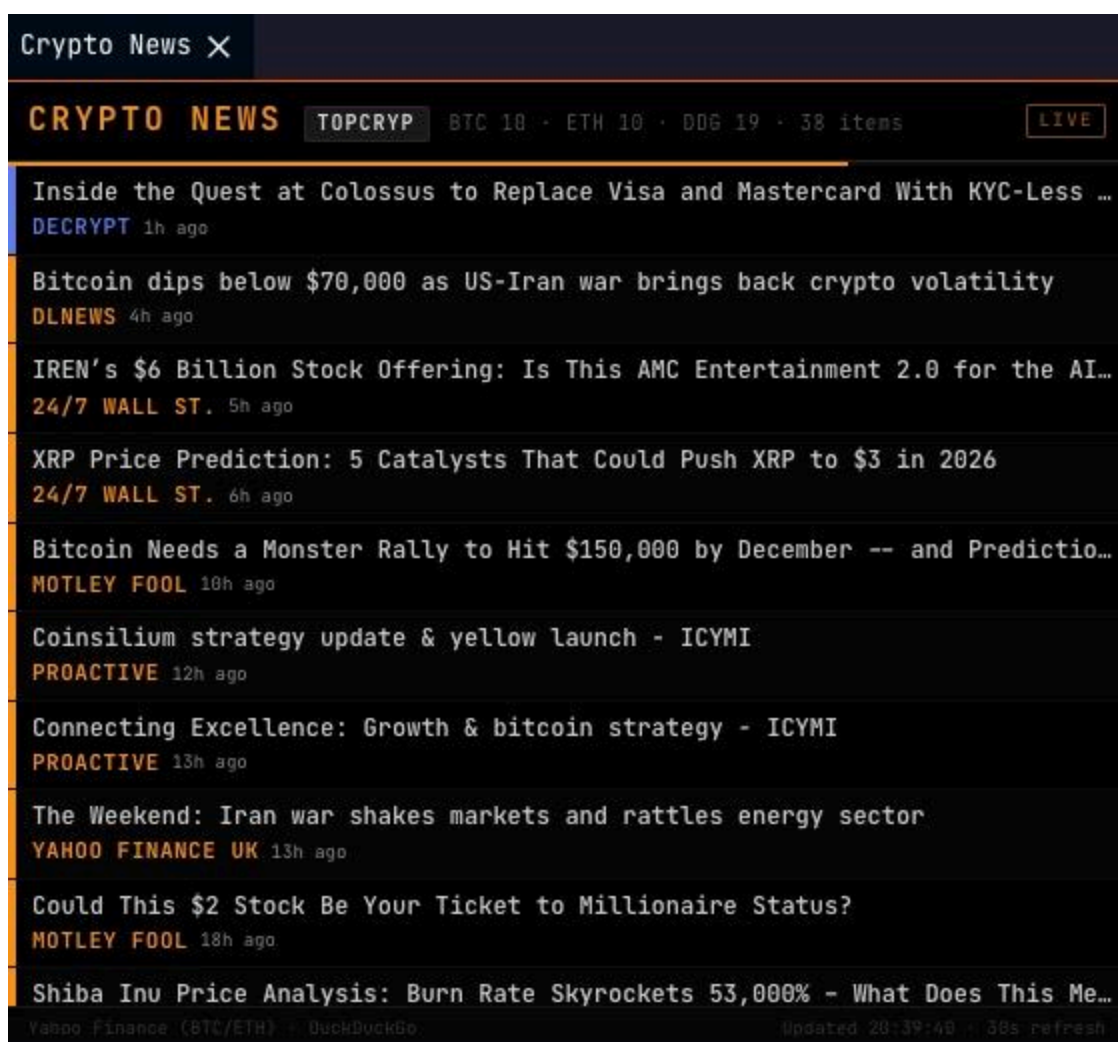
The panel provides a clean list of recent headlines focused on major cryptocurrencies and the blockchain industry. Timestamps and publisher names accompany each link.

### Data sources and refresh rate

News is aggregated using Yahoo Finance (tracking BTC-USD and ETH-USD specifically) combined with DuckDuckGo News search algorithms. A background pre-fetch mechanism refreshes the Redis cache approximately every 4 minutes.

### Tips and caveats

- Because the crypto market operates 24/7, this feed is highly active during weekends and evenings when traditional equity news feeds are quiet.



### TOPMET - Top metals news

Command: TOPMET

**Category:** News

**Requires ticker:** No

## **Overview**

This command curates news impacting the precious metals markets, primarily gold and silver. It is essential for commodities traders and investors using metals as inflation hedges.

## **How to use it**

Execute the TOPMET command.

## **Reading the output**

The feed highlights geopolitical events, central bank gold purchasing data, and mining industry news.

## **Data sources and refresh rate**

Data is sourced from Yahoo Finance and DuckDuckGo News. To maintain terminal performance, the endpoint reads from a Redis cache that is refreshed in the background every 4 minutes.

## **Tips and caveats**

- Use this command alongside the GP command for gold (XAUUSD) to correlate price action with breaking geopolitical headlines.

NVDA CN Metals News X

**METALS NEWS** TOPMET GLD 10 · SLV 10 · DDG 25 · 43 items LIVE

GLD's \$75 Billion Couldn't Shield It From the Tariff-Driven Selloff  
24/7 WALL ST. 6h ago

Gold Volatility Surges as U.S.-Iran Tensions Shake US Dollar and Global Marke...  
FX EMPIRE 21h ago

Gold, Silver Rate Today (Mar 6) - Live Updates: Gold near Rs 1.60 lakh, silve...  
MONEYCONTROL 1d ago

Update: Gold Moves Higher, But Sees Only Mild Support Despite the War and an ...  
MT NEWSWIRES 1d ago

Inflation Pressure Intensifying? ETFs May Help Stay Prepared  
ZACKS 1d ago

Gold Moves Higher, But Sees Only Mild Support Despite the War on Iran and an ...  
MT NEWSWIRES 1d ago

Exchange-Traded Funds, Equity Futures Lower Pre-Bell Friday Amid Fresh Market...  
MT NEWSWIRES 1d ago

IAMGOLD's 273% Run Has a Real Reason Behind It  
24/7 WALL ST. 1d ago

Gold Surge on Iran Strikes: Can War Risk Send Gold to \$6,500, Silver to \$150?  
FX EMPIRE 1d ago

Gold Prices Aren't Doing What You'd Expect. Here's Why Experts Say That's Hap...  
INVESTOPEDIA 1d ago

Gold gains on safe-haven demand as Middle East conflict widens  
CNBC 2d ago

What gold investing alternatives are worth considering this March?  
CBS NEWS ON MSN 2d ago

Yahoo Finance (GLD/SLV) · DuckDuckGo Updated 20:40:28 · 60s refresh

## TOPENE - Top energy news

Command: TOPENE

Category: News

Requires ticker: No

### Overview

Top energy news tracks the highly volatile energy sector, focusing on crude oil, natural gas,

OPEC decisions, and global supply chain disruptions.

### **How to use it**

Type TOPENE and press Enter.

### **Reading the output**

Headlines cover inventory reports, international energy policy, and corporate news from major oil and gas explorers.

### **Data sources and refresh rate**

Aggregated from DuckDuckGo News and Yahoo Finance (utilizing proxies like USO and UNG ETFs to guide the news fetching). Background pre-fetching updates the cache every 4 minutes.

### **Tips and caveats**

- Pay special attention to this feed on Wednesdays (when US crude inventory data is typically released) and during scheduled OPEC meetings.



## 2.4 Markets

Commands in this category provide macro and market-wide views: indices, economic indicators, sector performance, screeners, and AI-generated analysis.

### WEI - World indices

**Command:** WEI

**Category:** Markets

**Requires ticker:** No

## **Overview**

The World indices command provides a bird's-eye view of global equity market performance. By tracking major international benchmarks, users can gauge the overall health of the global economy and observe how overnight trading in Asia and Europe might impact the upcoming US session.

## **How to use it**

Type WEI in the Command Bar.

## **Reading the output**

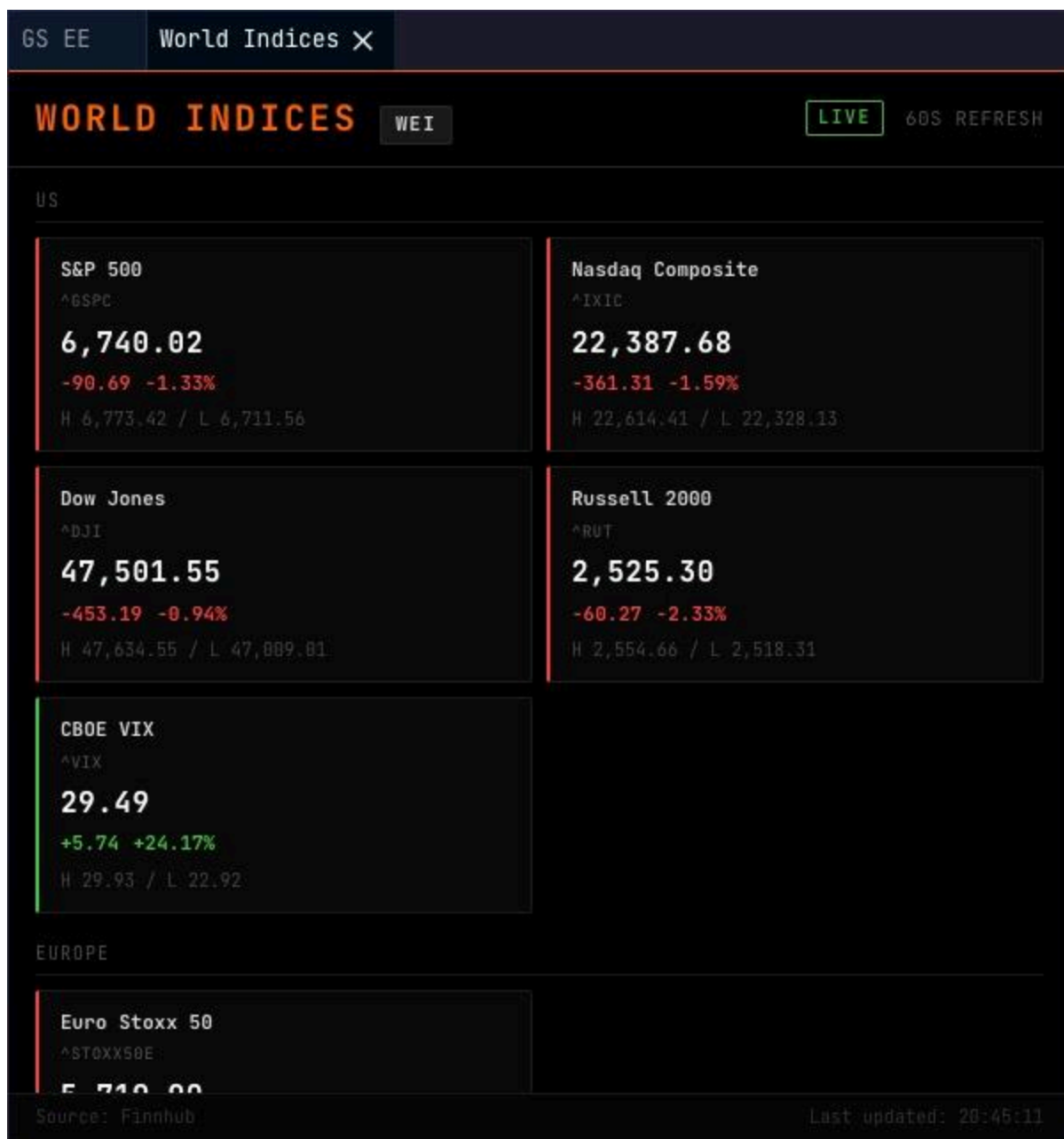
The panel displays a comprehensive table of roughly 15 major global indices (such as the S&P 500, FTSE 100, Nikkei 225, and DAX). The indices are logically grouped by geographical region: US, Europe, Asia-Pacific, and Americas. Each row shows the current index value, the absolute and percentage change for the day, and the intraday High/Low range. Color coding (green/red) makes it easy to assess regional market sentiment at a glance.

## **Data sources and refresh rate**

Index pricing is fetched from standard market data providers and automatically refreshes every 60 seconds to provide near real-time global monitoring.

## **Tips and caveats**

- Because global markets operate in different time zones, some indices will be actively updating while others display the final closing value from their local session. Keep time zones in mind when interpreting the data.



## ECO - Economic indicators

Command: ECO

Category: Markets

Requires ticker: No

### Overview

The Economic indicators command serves as a consolidated macro dashboard. It aggregates

the most critical data points used by the Federal Reserve and institutional economists to assess the health of the US economy.

### **How to use it**

Type ECO and press Enter.

### **Reading the output**

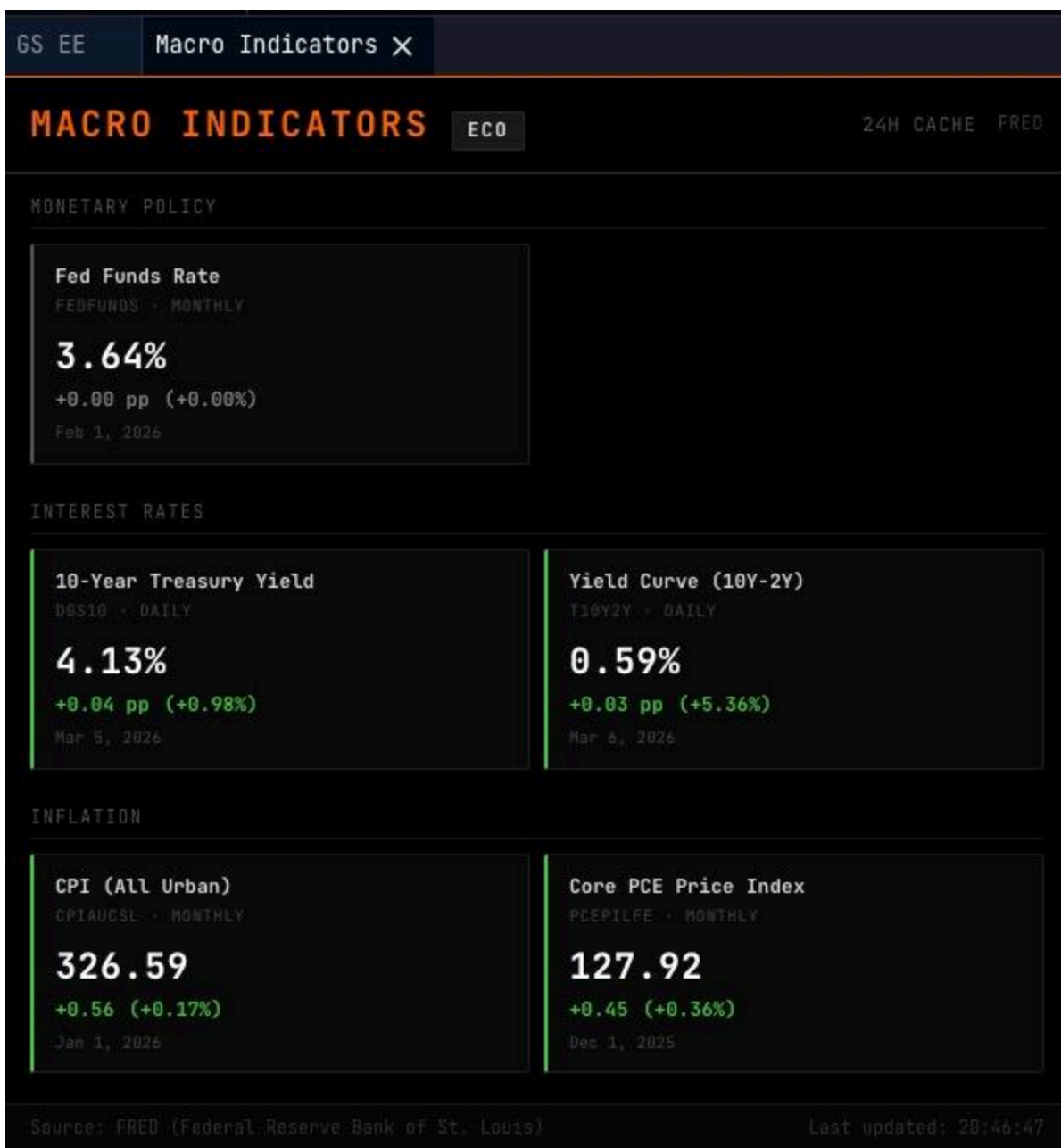
The panel displays a grid of key macro metrics, including the effective Fed Funds Rate, the 10-Year Treasury yield, the yield curve status, CPI (inflation), Core PCE, Unemployment rate, Nonfarm Payrolls, GDP growth, housing starts, and Consumer Sentiment indices. Each metric displays its latest value and the date it was recorded.

### **Data sources and refresh rate**

All data is pulled directly from FRED (Federal Reserve Economic Data). The panel fetches the most recent observations available in the FRED database.

### **Tips and caveats**

- Economic data is released on specific schedules (e.g., jobs data on the first Friday of the month). The ECO panel reflects the latest available data, not live market reactions. Use ECOCAL to anticipate when these numbers will change.



## SPER - Sector performance

Command: SPER

Category: Markets

Requires ticker: No

### Overview

Understanding which sectors are leading or lagging the market is crucial for portfolio allocation

and momentum trading. The Sector performance command visualizes the daily return of major NASDAQ market sectors, allowing users to instantly spot capital rotation.

### **How to use it**

Type SPER in the Command Bar.

### **Reading the output**

The panel utilizes a diverging bar chart to visualize performance. Sectors are sorted from best-performing at the top to worst-performing at the bottom. Green bars extend to the right for positive performance, while red bars extend to the left for negative performance. This visual structure allows for immediate identification of the day's market drivers.

### **Data sources and refresh rate**

Sector aggregate data is provided by Financial Modeling Prep (FMP) and is refreshed daily.

### **Tips and caveats**

- Sector rotation often signals broader macroeconomic shifts. For example, a sudden rotation out of Technology and into Utilities and Consumer Staples might indicate that the market is adopting a defensive posture.



## ECOCAL - Economic calendar

Command: ECOCAL

Category: Markets

Requires ticker: No

### Overview

The Economic calendar is an essential planning tool for active traders. It lists scheduled releases of economic data, central bank meetings, and government reports that are likely to cause market volatility.

### How to use it

Type ECOCAL and press Enter.

## Reading the output

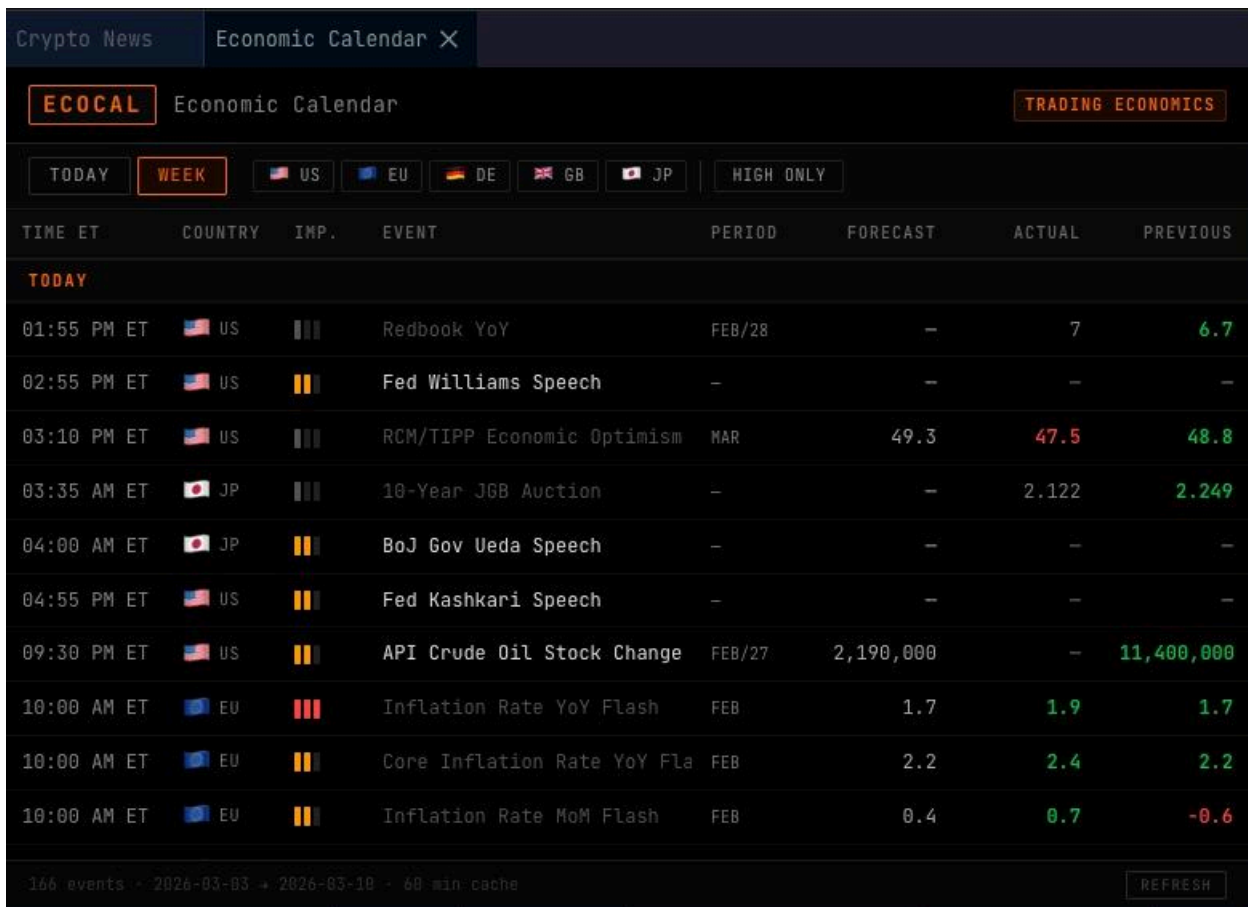
The table lists upcoming events chronologically. Key columns include the date/time (in ET), the country of origin (US, Euro Area, Germany, UK, Japan), the name of the event, and the importance level (Low/Medium/High). Crucially, the table also displays the previous period's value, the consensus forecast, and the actual printed value once the event occurs. Users can filter the calendar by specific country or choose to only display high-importance events.

## Data sources and refresh rate

The primary data source is Trading Economics, with an automatic fallback to FMP if the primary API is unavailable. The calendar data is cached and updated every 60 minutes.

## Tips and caveats

- High-importance events (like US CPI or FOMC rate decisions) frequently cause extreme short-term volatility. Many day traders use the ECOCAL to know exactly when to flatten their positions to avoid slippage during these releases.



The screenshot displays the ECOCAL Economic Calendar interface. At the top, there are tabs for 'Crypto News' and 'Economic Calendar'. Below this, the 'ECO CAL' logo is visible, along with the 'Economic Calendar' title and the 'TRADING ECONOMICS' logo. The interface includes filters for 'TODAY', 'WEEK', and various countries (US, EU, DE, GB, JP), as well as a 'HIGH ONLY' filter. The main table lists events with the following columns: TIME ET, COUNTRY, IMP., EVENT, PERIOD, FORECAST, ACTUAL, and PREVIOUS. The events listed include Redbook YoY, Fed Williams Speech, RCM/TIPP Economic Optimism, 10-Year JGB Auction, BoJ Gov Ueda Speech, Fed Kashkari Speech, API Crude Oil Stock Change, Inflation Rate YoY Flash, Core Inflation Rate YoY Fla, and Inflation Rate MoM Flash. At the bottom, there is a footer with '166 events - 2026-03-03 - 2026-03-10 - 60 min cache' and a 'REFRESH' button.

TIME ET	COUNTRY	IMP.	EVENT	PERIOD	FORECAST	ACTUAL	PREVIOUS
<b>TODAY</b>							
01:55 PM ET	US	III	Redbook YoY	FEB/28	-	7	6.7
02:55 PM ET	US	II	Fed Williams Speech	-	-	-	-
03:10 PM ET	US	III	RCM/TIPP Economic Optimism	MAR	49.3	47.5	48.8
03:35 AM ET	JP	III	10-Year JGB Auction	-	-	2.122	2.249
04:00 AM ET	JP	II	BoJ Gov Ueda Speech	-	-	-	-
04:55 PM ET	US	II	Fed Kashkari Speech	-	-	-	-
09:30 PM ET	US	II	API Crude Oil Stock Change	FEB/27	2,190,000	-	11,400,000
10:00 AM ET	EU	III	Inflation Rate YoY Flash	FEB	1.7	1.9	1.7
10:00 AM ET	EU	II	Core Inflation Rate YoY Fla	FEB	2.2	2.4	2.2
10:00 AM ET	EU	II	Inflation Rate MoM Flash	FEB	0.4	0.7	-0.6

## LEO - Latest equity offerings

**Command:** LEO

**Category:** Markets

**Requires ticker:** No

## Overview

The Latest equity offerings command tracks the private placement and exempt offering market. By monitoring SEC Form D filings, investors can see where private capital is flowing and identify public companies raising capital outside of traditional secondary public offerings.

## How to use it

Execute the LEO command in the Command Bar.

## Reading the output

The panel displays a feed of recent Regulation D exempt offering filings. The table includes details such as the offering amounts (total offering amount, amount sold, and amount remaining), the entity type, the industry group, and the specific exemption codes claimed.

## Data sources and refresh rate

Data is sourced from raw SEC EDGAR filings. The data is cached for 60 minutes.

## Tips and caveats

- Public companies occasionally use Reg D filings. A sudden large private placement can cause significant dilution and impact the publicly traded share price, making this a useful peripheral monitoring tool.

FILED	FORM	TYPE	INDUSTRY	LOCATION	TOTAL OF...	SOLD
Mar 6, 2026	D/A	Corp	Other	SALEM, OREGON	\$2.0M	\$910K
Mar 6, 2026	D/A	LP	Pooled Fund	DOVER, DELAWARE	\$400K	\$250K
Mar 6, 2026	D/A	Corp	Pooled Fund	CAMANA BAY, GRAN...	—	\$4.0B
Mar 6, 2026	D/A	Corp	Pooled Fund	NEW YORK	\$500.0M	\$76.9M
Mar 6, 2026	D/A	Corp	Pooled Fund	GEORGE TOWN, GRA...	—	\$892.8M
Mar 6, 2026	D/A	Corp	Pooled Fund	WEST PALM BEACH, ...	—	\$995.9M
Mar 6, 2026	D/A	Corp	Pooled Fund	GRAND CAYMAN, CA...	—	\$12.5B
Mar 6, 2026	D/A	Corp	Pooled Fund	GRAND CAYMAN, CA...	—	\$972.4M
Mar 6, 2026	D/A	LP	Pooled Fund	NEW YORK	—	\$125.8M
Mar 6, 2026	D/A	LP	Pooled Fund	NEW YORK	—	\$125.8M
Mar 6, 2026	D/A	Corp	Pooled Fund	GEORGE TOWN, CAY...	—	\$322.2M
Mar 6, 2026	D/A	Corp	Pooled Fund	WEST PALM BEACH, ...	—	\$78.1M
Mar 6, 2026	D/A	Corp	Other Technology	NEW ATHENS, ILLI...	—	\$835K
Mar 6, 2026	D/A	Corp	Pooled Fund	GEORGE TOWN, GRA...	—	\$1.1B

SEC Form D - Regulation D exempt offering filings (Rule 506b / 506c) Source: SEC EDGAR · cached 60 min

## RCRO - Recent crowdfunding

**Command:** RCRO

**Category:** Markets

**Requires ticker:** No

### Overview

For users interested in early-stage investments and startup capital formation, the Recent crowdfunding command tracks filings related to Regulation Crowdfunding (Reg CF).

### How to use it

Type RCRO and press Enter. A client-side search filter is available within the panel to quickly

find specific companies or sectors.

### **Reading the output**

The table details the latest Reg CF SEC filings (Forms C, C/A, C-U). It displays the terms of the offering, including minimum and maximum target raises, the offering deadline, and the security type being offered. It also provides basic company details and the most recent fiscal-year financials submitted with the filing.

### **Data sources and refresh rate**

Sourced from FMP and cached for 60 minutes.

### **Tips and caveats**

- Reg CF investments are highly illiquid and carry significant risk. This data is provided for informational tracking of the startup ecosystem rather than actionable public market trading.

V EE		Recent Crowdfunding X					
Recent Crowdfunding		RCRO	Reg CF offerings – SEC Form C filings				100 of 100 filings
Filter by company, location, portal...							
FILED	FORM	LOCATION	SECURITY	PRICE	MIN RAISE	MAX RAISE	DEADLINE
Mar 6, 2026	C/A	Carson City, N...	Other	\$1.00	\$100K	\$1.2M	04-30-2026
Mar 6, 2026	C	TULSA, Oklahoma	Other	\$1.00	\$1.0M	\$5.0M	10-01-2026
Mar 6, 2026	C/A	Rockville, Mar...	Common Sto...	\$0.10	\$10K	\$4.3M	04-30-2026
Mar 6, 2026	C	PORTLAND, Oreg...	Other	\$1.00	\$10K	\$1.2M	04-28-2026
Mar 6, 2026	C	STRASBURG, Vir...	Other	\$1.00	\$75K	\$1.2M	04-29-2026
Mar 6, 2026	C/A	STRASBURG, Vir...	–	–	–	–	–
Mar 6, 2026	C/A	WILMINGTON, De...	Other	\$4.00	\$10K	\$1.2M	04-30-2026
Mar 6, 2026	C	NEW PORT RICHE...	Preferred ...	\$1.00	\$200K	\$800K	07-31-2026
Mar 6, 2026	C	Henderson, Nev...	Other	\$1.00	\$50K	\$618K	04-30-2027
Mar 6, 2026	C	Henderson, Nev...	Other	\$1.00	\$50K	\$500K	04-30-2026
Mar 5, 2026	C/A	Ft Lauderdale, ...	–	–	–	–	–
Mar 5, 2026	C-U	Encino, Califo...	Common Sto...	\$1.50	\$10K	\$1.2M	04-30-2026
Mar 5, 2026	C-U	ALAMEDA, Calif...	Other	\$1.00	\$25K	\$500K	03-02-2026
Mar 5, 2026	C	Fairfield, Cal...	Other	–	\$20K	\$1.2M	04-30-2026
Mar 5, 2026	C	CENTENNIAL, Co...	Debt	\$1.00	\$35K	\$50K	04-09-2026
Mar 5, 2026	C/A	New York, New ...	Other	\$1.00	\$10K	\$750K	03-12-2026
Mar 5, 2026	C	MINNEAPOLIS, M...	Debt	\$1.00	\$10K	\$25K	04-09-2026
Mar 5, 2026	C/A	DUNWOODY, Geor...	–	–	–	–	–

Regulation Crowdfunding (Reg CF) – SEC Form C filings Source: FHP · cached 60 min

## TOPGL - Top movers

Command: TOPGL

Category: Markets

Requires ticker: No

### Overview

Top movers is a classic market terminal function that identifies the most active and volatile stocks of the current session. Day traders rely heavily on this data to find stocks "in play" with

high liquidity and large price swings.

### **How to use it**

Type TOPGL and press Enter. The panel features three distinct tabs that you can click to toggle views: Gainers, Losers, and Most Active.

### **Reading the output**

Depending on the active tab, you will see a list of US equities experiencing the largest percentage gains (green text), largest percentage losses (red text), or the highest trading volume (cyan text). Each row shows the ticker symbol, company name, current price, absolute change, percentage change, and cumulative daily volume.

### **Data sources and refresh rate**

The primary data feed is provided by FMP, with yfinance acting as a robust fallback. The underlying data is cached for 15 minutes, but the panel auto-refreshes every 5 minutes to keep the list relatively current during active trading.

### **Tips and caveats**

- Small-cap stocks frequently dominate the Gainers and Losers tabs due to their higher volatility. The Most Active tab is usually dominated by large-cap tech and popular ETFs.

GOOGL FA		Top Movers X				
Top Movers		TOPGL	US Equity Market		50 results	FMP
GAINERS		LOSERS		MOST ACTIVE		
#	SYMBOL	NAME	PRICE	CHG (\$)	CHG (%)	VOLUME
1	DXST	Decent Holding Inc.	\$0.28	+0.13	+83.61%	-
2	PRSO	Peraso Inc.	\$2.04	+1.23	+151.54%	-
3	MOBX	Mobix Labs, Inc.	\$1.04	+0.17	+20.11%	-
4	TPET	Trio Petroleum Corp.	\$1.93	+0.34	+21.38%	-
5	BHAT	Fujian Blue Hat Interactive Entertainment...	\$0.03	-0.00	-6.45%	-
6	NVDA	NVIDIA Corporation	\$177.82	-5.52	-3.01%	-
7	TZA	Direxion Daily Small Cap Bear 3X ETF	\$7.00	+0.46	+7.03%	-
8	ONDS	Ondas Holdings Inc.	\$9.83	-0.66	-6.29%	-
9	TQQQ	ProShares - UltraPro QQQ	\$47.54	-2.26	-4.54%	-
10	SOXS	Direxion Daily Semiconductor Bear 3X ETF	\$45.17	+5.08	+12.67%	-
11	SPDN	Direxion Daily S&P 500 Bear 1X ETF	\$9.67	+0.14	+1.47%	-
12	SOXL	Direxion Daily Semiconductor Bull 3X ETF	\$47.89	-6.91	-12.61%	-
13	NVD	GraniteShares 2x Short NVDA Daily ETF	\$7.44	+0.44	+6.29%	-
14	BITO	ProShares - Bitcoin ETF	\$9.39	-0.42	-4.28%	-
15	AAL	American Airlines Group Inc.	\$11.18	-0.61	-5.17%	-
16	SPY	State Street SPDR S&P 500 ETF Trust	\$672.38	-8.93	-1.31%	-
17	MRVL	Marvell Technology, Inc.	\$89.57	+13.89	+18.35%	-
18	MSTX	Daily Target 2X Long MSTR ETF	\$2.32	-0.25	-9.73%	-
19	QQQ	Invesco QQQ Trust, Series 1	\$599.75	-9.16	-1.50%	-
20	HYG	iShares iBoxx \$ High Yield Corporate Bond...	\$79.69	-0.39	-0.49%	-
21	EONR	EDN Resources Inc.	\$0.67	+0.06	+9.84%	-

## INFL - Global Inflation Dashboard

Command: INFL

Category: Markets

Requires ticker: No (country code optional)

## Overview

The Global Inflation Dashboard (INFL) provides a comprehensive, centralized view of price stability trends across the world's major economies. Inflation is a primary driver of central bank policy and sovereign risk; this command helps users track the year-over-year (YoY) and month-over-month (MoM) Consumer Price Index (CPI) for over 40 countries. By quickly identifying global inflation hotspots and deflationary regions, investors can adjust their macroeconomic outlook, assess currency risk, and anticipate central bank actions.

## How to use it

To open the global overview, simply type **INFL** in the Command Bar and press Enter. This launches a single panel featuring a sortable table of all covered countries. To perform a deep dive into a specific country, type **INFL** followed by the country's two-letter ISO code (e.g., **INFL ES** for Spain, **INFL TR** for Turkey, **INFL US** for the United States). The per-country command opens a dedicated, independent panel that can be placed side-by-side with other country panels for direct comparison. Clicking a country row within the main **INFL** global table also opens that country's detail panel.

## Reading the output

The **Global Overview (INFL)** panel features a quick stats banner at the top, summarizing key global conditions: the number of countries at or near their central bank's inflation target ( $\pm 0.5$  pp), the number in deflation, the number experiencing hyperinflation (YoY CPI > 50%), and the current OECD average CPI YoY. Below this, two mini-tables highlight the 5 countries with the biggest monthly rises and the 5 with the biggest monthly falls. The main table is sortable by any column (Country, Period, CPI YoY, CPI MoM, Core CPI, CB Target, Real Rate, Source). Each column header has an educational tooltip (i) explaining the metric. Table rows are color-coded based on inflation severity: Blue for deflation (< 0%), Green for near target ( $\pm 0.5$  pp), Yellow for moderately above target, Orange for elevated (5–10%), and Red for critical (> 10%).

The **Country Detail (INFL XX)** panel provides a granular analysis. The header displays the country's flag, name, and the current CPI YoY in a highlighted font, along with a real rate badge. A row of five key metrics shows MoM change, Core CPI YoY, the delta vs. the Central Bank target, the current CB policy rate, and the calculated Real Rate (CB rate minus CPI YoY). A

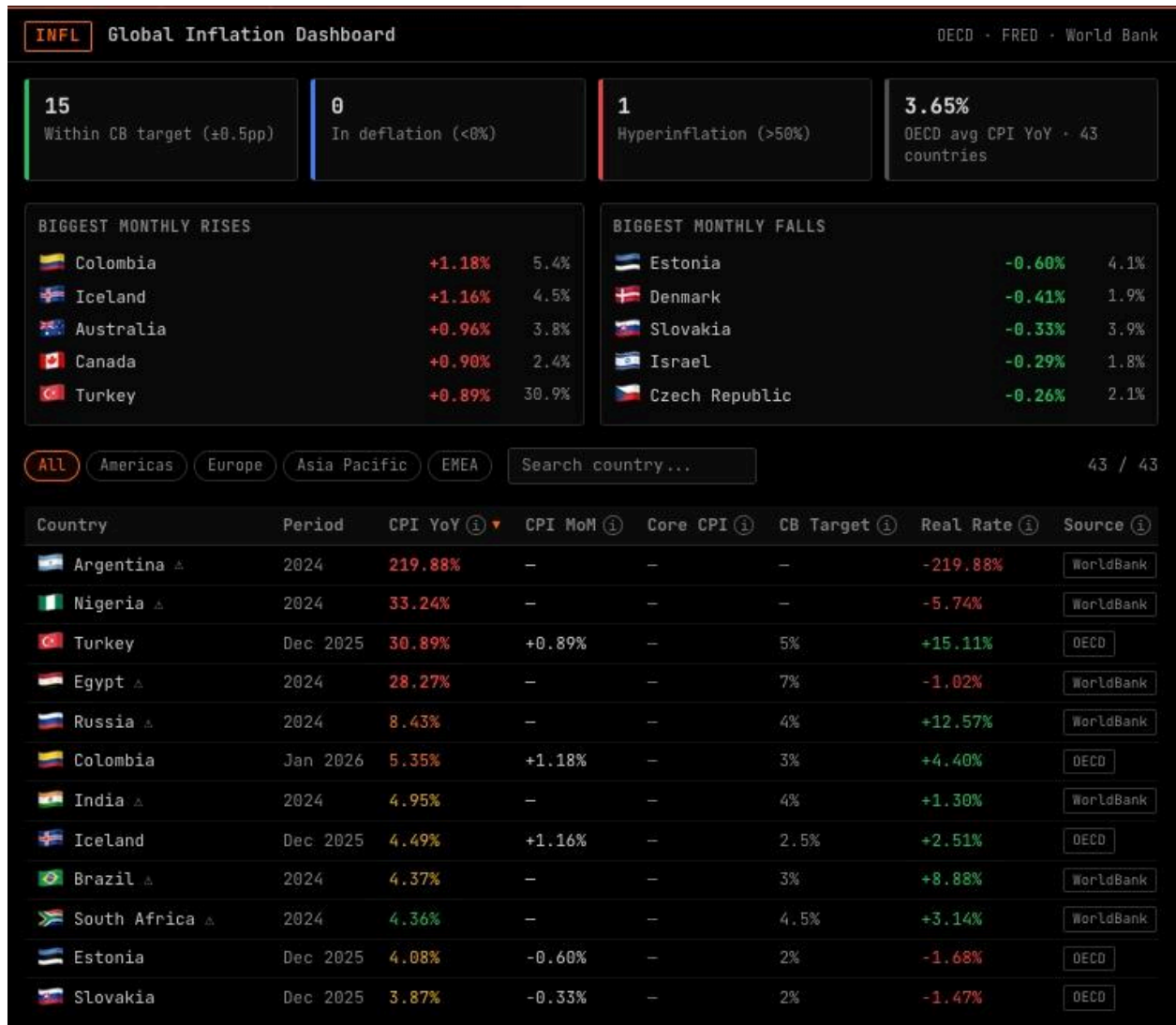
10-year historical SVG chart visualizes the CPI YoY trend, with a dashed green line marking the official central bank inflation target. The panel also includes a peer comparison mini-table listing 3–4 neighboring or economically similar countries, which are clickable. Finally, a contextual educational callout offers a 1–2 sentence interpretation of the current inflation and policy situation (e.g., interpreting deeply negative real rates or hyperinflation regimes).

## Data sources and refresh rate

Inflation data is aggregated from multiple institutional sources. The United States data (monthly CPI and Core CPI) is sourced from FRED (Federal Reserve Bank of St. Louis). OECD member countries (37 members) are sourced from the OECD PRICES\_CPI dataset via the SDMX API, providing monthly CPI YoY and MoM. For non-OECD countries (major emerging markets), data is sourced from the World Bank FP.CPI.TOTL.ZG indicator, which provides annual CPI % change. The 'Source' column clearly indicates the origin of the data for each country (FRED, OECD, or WorldBank). Data is cached server-side for **24 hours**. The 'Period' column shows the reporting month/year, and a stale indicator ( $\triangle$ ) appears next to the data if it is older than 6 months.

## Tips and caveats

- The "Core CPI" column is only available for the United States (FRED). It shows N/A for all other countries.
- For World Bank countries, only annual data is available, so the MoM column shows N/A and the historical chart displays yearly bars instead of a monthly line.
- The CB Target and Real Rate columns use static central bank policy rates updated periodically. They may not reflect intra-day rate decisions within hours of a central bank meeting.
- Multiple country panels can be open simultaneously. Use **INFL ES** and **INFL TR** side by side to compare two countries directly.
- Country rows in the global table are clickable and open the detail panel for that country. Peer rows in the detail panel are also clickable.
- The color coding in the table applies to the CPI YoY cell only, not the entire row, to preserve readability.



## JOBS - Labor market dashboard

Command: JOBS

Category: Markets

Requires ticker: No

### Overview

The Labor market dashboard provides a deep dive into US employment statistics. Employment strength dictates consumer spending and influences the Federal Reserve's dual mandate, making this panel essential for macro analysis.

## **How to use it**

Type JOBS in the Command Bar.

## **Reading the output**

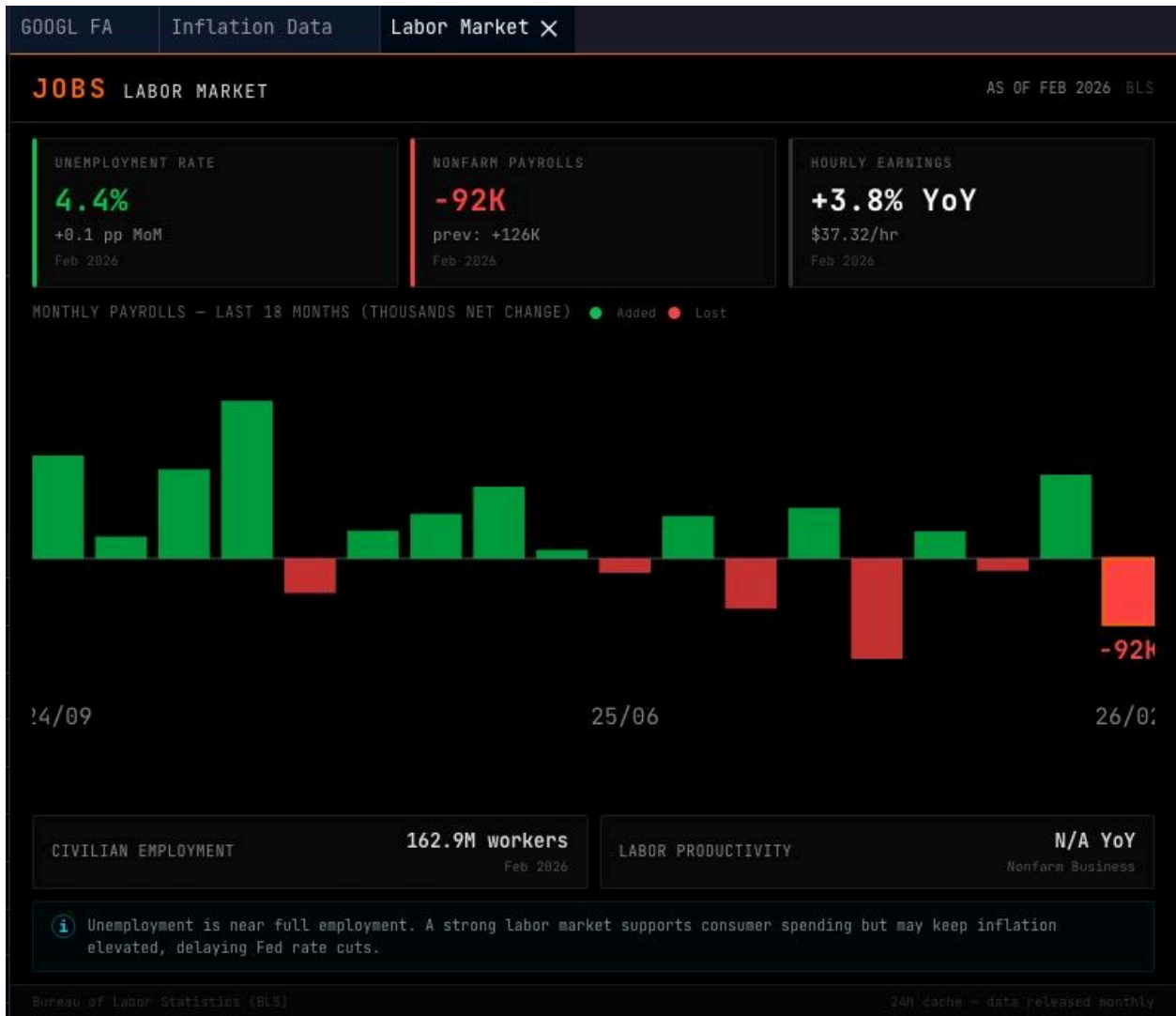
The dashboard highlights the current Unemployment Rate, Nonfarm Payrolls (the net change in jobs created for the month), Civilian Employment levels, Average Hourly Earnings (YoY%), and Nonfarm Labor Productivity. The panel features tabs to filter views between TODAY and WEEK. A visual bar chart illustrates the monthly payroll changes, utilizing green bars for jobs added and red bars for jobs lost. A unique contextual callout at the bottom of the panel explains in plain English what the current employment level implies for Federal Reserve policy decisions.

## **Data sources and refresh rate**

Data is acquired from the BLS. Cached for 24 hours.

## **Tips and caveats**

- The Nonfarm Payrolls number is often subject to significant revisions in subsequent months. Always look at the trend over 3-6 months rather than a single isolated print.



## HURG - Unemployment rate history

**Command:** HURG

**Category:** Markets

**Requires ticker:** No

### Overview

While the JOBS command focuses on recent prints, the Unemployment rate history command provides a long-term historical perspective. Observing the historical peaks and troughs of unemployment helps users contextualize where the economy sits within the broader macroeconomic cycle.

### How to use it

Type HURG and press Enter.

### **Reading the output**

The panel generates an SVG area/line chart spanning 15 years, plotting approximately 180 monthly observations of the seasonally adjusted unemployment rate. The chart visually highlights historical extremes, noting the peak during the COVID-19 pandemic (April 2020: 14.7%) and the peak of the Great Financial Crisis (October 2009: 10.0%), alongside the current cyclical low. Gray shaded bands indicate official recessionary periods. A contextual callout explains what the current rate means for broad job security and the economy.

### **Data sources and refresh rate**

Driven by BLS series LNS14000000. Cached for 24 hours.

### **Tips and caveats**

- Unemployment is generally considered a lagging indicator. By the time unemployment spikes significantly, the stock market has typically already priced in an economic contraction.



## SCAN - Stock screener

**Command:** SCAN

**Category:** Markets

**Requires ticker:** No

### Overview

The Stock screener is a powerful discovery tool that allows users to filter the entire universe of US equities based on specific fundamental and technical criteria. It is the primary method for finding new investment ideas that match a particular trading strategy.

### How to use it

Type SCAN to open the panel. Use the dropdown menus and input fields at the top of the panel to set your parameters. You can filter by Sector, Market cap tier (Large, Mid, Small, Micro), Price range, Average trading volume, Daily percentage change, and fundamental metrics like P/E ratio. Click the search/submit button to generate results.

## Reading the output

The results are presented in a sortable table containing the matching tickers. Each row displays the current price, market capitalization, P/E ratio, sector, and daily performance.

## Data sources and refresh rate

The screening engine is powered by Finviz data routing. Due to the dynamic nature of custom queries, this data is fetched on-demand and is not cached.

## Tips and caveats

- Start with broad filters and gradually narrow them down. If your criteria are too restrictive (e.g., looking for a micro-cap stock with massive volume and a single-digit P/E), the screener may return zero results.

SYMBOL	COMPANY	SECTOR	PRICE	CHG% ↓	VOLUME	CAP	P/E
GPPE	Green Plains Inc	Basic Materia...	\$14.65	+0.05%	1.0M	1020000...	-
CLMT	Calumet Inc	Basic Materia...	\$28.52	+0.04%	770K	2480000...	-
CENX	Century Aluminum Co	Basic Materia...	\$52.78	+0.03%	1.9M	4930000...	133.4
CE	Celanese Corp	Basic Materia...	\$51.00	+0.03%	2.4M	5590000...	-
ECVT	Ecovyst Inc	Basic Materia...	\$11.52	+0.02%	971K	1270000...	-
DOW	Dow Inc	Basic Materia...	\$30.88	+0.01%	6.4M	2215000...	-
METC	Ramaco Resources Inc	Basic Materia...	\$15.64	+0.01%	1.1M	9954200...	-
LYB	LyondellBasell Industries NV	Basic Materia...	\$58.14	+0.00%	4.5M	1873000...	-
HUN	Huntsman Corp	Basic Materia...	\$12.18	-0.01%	3.6M	2120000...	-
CTVA	Corteva Inc	Basic Materia...	\$79.65	-0.01%	2.7M	5357000...	50.3
NTR	Nutrien Ltd	Basic Materia...	\$74.76	-0.01%	2.9M	3614000...	16.0
AA	Alcoa Corp	Basic Materia...	\$63.24	-0.01%	6.9M	1669000...	14.1
EMN	Eastman Chemical Co	Basic Materia...	\$74.13	-0.02%	962K	8460000...	18.1
CSTM	Constellation SE	Basic Materia...	\$25.65	-0.02%	1.3M	3460000...	13.3
IFF	International Flavors & Fragrances Inc	Basic Materia...	\$79.46	-0.02%	1.0M	2030000...	-
AXTA	Axalta Coating Systems Ltd	Basic Materia...	\$31.99	-0.02%	3.5M	6830000...	18.4
MP	MP Materials Corporation	Basic Materia...	\$62.49	-0.02%	5.0M	1110000...	-
FMC	FMC Corp	Basic Materia...	\$14.10	-0.02%	1.8M	1760000...	-

## QSTA - AI market analysis

Command: QSTA

Category: Markets

Requires ticker: No

## Overview

The AI market analysis command leverages advanced language models to synthesize a massive amount of intraday data into a cohesive, institutional-style market briefing. It saves time by reading and interpreting the tape for you.

## How to use it

Type QSTA in the Command Bar. Use the three tabs at the top to select the briefing relevant to the current time of day: Pre-Open (available around 08:30 ET), Mid-Session (available around 12:00 ET), or Recap (available after the close at 16:30 ET).

## Reading the output

The output is a text-based, multi-paragraph report formatted similar to notes produced by Wall Street strategy desks. The AI breaks down the macroeconomic narrative, highlights sector rotation, points out key technical levels on major indices, and summarizes the fundamental drivers behind the day's biggest movers.

## Data sources and refresh rate

The analysis is generated dynamically by the DeepSeek AI model, which uses DuckDuckGo RAG (Retrieval-Augmented Generation) to pull in live, current market data prior to generating the text.

## Tips and caveats

- AI analysis is a synthesis of current narratives, not a crystal ball. Use it to understand *why* the market is moving, not necessarily *where* it will go next. Generation may take a few seconds as the AI reads and processes the live data.

Top News
QST Daily Analysis X

QSTA QST DAILY ANALYSIS
AI · DeepSeek · RAG REFRESH

PRE-OPEN
MID-SESSION
RECAP

<b>Mar 6, 2026</b> Mid-Session Analysis – March 06, 2026	<b>Mid-Session Analysis – March 06, 2026</b> Mar 6, 2026 · 11:22 ET · 3680 tokens · deepseek-chat
<b>Mar 5, 2026</b> Mid-Session Analysis – March 05, 2026	<b>Mid-Session Market Analysis</b>
<b>Mar 4, 2026</b> Mid-Session Analysis – March 04, 2026	<b>Session Character</b>
<b>Mar 3, 2026</b> Mid-Session Analysis – March 03, 2026	<b>Current Index Levels &amp; Performance:</b>
<b>Mar 2, 2026</b> Mid-Session Analysis – March 02, 2026	Nasdaq Composite: 22,543.54 (-0.90%) Dow Jones Industrial Average: 47,380.07 (-1.20%) Russell 2000: 2,530.33 (-2.14%) S&P 500: Data Not Available
<b>Feb 27, 2026</b> Mid-Session Analysis – February 27, 2026	All provided major indices are in negative territory, with the Russell 2000 showing the most pronounced weakness at -2.14%. The Dow's decline of -1.20% and the Nasdaq's -0.90% drop indicate a broad-based, trending sell-off. The significant underperformance of small-caps (Russell 2000) versus large-cap tech (Nasdaq) suggests a clear risk-off character to the session. Without volume data, the price action alone points to a <b>trending down day</b> with distribution evident across market caps.
<b>Feb 26, 2026</b> Mid-Session Analysis – February 26, 2026	<b>Sector Rotation</b>
<b>Feb 25, 2026</b> Mid-Session Analysis – February 25, 2026	<b>Top &amp; Bottom Performing Sectors:</b>

DeepSeek · DuckDuckGo RAG · Generated 08:30 / 12:00 / 16:30 ET
Auto-refresh every 30 min

## 2.5 Portfolio

Commands in this category manage personal watchlists.

### WL - Watchlists

**Command:** WL

**Category:** Portfolio

**Requires ticker:** No

#### Overview

The Watchlists command allows users to create personalized groups of tickers for quick monitoring. Instead of remembering dozens of symbols, you can group them logically (e.g., "Tech Growth", "Dividend Payers", "EV Sector") and track their performance in a consolidated view.

#### How to use it

Type WL and press Enter. The panel interface allows you to create a new watchlist, rename existing ones, and add or remove ticker symbols using a simple text input field. Clicking on a ticker within your watchlist can optionally pipe that symbol into other commands (like GP or DES).

## Reading the output

The selected watchlist displays a clean table of your saved symbols, showing the latest price and daily percentage change, allowing for quick scanning of your portfolio's general health.

## Data sources and refresh rate

Pricing data for the symbols in your watchlist updates continuously during market hours. The watchlist structures themselves (the lists of symbols) are saved locally, or synced to the cloud if you are signed into a multi-device account.

## Tips and caveats

- Keep watchlists focused. A watchlist with 50 stocks becomes difficult to monitor effectively. Break them down into specific themes or sectors.

## WL - Watchlists

**Command:** WL

**Category:** Portfolio

**Requires ticker:** No

## Overview

The Watchlists command allows users to create personalized groups of tickers for quick monitoring. Instead of remembering dozens of symbols, you can group them logically (e.g., "Tech Growth", "Dividend Payers", "EV Sector") and track their performance in a consolidated view. **Furthermore, watchlists now support the creation of Price Alerts, providing proactive, email-based notifications when a stock hits a specific price target.**

## How to use it

Type WL and press Enter. The panel interface allows you to create a new watchlist, rename existing ones, and add or remove ticker symbols using a simple text input field. Clicking on a

ticker within your watchlist can optionally pipe that symbol into other commands (like GP or DES).

**To set a Price Alert**, locate the **bell icon** next to the price for any ticker in your watchlist. An outline bell signifies no alert is set, while a filled/colored bell indicates an active alert. Clicking this icon opens an **inline modal** where you can select the condition ( $>=$  or  $<=$ ), enter the target price, and click "Create Alert." The panel header also features an **Alerts tab** with a badge displaying the total number of active alerts. Clicking this tab switches the panel view to the dedicated alert management dashboard.

## Reading the output

The selected watchlist displays a clean table of your saved symbols, showing the latest price and daily percentage change, allowing for quick scanning of your portfolio's general health.

**When viewing the dedicated Alerts tab**, a table lists all your active and triggered alerts (maximum 50). Each row shows the symbol, the condition (e.g.,  $<=$  \$43.99), and a status badge (Green **Active** or Gray **Triggered**). Action buttons (Edit, Delete, Re-activate) are available for management. Clicking on a symbol in this view automatically fills the Command Bar. To return to your watchlist view, simply click on any of the watchlist tabs at the top of the panel.

## Data sources and refresh rates for Symbol prices and Alerts

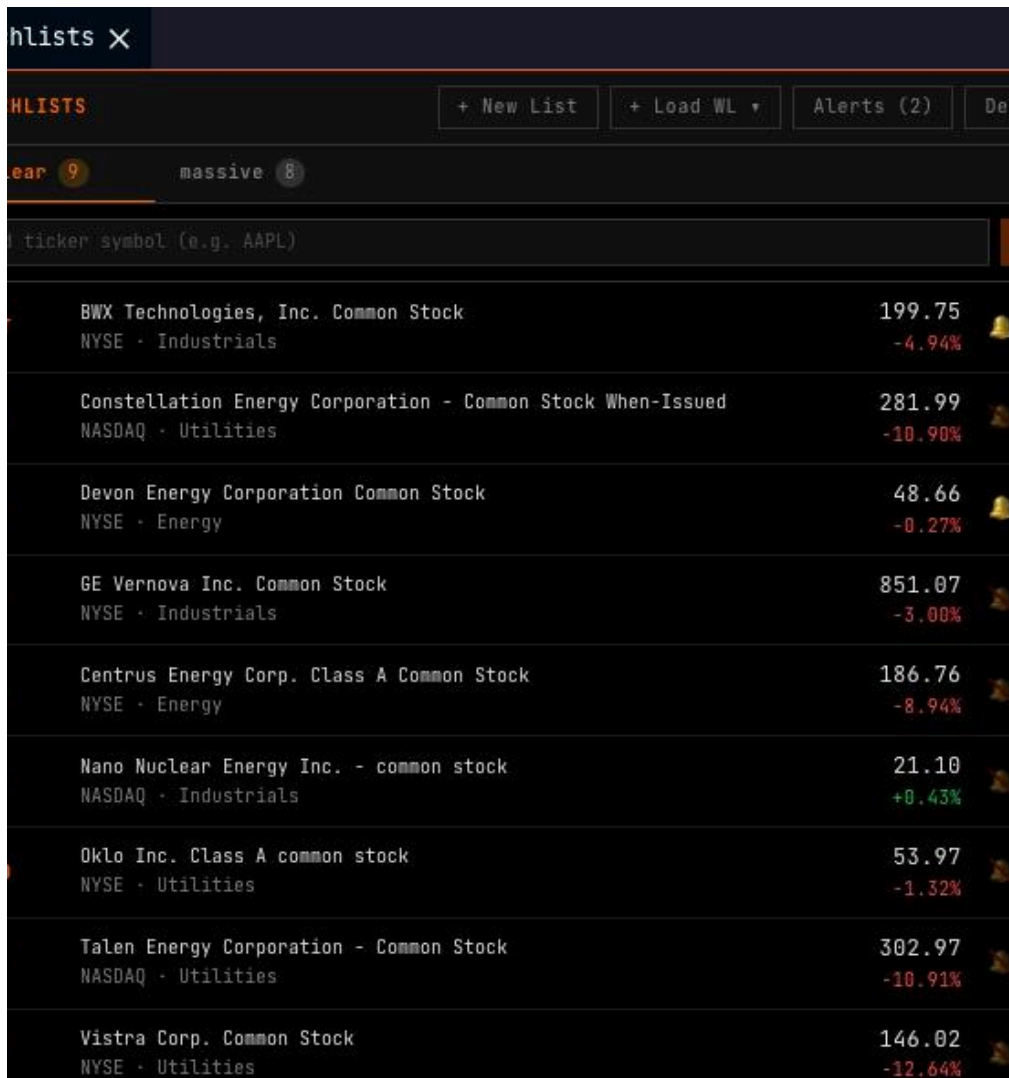
Pricing data for the symbols in your watchlist updates continuously during market hours. The watchlist structures themselves (the lists of symbols) are saved locally, or synced to the cloud if you are signed into a multi-device account. **Price Alerts are checked every 5 minutes during standard NYSE market hours (Mon-Fri, 9:30 AM - 4:00 PM ET) using bulk backend pricing data. The WL panel polls the server every 60 seconds to update the status of active and triggered alerts.**

## Tips and caveats

- Keep watchlists focused. A watchlist with 50 stocks becomes difficult to monitor effectively. Break them down into specific themes or sectors.
- **Alerts are one-shot**: once triggered, they deactivate automatically. You must manually re-activate a triggered alert from the Alerts tab or create a new one.
- **Maximum 50 active alerts per user.**
- **Alerts only work during NYSE market hours (9:30 AM - 4:00 PM ET, Monday**

**through Friday).** Price movements outside these hours will not trigger alerts until the next market session.

- Only US equities are supported for alerts in this version. Crypto, metals, and energy alerts will be added in a future update.
- If you remove a ticker from all your watchlists, any active alert for that ticker remains active. Use the **Alerts tab** to manage these "orphaned" alerts.



The screenshot shows a terminal window titled 'watchlists' with a search bar and a list of stocks. The interface includes buttons for '+ New List', '+ Load WL', and 'Alerts (2)'. The list contains the following data:

Company Name	Market	Industry	Price	Change (%)
BWX Technologies, Inc. Common Stock	NYSE	Industrials	199.75	-4.94%
Constellation Energy Corporation - Common Stock When-Issued	NASDAQ	Utilities	281.99	-10.90%
Devon Energy Corporation Common Stock	NYSE	Energy	48.66	-0.27%
GE Vernova Inc. Common Stock	NYSE	Industrials	851.07	-3.00%
Centrus Energy Corp. Class A Common Stock	NYSE	Energy	186.76	-8.94%
Nano Nuclear Energy Inc. - common stock	NASDAQ	Industrials	21.10	+0.43%
Oklo Inc. Class A common stock	NYSE	Utilities	53.97	-1.32%
Talen Energy Corporation - Common Stock	NASDAQ	Utilities	302.97	-10.91%
Vistra Corp. Common Stock	NYSE	Utilities	146.02	-12.64%

## 2.6 System

Commands in this category control the terminal itself and assist with navigation and discovery.

### LF - Look for

Command: LF

**Category:** System

**Requires ticker:** No (Takes a search query)

## **Overview**

The Look for command is the primary ticker search tool. If you know a company's name but not its ticker symbol, LF bridges that gap instantly.

## **How to use it**

Type LF followed by the company name (for example, LF palantir). The system opens an overlay modal window containing a results table.

## **Reading the output**

The modal lists potential matches, displaying the company name alongside its official ticker symbol and exchange. You can click a row, or use the arrow keys and press Enter, to automatically fill the Command Bar with the selected ticker, priming it for your next command (e.g., GP, FA, DES).

## **Data sources and refresh rate**

Searches the internal equities database. Results are returned instantly.

## **Tips and caveats**

- The search is highly forgiving and handles partial matches well.

**LF** Look For Search for a ticker by company name or symbol

bl

SYMBOL	COMPANY NAME	EXCHANGE	SECTOR	TYPE
BL	BlackLine, Inc. - Common Stock	NASDAQ	Technology	Stock
BLBD	Blue Bird Corporation - Common Stock	NASDAQ	Industrials	Stock
BLCN	Siren NexGen Economy ETF	NASDAQ	—	ETF
BLCO	Bausch + Lomb Corporation Common Shares	NYSE	Healthcare	Stock
BLCR	iShares Large Cap Core Active ETF	NASDAQ	—	ETF
BLCV	iShares Large Cap Value Active ETF	ARCA	—	ETF
BLD	TopBuild Corp. Common Stock	NYSE	Industrials	Stock
BLDG	Cambria Global Real Estate ETF	BATS	—	ETF
BLDP	Ballard Power Systems, Inc. - Common S...	NASDAQ	Industrials	Stock
BLDR	Builders FirstSource, Inc. Common Stock	NYSE	Industrials	Stock
BLDX	Impax Global Infrastructure ETF	ARCA	—	ETF
BLES	Inspire Global Hope ETF	ARCA	—	ETF
BLFS	BioLife Solutions, Inc. - Common Stock	NASDAQ	Healthcare	Stock
BLFY	Blue Foundry Bancorp - Common Stock	NASDAQ	Financial Services	Stock
BLGR	Bluemonte Large Cap Growth ETF	ARCA	—	ETF
BLIV	BeLive Holdings - ordinary shares	NASDAQ	Technology	Stock
BLK	BlackRock, Inc. Common Stock	NYSE	Financial Services	Stock
BLKB	Blackbaud, Inc. - Common Stock	NASDAQ	Technology	Stock
BLLN	BillionToOne, Inc. - Class A common st...	NASDAQ	Healthcare	Stock
BLMN	Bloomin' Brands, Inc. - Common Stock	NASDAQ	Consumer Cyclical	Stock

↑↓ Navigate Enter Select Esc Close Click outside to close

## LFD - Look for description

Command: LFD

**Category:** System

**Requires ticker:** No (Takes a search keyword)

### **Overview**

A more advanced search tool, Look for description scans the actual business summaries of public companies. It is exceptionally useful for finding thematic plays or discovering niche companies operating in a specific industry.

### **How to use it**

Type LFD followed by a keyword (minimum 3 characters). For example, LFD water treatment or LFD credit cards.

### **Reading the output**

The modal returns up to 50 companies whose corporate descriptions contain your exact keyword. It displays the ticker and a text snippet of the description with the keyword highlighted. Select a row to fill the Command Bar with the relevant ticker.

### **Tips and caveats**

- Use this for thematic investing. If a new technology becomes a market trend, LFD can help you build a basket of exposed stocks.

**LFD** Look For Description Search companies by description keyword

Credit Cards

SYMBOL	COMPANY NAME	EXCHANGE	SECTOR	TYPE
ALRS	Alerus Financial Corporation - Common Stock Alerus Financial Corporation operates as the bank holding ...	NASDAQ	Financial Servic...	Stock
AMTB	Amerant Bancorp Inc. Class A Common Stock Amerant Bancorp Inc. operates as the bank holding company ...	NYSE	Financial Servic...	Stock
ATLC	Atlanticus Holdings Corporation - Common Stock Atlanticus Holdings Corporation, a financial technology co...	NASDAQ	Financial Servic...	Stock
ATLCP	Atlanticus Holdings Corporation - 7.625% Series B Cumulative Perpetual Preferred Stock, no par value per share Atlanticus Holdings Corporation, a financial technology co...	NASDAQ	Financial Servic...	Stock
AUB	Atlantic Union Bankshares Corporation Common Stock Atlantic Union Bankshares Corporation operates as the bank...	NYSE	Financial Servic...	Stock
AVAL	Grupo Aval Acciones y Valores S.A. ADR (Each representing 20 preferred shares) Grupo Aval Acciones y Valores S.A. provides a range of fin...	NYSE	Financial Servic...	Stock
AVBH	Avidbank Holdings, Inc. - Common Stock Avidbank Holdings, Inc. operates as a bank holding company...	NASDAQ	Financial Servic...	Stock
BBAR	Banco BBVA Argentina S.A. ADS Banco BBVA Argentina S.A. provides various banking product...	NYSE	Financial Servic...	Stock
BBD	Banco Bradesco Sa American Depositary Shares Banco Bradesco S.A., together with its subsidiaries, provi...	NYSE	Financial Servic...	Stock
BBDO	Banco Bradesco Sa American Depositary Shares (each representing one Common Share) Banco Bradesco S.A., together with its subsidiaries, provi...	NYSE	Financial Servic...	Stock
BCH	Banco De Chile ADS Banco de Chile, together with its subsidiaries, operates a...	NYSE	Financial Servic...	Stock
BCS	Barclays PLC Common Stock Barclays PLC provides various financial services in the Un...	NYSE	Financial Servic...	Stock
BFC	Bank First Corporation - Common Stock Bank First Corporation operates as a holding company for B...	NASDAQ	Financial Servic...	Stock
BFST	Business First Bancshares, Inc. - Common Stock	NASDAQ	Financial Servic...	Stock

↑↓ Navigate Enter Select Esc Close Click outside to close

## LFE - Look for executive

Command: LFE

**Category:** System

**Requires ticker:** No (Takes a name query)

## Overview

The Look for executive command searches the management databases. It is useful for tracking high-profile CEOs or CFOs who may manage multiple entities, sit on various boards, or have recently changed companies.

## How to use it

Type LFE followed by an executive's name (minimum 3 characters). For example, LFE jensen.

## Reading the output

Returns up to 50 results showing the executive's name and official title alongside the company they are associated with.

## Tips and caveats

- Ensure correct spelling of the executive's name for best results.



## ANA - Investment analysis

**Command:** ANA

**Category:** Fundamentals

**Requires ticker:** Yes

## Overview

The Investment analysis command (ANA) executes a comprehensive, automated investment research pipeline inspired by the principles of value investing, notably Benjamin Graham's "The Intelligent Investor." This function runs a 6-phase evaluation to quickly assess the quality,

valuation, and market sentiment of a stock. The phases include a detailed fundamental quality check, competitor mapping, relative valuation comparison, momentum and sentiment analysis, AI synthesis via the DeepSeek model, and a computed entry price range. The goal of ANA is to consolidate a full, multi-faceted investment picture into a single, vertical scroll view, eliminating the need for the user to manually execute and cross-reference multiple terminal commands (FA, RV, INS, CN).

## How to use it

To run the analysis, type a US equity ticker symbol followed by ANA (for example, `AAPL ANA`). The resulting panel presents the complete 6-phase report in a single, continuous vertical scroll view, with all analytical components displayed immediately upon generation. The process may take a moment on the first execution.

## Reading the output

The ANA output is divided into seven sequential sections:

- **Quality Assessment:** A display of key fundamental metrics using color-coded cards for quick interpretation: Debt/Equity ratio, Return on Equity (ROE), Gross Margin, Earnings Per Share (EPS) Growth (3-year CAGR), and Dividend Yield. A prominent red **HIGH RISK** banner is generated at the top of the section if the Debt/Equity ratio exceeds 3.0 and the Return on Equity is below 5%.
- **Top Competitors:** A simple table listing the five largest peers by market capitalization. The table displays the peer's ticker, current price, daily percentage change, and total market capitalization.
- **Relative Valuation:** Compares the target stock's trailing 12-month Price-to-Earnings (P/E) ratio against the calculated sector median P/E. It shows the resulting percentage discount or premium and applies a corresponding evaluation badge (UNDERVALUED, SLIGHT DISCOUNT, FAIR VALUE, SLIGHT PREMIUM, OVERVALUED). A similar comparison is provided for the Price-to-Book (P/B) multiple.
- **Momentum & Sentiment:** A visual bar representing the stock's 52-week price range, marked with a white vertical line to show the current price's position (0% being the 52-week low, 100% being the 52-week high). This section also details the technical potential percentage move required to reach the 52-week high, and summarizes insider buying activity (any open market buy transactions over \$100,000 in the last three months).
- **Headlines:** A curated feed of recent news, with each headline tagged to indicate the source relevance: `[MACRO]` for general economic news impacting the broader market, `[TICKER]` for specific news articles related to the analyzed company from Finnhub, and `[PEER]` for news on the main identified competitor.
- **AI Investment Analysis:** A comprehensive, multi-paragraph report generated in Markdown by the DeepSeek AI model. The report includes an Executive Summary, a detailed Quality Assessment, a Valuation Verdict, an analysis of Momentum &

Sentiment, a list of Key Risk Factors, and a final **Investment Conclusion** (rated as BUY / HOLD / AVOID) paired with a suggested entry price range.

- **Entry Price Range:** A mechanical calculation of suggested short-term support and resistance levels. Support is calculated as the latest price multiplied by 0.95 (if the stock is undervalued) or 0.90 (if overvalued). Resistance is calculated as the 52-week high multiplied by 1.05 (if the stock exhibits strong positive momentum) or simply the 52-week high otherwise.

## Data sources and refresh rate

The ANA command draws data from multiple integrated services: Core fundamental metrics are sourced from standardized SEC filings stored in QSTMarkets' internal MariaDB. Peer and competitor data is primarily pulled from the Finnhub API with a Financial Modeling Prep (FMP) fallback. Relative valuation data comes from the internal RV calculation service. Current price and 52-week range market data are sourced from the internal database (latest closing prices). Insider trades are fetched via [finvizfinance](#). News headlines are aggregated from the Finnhub API and the pre-cached **TOP** news feed. The final text-based synthesis is generated by the DeepSeek AI model ([deepseek-chat](#) with a low temperature of 0.3 for deterministic results). The entire report is computationally intensive. Results are aggressively cached in Redis for 1 hour; therefore, the first request for any ticker will take 1-2 minutes for complete generation, while subsequent requests for the same ticker within the hour will be instant.

## Tips and caveats

- The ANA analysis is strictly designed for **US equities** (stocks) and does not support analysis for Crypto, Precious Metals, or Energy Commodities due to the lack of required financial statements.
- The AI conclusion (BUY/HOLD/AVOID) and all generated text are based strictly on the current market data and narrative synthesis. This output does **not constitute financial advice** and should be used only as a starting point for independent research.
- The Quality Assessment metrics rely entirely on the availability of recent annual financial reports. Companies with missing, incomplete, or very new filings may display fewer color-coded cards.
- The accuracy of the competitor and peer data is contingent upon the stock's sector. For highly specialized or obscure small-cap stocks, the algorithmically selected peer list may be less relevant to the company's core business model.
- The Entry Price Range is a mechanical, rule-based calculation. It is provided solely as a reference point to aid in trading decisions, not as a guaranteed price prediction or target.

**ANA BWXT** BWX Technologies, Inc. Common Stock Industrials / Aerospace & Defense

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**QUALITY ASSESSMENT**

DEBT / EQUITY <b>1.64x</b> DANGER	ROE <b>7.5%</b> WARNING	DIV. YIELD <b>0.49%</b> GOOD
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**TOP COMPETITORS**

SYMBOL	NAME	PRICE	CHG %	MKT CAP
GE	GE Aerospace Common Stock	\$289.07	-3.81%	\$304.9B
FTAI	FTAI Aviation Ltd. - Common Stock	\$232.66	-2.60%	\$23.9B
WWD	Woodward, Inc. - Common Stock	\$365.38	-1.85%	\$21.9B
ATI	ATI Inc. Common Stock	\$145.67	-2.56%	\$19.9B
CRS	Carpenter Technology Corporation Common Stock	\$376.49	-2.46%	\$18.8B

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**RELATIVE VALUATION**

Target P/E: **204.9**  
Sector Median P/E: **32.2**  
vs. Median: **+537.0%** OVERVALUED  
P/B: **15.5 (median: 5.1)**

Based on 7 sector peers

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**MOMENTUM & SENTIMENT**

52W Low: \$84.21 Current: \$208.98 (92%) 52W High: \$220.57

Technical potential to 52W high: **+5.5%**  
Insider activity: No significant insider buys (>\$100k)

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**HEADLINES**

[MACRO] FDA approves higher dose version of weight loss drug Wegovy as Novo Nordisk tries to win back market share  
[MACRO] Trump signals DOJ should continue Powell probe, complicating Warsh Fed nom  
[MACRO] The market remains heavily oversold, so we're snapping up more of 2 stocks  
[TICKER] Best Momentum Stocks to Buy for March 18th  
[TICKER] New Strong Buy Stocks for March 18th  
[PEER] These S&P500 stocks are moving in today's session  
[PEER] These S&P500 stocks are gapping in today's session

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**AI INVESTMENT ANALYSIS**

**Investment Analysis: BWXT (Industrials - Aerospace & Defense)**

**1. Executive Summary**

BWXT presents a high-risk profile characterized by excessive leverage and a premium valuation that is fundamentally disconnected from sector norms. While operating in the stable Aerospace & Defense sector, its financial quality is poor, and its stock price is trading near its 52-week high, suggesting limited near-term upside. A value investor should avoid this stock at its current price.

DeepSeek deepseek-chat / 1638 Tokens 3/19/2026, 1:55:20 PM ET

## MACRO - Global Macro Dashboard

Command: MACRO

Category: Markets

Requires ticker: No

## Overview

The Global Macro Dashboard (MACRO) is a powerful, single-panel solution for monitoring global cross-asset performance and obtaining synthesized, high-level strategic analysis. It combines a live-updating price grid for major indices, commodities, crypto, and rates with an institutional-style AI-generated macro report. This tool is designed to provide traders and analysts with a concise, top-down view of the global financial ecosystem at a glance, allowing for quick assessment of market sentiment and key directional themes.

## How to use it

To open the panel, simply type MACRO in the Command Bar and press Enter. The price grid will load quickly with the latest market data. The AI report section will populate shortly thereafter. Because the report is computationally intensive on its initial load, subsequent executions within the 6-hour cache window will be nearly instant, providing a seamless user experience.

## Reading the output

The panel is structured into two main, vertically-scrolling sections. The **Price Grid** at the top displays 14 tiles organized by asset class (Energy, Metals, Crypto, Indices, Rates). Each tile provides the asset name, its current price, and the daily percentage change, with a color-coded border (green for positive change, red for negative) for immediate visual confirmation of performance. Below the price grid is the **Macro Strategic Report**. This is a detailed, multi-paragraph analysis acting as an executive briefing. It is structured into clear headings such as Executive Summary, Key Macro Themes, Cross-Asset View, and Risk Radar. The report synthesizes live price movements and global news to articulate the prevailing market narrative. Sources for the news articles used by the AI are provided at the bottom with clickable links, along with a footer detailing the model, token count, and cache status for transparency.

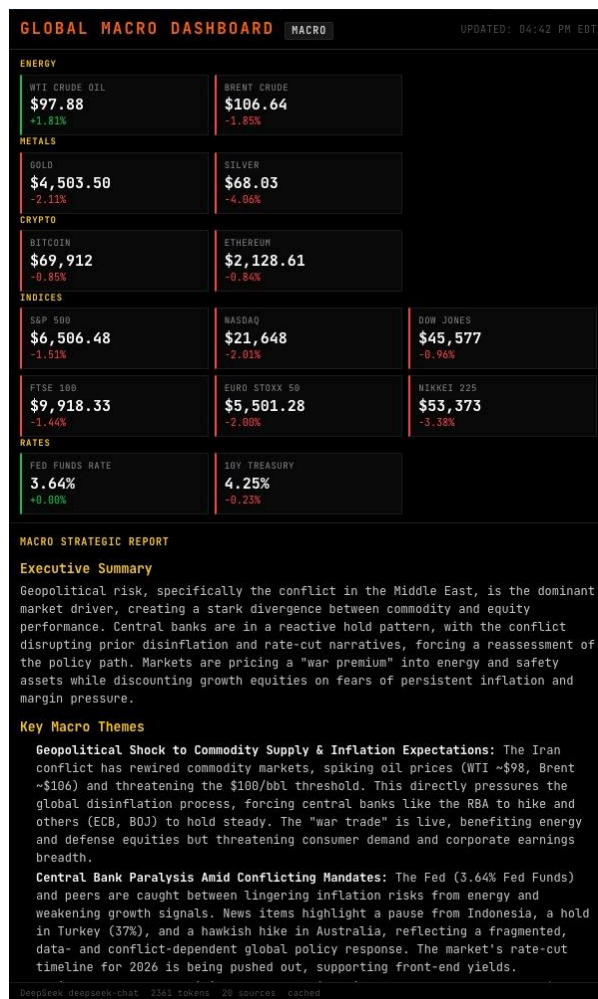
## Data sources and refresh rate

The price grid aggregates data from multiple sources: yfinance for Equities, Indices, Metals, and Energy; CCXT Binance for Cryptocurrencies; and the FRED API for key US rates. These prices are polled and auto-refresh every 60 seconds. The Macro Strategic Report is generated by the DeepSeek AI model using a Retrieval-Augmented Generation (RAG) pipeline fed by DuckDuckGo news queries and the live price context. To manage system load, the report is aggressively cached for 6 hours, meaning the text analysis reflects the macro conditions at the time of its generation. The system is engineered with graceful degradation: price data remains

active even if the AI model fails, and vice versa.

## Tips and caveats

- The AI report is generated only every 6 hours. While the price grid updates every 60 seconds, significant intraday news or data releases will not be reflected in the report's textual analysis until the next generation cycle.
- Price data refreshes every 60 seconds but is based on periodic polling, not real-time streaming via WebSocket.
- International indices (FTSE, Euro Stoxx, Nikkei) will display their final closing price outside of their respective market hours.
- Use the MACRO command in conjunction with **ECO** (for a dedicated US macro dashboard) and **ECOCAL** (for upcoming scheduled data releases) to build a complete picture of the global economic landscape.



# CAL - Earnings & Dividends Calendar

**Command:** CAL

**Category:** Markets

**Requires ticker:** No

## Overview

The Earnings & Dividends Calendar command (CAL) is a crucial pre-trading tool that provides a market-wide overview of all major corporate actions. It consolidates upcoming earnings releases and ex-dividend dates into a single panel, allowing traders and investors to proactively identify catalysts for single-stock volatility and plan for dividend capture strategies. The panel is a singleton view that efficiently tracks hundreds of relevant events across US-listed equities.

## How to use it

Type CAL in the command bar and press Enter. The panel opens immediately with the **Earnings tab** selected and the **WEEK** range active by default. Use the **TODAY/WEEK** toggle in the header to switch between viewing only today's scheduled events or the full trading week ahead. You can switch to the **Dividends tab** using the tab selector in the panel header. To initiate deeper research, click on any ticker symbol in the table; this action automatically fills the CommandBar, priming it for a follow-up command such as GP for a price chart, DES for the company profile, or EE for historical earnings.

## Reading the output

The **Earnings tab** is designed to provide immediate clarity on a high volume of events. Events are sorted chronologically, first by date (ascending), then by reporting timing (Before Market Open, then After Market Close), and finally alphabetically by symbol. The **BMO badge** (blue) indicates the company reports before the market opens (typically 7:00-9:00 AM ET), while the **AMC badge** (orange) indicates reporting after the close (typically 4:00-5:00 PM ET). The EPS Actual column initially displays "--"; this field is automatically populated with the actual figure once the company officially reports, allowing for a quick comparison against the EPS Estimated consensus.

The **Dividends tab** focuses on key dates for income investors. The table is sorted primarily by Ex-Date (ascending), followed by the Symbol. The **Ex-Date** is the critical cutoff date: investors must own the stock before this date to qualify for the declared dividend payout. The **Payment date** is the date on which the cash dividend is actually deposited into shareholder accounts. The panel header dynamically updates to display the total event count (e.g., "374 events") for the currently active tab and selected time range.

## Data sources and refresh rate

Earnings calendar data is sourced from Finnhub, which provides real-time updates for calendar events. Dividend data is populated from the internal MariaDB database, which utilizes an Extract, Transform, Load (ETL) pipeline powered by Financial Modeling Prep (FMP). To ensure API compliance and manage system load, both datasets are aggressively cached server-side for 2 hours. On weekends, the WEEK range toggle is intelligently adjusted to display the following Monday-Friday, ensuring the calendar always shows relevant upcoming events.

## Tips and caveats

- Use CAL at the start of each trading week to identify which major companies report earnings. Earnings reports are the single largest source of single-stock volatility.
- The BMO/AMC timing badge helps plan trades: BMO reporters may gap at the open, while AMC reporters affect the next day's open.
- Click any symbol to quickly open its chart (GP), description (DES), or historical earnings (EE) for context before the report.
- The Dividends tab depends on ETL-populated data. Very recently announced dividends may not appear until the next ETL cycle runs.
- On weekends and holidays, TODAY will show zero events (no market activity). Use WEEK to see the upcoming week's calendar.
- Some micro-cap or OTC tickers in the earnings calendar may not have full data available in other QSTMarkets commands (GP, DES) due to limited coverage from data providers.
- CAL complements the ECOCAL command (which covers macroeconomic events like FOMC, CPI, Jobs reports). Together they provide a complete view of all market-moving events for the week.

NVDA CN		MSFT CN		Earnings & Dividends Calendar X			
EARNINGS & DIVIDENDS				CAL	TODAY	WEEK	374 events
EARNINGS			DIVIDENDS				
DATE	SYMBOL	COMPANY	TIME	EPS EST	EPS ACT		
Mar 23	ADTX	Aditxt, Inc. - Common Stock	BMO	--	--		
Mar 23	ATAT	Atour Lifestyle Holdings Limited	BMO	\$3.21	--		
Mar 23	CMCL	Caledonia Mining Corporation Plc	BMO	\$0.60	--		
Mar 23	HUIZ	Huize Holding Limited - American	BMO	--	--		
Mar 23	MKC	McCormick & Company, Incorporated	BMO	\$0.61	--		
Mar 23	NOB	Mobilicom Limited - Ordinary Shar	BMO	\$-0.00	--		
Mar 23	SY	So-Young International Inc. - Ame	BMO	\$-0.70	--		
Mar 23	VIOT	Viomi Technology Co., Ltd - Ameri	BMO	--	--		
Mar 23	AACG	ATA Creativity Global - American	AMC	--	--		
Mar 23	ADAG	Adagene Inc. - ADS, each represen	AMC	\$-0.19	--		
Mar 23	APRE	Aprea Therapeutics, Inc. - Common	AMC	\$-0.40	--		
Mar 23	ATOS	Atossa Therapeutics, Inc. - Commo	AMC	\$-1.16	--		
Mar 23	BNR	Burning Rock Biotech Limited - Am	AMC	--	--		
Mar 23	CNTA	Centessa Pharmaceuticals plc - Am	AMC	\$-0.39	--		
Mar 23	CYPH	Cyberpunk Technologies Inc. - Co	AMC	\$-0.20	--		
Mar 23	DFLI	Dragonfly Energy Holdings Corp -	AMC	\$-0.61	--		
Mar 23	HSDT	Solana Company - Class A Common S	AMC	\$-27.03	--		
Mar 23	ICMB	Investcorp Credit Management BDC,	AMC	\$0.11	--		

## FACTOR - Factor Exposure

Command: FACTOR

Category: Portfolio

Requires ticker: No (Takes an optional watchlist name)

## Overview

The Factor Exposure command (FACTOR) provides a quantitative analysis of your portfolio's sensitivity to five dominant market risk factors, a critical step in advanced portfolio management. Using a methodology inspired by classic investment theory, it measures how much of your portfolio's returns can be explained by movements in **Market**, **Value**, **Growth**, **Small Cap**, and **Momentum** styles. By identifying your actual factor biases, you can better understand your portfolio's risk profile and the drivers of its performance, regardless of individual stock performance.

## How to use it

You can invoke the command in two ways:

1. Type **FACTOR** in the Command Bar and press Enter. The panel will open, displaying a dropdown menu where you can select one of your saved watchlists. After selection, click the **Analyze** button to execute the calculation.
2. Type **FACTOR** followed by the name of your saved watchlist (e.g., **FACTOR NUCLEAR**). The panel will open and automatically run the analysis on the specified watchlist.

*Note: You must be logged into your account to access your saved watchlists. The selected watchlist must contain at least two equity tickers with sufficient historical data for a meaningful calculation.*

## Reading the output

The output is segmented into three primary sections:

1. **Horizontal Bar Chart:** A visual summary displaying the calculated **Beta** for the five factors, sorted from highest to lowest. A larger bar indicates a higher sensitivity (beta) to that particular factor. The name of the analyzed watchlist is prominently displayed above the chart, along with the lookback window used for the calculation.
2. **Factor Data Table:** A detailed table providing the precise quantitative metrics for each factor:
  - **FACTOR:** The name and ETF proxy used for the factor (e.g., Market (SPY)).
  - **BETA:** The regression coefficient, representing the portfolio's sensitivity to the factor. A Beta of 1.0 means the portfolio moves in sync with the factor; a Beta > 1.0 means it is more sensitive/volatile; and a Beta < 0 indicates an inverse relationship.
  - **R-squared:** The coefficient of determination (range 0.00 to 1.00). This indicates the percentage of your portfolio's variance that is explained by the factor.

- **P-VALUE:** The statistical significance of the Beta coefficient. A value below 0.05 is generally considered statistically significant.
  - **SIG.:** A quick visual indicator of statistical significance: \*\*\* ( $p < 0.001$ ), \*\* ( $p < 0.01$ ), \* ( $p < 0.05$ ), and - (not significant).
3. **Interpretation:** An auto-generated text block (with an orange left border) that summarizes the findings. It identifies the two most dominant factors (those with the highest Beta), comments on the portfolio's style bias (e.g., Growth-oriented or Value-tilted), assesses the portfolio's market sensitivity compared to the S&P 500, and flags any factors that are not statistically significant.
  4. **Footer:** Provides transparency by showing the number of symbols analyzed, the weighting methodology (**Equal-Weighted**), and the date and time of the calculation.

## Data sources and refresh rate

The calculation uses daily historical closing prices for the past 252 trading days (approximately one year) for both the watchlist symbols and the five factor ETFs (SPY, IVE, IWF, IWM, MTUM). Historical price data is sourced from QSTMarkets' internal MariaDB database, with an automatic fallback to [yfinance](#) for any missing data. Since factor exposure changes slowly, the computationally intensive report is cached using Redis for **6 hours**.

## Tips and caveats

- The command performs best with watchlists containing between 5 and 50 diversified tickers. Results from very small portfolios (2-3 tickers) may lack statistical significance.
- The analysis uses **equal-weighting**, meaning every ticker in the watchlist contributes equally to the portfolio return, regardless of its actual market capitalization or your invested dollar amount.
- The factors are calculated independently using simple (univariate) linear regression. This avoids complex multicollinearity issues but means that the individual Betas are not directly comparable to those derived from a full multi-factor model (like Fama-French).
- A Market Beta (SPY) greater than 1.0 suggests the portfolio is more volatile than the general market, while a Beta less than 1.0 suggests lower volatility.
- Use this command in conjunction with the **SCAN** (Stock Screener) command to build targeted watchlists and then quantitatively verify your intended factor exposure with FACTOR.



## CORR - Correlation Matrix & Rolling

**Command:** CORR

**Category:** Portfolio

**Requires ticker:** No (accepts an optional watchlist name as argument)

## Overview

The **Correlation Matrix** command (**CORR**) calculates and visualizes the pairwise Pearson correlation between all assets contained in a selected *watchlist*, using daily returns over a configurable period. This tool is essential for advanced portfolio management, allowing users to identify assets that move together (high positive correlation), in opposite directions (negative correlation), or independently (low correlation). It is the essential step for evaluating and improving portfolio diversification.

The panel now features two tabs: **MATRIX** (the classic heatmap view showing the correlation over the full period) and **ROLLING** (a new temporal view showing how correlations evolve over time using a sliding window, useful for detecting market stress periods when diversification breaks down).

## How to use it

The command can be invoked in two ways:

1. Type **CORR** in the Command Bar and press Enter. The panel will open, displaying a dropdown menu to select one of your saved *watchlists*, a period selector (default 6 months), and an **Analyze** button. The user must choose the *watchlist* and the desired period before clicking **Analyze**.
2. Type **CORR** followed by the name of your saved *watchlist* (e.g., CORR NUCLEAR). The panel will open and automatically run the analysis on that *watchlist* with the default period of 6 months.

*Note: You must be authenticated (logged in) to access your saved watchlists. The selected watchlist must contain at least two equity tickers with sufficient historical data to perform a meaningful calculation.*

**Available Periods:** 1M (1 month), 3M (3 months), 6M (6 months, default), 1Y (1 year). You can change the period in the panel selector and press **Analyze** again without re-entering the command.

The panel header contains two tabs: **MATRIX** (default, classic heatmap) and **ROLLING** (temporal correlation chart).

**For the ROLLING tab:** Click the **ROLLING** tab, select a **Window size** (30, 60, 90, or 120 trading days), choose the **Period** (1Y recommended for meaningful results with a 60-day window), and click **Analyze**.**Reading the output**

The output panel is divided into four key sections, presented under two separate tabs.

## Reading the output - MATRIX tab:

1. **Heatmap (Correlation Matrix):** An NxN visual grid of cells (where N is the number of *tickers*). Each cell represents the correlation coefficient between two assets. The color scale facilitates immediate interpretation: **deep red** indicates a strong negative correlation (close to -1), **yellow** indicates a correlation close to zero (independent movement), and **deep green** indicates a strong positive correlation (close to +1). For *watchlists* up to 15 *tickers*, the numerical correlation value is shown directly in each cell. For larger lists, the values are shown on hover (tooltip). The diagonal always shows 1.00. The name of the analyzed *watchlist* appears in yellow above the matrix.
2. **Most Correlated Pairs:** A table on the left side listing the 5 pairs of assets with the highest positive correlation, ordered from highest to lowest. These pairs, shown in green, indicate assets that offer limited diversification benefit, suggesting overlap or concentration in the portfolio.
3. **Least Correlated Pairs:** A table on the right side showing the 5 pairs with the lowest correlation, ordered from lowest to highest. Values are shown in red (negative) or yellow (low positive). These pairs represent the best opportunities for diversification or hedging strategies.
4. **Interpretation:** An auto-generated text block with an orange left border summarizing the findings. It identifies the most and least correlated pair, counts how many pairs have an extremely high correlation ( $|r| > 0.8$ ), and evaluates the overall portfolio diversification level. If too many highly correlated pairs are detected, a warning about concentration risk is issued.

## Reading the output - ROLLING tab:

1. **SVG Line Chart:** A time-series chart with the Y-axis ranging from -1.0 to +1.0, and the X-axis showing dates across the selected period. Each colored line represents the rolling correlation of an asset pair computed over the selected window. The system automatically selects the 5 most volatile pairs (highest standard deviation of their rolling correlation), as these are the pairs whose diversification benefit is least stable. Two semi-transparent red bands mark the danger zones where  $|r| > 0.80$ , indicating diversification breakdown.
2. **Legend:** Below the chart, a color-coded legend identifies each pair (e.g., orange = DVN & VST, cyan = DVN & TLN).
3. **How to read this chart (Educational guide):** An explanatory section describing key correlation values: +1.0 = assets move in perfect lockstep (no diversification benefit), 0.0 = no relationship (ideal for diversification), -1.0 = opposite directions (natural hedge). It explains that the red bands mark the danger zone and that during market stress, correlations tend to spike toward +1, reducing the protection the investor thought their portfolio had.
4. **Interpretation:** Auto-generated text identifying the most unstable pair (highest standard

deviation) and warning if any pair recently exceeded the 0.80 threshold.

## Data sources and refresh rate

The calculation uses historical daily closing prices for the selected period, obtained from QSTMarkets' internal MariaDB database (which maintains up to 10 years of history). An automatic *fallback* mechanism to **yfinance** exists for any symbol whose data is not available in the main database. Symbols without sufficient data for the selected period are automatically excluded from the analysis.

The Rolling view requires extra historical data before the period start to compute the rolling window from day one; the backend automatically fetches additional days.

Since the calculation is intensive, the complete report is aggressively cached in Redis for **6 hours** to optimize performance and manage system load.

**Symbol Limit:** The analysis is limited to a maximum of 30 *tickers* per *watchlist* to maintain *heatmap* readability. If the *watchlist* contains more than 30 symbols, only the first 30 will be analyzed, and a warning will be displayed in the Interpretation section.

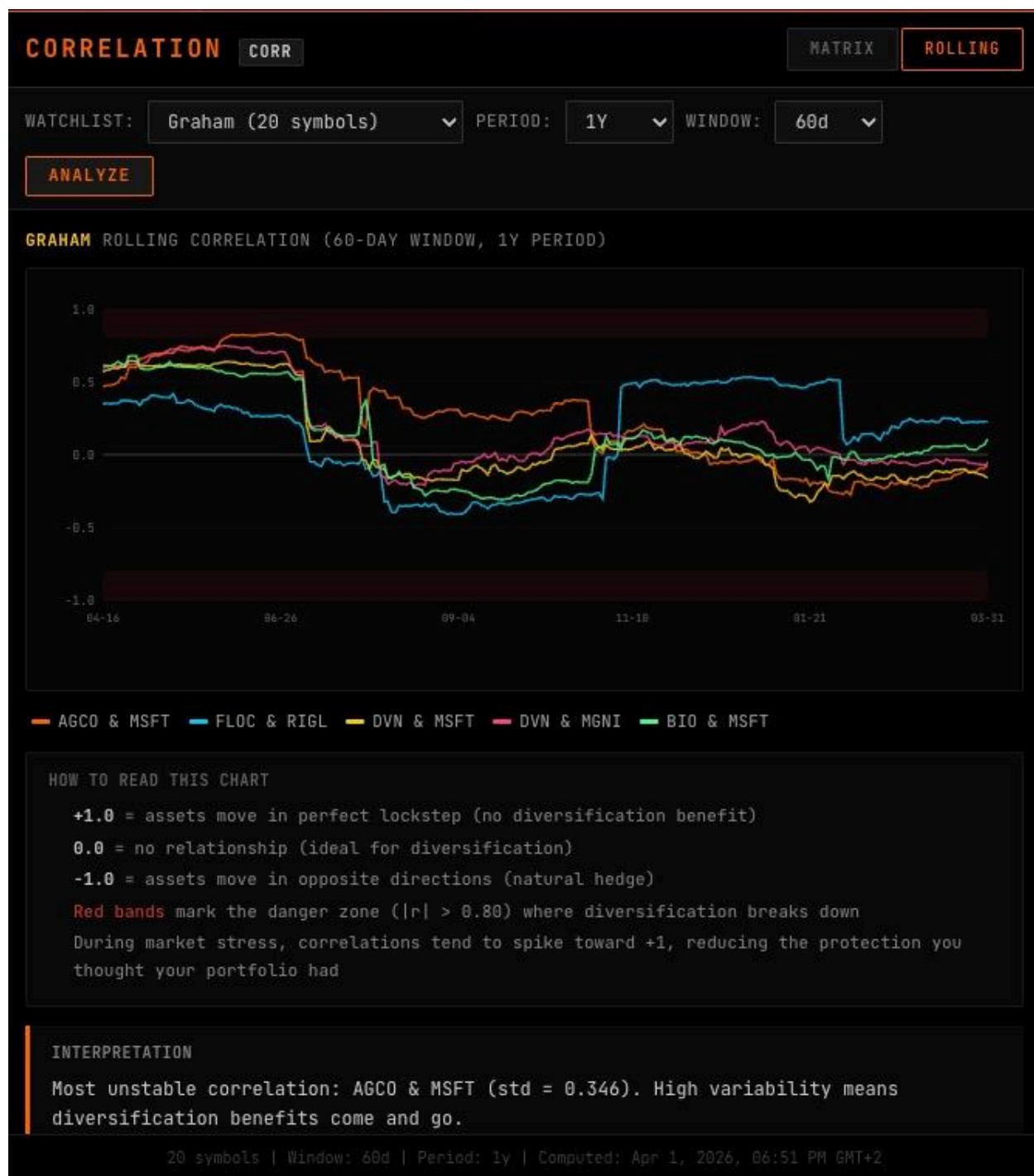
## Tips and caveats

- Correlation is a measure of **historical** co-movement, not causation. Two assets highly correlated in the past may diverge in the future.
- A high correlation ( $> 0.8$ ) between two assets suggests that holding both in a portfolio provides limited diversification benefit.
- Negative correlation is highly desirable for **hedging**: it indicates that when one asset falls, the other tends to rise, smoothing the overall portfolio volatility.
- For very short periods (such as 1 month), the correlation matrix may have lower statistical significance and reflect temporary noise. It is recommended to use the **6 month** or **1 year** periods for more robust and representative results.
- Use **CORR** together with the **FACTOR** (Factor Exposure) command for a more complete portfolio analysis: FACTOR reveals exposure to investment styles, while CORR focuses on the interdependence between the individual assets in the *watchlist*.
- Use **CORR** and **SCAN** (Stock Screener) to improve diversification: use SCAN to find assets that have low correlation relative to your existing holdings, and then add them to a *watchlist* to quantitatively verify the effect on the correlation matrix.
- The **ROLLING** tab is especially valuable for detecting when diversification "breaks down". During market crises (such as March 2020 or the SVB collapse in 2023), correlations between assets tend to converge toward +1, eliminating the diversification benefit exactly when it is needed most.
- A 30-day window captures short-term shifts but is noisier. A 90 or 120-day window produces smoother lines and is better for identifying structural trends in asset

relationships.

- If the 5 pairs shown in the Rolling chart consistently stay below 0.50, your portfolio has robust and stable diversification. If any line frequently enters the red zone ( $>0.80$ ), consider reducing exposure to one of the two assets in that pair.





## NOTES - Investment notes per ticker

Command: NOTES

Category: Portfolio

**Requires ticker:** No (Supports both **NOTES** alone and **TICKER NOTES**)

## Overview

The Investment notes per ticker command (**NOTES**) provides a centralized, private repository for users to save personal investment research, thesis statements, links, and quick observations about any supported asset. Notes are securely stored in the cloud, specific to your user account, and synced across all your terminal sessions, centralizing the qualitative research often scattered across notebooks and documents. Furthermore, **NOTES** integrates deeply across the terminal, placing a visible indicator next to tickers with saved notes in multiple other commands (e.g., **WL**, **SCAN**, **RV**), allowing for research retrieval at the point of action.

## How to use it

You can access the notes editor in two primary ways:

1. **Type **NOTES**** in the Command Bar and press Enter. This opens the panel in browse mode, displaying a list of all your saved notes in the left sidebar.
2. **Type a ticker symbol followed by **NOTES**** (for example, **AAPL NOTES**). This opens the panel and automatically loads the note for that specific ticker into the editor pane, or prepares a new note for creation if none exists.

The panel is a *singleton*: if you open a note for one ticker and then immediately open a note for another, the existing **NOTES** panel will simply switch the content, preventing duplicate panels. Use the text input at the top of the left sidebar to start a new note for any symbol not yet listed.

## Reading the output

The panel is divided into two parts:

- **Left Sidebar (30%)**: Displays a scrollable list of all tickers for which you have saved a note. Each entry shows the ticker symbol, the last updated date, and a 100-character preview of the note's content. Double-clicking any ticker in this list will automatically load its content and also populate the Command Bar with the ticker symbol, ready for a follow-up command (e.g., **FA**).
- **Right Pane (70%)**: Contains a plain text editor where you write and edit your note (up to 10,000 characters). Below the editor are the **Save** and **Delete** buttons. A character counter tracks your progress. An asterisk (\*) will appear in the panel header if you have unsaved changes (a "dirty state"). If you attempt to switch tickers or close the panel with unsaved changes, a confirmation dialog will appear.

## Integration across the Terminal

Once a note is saved for a ticker, a small **note icon** (memo emoji) appears next to that ticker symbol in the following key panels, providing immediate access to your research:

- **WL** (Watchlists)
- **TOPGL** (Top Movers)
- **SCAN** (Stock Screener results)
- **RV** (Relative Valuation peer table)
- **INSB/INSS** (Insider Feeds)
- **UPDN** (Analyst Ratings)

Clicking this note icon in any of the above panels will instantly open the **NOTES** panel with the associated ticker pre-selected.

Furthermore, when viewing the **DES** (Description) panel for a ticker with a saved note, a **NOTE** badge appears in the header, and the full note content is displayed in a dedicated card at the bottom of the **DES** panel with an "Edit in NOTES panel" button.

## Data sources and refresh rate

The data source for the **NOTES** command is entirely **user-generated content** stored privately in the QSTMarkets internal MariaDB database. **No external API** is involved.

Notes are loaded on-demand when the panel opens or when a ticker is selected. The system that tracks which tickers have notes (and displays the icons across other commands) is updated immediately via a custom event every time a note is saved or deleted, ensuring the visual indicators are always current.

## Tips and caveats

- **Authentication is required.** You must be logged into your QSTMarkets account to create, read, update, or delete notes, as they are a user-specific private feature.
- The note indicator icons (memo emoji) only appear when you are logged in.
- Notes are restricted to **plain text**. The editor does not support rich text, Markdown, or HTML formatting.
- A firm **10,000 character limit** is enforced.
- Only valid ticker symbols that exist in the QSTMarkets database (active US equities, supported crypto, metals, and energy symbols) can have notes associated with them.
- The **NOTES** panel is a singleton; it reuses the same window instead of spawning duplicates. This is intentional to keep the workspace clean.
- Double-clicking a ticker in the sidebar is the fastest way to pipe that ticker into the

CommandBar for follow-up research (e.g., GP, FA).

MSFT CN	Investment Notes X	SNPS ANA	Insider Buys	WULF AN v 2
<b>NOTES Investment Notes</b>				
TICKERS WITH NOTES		<b>WULF</b>		
Type ticker + Enter		Edit your investment note		
<b>WULF</b> Mar 22, 2026 DANGER !!! Investment Conclusion AVOID - This company fails the mos...		<b>DANGER !!!</b> Investment Conclusion AVOID - This company fails the most basic quality screens for value investors.		
<b>SNPS</b> Mar 22, 2026 Investment Conclusion: AVOID The dangerously low ROE fundamentally...		Rationale: Benjamin Graham emphasized margin of safety, which requires both quantitative cheapness and qualitative soundness. WULF exhibits neither:		
<b>ADSK</b> Mar 22, 2026 Investment Conclusion: HOLD Rationale: While ADSK exhibits...		Quality: Fails on debt, profitability, and earnings consistency Valuation: Cannot determine if cheap due to insufficient data Safety: Extreme financial risk makes any margin of safety calculation impossible Suggested Entry Range: N/A - No prudent entry price exists given the fundamental risks. Value investors should avoid entirely.		
<b>INTC</b> Mar 22, 2026 Investment Conclusion: AVOID Rationale: While debt levels are...		If Forced to Specify (Theoretical):		
<b>SMCX</b> Mar 22, 2026 es un ETF no muy claro en qué está enfocado		Support: \$13.70 (current \$15.10 × 0.90, reflecting overvaluation risk) Resistance: \$18.51 (52-week high, as sentiment		
<b>CSTE</b> Mar 22, 2026 chicharro gordo, evitar		Save Delete 1062 / 10.000		
<b>DD</b> Mar 22, 2026 Investment Conclusion: AVOID Rationale: The principles of value...		Editing: WULF		
<b>NKE</b> Mar 22, 2026 Investment Conclusion: BUY Action: Accumulate on weakness. The...				
<b>EQT</b> Mar 22, 2026 Investment Conclusion: HOLD				
11 notes total				

## PERF - Portfolio Performance & Attribution

Command: PERF

Category: Portfolio

**Requires ticker:** No (accepts optional watchlist name, e.g. PERF NUCLEAR)

## Overview

The Portfolio Performance & Attribution command (PERF) provides a rigorous, quantitative evaluation of a user's actively managed watchlist, measuring its performance and risk characteristics against a selected market benchmark (default: S&P 500 ETF, SPY). It assesses whether active stock selection has generated *alpha* (outperformance) relative to a passive strategy. The panel synthesizes key risk/return metrics, visualizes cumulative returns, and breaks down the total performance by individual ticker and by sector, helping the user understand the underlying drivers of their portfolio's results.

## How to use it

The command can be invoked in two primary ways:

1. **Type PERF** in the Command Bar and press Enter. This opens the panel with a dropdown selector for your watchlists, allowing you to select a period and benchmark before clicking the **Analyze** button.
2. **Type PERF followed by a watchlist name** (e.g. PERF NUCLEAR). This opens the panel with the specified watchlist pre-selected and automatically triggers the analysis using the default settings (1-year period, SPY benchmark).

The controls bar at the top of the panel is interactive and includes: a watchlist dropdown selector, period buttons (**1M, 3M, 6M, 1Y, 2Y, 5Y**), an editable benchmark ticker field (default: **SPY**, which can be changed to any valid ticker like **QQQ** or **IWM**), the **Analyze** button, and an **Export CSV** button for offline data analysis. Changing the selected period or benchmark requires clicking **Analyze** again to recompute the data. The computation may take 5-10 seconds on the initial load for large watchlists (20+ tickers) or long periods (5Y). Subsequent requests for the same parameters within the 6-hour cache window will be instant.

## Reading the output

The PERF output is logically divided into four vertically-scrolling sections:

1. **Cumulative Return Chart:** An interactive line chart displaying two series: the portfolio (orange line) and the benchmark (cyan line). Both series are normalized to a base value of 100 at the start of the selected period. If the portfolio line is consistently above the benchmark, it indicates outperformance; if below, it signals underperformance. A tooltip appears on hover, displaying the exact price index value at that point in time.
2. **Key Statistics:** A comparison table featuring six key risk/return metrics for both the Portfolio and the Benchmark columns. Metrics include **Total Return** (percentage gain/loss over the period), **Annualized Return** (return scaled to a yearly rate), **Volatility** (annualized standard deviation of daily returns, representing risk), **Sharpe Ratio** (risk-adjusted return, where a higher value is better, calculated using a 0% risk-free rate), **Max Drawdown** (the largest peak-to-trough decline over the period, measuring worst-case risk), and **Beta** (the portfolio's sensitivity to the benchmark, shown only for

- the portfolio). Values are color-coded (green for positive metrics, red for negative).
3. **Return Attribution by Ticker:** A table sorted by the magnitude of contribution (highest to lowest). It shows each ticker's symbol, sector classification, and its **Contribution** in percentage points to the total portfolio return. A horizontal bar chart visually represents the magnitude of the contribution (green for positive, red for negative). The contribution is calculated by equally weighting the ticker's total return over the period.
  4. **Return Attribution by Sector:** An aggregated view where the ticker contributions are grouped by their respective sector. This table shows the sector name, the total cumulative contribution from all tickers within that sector, and the number of holdings in that sector. This helps distinguish whether performance is being driven by successful sector allocation or strong individual stock selection.

A yellow warning banner appears at the top if any tickers were excluded from the analysis due to insufficient historical price data for the selected period. The footer confirms the number of symbols analyzed, the weighting methodology (equal-weighted), the benchmark ticker, and the selected period.

### Data sources and refresh rate

The core calculation relies on daily historical adjusted close prices fetched from QSTMarkets' internal `market_data_daily` database (which maintains up to 10 years of OHLCV data). An automatic fallback mechanism to the **yfinance** API is implemented for any missing ticker data. Sector information is sourced from the `ref_tickers` table, which is maintained by the NASDAQ FTP ETL pipeline and is used for the sector attribution breakdown. The Beta calculation is performed using ordinary least squares (OLS) linear regression of the portfolio's daily returns against the benchmark's daily returns (utilizing the `scipy` library). To ensure performance and manage computational load, the results are aggressively cached in Redis for **6 hours** for every unique combination of watchlist, period, and benchmark. The cache automatically invalidates if the contents of the underlying watchlist change. The analysis is limited to a maximum of 50 tickers per watchlist; any symbols beyond this limit are automatically truncated with a warning in the panel.

# PORTFOLIO PERFORMANCE PERF

NucLear (9) ▼

1M

3M

6M

**1Y**

2Y

5Y

SPY

ANALYZE

EXPORT CSV

## CUMULATIVE RETURN (BASE 100)

Portfolio: 184.89 SPY: 120.11



## KEY STATISTICS

METRIC	PORTFOLIO	BENCHMARK
Total return	+71.88%	+14.16%
Annualized return	+72.62%	+14.28%
Volatility	48.49%	18.98%
Sharpe ratio	1.50	0.76
Max drawdown	-26.56%	-13.72%
Beta	1.62	-

## RETURN ATTRIBUTION BY TICKER

TICKER	SECTOR	CONTRIBUTION
GEV	Industrials	+17.43%
LEU	Energy	+16.87%
BWXT	Industrials	+10.21%
OKLO	Utilities	+9.11%
TLN	Utilities	+4.67%
DVN	Energy	+3.47%
CEG	Utilities	+2.97%
VST	Utilities	+1.35%
NNE	Industrials	-3.68%

9 symbols Equal-weighted Benchmark: SPY Period: 1Y

## REFINE - Refine investment candidates

**Command:** REFINE

**Category:** Fundamentals

**Requires ticker:** Yes (requires 2 to 5 tickers)

### Overview

The REFINE command takes 2 to 5 US equity tickers (typically candidates that have already been evaluated with the ANA command) and ranks them using a composite scoring model inspired by Benjamin Graham's value investing principles. The goal is to help the investor decide which of several studied candidates represents the best investment opportunity, ordered from strongest to weakest.

The scoring model evaluates each candidate across four dimensions with the following weights: Quality (40%), Valuation (30%), Momentum (20%), and Sentiment (10%), producing a composite score from 0 to 100. After scoring, the DeepSeek AI model generates a qualitative ranking analysis with justifications and entry price suggestions.

### How to use it

Type REFINE followed by the ticker symbols separated by spaces. For example: REFINE AAPL MSFT GOOGL. Minimum 2 tickers, maximum 5. The command can also be typed alone (REFINE) to open an empty panel where tickers can be entered manually and submitted with the **RANK** button. Each ticker's ANA report is fetched from cache (if available from a previous ANA execution within the last hour) or computed on demand, which may take 1 to 4 minutes if all reports need to be generated from scratch.

### Reading the output

The panel is divided into four sections:

1. **Comparative Analysis Table:** A table with one row per ticker showing key metrics used in the ranking. Columns include Rank, Ticker (with company name), Score (composite 0-100), Debt/Equity ratio, ROE, Gross Margin, EPS Growth, P/E vs Sector (discount or

premium percentage, negative means undervalued), Margin of Safety, 52-week position percentage, and Insider buying activity. Values are color-coded: green for good flags, yellow for warning, red for danger. High-risk candidates (Debt/Equity greater than 3 and ROE below 5%) have their row highlighted with a red background.

2. **Score Breakdown:** A grid of cards (one per candidate) showing four horizontal bars representing the sub-scores: Quality (0-40, green), Valuation (0-30, blue), Momentum (0-20, orange), and Sentiment (0-10, yellow). This allows quick visual comparison of where each candidate is strong or weak.
3. **AI Ranking Analysis:** A text block generated by the DeepSeek AI model formatted in Markdown. It includes: a numbered ranking with brief justification for each position, a detailed top pick analysis covering strengths and risks, tiebreak criteria if candidates are close in score, and an entry price suggestion based on the margin of safety and support/resistance levels.
4. **Footer:** Shows the AI model used (deepseek-chat), token count, timestamp in Eastern Time, and a **CACHED** label if the result was served from cache.

The panel also includes an **Export CSV** button in the header that downloads the complete ranking data including all metrics and scores.

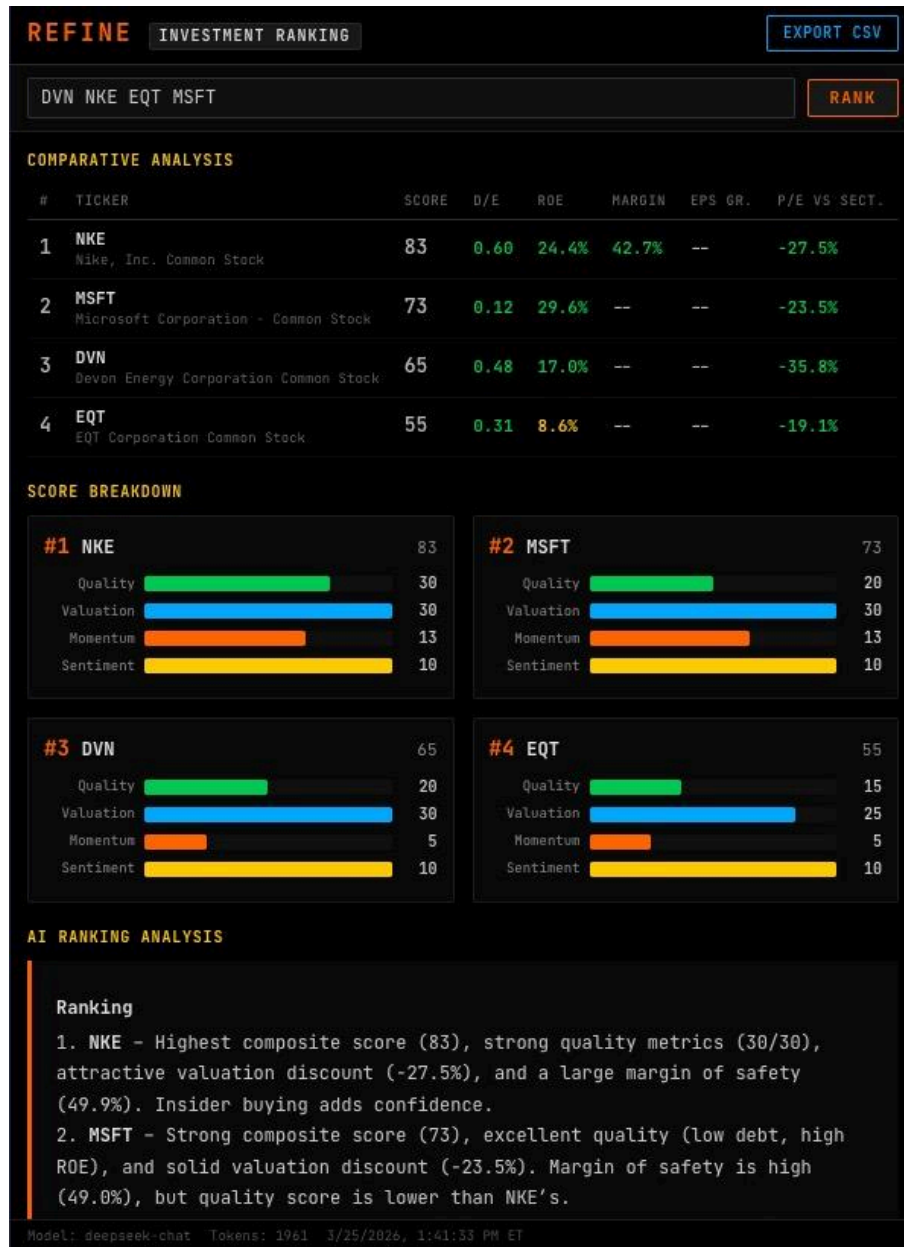
## Data sources and refresh rate

The REFINE command relies entirely on ANA reports for its input data. Each ticker's ANA report is fetched from Redis cache (1-hour TTL) or computed on demand. The ANA pipeline sources data from: SEC EDGAR filings stored in the internal MariaDB for fundamental quality metrics (Debt/Equity, ROE, Gross Margin from the `financial_reports` table, with yfinance as fallback for Gross Margin when SEC XBRL data is incomplete), the internal RV calculation service for relative valuation (P/E vs sector median), `market_data_daily` for momentum (52-week range, current price), finvizfinance for insider buying activity, and Finnhub for news headlines. The composite scoring is computed server-side. The DeepSeek AI synthesis uses the `deepseek-chat` model with temperature 0.3. The complete REFINE result is cached in Redis for 1 hour. The first request for a given set of tickers may take 1 to 4 minutes if ANA reports need to be generated; subsequent requests within the hour are instant.

## Tips and caveats

- REFINE is designed for **US equities only**. Crypto, Precious Metals, and Energy Commodities are not supported.
- Minimum 2 tickers, maximum 5. If more than 5 are entered, only the first 5 are used.
- For best results, run **ANA** on each candidate first so the reports are cached. Otherwise, REFINE will trigger ANA computations on demand, which adds significant wait time.
- The scoring model is mechanical and rule-based. The AI analysis provides qualitative context but does not override the quantitative score.

- Companies with missing financial data (pre-revenue startups, recently IPO'd companies without full SEC filings) will receive lower Quality scores (potentially 0) and show dashes in the table for unavailable metrics. This is expected behavior, not an error.
- The ranking output does **not constitute financial advice**. It is a decision-support tool based on publicly available data and should be used as a starting point for independent research.
- Results can be exported to CSV using the **Export CSV** button for further analysis in spreadsheet applications.
- REFINE requires authentication (sign-in).



## REGIME - Market regime analysis

**Command:** REGIME

**Category:** Markets

**Requires ticker:** No

### Overview

The REGIME command classifies the current market environment across five key dimensions to help investors align their strategy with prevailing macro conditions. It combines quantitative rules (based on live market data and economic indicators) with a qualitative analysis generated by the DeepSeek AI model. The five dimensions are: market trend direction, volatility level, risk appetite, inflation trend, and interest rate trend. This contextual information is especially valuable when used alongside stock-specific commands like ANA (Investment Analysis) and QSTA (Daily Market Analysis), as it frames individual recommendations within the broader macro picture.

### How to use it

Type REGIME in the Command Bar and press Enter. The panel opens as a singleton (only one instance at a time). No ticker is required. The data refreshes automatically every 60 minutes. The first load may take 10 to 15 seconds as it gathers data from multiple sources and calls DeepSeek for the AI analysis. Subsequent loads within the hour are instant (served from cache).

### Reading the output

The panel is divided into three sections:

1. **Current Regime:** Five color-coded badges showing the classification for each dimension. Green indicates favorable conditions (bullish trend, low volatility, risk-on, falling inflation, falling rates). Red indicates unfavorable or elevated conditions (bearish trend, high volatility, risk-off, rising inflation, rising rates). Yellow indicates neutral or transitional states (sideways trend, moderate volatility, stable inflation, stable rates). The classifications are determined by these rules:

- Trend: Bullish if SPY is above both its 50-day and 200-day moving averages. Bearish if below both. Sideways if between.
  - Volatility: Low if VIX is below 15. Moderate if between 15 and 20. High if 20 or above.
  - Risk Appetite: Risk-On if the trend is bullish and VIX is below 20. Risk-Off otherwise.
  - Inflation: Increasing if the latest CPI year-over-year rate exceeds the average of the previous three months by more than 0.1 percentage points. Decreasing if it is lower by more than 0.1 points. Stable otherwise.
  - Rates: Rising if the 10-year Treasury yield is above its 20-day moving average. Falling if below. Stable if within a narrow band.
2. **Key Indicators:** Eight numeric cards displaying the raw data used for classification. SPY current price, SPY 50-day moving average (MA50), SPY 200-day moving average (MA200), VIX level (color-coded: green below 15, yellow 15-20, red above 20), CPI year-over-year percentage, CPI previous 3-month average, 10-year Treasury yield, and 10-year yield 20-day moving average. Each card has a tooltip explaining the metric when you hover over its label.
  3. **AI Regime Analysis:** A text block generated by the DeepSeek AI model formatted in Markdown. It includes four sections: a one-sentence Regime Summary synthesizing all five dimensions, Investment Implications explaining how the current environment affects asset allocation across equities (growth vs value), bonds, commodities, and sectors, Adjustments for Stock Analysis recommending which criteria to prioritize when evaluating individual stocks in this regime (for example, in bearish markets prioritize quality and low beta; in high inflation environments seek companies with pricing power and low debt), and Key Risks identifying the top 2 to 3 factors that could shift the current regime.

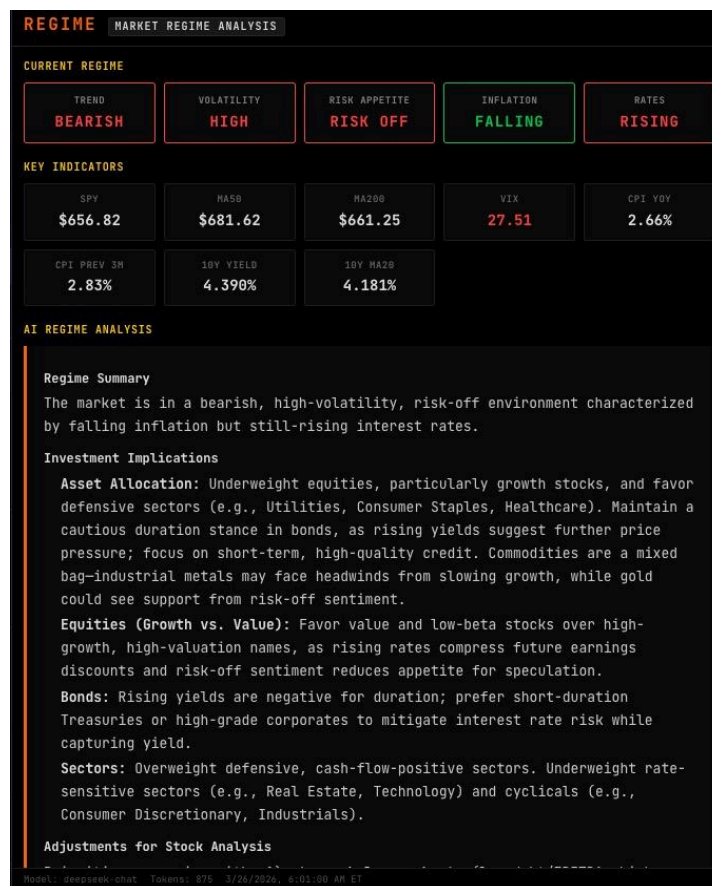
The footer shows the AI model used (deepseek-chat), token count, timestamp in Eastern Time, and a CACHED label if the result was served from Redis cache.

## Data sources and refresh rate

All data sources are already integrated in the terminal, no additional API keys are needed. SPY price and moving averages are computed from the `market_data_daily` database table (10 years of daily OHLCV data ingested by the nightly ETL). VIX is fetched from yfinance in real time. CPI year-over-year data comes from the BLS API (same source as the INFL command), with FRED series CPIAUCSL as automatic fallback when BLS is unavailable. The 10-year Treasury yield comes from the FRED API series DGS10 (same source as the MACRO yield curve). The AI analysis is generated by the DeepSeek model (deepseek-chat) with temperature 0.3. The complete REGIME result is cached in Redis for 1 hour. Additionally, the REGIME computation runs automatically 5 minutes before each scheduled QSTA analysis (at 08:25, 11:55, and 16:25 ET) to ensure that QSTA reports include fresh regime context in their AI analysis.

## Tips and caveats

- The regime is a classification based on current and recent data, not a prediction. It describes the present state of the market, not where it is heading.
- The classification thresholds (VIX 15/20, moving average crossovers) are industry-standard values used by institutional analysts. They are not configurable by the user.
- In highly volatile markets, the regime badges may shift between sessions. The panel shows the state at the time of the last computation.
- REGIME works best as a contextual lens rather than a standalone trading signal. Use it to frame and contextualize the recommendations from ANA and QSTA.
- When REGIME data is cached in Redis, the ANA and QSTA commands automatically include the current regime context in their DeepSeek AI prompts. This means that investment analyses and daily market reports are regime-aware without any extra steps from the user.
- The CPI data updates monthly (when the Bureau of Labor Statistics publishes new figures). Between releases, the inflation dimension remains stable.
- REGIME does not require authentication and is available to all users.



## PAIR - Cointegration pairs analysis

**Command:** PAIR

**Category:** Markets

**Requires ticker:** Yes

### Overview

The PAIR command identifies stocks that maintain a long-term equilibrium relationship with a given ticker through cointegration analysis. Unlike correlation (CORR), which measures linear co-movement at a point in time, cointegration detects whether two price series move together in a stable way over the long term. This enables pairs trading strategies based on mean reversion: when the spread between two cointegrated assets deviates significantly from its historical average, it tends to revert back. The command uses the Engle-Granger two-step methodology (OLS regression followed by an Augmented Dickey-Fuller test on the residuals) to find statistically significant pairs.

### How to use it

Type the ticker symbol followed by PAIR (for example, AAPL PAIR). The panel opens showing cointegrated pairs found among same-sector peers by default. Use the dropdown selectors at the top to change the universe (Sector peers or All liquid stocks) and the lookback period (1Y with 252 trading days, 2Y with 504 days, or 3Y with 756 days). Click any row in the results table to display an interactive spread chart below with standard deviation bands. Click a ticker name (shown in orange) to fill it into the command bar for quick navigation. Use the Export CSV button to download the results.

### Reading the output

The results table shows the following columns for each cointegrated pair found:

- Candidate: the ticker and company name of the cointegrated stock. Clicking the ticker fills it into the command bar.
- Beta: the hedge ratio from the OLS regression. It indicates how many units of the candidate you need to trade per unit of the target ticker to construct the spread.
- P-value: the statistical significance of the cointegration (ADF test). Values below 0.05

(green) indicate strong cointegration. Values between 0.05 and 0.10 (yellow) are marginally significant.

- Half-life: the estimated number of trading days for the spread to revert halfway to its mean. Lower values (5 to 30 days) are more practical for active trading. Very high values suggest slow reversion.
- Z-score: how many standard deviations the current spread is from its historical mean. Values beyond plus or minus 2 (shown in red) suggest potential trading opportunities.
- Signal: "Long Spread" appears when the z-score is below minus 2 (buy the target, sell the candidate). "Short Spread" appears when the z-score is above 2 (sell the target, buy the candidate). No signal appears when the spread is within normal range.

When you click a pair in the table, a spread chart appears below showing the historical spread with horizontal lines for the mean, plus and minus 1 standard deviation (yellow), and plus and minus 2 standard deviations (red). This visualization helps assess whether the current spread level represents a genuine opportunity or a structural break.

At the bottom of the panel, a brief explanation summarizes the pairs trading logic: Long Spread means buy the target and sell the candidate when the spread is below its mean, Short Spread means the opposite.

## Data sources and refresh rate

Price data is sourced from the internal `market_data_daily` database table using adjusted close prices (which account for stock splits and dividends). The analysis covers US equities only. When "Sector peers" is selected, the system analyzes up to 30 stocks in the same sector. When "All liquid" is selected, it picks the 30 most actively traded stocks. Results are cached for 6 hours. Use the Refresh button to force a recalculation.

## Tips and caveats

- Cointegration is a statistical relationship, not a guarantee. It can break down due to fundamental changes in either company (mergers, sector shifts, regulatory changes).
- A half-life under 2 days may indicate noise rather than a tradable signal. A half-life over 100 days may be impractical for active strategies.
- The z-score helps time entries, but combine it with fundamental analysis and the REGIME command to assess whether the current market environment favors mean-reversion strategies.
- Pairs trading requires capital for both long and short positions. Consider transaction costs, borrowing fees, and slippage.
- If a ticker has no sector assigned (such as crypto or commodities), the system automatically switches to the "All liquid" universe.
- PAIR complements the CORR command. High correlation does not imply cointegration, and cointegrated pairs may have moderate correlation. Use both for a complete picture.
- Try different lookback periods. A pair cointegrated over 3 years is generally more robust

than one detected only over 1 year.

AAPL PAIR		COINTEGRATION	TECHNOLOGY			
Sector peers	1Y (252d)	REFRESH	EXPORT CSV	50 analyzed   8 cointegrated   sector		
CANDIDATE	BETA	P-VALUE ▲	HALF-LIFE	Z-SCORE	SIGNAL	
<b>AMBR</b> Amber International Holding Limited - American Depositary Shares	-7.04	0.0001	6.9d	-0.64		
<b>APLD</b> Applied Digital Corporation - Common Stock	2.32	0.0062	9.6d	-0.35		
<b>AMD</b> Advanced Micro Devices, Inc. - Common Stock	0.50	0.0152	12.3d	-0.58		
<b>ALKT</b> Alkami Technology, Inc. - Common Stock	-5.21	0.0349	13.4d	-1.32		
<b>AIP</b> Arteris, Inc. - Common Stock	6.86	0.0370	9.3d	-2.08	LONG SPREAD	
<b>AIFF</b> Firefly Neuroscience, Inc. - Common Stock	-22.54	0.0614	12.0d	-0.06		
<b>ALRM</b> Alarm.com Holdings, Inc. - Common Stock	-4.73	0.0920	12.5d	-1.48		
<b>ARAI</b> Arrive AI Inc. - Common Stock	-7.14	0.0966	12.0d	-1.09		

Pairs Trading: Cointegrated pairs maintain a long-term equilibrium. When the spread deviates ( $|Z| > 2$ ), it tends to revert to the mean. **Long Spread** = buy AAPL, sell candidate (spread below mean). **Short Spread** = sell AAPL, buy candidate (spread above mean). Beta = hedge ratio (units of candidate per unit of AAPL). Half-life = expected days to mean reversion.

Universe: sector Lookback: 252d Computed: 26/3/2026, 19:29:15

## RECO - Graham Value Analysis (AI Recommendations)

**Command:** RECO

**Category:** Fundamentals

**Requires ticker:** No

### Overview

The RECO command displays pre-computed AI investment recommendations generated nightly by an automated batch analysis system. The system filters approximately 12,000 active US equities down to around 970 quality candidates using Benjamin Graham's value investing criteria (profitability, low debt, reasonable ROE, positive cash flow), then runs each candidate

through a 6-phase analysis pipeline powered by DeepSeek AI. The analysis covers: (1) Quality metrics (debt-to-equity, ROE, gross margin, EPS growth, dividend yield), (2) Competitor identification, (3) Relative valuation vs sector peers, (4) Momentum (52-week range position), (5) AI synthesis producing a BUY/HOLD/AVOID conclusion with rationale, and (6) Support/resistance price range computation.

## How to use it

Simply type RECO in the Command Bar and press Enter. The panel opens automatically and loads all analyzed tickers.

## Reading the output

The panel is divided vertically, featuring a sortable, filterable table at the top and a detail pane that appears below when a row is clicked.

The panel header displays the command label, the subtitle (GRAHAM VALUE ANALYSIS), the date of the analysis, the total ticker count, and **Refresh** and **CSV Export** buttons.

Below the header, four conclusion tabs are available: **BUY** (default view), **HOLD**, **AVOID**, and **ALL**, each showing the count of tickers in that specific conclusion category. A filter bar allows users to narrow the results using a **Sector dropdown** (populated dynamically from the data) and an **"Exclude High Risk" checkbox**.

The table columns include:

Column	Description	Color Coding
<b>Symbol</b>	Clickable ticker symbol (orange).	
<b>Company</b>	Full company name.	
<b>Sector</b>	Industry classification.	
<b>Conclusion</b>	AI-generated rating badge.	Green for BUY, Yellow for HOLD, Red for AVOID.
<b>Price</b>	Latest closing price.	
<b>P/E</b>	Trailing twelve-month Price-to-Earnings ratio.	
<b>PE Discount%</b>	Percentage discount or premium vs. sector median P/E.	Green if $\leq -10\%$ .

Column	Description	Color Coding
<b>ROE%</b>	Return on Equity (latest annual).	Green if $\geq 15\%$ .
<b>D/E</b>	Debt-to-Equity ratio.	Green if $\leq 1.0$ .
<b>52W%</b>	Position in the 52-week price range (0% is low, 100% is high).	
<b>Date</b>	Date of the specific ticker's analysis (MM/DD format).	

**Metrics are color-coded:** Green indicates favorable value (ROE  $\geq 15\%$ , D/E  $\leq 1.0$ , PE discount  $\leq -10\%$ ), yellow indicates a warning state, and red indicates a danger state.

Clicking a row highlights the row and loads the full AI synthesis into the detail pane below the table. This report is formatted in Markdown with sections similar to the ANA command: **Executive Summary, Quality Assessment, Valuation Verdict, Momentum and Sentiment, Key Risk Factors**, and the final **Investment Conclusion** with a suggested entry price range (support/resistance).

**Interactions:**

- Clicking a ticker symbol in the table or detail pane fills the Command Bar with that symbol.
- Double-clicking a row opens a GP (price chart) panel for that ticker.
- The **CSV Export** button downloads all currently filtered results with all ranking metrics.

**Data sources and refresh rate**

Data is generated nightly by an automated ETL batch job running on a dedicated server. The system processes approximately 50 tickers per day (Monday through Friday). Quality metrics are sourced from SEC EDGAR financial reports stored in the database. Relative valuation is computed against same-sector peers. The AI synthesis is generated by the DeepSeek model (deepseek-chat) using value investing methodology. The panel does not auto-refresh; the user must click the **Refresh** button to reload the most recent data from the server cache.

**Tips and caveats**

- The panel displays a **"STALE DATA"** warning in orange if the most recent analysis date in the header is more than 7 days old, which may indicate the nightly batch job did not run or is delayed.
- Not all tickers have complete data. Some cells may show empty values for metrics like

- gross margin or debt-to-equity if the underlying SEC filings lack those fields.
- The BUY/HOLD/AVOID conclusion is AI-generated and should **not** be treated as financial advice. Always verify the analysis independently and consult a qualified financial advisor.
- The **Date** column shows when each individual ticker was analyzed. Tickers analyzed on different days coexist in the same list, so you will see a mix of analysis dates.
- Use the **sector filter** to focus on industries you are familiar with, and sort by **PE Discount%** to quickly find the most undervalued candidates relative to their sector peers.
- A disclaimer at the bottom of the panel reminds users that this information is for educational purposes only.

Top News
Graham Value Analysis ✕

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RECO
GRAHAM VALUE ANALYSIS
Analysis: 2026-03-28 895 tickers
Refresh
CSV

BUY (6)
HOLD (25)
AVOID (13)
ALL (44)

Sector
Energy
 Exclude High Risk

#	Symbol	Company	Sector	Conc.	Price	P/E	PE Disc% ↑	ROE%	D/E	52W%	Date
1	CNX	CNX Resources Corporat...	Energy	BUY	\$40.01	8.9	-72.2%	14.6%	0.51	77%	03/27
2	GPOR	Gulfport Energy Corpor...	Energy	BUY	\$214.75	9.9	-69.2%	23.3%	0.43	85%	03/27
3	INSW	International Seaways, ...	Energy	BUY	\$70.01	11.2	-65.2%	15.3%	0.27	83%	03/27
4	FLOC	Flowco Holdings Inc. C...	Energy	BUY	\$21.97	14.4	-55.2%	18.1%	0.73	66%	03/27
5	EXE	Expand Energy Corporat...	Energy	BUY	\$111.05	14.5	-54.8%	9.8%	0.27	56%	03/27
6	WFRD	Weatherford Internatio...	Energy	BUY	\$95.94	16.1	-49.8%	25.4%	0.83	80%	03/27

FLOC
BUY
Flowco Holdings Inc. Class A Common Stock

---

Price \$21.97
Range \$20.87 - \$26.12
PE vs Sector -55.2%

---

Competitors: OII, NESR, AESI, WTTR, XPRO

### FLOC Investment Analysis

#### 1. Executive Summary

FLOC presents a compelling value opportunity in the Oil & Gas Equipment & Services sector, trading at a significant 55% discount to sector median P/E while maintaining strong profitability (18.1% ROE) and conservative leverage. However, the warning flag on gross margins (35.3%) suggests potential pricing pressure or cost inefficiencies that require monitoring.

#### 2. Quality Assessment

**Debt Health:** Strong - Debt-to-equity of 0.73 indicates conservative leverage with financial flexibility.

**Profitability:** Excellent - 18.1% ROE demonstrates efficient capital allocation and strong returns to shareholders.

## SHORT - Most shorted stocks

**Command:** SHORT

**Category:** Markets

**Requires ticker:** No

## Overview

The Most shorted stocks command provides an essential tool for identifying potential short squeeze candidates. It displays a ranked list of US equities with a significantly high percentage of their float sold short, helping users monitor stocks that may be poised for rapid upward movement if short sellers are forced to cover their positions.

## How to use it

Type SHORT in the Command Bar and press Enter. The panel loads automatically with the ranked table of tickers.

## Reading the output

The panel presents a dynamic, sortable table of US equities that currently have a short float percentage greater than 20%. The table is sorted by default in descending order of Short Float percentage, listing the highest-conviction short targets first.

Key columns include:

Column	Description
SYMBOL	Ticker symbol
COMPANY	Full company name
SECTOR	Industry classification
PRICE	Latest trading price
CHG%	Daily percentage change
SHORT%	Short interest as a percentage of float (sorted column)

Column	Description
DAYS TO COVER	The short interest ratio (number of days required to cover all short positions at the average daily trading volume)
VOLUME	Current cumulative daily trading volume
CAP	Market capitalization

All column headers are clickable to allow sorting by any metric. Rows with extreme short interest (40% or higher) are highlighted with a subtle amber background for immediate visual flagging. Clicking a single row fills the Command Bar with the selected ticker symbol, while double-clicking a row automatically executes the GP command to open a price chart for that stock. The panel header includes a **REFRESH** button to re-fetch the data on demand and a **CSV** button to export the current results to a file.

## Data sources and refresh rate

The data is sourced from Finviz via the [finvizfinance](#) library, utilizing their Ownership screener view. Company name, sector, and industry classifications are enriched using the internal [ref\\_tickers](#) database. The command operates on-demand; there is no caching or auto-refresh mechanism. The data reflects the latest reported figures from the source at the time of request.

## Tips and caveats

- Short interest data is reported on a bi-monthly basis by FINRA. Therefore, the **SHORT%** and **DAYS TO COVER** values are not live and do not reflect intraday changes in short positions.
- High short float alone is not a trading signal. Short squeezes require a catalyst and high trading volume. Always cross-reference candidates with fundamental analysis (FA and ANA) and daily volume.
- The command works on weekends and outside market hours because it relies on reported data rather than live market prices.
- Some micro-cap or newly listed stocks may occasionally be missing company names or sector classifications if they have not yet been fully integrated into the internal database.

Most Shorted Stocks X

MOST SHORTED STOCKS   100 results · Short Float > 20% · Finviz · 14:23:03 UTC

SYMBOL	COMPANY	SECTOR	PRICE	CHG%	SHORT% ▼	DAYS TO COVER	VOLUME	CAP
SNSE	Sensei Biotherapeutics, Inc. - ...	Healthcare	\$27.68	+2.98%	83.2%	2.2	115K	34.91M
RIME	Algerhythm Holdings, Inc. - Com...	-	\$1.10	-3.51%	72.3%	0.2	513K	2.99M
AIRS	AirSculpt Technologies, Inc. - ...	Healthcare	\$2.87	-11.69%	69.8%	1.4	2.0M	179.19M
NCI	Neo-Concept International Group...	Consumer Cyclical	\$5.77	-3.19%	63.3%	0.2	830K	23.45M
BNRG	Brenmiller Energy Ltd - Ordinar...	Utilities	\$0.66	+0.11%	61.7%	0.4	78K	470000
IBG	Innovation Beverage Group Limit...	-	\$1.09	-1.80%	57.0%	1.4	328K	1.98M
FLYX	flyExclusive, Inc. Class A Comm...	Industrials	\$2.17	-8.44%	53.5%	0.2	149K	284.74M
KALV	KalVista Pharmaceuticals, Inc. ...	Healthcare	\$19.33	+2.01%	51.5%	19.0	2.1M	990.13M
GRPN	Groupon, Inc. - Common Stock	Communication Services	\$10.47	-6.01%	50.1%	10.2	1.2M	426.58M
TNGX	Tango Therapeutics, Inc. - Comm...	Healthcare	\$19.26	-3.02%	48.3%	13.6	1.8M	2.75B
ZENA	ZenaTech, Inc. - Common Stock	Technology	\$2.06	-11.21%	48.0%	1.4	1.7M	98.22M
VRCA	Verrica Pharmaceuticals Inc. - ...	Healthcare	\$4.38	-0.23%	46.9%	3.1	66K	75.24M
NP	Neptune Insurance Holdings Inc...	Financial Services	\$23.03	-2.91%	46.8%	3.3	456K	3.18B
RENX	RenX Enterprises Corp. - Common...	-	\$1.58	-13.19%	46.1%	0.2	896K	3.66M
IPW	iPower Inc. - Common Stock	Consumer Cyclical	\$1.39	-11.15%	45.6%	0.5	81K	1.83M
POLA	Polar Power, Inc. - Common Stock	Industrials	\$1.55	-4.91%	42.6%	0.4	112K	4.12M
MDCX	Medicus Pharma Ltd. - Common St...	Healthcare	\$0.45	-3.37%	42.5%	0.9	989K	17.71M
HYPD	Hyperion DeFi, Inc. - Common St...	Healthcare	\$3.42	-2.01%	41.8%	5.4	241K	27.95M
HIMS	Hims & Hers Health, Inc. Class ...	Healthcare	\$19.38	-7.09%	40.2%	2.5	22.2M	4.42B
ACXP	Acurx Pharmaceuticals, Inc. - C...	Healthcare	\$3.76	-6.23%	39.9%	0.3	240K	10.73M
BTDR	Bitdeer Technologies Group - Or...	Technology	\$8.37	-3.90%	39.8%	6.0	6.8M	2.02B

## HEAT - Market Heatmap

**Command:** HEAT

**Category:** Markets

**Requires ticker:** No

### Overview

The Market Heatmap command (**HEAT**) provides a powerful, instant visualization of the daily performance and relative size of the 500 largest US equities by market capitalization. It uses a treemap structure to organize the market hierarchically by Sector and Industry, allowing users to immediately identify which sectors are driving the daily return, assess capital flow, and visually confirm the market's risk appetite at a glance.

## How to use it

Type HEAT in the Command Bar and press Enter. The panel opens immediately as a full-workspace view.

## Reading the output

The panel displays a large, non-scrollable treemap that fills 100% of the available panel space.

- **Size and Structure:** The 500 equities are grouped first by **Sector** (outlined with thick borders and a visible label: e.g., Technology, Financial, Energy) and then subdivided by **Industry** (thinner borders). The size of each company's rectangle is directly proportional to its market capitalization, meaning massive companies like Apple or Microsoft occupy the largest rectangular areas.
- **Color Coding (Performance):** The color of the rectangle indicates the daily percentage change. **Bright green** represents strong gains, **bright red** indicates significant losses, and **dark gray** denotes flat movement. The color scale is clamped (saturated) between -5% and +5% to ensure that extreme outliers do not visually skew the overall market picture.
- **Data Display:** Within each company's rectangle, the **ticker symbol** and the daily **percentage change** are displayed.
- **Interactions:**
  - **Single-click** on any ticker's rectangle to fill the Command Bar with the symbol, preparing it for a subsequent command (e.g., FA, DES).
  - **Double-click** on any ticker's rectangle to automatically open a GP (price chart) panel for that specific stock.
- **Header:** The top of the panel displays the title "S&P 500 MARKET HEATMAP," the total number of analyzed tickers (500), the data source (Finviz), and the date and time of the last data update.

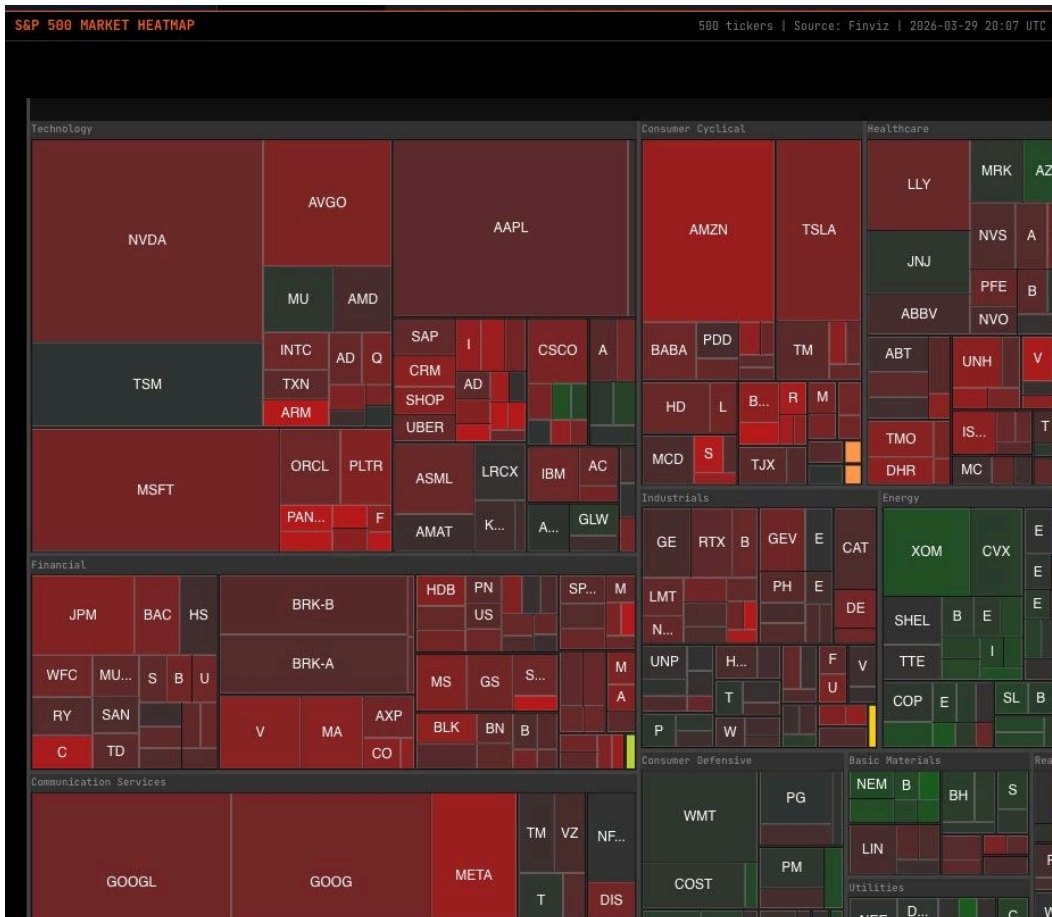
## Data sources and refresh rate

The visualization relies on data sourced from Finviz (finviz.com), which supplies the symbol, market capitalization, sector/industry classification, and daily percentage change. This data is **not** fetched live from the frontend. An automated ETL process on the QSTMarkets server obtains the top 500 market cap data from Finviz every **15 minutes** during standard market hours (Monday-Friday, 9:00 AM - 4:30 PM ET) and stores it in an internal database table. The HEAT command backend reads this pre-fetched data, resulting in near-instant load times from a system cache that updates every **60 seconds**. Outside of market hours, the panel displays the final, official closing data from the most recent trading session. The visualization is rendered

using the Apache ECharts library (treemap series).

## Tips and caveats

- The Heatmap represents the **Top 500 US equities by market cap**, serving as a dynamic approximation of the S&P 500 index components.
- Use the **HEAT** command to quickly gauge market sentiment. A prevalence of red in cyclical sectors like Technology or Financials might indicate risk-off behavior, while dominant green in Defensive sectors might signal the opposite.
- Since the treemap automatically adjusts to fill the panel, users can dock the HEAT panel in a larger space to improve the readability of smaller tickers.
- The 15-minute refresh rate for the underlying data means the performance percentages are near-live but not real-time streaming data.
- The color scale clamping (-5% to +5%) is intentional to ensure the visual emphasis remains on the broad market structure, rather than being distorted by single, highly volatile small-cap stocks.



# OMON - Options Monitor

**Command:** OMON

**Category:** Markets

**Requires ticker:** Yes

## Overview

The Options Monitor command displays the full options chain for any US equity, showing all available call and put contracts organized by expiration date. While options are often associated with speculation, the data they generate is invaluable for traditional equity investors. Implied Volatility reveals expected price movement magnitude, Open Interest shows where institutional money is positioned, and Delta can be interpreted as the market-implied probability of a stock reaching a specific price level by expiration.

## How to use it

Enter your ticker followed by OMON (for example, AAPL OMON). The panel opens with the nearest expiration date pre-selected. Use the expiration dropdown in the header bar to switch between available expiration dates. The header also displays the current underlying stock price for reference.

## Reading the output

The panel uses the standard financial industry split-table layout. The center column shows strike prices. Call options are displayed on the left side and put options on the right side. Each side shows seven columns: Volume (VOL), Open Interest (OI), Implied Volatility (IV), Delta, Bid, Ask, and Last price.

Rows are visually coded to help you scan quickly:

- In-The-Money call contracts (strike below the underlying price) have a subtle green background tint.

- In-The-Money put contracts (strike above the underlying price) have a subtle red background tint.
- The At-The-Money strike (closest to the current stock price) is marked with an orange border and bold strike price, serving as the central reference point.
- Zero or empty values are dimmed to dark gray so that contracts with real activity stand out naturally.
- Volume and Open Interest values above 1,000 are highlighted in cyan to signal where meaningful liquidity exists.

Key columns explained:

- VOL (Volume): Number of contracts traded today. High volume indicates active interest.
- OI (Open Interest): Total number of outstanding contracts at that strike. Large OI suggests institutional positioning.
- IV (Implied Volatility): The market's expectation of future price movement, expressed as a percentage. Higher IV means the market expects bigger swings.
- Delta: Ranges from 0 to 1 for calls and 0 to -1 for puts. For a non-speculator, Delta can be roughly interpreted as the probability that the stock will reach that strike price by expiration.
- Bid/Ask: The current market prices to sell or buy the contract.
- Last: The price of the most recent trade.

## Data sources and refresh rate

Options data is sourced from the Tradier API in real time. The chain data is cached for 60 seconds and expiration dates for 5 minutes. Click the REFRESH button to fetch the latest data on demand. A CSV export button allows you to download the full chain for offline analysis.

## Tips and caveats

- Focus on strikes near the At-The-Money line (orange border) for the most liquid and actionable data. Deep in-the-money and far out-of-the-money contracts often have very low liquidity.
- High Open Interest at a specific strike can act as a "magnet" for the stock price near expiration, a phenomenon known as "max pain."
- A sudden spike in Implied Volatility before earnings usually signals that the market expects a significant price move, regardless of direction.
- Click any row to fill the CommandBar with the ticker symbol. Double-click to open the GP (price chart) panel for deeper analysis.

NKE														
OMON	EXP	2026-04-02	Underlying: \$52.07	REFRESH	CSV	50 strikes   50C / 50P   Tradier								
VOL	OI	IV	DELTA	BID	ASK	LAST	STRIKE	LAST	BID	ASK	DELTA	IV	OI	VOL
5	30	220.0%	0.994	11.50	12.35	12.07	40.00	0.02	0.02	0.03	-0.006	119.6%	710	334
170	3	197.6%	0.989	10.80	11.35	10.99	41.00	0.03	0.02	0.04	-0.011	120.3%	0	300
79	24	188.0%	0.980	9.80	10.35	10.12	42.00	0.05	0.03	0.05	-0.020	111.5%	60	2
0	11	174.3%	0.975	8.40	9.85	10.65	42.50	0.06	0.05	0.07	-0.025	113.5%	135	72
11	42	177.6%	0.968	8.90	9.40	9.10	43.00	0.08	0.07	0.09	-0.033	113.4%	226	35
2	1	174.6%	0.959	8.20	8.90	8.52	43.50	0.09	0.06	0.11	-0.041	109.7%	50	24
207	38	156.5%	0.949	7.95	8.45	8.13	44.00	0.13	0.11	0.13	-0.051	111.5%	171	366
1	11	163.0%	0.937	6.50	8.00	7.90	44.50	0.15	0.14	0.16	-0.063	110.7%	28	100
106	238	145.6%	0.922	7.10	7.50	7.26	45.00	0.20	0.18	0.20	-0.078	111.6%	2K	773
2	1	146.4%	0.906	6.60	7.05	6.77	45.50	0.26	0.23	0.25	-0.094	111.3%	87	27
14	4	95.3%	0.887	6.20	6.90	6.50	46.00	0.31	0.30	0.31	-0.113	110.4%	637	137
2	1	91.4%	0.866	5.70	6.20	5.76	46.50	0.39	0.36	0.41	-0.134	110.6%	277	246
2	2	110.2%	0.842	5.40	5.75	4.95	47.00	0.47	0.45	0.48	-0.158	111.3%	961	927
3	32	110.2%	0.816	5.10	5.35	4.97	47.50	0.54	0.54	0.58	-0.184	111.6%	114	67
15	43	109.6%	0.788	4.70	4.95	4.77	48.00	0.67	0.65	0.68	-0.212	111.6%	1K	366
2	2	110.9%	0.757	4.30	4.60	4.20	48.50	0.79	0.79	0.81	-0.243	112.1%	446	57
3	9	111.1%	0.725	3.95	4.20	3.65	49.00	0.93	0.90	0.95	-0.275	111.3%	572	174
1	2	110.3%	0.692	3.60	3.85	3.60	49.50	1.10	1.05	1.14	-0.308	111.9%	403	109
122	473	109.9%	0.656	3.30	3.45	3.40	50.00	1.25	1.24	1.28	-0.344	110.8%	4K	557
193	360	111.3%	0.584	2.75	2.83	2.77	51.00	1.63	1.64	1.70	-0.416	111.1%	2K	469
1K	2K	111.8%	0.510	2.25	2.29	2.26	52.00	2.15	2.07	2.19	-0.490	111.1%	1K	189
653	2K	110.4%	0.436	1.79	1.82	1.80	53.00	2.69	2.60	2.71	-0.564	110.2%	970	829

## OVOL - Options Volatility & Positioning

**Command:** OVOL

**Category:** Markets

**Requires ticker:** Yes (a US equity with listed options)

### Overview

OVOL is the companion to OMON (Options Monitor). While OMON addresses what contracts exist and at what price, OVOL focuses on what the options market is saying about risk and where positioning is concentrated. It analyzes the same Tradier option chain to provide four analytical views plus an educational guide, organized in five tabs. It is suitable for non-specialists as every analytical tab includes a short textual interpretation. Multiple OVOL panels can be open simultaneously to compare different underlyings, as it is not a singleton.

### How to use it

Type a ticker followed by OVOL (for example, AAPL OVOL). A common header displays the ticker, company name, spot price, daily change, a "Data as of" timestamp, an expiration selector, a **REFRESH** button, and an **Export CSV** button. Switch between the five tabs (**TERM**, **SKEW**, **GAMMA**, **OI MAP**, **GUIDE**) at the top of the panel. The expiration selector controls the SKEW and GAMMA tabs (appearing when those tabs are active), while TERM and OI MAP

automatically sweep several expirations. **REFRESH** forces a re-fetch of the active tab, and **Export CSV** downloads the active tab's data. "Related" buttons (for example, AAPL OMON, AAPL GP) do not open a panel immediately; instead, they drop the command into the command bar for you to press Enter when ready, keeping the current OVOL view in place.

## Reading the output

This section provides a summary of the data presented in each of the five tabs:

**TERM:** Displays ATM implied volatility plotted by days to expiration, shown as a line chart plus a table. The curve is classified with a regime label: Contango (longer-dated IV above near-term) is the normal, calm state; Backwardation (near-term IV above longer-dated) signals short-term stress, often before an imminent event such as earnings.

**SKEW:** Shows implied volatility across strikes for the selected expiration, featuring a put curve and a call curve, and a vertical line at the ATM strike. The headline metric is the 25-delta skew (IV of the 25-delta put minus IV of the 25-delta call); a pronounced positive skew, typical of index options, means the market is paying up for downside protection.

**GAMMA:** Presents estimated dealer gamma exposure (GEX) by strike using horizontal bars, along with the gamma flip level, net GEX, and the strikes with the largest positive and negative gamma. Above the gamma flip (net positive GEX), dealers tend to dampen moves (resulting in lower volatility or price "pinned"); below it (net negative GEX), they tend to amplify moves.

**OI MAP:** Displays open interest by strike and expiration as a color heatmap, with a toggle for Calls, Puts, or Total, and the max pain strike for the selected expiration shown as a reference line and value. Max pain is the strike where the greatest amount of option value expires worthless.

**GUIDE:** Contains educational cards that explain each view, plus a decision table that maps combined signals to an interpretation (e.g., backwardation with a high put skew before earnings suggests the market is pricing a large, downside-leaning move).

## Data sources and refresh rate

Data is sourced from Tradier option chains requested with greeks, the same source as OMON. Implied volatility and the greeks are computed by ORATS. The greeks and IV are recomputed approximately every 15 minutes and are not streaming; the "Data as of" timestamp reflects the freshness of the underlying quote. OVOL is an analytical panel and is not intended for high-frequency intraday decisions. Results are cached on the backend, with multi-expiration views (term structure, OI map) cached for a few minutes and the single-expiration skew cached for about a minute; use **REFRESH** to force an update.

## Tips and caveats

- The **GAMMA** tab is an estimate derived from a sign convention, not an observable measurement (similar in spirit to the CDX note in the **CREDIT** panel); do not read it as fact.
- Strikes with zero open interest and zero volume are filtered out of the skew curve to prevent phantom quotes from distorting it, though very thinly traded options may still yield noisy curves.
- If a ticker has no listed options, a clear "No options data available" message appears instead of an empty panel.

- In **OI MAP**, max pain is computed over the full chain even when a heavy open interest wall lies outside the displayed spot plus-minus 20 percent window; widen the window using the all-strikes toggle to see it on the map.
- The "Related" buttons and the links in the **GUIDE** tab fill the command bar rather than switching your view, requiring you to press Enter to open OMON or GP.
- Open several OVOL panels side by side to compare the volatility profile of different underlyings.



## WB - World Bonds

Command: WB

Category: Markets

Requires ticker: No

## Overview

The World Bonds command displays the complete US Treasury yield curve, covering 11 maturities from 1-month to 30-year. Treasury yields represent the "risk-free" rate of return and are the foundation of all asset valuation. When yields rise, the present value of future corporate earnings decreases, which typically pressures equity valuations, especially in growth and technology sectors. This panel gives investors the macroeconomic context they need to interpret daily movements in the stock market without leaving the terminal.

## How to use it

Simply type WB in the command bar. No ticker is required. The panel opens as a singleton, meaning only one instance can exist at a time. Data refreshes automatically every 30 minutes, or you can click REFRESH to fetch the latest data on demand.

## Reading the output

The panel is divided into three sections:

The yield table at the top displays all 11 maturities (1M, 3M, 6M, 1Y, 2Y, 3Y, 5Y, 7Y, 10Y, 20Y, 30Y). For each maturity, you can see the current yield percentage, the daily change expressed in basis points (bps), the previous closing yield, and a small ASCII trend bar that gives you an instant visual sense of the direction and magnitude of the move. Positive changes appear in green, negative changes in red.

The key spreads section below the table highlights the two most important yield curve spreads that professional investors monitor constantly:

- 2Y/10Y spread: The difference between the 10-year and 2-year yields. This is the classic recession indicator. When this spread turns negative (the 2-year yield exceeds the 10-year yield), the curve is "inverted," and a blinking red **INVERTED** tag appears as a warning.
- 3M/10Y spread: The difference between the 10-year and 3-month yields. This is the Federal Reserve's preferred measure of yield curve inversion and has historically preceded every US recession since the 1960s.

When spreads are positive (normal curve), they appear in green. When negative (inverted), they appear in red with the **INVERTED** alert.

The mini yield curve chart at the bottom draws the curve as an SVG line graph. The horizontal axis uses a logarithmic scale for maturities (so the important short-end of the curve is not compressed), and the vertical axis auto-scales to the current yield range. The line is drawn in orange under normal conditions and turns red if any portion of the curve is inverted. Each data point is marked with a circle, and all maturities are labeled along the bottom.

## Data sources and refresh rate

All yield data is sourced from FRED (Federal Reserve Economic Data), the official data repository of the Federal Reserve Bank of St. Louis. FRED updates Treasury yields once daily at approximately 4:15 PM Eastern Time. The data is cached for 1 hour on the server. The panel auto-refreshes every 30 minutes on the client side.

## Tips and caveats

- A normal yield curve slopes upward: longer maturities pay higher yields to compensate for time risk. When the curve flattens or inverts, it signals that the bond market expects economic weakness ahead.
- The 2Y/10Y spread turning negative has preceded every US recession in the last 50 years, though the lag between inversion and recession onset can range from 6 to 24 months.
- Pay attention to sudden large moves in basis points (CHG column). A move of +10 bps or more in a single day on the 10-year is significant and often coincides with major market events (Fed announcements, inflation reports, employment data).
- Use WB alongside the ECO, ECOCAL, and MACRO commands for a complete macroeconomic picture. The yield curve provides the "verdict" of the bond market on the data shown in those other panels.
- Click CSV to export the full yield curve data for offline analysis or record-keeping.



## TECH - Technical pattern screener

**Command:** TECH

**Category:** Markets

**Requires ticker:** No (singleton command, scans the entire US equity market)

### Overview

The Technical Pattern Screener (**TECH**) is a market-wide technical analysis tool that scans US equities for chart patterns, candlestick formations, moving average signals, and momentum

indicators. It complements the **SCAN** command (which filters by fundamental criteria like sector, market cap, and P/E) by providing a purely technical view. The command is designed with educational tooltips on every filter label, making it accessible to students and retail investors who are learning technical analysis concepts.

## How to use it

Type **TECH** in the Command Bar and press Enter. The panel opens with 10 filter dropdowns arranged in rows:

- **Signal:** preset market signals (Top Gainers, Top Losers, New High, New Low, Most Volatile, Most Active, Unusual Volume, Overbought, Oversold, Upgrades, Downgrades, Insider Buying, Insider Selling, Major News)
- **Pattern:** chart patterns (Double Bottom, Double Top, Head & Shoulders, H&S Inverse, Triangle Ascending, Triangle Descending, Wedge Up, Wedge Down, Channel Up, Channel Down, TL Resistance, TL Support, Horizontal S/R, Multiple Bottom, Multiple Top)
- **Candle:** candlestick patterns (Hammer, Inverted Hammer, Doji, Dragonfly Doji, Gravestone Doji, Marubozu White/Black, Spinning Top White/Black, Long Lower/Upper Shadow)
- **SMA 20:** 20-day Simple Moving Average position (price above/below, crossed above/below, SMA20 vs SMA50 cross)
- **SMA 50:** 50-day SMA (price above/below, crossed, Golden Cross = SMA50 above SMA200, Death Cross = SMA50 below SMA200)
- **SMA 200:** 200-day SMA (price above/below, crossed)
- **RSI:** Relative Strength Index 14-day (Overbought >70/>80/>90, Oversold <30/<20/<10)
- **Sector:** filter by sector (Technology, Healthcare, Financial, etc.)
- **Avg Vol:** minimum 3-month average daily volume (Over 100K, 500K, 1M, 2M, 5M) to exclude illiquid stocks
- **Price:** min and max price inputs for exact range filtering (e.g. 20 to 100 to exclude penny stocks)

Select one or more filters, then click the **SCAN** button. Results appear in a sortable table. Click any row to fill the Command Bar with that ticker. Double-click to open the **GP** (price chart) panel for that stock. Use the **CSV** button to export results or the **WL** button to save all results as a new watchlist.

## Reading the output

The results table displays the following columns: **SYMBOL** (ticker in orange), **PRICE**, **CHG%** (daily change, green positive, red negative), **RSI** (highlighted red when >70 overbought, cyan when <30 oversold), **SMA20** (distance from 20-day SMA as percentage), **SMA50**, **SMA200**, **BETA** (volatility vs S&P 500, >1 means more volatile), **VOL** (today's volume), **GAP%** (overnight price gap from previous close). The table is sortable by clicking any column header. An arrow

indicator shows the active sort column and direction.

## Data sources and refresh rate

Data is sourced from Finviz via the [finvizfinance](#) library (no API key required). Results are fetched on-demand each time the user clicks **SCAN** (no cache). The price filter uses a two-layer approach: Finviz pre-filters using the nearest "Over \$X" bucket to reduce the dataset, then the backend applies exact min/max price filtering in Python for precise results. Average volume filtering is handled entirely by Finviz as a pre-filter.

## Tips and caveats

- Hovering over any filter label shows an educational tooltip explaining the concept (e.g., hovering over "RSI" explains "Relative Strength Index: measures momentum on a 0-100 scale. RSI > 70 = overbought, RSI < 30 = oversold").
- You can combine multiple filters simultaneously. For example, Pattern "Double Bottom" + RSI "Oversold (<30)" + Avg Vol "Over 500K" + Price 20-100 finds liquid, oversold stocks forming a potential reversal pattern.
- A Golden Cross (SMA50 crossed SMA200 above) is one of the most widely followed bullish signals in technical analysis. A Death Cross is the bearish equivalent.
- Scanning with no filters selected returns all US stocks (up to 200 results). Always set at least one filter for meaningful results.
- The scan may take 30-60 seconds because it queries Finviz in real time. Be patient after clicking **SCAN**.
- **TECH** focuses on technical patterns; for fundamental screening (sector, market cap, P/E), use the **SCAN** command instead.

**TECHNICAL SCREENER** SCAN CLEAR ↓ CSV + WL 27 results · Finviz · 18:05:24 UTC

Signal: Any Pattern: Double Bottom Candle: Any

SMA 20: Any SMA 50: Any

SMA 200: Any RSI: Any Sector: Any

Avg Vol: Over 500K Price: 20 - 100

SYMBOL	PRICE	CHG% ↓	RSI	SMA20	SMA50	SMA200	BETA	VOL	GAP%
PVH	\$77.39	+0.11%	76	+0.19%	+0.18%	+0.05%	1.61	1.6M	+0.04%
PSIX	\$67.36	+0.11%	54	+0.18%	-0.06%	-0.12%	2.19	478K	+0.03%
EUAD	\$42.95	+0.05%	51	+0.01%	-0.04%	-0.01%	0.71	1.2M	+0.04%
HGV	\$40.82	+0.04%	46	-0.01%	-0.08%	-0.08%	1.49	286K	+0.01%
VCEL	\$33.02	+0.03%	50	+0.02%	-0.05%	-0.09%	1.21	304K	+0.01%
CMG	\$32.76	+0.02%	43	-0.02%	-0.10%	-0.18%	1.06	6.0M	+0.02%
PRKS	\$33.26	+0.02%	52	+0.03%	-0.03%	-0.22%	1.19	591K	+0.01%
MOS	\$25.96	+0.02%	47	-0.02%	-0.06%	-0.13%	0.96	5.9M	-0.00%
TOWN	\$34.18	+0.02%	55	+0.03%	-0.02%	-0.01%	0.74	111K	+0.00%
URBN	\$64.20	+0.01%	49	+0.01%	-0.04%	-0.09%	1.20	508K	+0.01%
MAS	\$61.17	+0.01%	43	-0.00%	-0.09%	-0.09%	1.29	870K	+0.00%
CIBR	\$63.45	+0.01%	46	-0.01%	-0.04%	-0.12%	0.86	970K	+0.01%
BUG	\$25.40	+0.01%	45	-0.02%	-0.05%	-0.21%	0.82	439K	+0.01%
CZR	\$26.72	+0.01%	56	-0.01%	+0.13%	+0.08%	1.88	1.5M	+0.01%
UBER	\$72.48	+0.01%	47	-0.01%	-0.03%	-0.17%	1.21	7.7M	+0.01%

## RISK - Portfolio risk (VaR / CVaR)

**Command:** RISK

**Category:** Portfolio

**Requires ticker:** No (accepts an optional watchlist name as argument)

### Overview

The Portfolio Risk command (RISK) computes Value at Risk (VaR) and Conditional VaR (also known as Expected Shortfall or CVaR) for an equal-weight portfolio of all assets contained in a selected watchlist. It uses historical simulation (non-parametric), meaning it analyzes actual past daily returns rather than assuming a normal distribution. This command answers the question PERF cannot: "what could happen?" while PERF answers "what did happen?". It is a fundamental tool for any investor who wants to understand the worst-case scenarios their

portfolio could face. This type of analysis is standard practice in professional risk management (banks, hedge funds, asset managers) but is not available in free retail platforms like TradingView or Yahoo Finance.

## How to use it

The command can be invoked two ways:

1. Type **RISK** in the Command Bar and press Enter. The panel opens with a watchlist dropdown, a period selector (default 1Y), and an **Analyze** button.
2. Type **RISK** followed by a watchlist name (e.g., RISK NUCLEAR) to auto-run the analysis on that watchlist.

Authentication is required. The watchlist must contain at least one ticker with sufficient historical data. Available periods: 3M, 6M, 1Y (recommended), 2Y. Longer periods provide more data points for more statistically robust results.

## Reading the output

The panel displays five sections:

1. **VaR/CVaR metric cards** (two cards side by side): The left card shows metrics at 95% confidence level, the right card at 99%. Each card contains a small table with two rows (VaR and CVaR) and three columns (1 DAY, 5 DAY, 21 DAY). All values are negative percentages representing potential losses. VaR tells you the maximum expected loss: for example, a 1-day VaR of -2.72% at 95% confidence means that on 19 out of 20 trading days, the portfolio loss should not exceed 2.72%. CVaR (Expected Shortfall) tells you the average loss on the worst days: if the 95% CVaR is -3.67%, it means that in the worst 5% of days, you lose 3.67% on average. CVaR is always a larger loss than VaR by definition. The 5-day and 21-day values are scaled from the daily figure using the square root of time rule (a standard industry approximation). 21 trading days approximates one calendar month.
2. **How to read these metrics (educational guide)**: A reference box that explains VaR, CVaR, and time horizon scaling in plain language. This section is always visible to help users who are new to quantitative risk concepts.
3. **Daily return distribution (histogram)**: An SVG chart showing the frequency distribution of daily portfolio returns over the selected period. Red bars represent loss days (negative returns), green bars represent gain days (positive returns). Two dashed vertical lines mark the VaR thresholds: orange for 95% VaR and red for 99% VaR. Everything to the left of these lines represents the tail risk. A normally distributed portfolio would show a symmetric bell curve; a portfolio with heavier left tail (more extreme losses than expected) indicates higher tail risk.
4. **Risk contribution by asset (table)**: A table showing each asset's contribution to the overall portfolio risk. Columns include: **SYMBOL** (ticker), **WEIGHT** (equal weight, e.g.,

12.5% for 8 stocks), **ANN. VOL** (annualized volatility, how much the stock price swings in a typical year), **RISK CONTRIB** (marginal contribution to portfolio risk, accounting for weight and correlation), **BETA** (sensitivity relative to the portfolio, beta > 1 means it amplifies portfolio moves). Assets are sorted by risk contribution (highest first). Values exceeding thresholds are highlighted in red: annualized volatility above 40% and beta above 1.5. Every column header has an educational tooltip explaining the metric on hover.

5. **Interpretation:** An auto-generated text block with orange left border summarizing the key findings. It states the daily VaR and CVaR at 95%, identifies the largest risk contributor (by symbol, volatility, and beta), and warns if the daily VaR exceeds 3% (indicating a high-risk portfolio).

## Data sources and refresh rate

The analysis uses historical daily close prices from the QSTMarkets internal MariaDB database (up to 10 years of history), with automatic fallback to yfinance for any symbol not available in the primary database. A minimum of 30 trading days is required per symbol; symbols with insufficient data are automatically excluded and a warning is shown. Results are cached in Redis for 6 hours. The portfolio assumes equal weighting across all assets in the watchlist. Maximum 50 tickers per analysis.

## Tips and caveats

- VaR and CVaR are backward-looking metrics based on historical returns. They assume the future will resemble the past, which is not guaranteed, especially during unprecedented market events (black swans).
- CVaR (Expected Shortfall) is generally considered a better risk measure than VaR because it accounts for the severity of losses beyond the VaR threshold, not just whether they exceed it.
- The square root of time rule used for 5-day and 21-day scaling assumes returns are independent and identically distributed. In reality, during market crises, losses tend to cluster (volatility clustering), which means the multi-day VaR may underestimate actual risk during stress periods.
- Use RISK in conjunction with CORR (Correlation Matrix) to understand portfolio diversification. High correlation between assets means risk is concentrated; reducing correlation through diversification will lower VaR.
- Use RISK together with PERF (Portfolio Performance) for a complete picture: PERF shows what happened (historical returns, Sharpe ratio, max drawdown), RISK shows what could happen (potential future losses).
- A daily VaR above 3% at 95% confidence typically indicates an aggressive portfolio heavily weighted toward volatile growth stocks. Consider rebalancing if this exceeds your risk tolerance.
- The analysis assumes equal weighting. If your actual portfolio has different position sizes, the results will not perfectly reflect your real risk exposure.

## PORTFOLIO RISK RISK

WATCHLIST: Nuclear (9 symbols) PERIOD: 1Y ANALYZE

NUCLEAR RISK ANALYSIS (250 TRADING DAYS, 1Y PERIOD, EQUAL-WEIGHT)

### 95% CONFIDENCE

	1 DAY	5 DAY	21 DAY
VaR	-5.16%	-11.53%	-23.63%
CVaR	-6.31%	-14.12%	-28.93%

### 99% CONFIDENCE

	1 DAY	5 DAY	21 DAY
VaR	-6.35%	-14.20%	-29.10%
CVaR	-8.16%	-18.25%	-37.39%

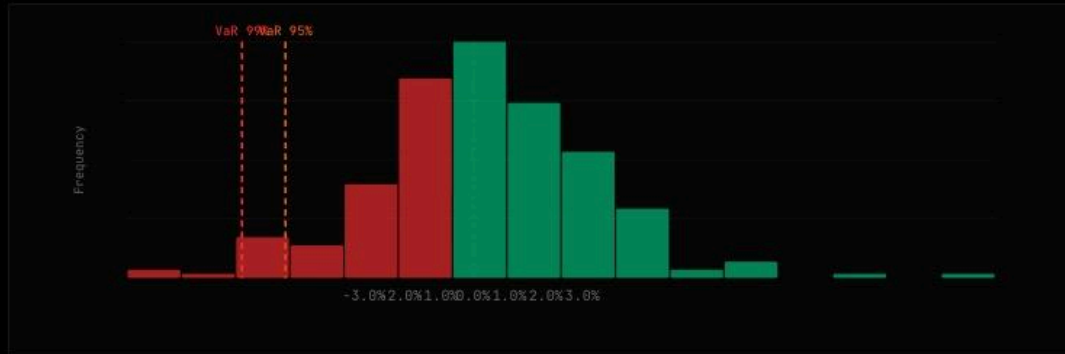
### HOW TO READ THESE METRICS

**VaR (Value at Risk):** maximum expected loss over a time horizon at a given confidence level. A 1-day VaR of -2% at 95% means: on 19 out of 20 trading days, your loss should not exceed 2%.

**CVaR (Expected Shortfall):** average loss in the worst scenarios beyond VaR. Always worse than VaR. If CVaR is -3.5%, it means when things go bad (worst 5% of days), you lose 3.5% on average.

**5-day / 21-day:** scaled from daily using the square root of time rule. 21-day approximates one trading month.

### DAILY RETURN DISTRIBUTION



### RISK CONTRIBUTION BY ASSET

SYMBOL	WEIGHT	ANN. VOL	RISK CONTRIB	BETA
OKLO	11.1%	107.5%	10.0%	1.86
NNE	11.1%	97.0%	8.3%	1.55
LEU	11.1%	94.0%	8.1%	1.51
VST	11.1%	55.5%	4.5%	0.83
TLN	11.1%	56.6%	4.3%	0.81
CEG	11.1%	51.9%	4.2%	0.78
GEV	11.1%	51.2%	3.9%	0.72
BWXT	11.1%	46.2%	3.6%	0.68
DVN	11.1%	42.0%	1.4%	0.26

### INTERPRETATION

At 95% confidence, the portfolio's daily VaR is 5.16%, meaning on 19 out of 20 trading days the loss should not exceed this level. In the worst 5% of days, the average loss (CVaR) is 6.31%. The

9 symbols | Period: 1y | Computed: Apr 2, 2026, 12:25 PM GMT+2

## FEDW - Fed Funds rate tracker

**Command:** FEDW

**Category:** Markets

**Requires ticker:** No (singleton command)

### Overview

The Fed Funds Rate Tracker command (FEDW) provides a comprehensive view of the Federal Reserve's interest rate policy. It displays the current effective Federal Funds rate, the FOMC target range, and the market-implied rate derived from Fed Funds futures contracts. This is the most closely watched macroeconomic indicator in financial markets, as changes in the Fed Funds rate affect everything from mortgage rates to stock valuations. This command provides the essential data points for free using public sources: the Federal Reserve Economic Data (FRED) API for official rates and Yahoo Finance for futures-implied market expectations.

### How to use it

Type **FEDW** in the Command Bar and press Enter. The panel loads automatically with no additional input required. Data loads on first open and auto-refreshes every 30 minutes. A manual **Refresh** button is available in the top-right corner of the header.

### Reading the output

The panel displays five sections:

1. **Effective Fed Funds Rate card** (left, with orange accent border): Shows the current effective Federal Funds rate as published daily by the New York Fed. This is the actual rate at which depository institutions lend reserve balances to each other overnight. Below the rate, the FOMC target range is displayed (e.g., "Target: 3.50% - 3.75%"). The effective rate always trades within this band.
2. **Market-Implied Rate card** (right, with cyan accent border): Shows the rate derived from the price of 30-Day Federal Funds futures (ticker ZQ=F on CME). The formula is simple: implied rate = 100 - futures price. This reflects the market consensus on where the Fed Funds rate will be at contract expiry. Below the rate, the spread versus the current

effective rate is shown in basis points with a color-coded interpretation: green text with "market expects cuts" if the implied rate is more than 10 bps below the current rate, red text with "market expects hikes" if above, and yellow text with "market expects hold" if within 10 bps.

3. **How to read this panel (educational guide):** A reference box explaining four key concepts: the effective rate (what it is, who publishes it), the target range (set by FOMC, the band within which the effective rate trades), the market-implied rate (how it is derived from futures, what it means when it diverges from the current rate), and the FOMC calendar (8 meetings per year, what the NEXT badge means).
4. **Effective Fed Funds Rate history chart:** An SVG area chart showing approximately 2 years of the daily effective Fed Funds rate. The Y-axis shows rate percentages at 0.50% intervals. The chart clearly visualizes the Fed's rate cycle: rate hikes appear as upward steps, rate cuts as downward steps, and holds as flat plateaus. The orange area fill makes the trend immediately visible.
5. **FOMC meeting calendar:** A vertical list of upcoming and recent FOMC meeting dates. Each row shows the date formatted as "Month Day, Year" on the left and a countdown on the right (e.g., "in 33d" for future meetings, "15d ago" for past meetings). The next upcoming meeting is highlighted with an orange border, slightly brighter background, and an orange "NEXT" badge. Past meetings appear dimmed. The calendar currently covers 2025 and 2026 meeting dates.

## Data sources and refresh rate

The effective Fed Funds rate comes from the FRED API series DFF (Daily Federal Funds Effective Rate), updated daily by the St. Louis Federal Reserve. The target range comes from FRED series DFEDTARU (upper limit) and DFEDTARL (lower limit). The market-implied rate comes from Yahoo Finance ticker ZQ=F (30-Day Federal Funds Futures, CME). The FOMC meeting calendar is maintained as a hardcoded list of decision dates (second day of each two-day meeting), updated once per year when the Federal Reserve publishes the following year's schedule. All data is cached in Redis for 1 hour. The panel auto-refreshes every 30 minutes.

## Tips and caveats

- The market-implied rate from ZQ=F represents the front-month contract only. It reflects market expectations for the rate at the nearest contract expiry, not for specific future FOMC meetings. This is a simple indicator of the market's immediate bias.
- Use **FEDW** together with **WB** (World Bonds) for a complete interest rate picture: **WB** shows the full Treasury yield curve (1M to 30Y), while **FEDW** focuses specifically on the overnight rate controlled by the Fed.
- Use **FEDW** alongside **ECOCAL** (Economic Calendar) to see upcoming economic data releases (CPI, jobs reports) that may influence the Fed's rate decisions. Major data

surprises can shift the implied rate significantly within hours.

- The spread between the implied rate and the current effective rate is the simplest indicator of market expectations. A spread of -25 bps or more strongly suggests the market is pricing in at least one rate cut before the futures contract expires.
- FOMC meetings where the Fed releases updated economic projections (the "dot plot") tend to cause larger market moves. These occur at the March, June, September, and December meetings.
- The effective rate is published with a one-business-day lag. On Mondays, the "as of" date will typically show the previous Friday.



## COMM - Agricultural commodities

**Command:** COMM

**Category:** Markets

**Requires ticker:** No (singleton command)

### Overview

The Agricultural Commodities command (COMM) provides a real-time dashboard of the six most widely traded agricultural commodity futures: Wheat, Corn, Soybean, Coffee, Sugar, and Cotton. These commodities are the backbone of global food and textile supply chains, and their prices are influenced by weather patterns, trade policy, seasonal planting and harvest cycles, and geopolitical events. Agricultural commodities tend to have low correlation with equities, making them a valuable asset class for portfolio diversification. This command complements the existing energy commodities (WTIUSD, BRENTUSD, NGUSD) and precious metals (XAUUSD, XAGUSD) already available in QSTMarkets, giving users a complete picture of the commodity landscape.

### How to use it

Type **COMM** in the Command Bar and press Enter. The panel loads automatically with no additional input required. Data loads on first open and auto-refreshes every 10 minutes. A manual **Refresh** button is available in the top-right corner of the header.

### Reading the output

The panel displays a grid of six commodity cards (arranged 3 columns by 2 rows), followed by an educational reference section:

1. **Commodity cards** (6 cards in a 3x2 grid): Each card represents one agricultural commodity and contains:
  - Header row: commodity name in orange (e.g., WHEAT), and the futures contract ticker in gray on the right (e.g., ZW=F).
  - Price: the current futures price displayed in large white text with its unit. Wheat, Corn, and Soybean are priced in cents per bushel (c/bu). Coffee, Sugar, and Cotton are priced in cents per pound (c/lb).
  - Daily change percentage: shown below the price in green (positive) or red

- (negative).
  - Day range: the intraday low and high prices for the current session.
  - Previous close: yesterday's settlement price for reference.
  - Clicking on any card fills the Command Bar with that commodity's futures ticker (e.g., ZW=F), allowing the user to quickly open a GP chart or other command for that commodity.
2. **Educational guide** (below the cards): A reference section titled "About agricultural commodities" that explains three key concepts: what futures prices represent (continuous front-month contracts traded on CME and ICE exchanges), the units used (cents per bushel for grains, cents per pound for softs), and why agricultural commodities are useful for portfolio diversification (low correlation with equities, influenced by weather and seasonal cycles rather than corporate earnings).

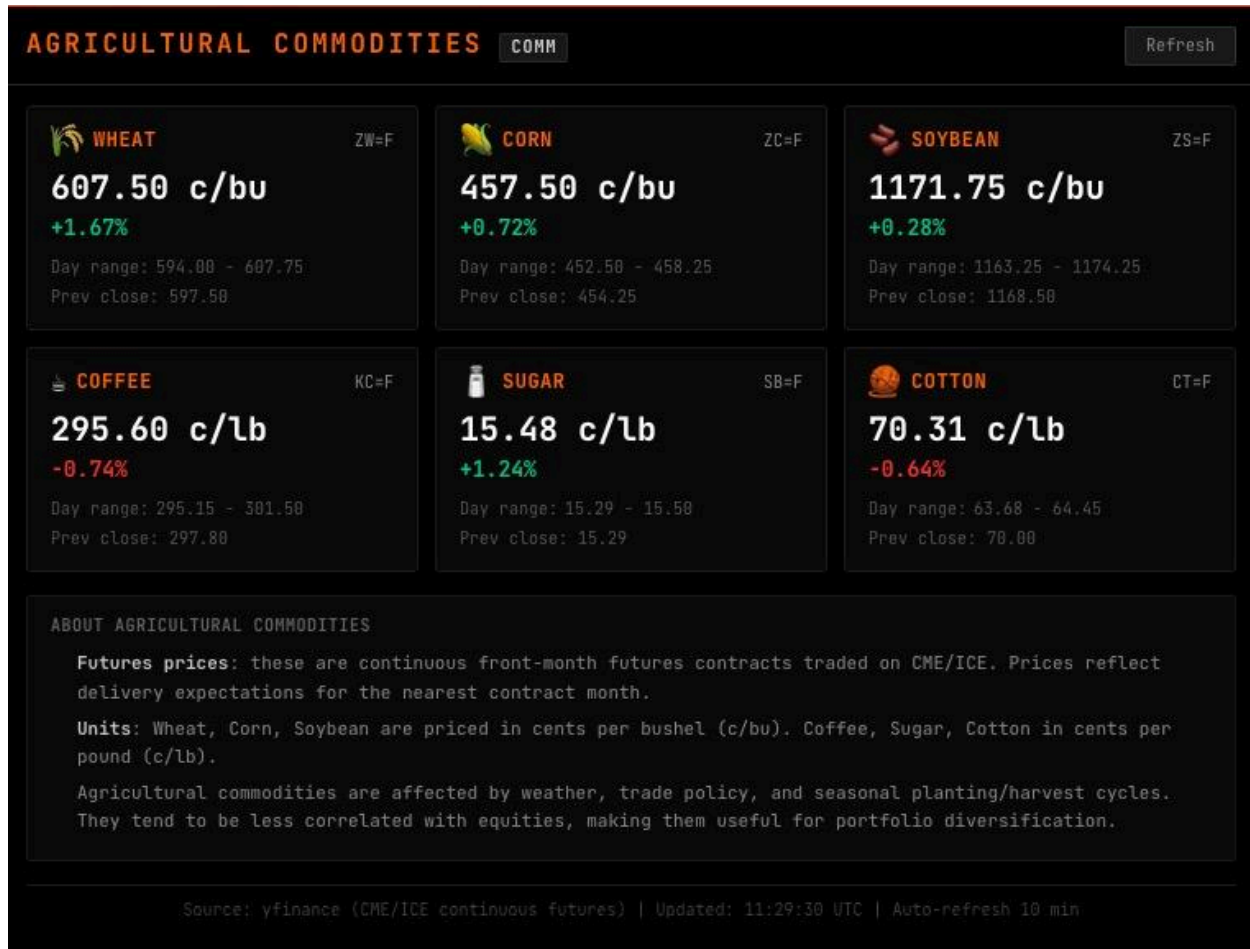
## Data sources and refresh rate

All prices are sourced from Yahoo Finance using continuous front-month futures contract tickers: ZW=F (Wheat, CBOT), ZC=F (Corn, CBOT), ZS=F (Soybean, CBOT), KC=F (Coffee, ICE), SB=F (Sugar, ICE), CT=F (Cotton, ICE). No API key is required. Data is cached in Redis for 10 minutes to reduce API calls. The panel auto-refreshes every 10 minutes. A manual **Refresh** button is also available.

## Tips and caveats

- Agricultural commodity futures trade on different exchanges: grains (Wheat, Corn, Soybean) trade on the Chicago Board of Trade (CBOT, part of CME Group), while softs (Coffee, Sugar, Cotton) trade on the Intercontinental Exchange (ICE). Trading hours differ between exchanges.
- Futures prices represent the front-month (nearest expiry) continuous contract. Near contract expiration, prices may diverge from the spot price due to contango or backwardation effects. This is normal futures market behavior.
- The prices shown are in contract-native units, not dollars. For example, Wheat at 607.50 c/bu means \$6.075 per bushel. One standard wheat futures contract covers 5,000 bushels, so a 1-cent move equals \$50 per contract.
- Agricultural commodities are highly seasonal. Grain prices typically rise during spring planting uncertainty (March-May) and fall during harvest (September-November). Coffee is affected by the Brazilian frost season (June-August).
- Use **COMM** alongside **CORR** (Correlation Matrix) to quantify how agricultural commodities correlate with your equity portfolio. Adding assets with near-zero or negative correlation to your watchlist can improve overall portfolio diversification.
- For deeper analysis of a specific commodity, click its card to fill the Command Bar with the futures ticker, then type **GP** to view the full candlestick chart with technical indicators.
- Weather events (droughts, floods, frosts) can cause sudden and extreme price moves in agricultural commodities, especially for Coffee (Brazil frost) and Wheat (US plains drought). These moves are often uncorrelated with equity market events, which is

precisely what makes commodities valuable as diversifiers.



## BACKTEST - Strategy backtesting

**Command:** BACKTEST (alias: BT)

**Category:** Charts

**Requires ticker:** Yes

### Overview

The Strategy Backtesting command (BACKTEST) allows users to test simple rule-based trading strategies against historical price data and compare their performance to a buy-and-hold benchmark. This was the most requested feature by users, many of whom previously relied on

Excel spreadsheets for this type of analysis. The command supports two strategy types: SMA Crossover (moving average trend-following) and RSI Threshold (mean-reversion based on momentum). Both are classic strategies widely taught in trading education and used as building blocks for more complex systems. Every backtest automatically includes a buy-and-hold comparison, so users can immediately see whether their strategy adds value over simply holding the asset. The backtesting engine applies a one-day signal shift to avoid lookahead bias, meaning trade signals generated today are executed at the next day's prices, simulating real-world conditions where you cannot act on information you do not yet have.

## How to use it

Type a ticker symbol followed by BACKTEST (or BT) in the Command Bar. For example, **AAPL BACKTEST** or **MSFT BT**. The panel opens with a control bar containing: a strategy selector (SMA Crossover or RSI Threshold), strategy-specific parameters, a period selector (1Y, 2Y, 3Y, 5Y, or 10Y), and an initial capital input (default \$10,000). For SMA Crossover, configure the fast SMA period (10, 20, or 50) and slow SMA period (50, 100, or 200). For RSI Threshold, configure the buy level (buy when RSI drops below this, e.g., 30 for oversold) and sell level (sell when RSI rises above this, e.g., 70 for overbought). Click **Run Backtest** to execute the simulation. Authentication is required. Results are cached for 1 hour.

## Reading the output

The panel displays six sections:

1. **Section title:** Shows the ticker, strategy name, parameters, and period (e.g., "BWXT SMA CROSSOVER (FAST=20, SLOW=50) - 1Y").
2. **Equity curve chart:** An interactive line chart built with lightweight-charts showing two series. The orange line represents the strategy's equity over time (starting from the initial capital). The cyan dashed line represents buy-and-hold (investing the same capital on day one and holding until the end). A gray dashed reference line marks the initial capital level. Users can zoom, pan, and hover to see exact values at any point. The chart makes it immediately visual whether the strategy outperformed or underperformed the benchmark.
3. **Metrics cards (side by side):** Two cards showing identical metrics for the strategy (left, orange header) and buy-and-hold (right, cyan header). Each card shows the equity progression (e.g., "\$10,000.00 to \$12,730.26") and a table of 8 metrics: **Total Return** (overall percentage gain/loss), **CAGR** (Compound Annual Growth Rate, the annualized return), **Max Drawdown** (largest peak-to-trough decline, always negative), **Sharpe Ratio** (return per unit of risk, above 1.0 is good, above 2.0 is excellent), **Win Rate** (percentage of profitable trades), **Trades** (total count with wins/losses breakdown), **Exposure** (percentage of time the strategy was invested rather than sitting in cash), and **Avg Hold** (average holding period per trade in calendar days). Every metric label has an educational tooltip on hover explaining what it means.
4. **Educational guide** ("How to read these results"): A reference section explaining each

metric in plain language, including a critical caveat: "Past performance does not guarantee future results. Backtests are inherently optimistic because they use data that was not available at the time of each trade decision."

5. **Interpretation:** An auto-generated text block with orange left border that compares the strategy to buy-and-hold. It states whether the strategy outperformed or underperformed, notes the max drawdown comparison, evaluates the Sharpe ratio quality, and reports the win rate and number of trades. If the strategy had less than 50% exposure, it notes that the strategy was only invested part of the time, sitting in cash during unfavorable conditions.
6. **Trade list (expandable):** A button labeled "Show N trades" that expands to reveal a detailed table of every round-trip trade. Columns: **ENTRY** (date), **ENTRY \$** (price), **EXIT** (date), **EXIT \$** (price), **RETURN** (percentage, green for wins, red for losses), **DAYS** (holding period), and **P&L** (profit/loss in dollars). Winning trades have a subtle green background tint, losing trades a red tint.

## Data sources and refresh rate

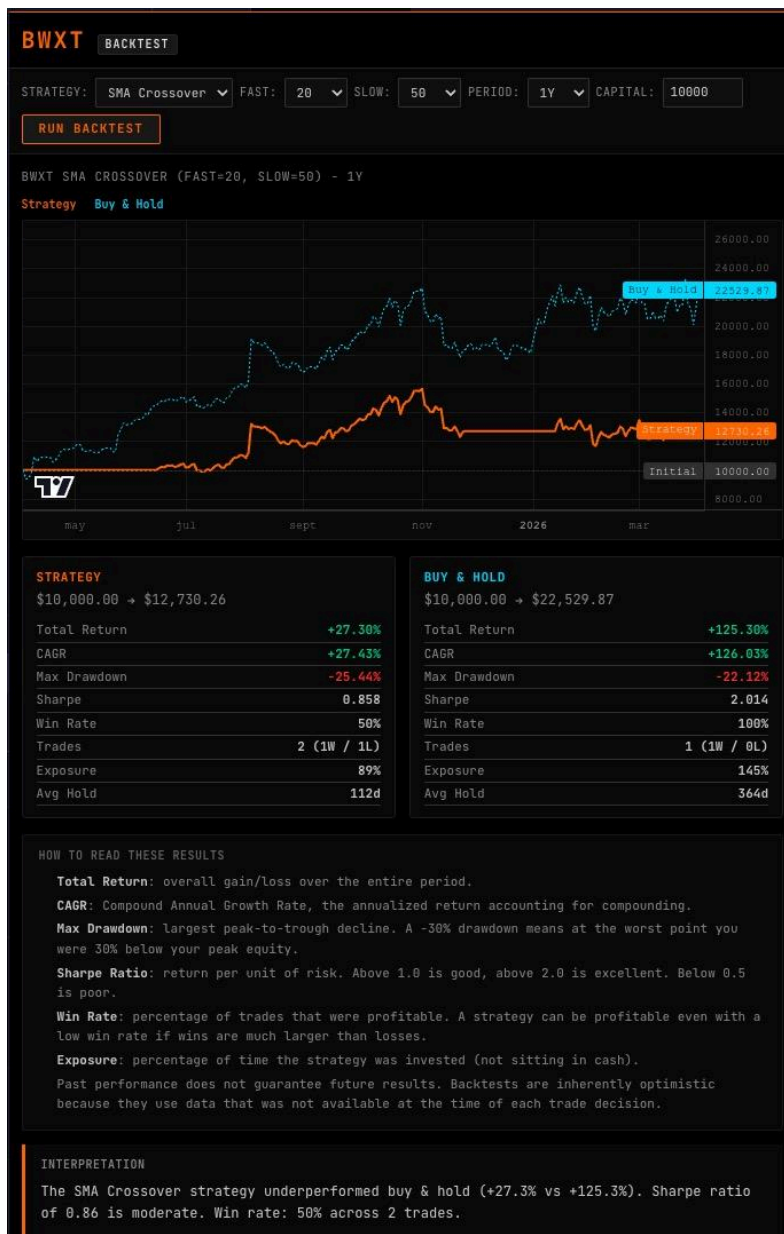
Historical daily OHLCV (Open, High, Low, Close, Volume) data is sourced from the QSTMarkets internal MariaDB database, which contains up to 10 years of data for US equities. If the database lacks sufficient data for a ticker (fewer than 60 trading days), the system automatically falls back to Yahoo Finance. Technical indicators (SMA, RSI) are computed using the `ta` library (Technical Analysis library for Python). Results are cached in Redis for 1 hour using an MD5 hash of the request parameters as the cache key. Data is fetched on demand when the user clicks **Run Backtest** and does not auto-refresh.

## Tips and caveats

- The SMA Crossover strategy is a trend-following approach: it performs well in strong trending markets but generates frequent false signals (whipsaws) in sideways or choppy markets. It tends to underperform buy-and-hold in consistently bullish markets like the 2023-2025 rally, but can protect capital during bear markets by sitting in cash.
- The RSI Threshold strategy is a mean-reversion approach: it buys when the stock is oversold and sells when overbought. It works best for stocks that oscillate in a range but can produce devastating losses if a stock drops below the buy level and continues falling (value trap).
- All signals are shifted by one day to simulate realistic execution. A buy signal generated today means the position is entered at the next trading day's price. This avoids lookahead bias, which is the most common flaw in amateur backtests.
- The Sharpe Ratio assumes a risk-free rate of zero, which is a simplification. In a high-interest-rate environment, the actual risk-adjusted performance would be lower than reported.
- Max Drawdown is arguably the most important metric for real-world trading. A strategy with a 50% drawdown requires a 100% gain just to break even. Many professional traders consider any strategy with a max drawdown exceeding 25% to be too risky.
- Win Rate alone is misleading. A strategy with a 30% win rate can still be highly profitable if its average win is 3x larger than its average loss. Conversely, a 90% win rate strategy

can lose money if its rare losses are catastrophic.

- The Exposure metric shows what percentage of the time the strategy was invested. Lower exposure means more time in cash, which reduces risk but also limits upside. A strategy with 50% exposure and the same return as buy-and-hold is actually twice as capital-efficient.
- Use **BACKTEST** together with **RISK** (VaR/CVaR) to assess whether the drawdown levels of your preferred strategy align with your risk tolerance. If the strategy's max drawdown exceeds your VaR comfort zone, consider using tighter parameters.
- Try different parameter combinations (e.g., SMA 10/50 vs 20/200) and periods to understand how sensitive the strategy is to parameter choices. A strategy that only works with very specific parameters is likely overfit to historical data and will perform poorly in the future.



## SOCIAL - Social sentiment radar

**Command:** SOCIAL

**Category:** News

**Requires ticker:** Yes

### Overview

The Social sentiment radar command (SOCIAL) provides an AI-powered analysis of market sentiment for a specific ticker by aggregating recent financial news and Reddit discussions, then running a DeepSeek AI model to classify the overall sentiment as bullish, bearish, or neutral. In modern markets, social media sentiment, particularly from communities like Reddit's r/wallstreetbets and r/stocks, can drive significant short-term price action independently of fundamentals. The GameStop and AMC short squeezes of 2021 demonstrated that retail investor momentum on social platforms can move stock prices dramatically. This command gives users a quick read on what the market is saying about a stock without having to manually scan multiple news sites and forums. It is the only command in QSTMarkets that combines real-time web search with artificial intelligence to produce a synthesized sentiment verdict.

### How to use it

The command is invoked by typing a ticker symbol followed by SOCIAL in the Command Bar. For example, **ADMA SOCIAL** or **TSLA SOCIAL**. The panel loads automatically, fetching recent mentions and triggering the AI analysis. No additional configuration is required. A **Refresh** button in the top-right corner allows for manual re-analysis. To conserve API quota, data is cached for 30 minutes.

### Reading the output

The SOCIAL output is organized into five distinct sections:

1. **Sentiment gauge (centered card):** A large colored label showing the overall AI classification: BULLISH (green), BEARISH (red), or NEUTRAL (yellow). Below this, a confidence bar indicates the AI model's certainty level (0-100%). Higher confidence levels reflect stronger agreement across the analyzed sources. The total number of mentions analyzed is displayed at the bottom, broken down by news and Reddit counts.
2. **AI sentiment analysis (orange left border block):** A 2-3 sentence summary generated by DeepSeek AI that explains the key themes driving the sentiment. This section distills dozens of articles and posts into a concise narrative, identifying specific drivers such as earnings beats, short seller allegations, or regulatory investigations.
3. **News mentions:** A list of recent financial news articles about the ticker sourced via Google News. Each card displays the article title (clickable to open in a new tab), a

content snippet, the publication source, and the publication date. Typically, 5-10 articles are shown to cover the most recent coverage.

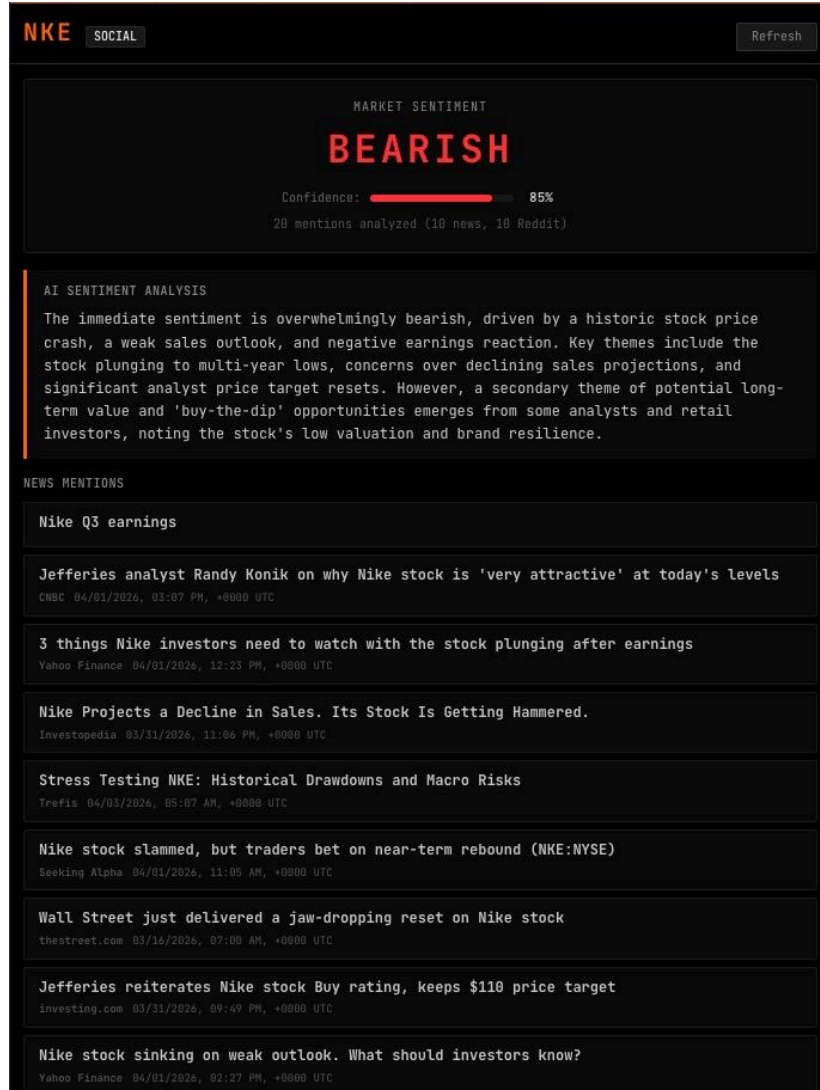
4. **Reddit mentions:** A list of recent Reddit posts and discussions mentioning the ticker, sourced via Google search filtered to reddit.com. These cards feature an orange-red left border to distinguish them from traditional news. They capture the retail investor conversation that often precedes or amplifies price moves.
5. **Educational guide:** Located at the bottom of the panel, this reference section explains the sentiment classifications. It highlights that social sentiment can act as a contrarian indicator at extremes: when sentiment is overwhelmingly bullish, a stock may be overbought; conversely, extreme bearishness may signal an oversold condition.

## Data sources and refresh rate

The command utilizes three data sources in sequence. First, SerpApi's Google News engine fetches recent financial news. Second, SerpApi's Google search engine uses a site-specific filter to retrieve Reddit discussions. Finally, the DeepSeek AI (deepseek-chat model) analyzes the combined text to produce the sentiment classification and summary. The system utilizes a pool of 4 SerpApi keys rotated in round-robin fashion to manage the approximately 1,000 monthly requests available. Results are cached in Redis for 30 minutes. The panel does not auto-refresh; users must use the **Refresh** button for updated analysis.

## Tips and caveats

- Social sentiment should be treated as a supplementary signal. Always cross-reference findings with fundamental analysis (**FA**, **DES**) and technical analysis (**GP**, **TECH**).
- Extreme sentiment readings are often contrarian signals. A 90%+ bullish reading with high confidence may indicate the stock is overbought, while extreme bearishness can signal market capitulation.
- Reddit-driven momentum is typically short-lived and most impactful on small-cap or heavily-shorted stocks. Large-cap stocks like AAPL or MSFT are generally less affected by social media sentiment.
- The AI model analyzes headlines and snippets rather than full-text articles. Classification is based on linguistic tone and keywords, which may occasionally lead to misclassification if a headline mentions a competitor's bearish news.
- Avoid running the SOCIAL command on dozens of tickers in rapid succession to preserve the shared pool of 1,000 monthly API requests.
- For deeper coverage, use SOCIAL in conjunction with **CN** (Company News). While **CN** provides per-article sentiment scores, SOCIAL offers a broader social media narrative and AI synthesis.



## TOPREG - Regional macro-news

**Command:** TOPREG

**Category:** News

**Requires ticker:** No (standalone command, accepts optional region argument)

### Overview

The Regional macro-news command (**TOPREG**) is a crucial tool for risk managers and macro analysts, designed to surface geopolitical, macroeconomic, and critical infrastructure news for

four major global economic zones. Unlike the **TOP** command, which provides a global, market-centric US feed, **TOPREG** captures broader regional events, such as trade policy shifts, energy disruptions, geopolitical conflicts, and infrastructure incidents, before they are fully incorporated into Wall Street's financial narratives. The feed is curated to exclude non-financial noise like tabloid, entertainment, and sports content.

## How to use it

The command can be used in two primary ways:

1. **Type TOPREG** in the Command Bar and press Enter. This opens the panel defaulting to the **AMER** (Americas) region.
2. **Type TOPREG followed by a region code** (for example, TOPREG MENA). This opens the panel and automatically pre-selects that region.

Once the panel is open, use the dropdown selector in the header to switch between the supported regions without closing the panel. The supported regions and their focus areas are:

Region	Code	Coverage Scope
Americas	AMER	Trade policy, Federal Reserve actions, supply chain disruptions, natural disasters in the US, Canada, and Latin America.
Europe, Middle East, Africa	EMEA	ECB policy, regional energy supply issues, regulatory changes, and broader geopolitical tensions across the zone.
Middle East and North Africa	MENA	Energy markets, geopolitical conflicts, sovereign wealth fund activity, and critical infrastructure projects.
Asia-Pacific	APAC	China policy, semiconductor supply chains, BOJ/RBA monetary decisions, and natural disasters affecting trade routes.

## Reading the output

The panel displays a scrollable list of up to 25 news articles for the selected region. Each article provides: a clickable headline (opens the source article in a new browser tab), the publisher name in uppercase, and the publication date.

A colored vertical strip on the left side of the article visually identifies the selected region: orange for AMER, cyan for EMEA, gold for MENA, and green for APAC.

The panel header provides real-time status:

- A badge indicates data freshness: **LIVE** (green, pulsing) means the data was just fetched from SerpApi, and **CACHED** (amber) means it is being served from the 15-minute Redis cache.
- The article count is displayed next to the region dropdown.
- Hovering over the "Regional News" title in the header reveals an educational tooltip explaining each region's coverage scope.

The frontend panel auto-refreshes every 60 seconds; a progress bar below the header depletes over the 60-second cycle, providing a visual countdown to the next data refresh.

## Data sources and refresh rate

News articles are sourced from SerpApi (Google News engine) using curated boolean search queries specific to each region. These queries combine region-specific keywords with macro-relevant topic filters (macroeconomics, geopolitics, infrastructure, supply chain, energy, conflict) and actively exclude noise terms (celebrity, gossip, entertainment, sports). Results are cached in Redis with a 15-minute TTL per region. The panel auto-refreshes every 60 seconds from the cache to ensure timely updates.

## Tips and caveats

- Regional events often propagate to global markets with a delay. Monitoring MENA energy news alongside AMER trade policy, for example, can help identify cross-border risks before they are priced into US equities.
- The **MENA** region is particularly valuable for energy and geopolitical risk tracking, as events in Iran, Saudi Arabia, and the UAE frequently impact oil prices and global risk sentiment.
- **TOPREG** is a singleton panel; typing **TOPREG APAC** when the panel is already open showing EMEA will simply switch the region dropdown to APAC without opening a duplicate panel.
- The underlying boolean search queries are designed for the English-language, US-perspective financial audience (using `gl=us`, `hl=en` parameters), so results reflect the international financial press rather than local-language media.
- For ticker-specific news and sentiment analysis, use the **SOCIAL** command instead (e.g., AAPL SOCIAL). **TOPREG** is strictly region-focused, not ticker-focused.

**REGIONAL NEWS** TOPREG 25 articles CACHED

- ✓ AMER - Americas
- EMEA - Europe, Middle East & Africa
- MENA - Middle East & North Africa
- APAC - Asia-Pacific

Geology is not destiny: Brazil to exploit its critical minerals  
**PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS** 03/31/2026, 06:30 PM, +0000 UTC

Mexico's 44.9% Investment Share in Latin America  
**MEXICO BUSINESS NEWS** 03/31/2026, 06:30 PM, +0000 UTC

Public Law and Infrastructure | Infrastructure Regulatory Trends in Brazil  
**MAYER BROWN** 03/19/2026, 07:00 AM, +0000 UTC

DHL expands its North America logistics infrastructure amid growing global demand for data ...  
**DHL GROUP** 03/19/2026, 07:00 AM, +0000 UTC

Interest rates challenge Brazil's infrastructure concessions, BTG says  
**VALOR INTERNACIONAL** 03/30/2026, 01:42 PM, +0000 UTC

TSMC plans 12 fabs in Arizona as supply chain shifts from passive to active  
**DIGITIMES** 04/02/2026, 02:33 AM, +0000 UTC

LG Chairman Focuses on AI Infrastructure, Global South in US-Brazil  
**조선일보** 04/02/2026, 01:05 AM, +0000 UTC

With clear rules, Mexico's infrastructure plan can attract private capital  
**BNAMERICAS** 03/12/2026, 07:00 AM, +0000 UTC

Hurricane Katrina | Deaths, Damage, & Facts  
**BRITANNICA** 03/27/2026, 05:00 AM, +0000 UTC

The Invisible Risk in Your Supply Chain  
**MEXICO BUSINESS NEWS** 04/02/2026, 12:00 PM, +0000 UTC

Bird Construction Stock: A Steady Player in North America's Infrastructure Boom with Proven...  
**AD HOC NEWS** 04/01/2026, 08:45 AM, +0000 UTC

AI Infrastructure Entering A New Phase: Key Insights from Metro Connect USA 2026  
**ROPES & GRAY LLP** 03/02/2026, 08:00 AM, +0000 UTC

SerpApi Google News | Cached 15 min Updated: 19:18:27 | 68s refresh

## IMONEY - Intelligent money

**Command:** IMONEY

**Category:** Markets

**Requires ticker:** No (standalone command)

### Overview

The Intelligent Money command (**IMONEY**) is a smart money tracker that inverts the logic of the **DES** panel's "Major Holders" section. While **DES** answers "which funds hold ticker X?" (**NKE DES** shows Vanguard, BlackRock, and State Street hold Nike shares), **IMONEY** answers the inverse question: "what does fund Y hold?". The user searches for a fund or institution by name and sees ALL equity positions that entity holds, sorted by position value. This reveals where institutional capital—often called "smart money"—is being allocated. The underlying data comes from SEC 13F filings, which are mandatory quarterly reports from institutions managing over \$100 million in assets.

## How to use it

Type **IMONEY** in the Command Bar to open the panel. The panel opens with an empty search bar and a hint to press the down arrow key to browse top holders. There are three ways to find a fund:

1. Type at least 2 characters in the search bar (for example, "Vanguard", "BlackRock", "Fidelity"). Results appear in a dropdown as you type with a 300ms debounce.
2. Press the down arrow key with the search bar empty to browse the top holders ranked by number of positions. Navigate with arrow keys up/down, press Enter to select.
3. Use the type filter dropdown in the header (**All types / Institutions / Mutual Funds**) to narrow the search to a specific holder type before searching.

Once you select a fund from the dropdown, the panel displays an info bar showing the fund name, type badge (INSTITUTION or MUTUAL FUND), total number of positions, and total portfolio value. Below that, a sortable table shows all equities held by that fund with columns: **Symbol**, **Company**, **Sector**, **Industry**, **Shares**, **% Out** (percentage of outstanding shares), and **Value**. Click any column header to sort ascending or descending. Text columns (**Company**, **Sector**, **Industry**) are truncated with ellipsis to keep the table compact; hover over a truncated cell to see the full text in a tooltip.

## Reading the output

The positions table is sorted by **Value** descending by default, so the largest positions appear first. The **% Out** column shows what percentage of the company's total outstanding shares the fund holds, a high percentage (above 5%) indicates significant ownership and potential influence on corporate decisions. The **Value** column shows the dollar value of the position based on the last reported filing. The info bar at the top provides a quick summary: the fund's total portfolio value across all reported positions and the number of individual equity positions.

Single-clicking a row fills the Command Bar with that ticker (ready for a follow-up command like **GP** or **DES**). Double-clicking a row opens the **DES** panel for that ticker directly, so you can immediately inspect the company's fundamentals.

## Data sources and refresh rate

Position data is sourced from SEC 13F filings via yfinance. These filings are mandatory quarterly reports from institutions managing over \$100 million. The data is collected via an ETL pipeline that processes all active tickers in the database (~5,000+ US equities), extracting the top institutional holders and mutual fund holders for each ticker and building an inverted index stored in MariaDB. The ETL runs a daily refresh cycle of 300 tickers per day, completing a full cycle approximately every 17-23 days. API responses are cached: search results for 24 hours, position data for 6 hours.

## Tips and caveats

- 13F data is inherently delayed: filings are due 45 days after the end of each quarter. The positions you see reflect holdings as of the most recent filing date (shown in the Date column), not real-time allocations.
- Use the type filter to distinguish between institutions (hedge funds, banks, asset managers like BlackRock, Citadel, JPMorgan) and mutual funds (index funds, ETFs like Vanguard Total Stock Market, Fidelity 500 Index).
- Fund names may appear with slight variations across tickers (for example, "Vanguard Group Inc" vs "The Vanguard Group, Inc."). The search uses partial matching, so typing "Vanguard" will surface all variants.
- Compare the positions of different funds to identify consensus picks (stocks held by multiple large institutions) or contrarian bets (stocks where one major fund has a large position that others do not).
- For the reverse view—seeing which funds hold a specific stock, use the **DES** command (for example, **AAPL DES**, scroll to "Major Holders").

**INTELLIGENT MONEY** IMONEY All types ▾

State Street Corporation

State Street Corporation INST 356 positions

SYMBOL	COMPANY	SECTOR	INDUSTRY	SHARES	% OUT ▾	VALUE
BTCS	BTCS Inc. - Common Stock	Financial Services	Capital Markets	2.53M	44.29%	\$3.5M
CMPX	Compass Therapeutics, Inc. ...	Healthcare	Biotechnology	4.89M	9.38%	\$26.7M
CELH	Celsius Holdings, Inc. - Co...	Consumer Defensive	Beverages - Non-Alcoholic	4.86M	8.49%	\$165.6M
BKR	Baker Hughes Company - Comm...	Energy	Oil & Gas Equipment & Servi...	61.41M	7.41%	\$3.7B
APA	APA Corporation - Common St...	Energy	Oil & Gas E&P	24.24M	6.86%	\$1.0B
AEP	American Electric Power Com...	Utilities	Utilities - Regulated Elect...	30.44M	6.13%	\$4.0B
CASH	Pathward Financial, Inc. - ...	Financial Services	Banks - Regional	1.29M	5.95%	\$116.5M
CHRW	C.H. Robinson Worldwide, In...	Industrials	Integrated Freight & Logist...	6.98M	5.92%	\$1.2B
CEG	Constellation Energy Corpor...	Utilities	Utilities - Independent Pow...	18.49M	5.90%	\$5.0B
ATRO	Astronics Corporation - Com...	Industrials	Aerospace & Defense	1.83M	5.75%	\$128.0M
ADMA	ADMA Biologics Inc - Common...	Healthcare	Biotechnology	13.60M	5.71%	\$125.0M
ALKS	Alkermes plc - Ordinary Sha...	Healthcare	Drug Manufacturers - Specia...	9.47M	5.70%	\$330.0M
AMGN	Amgen Inc. - Common Stock	Healthcare	Drug Manufacturers - General	30.59M	5.67%	\$10.6B
CPRX	Catalyst Pharmaceuticals, I...	Healthcare	Biotechnology	6.91M	5.66%	\$170.5M
CINF	Cincinnati Financial Corpor...	Financial Services	Insurance - Property & Casu...	8.43M	5.42%	\$1.3B
CDNA	CareDx, Inc. - Common Stock	Healthcare	Diagnostics & Research	2.74M	5.35%	\$50.1M
AGID	Agios Pharmaceuticals, Inc...	Healthcare	Biotechnology	3.11M	5.30%	\$109.4M
CTSH	Cognizant Technology Soluti...	Technology	Information Technology Serv...	24.98M	5.22%	\$1.6B

SEC 13F Filings via yfinance | Updated quarterly Click row to fill command bar | Double-click to open DES

## DCOMP - Direct comparison

**Command:** DCOMP

**Category:** Fundamentals

**Requires ticker:** Yes

### Overview

The Direct Comparison command displays a detailed side-by-side financial comparison of a ticker against its two closest industry competitors. Unlike the COMP command (which shows a broad list of 15+ peers with basic market data), DCOMP focuses on depth over breadth: it selects the two most directly comparable companies based on industry classification and

presents approximately 50 financial metrics across 9 sections.

The data is sourced from Barchart's comparison page, scraped via the QST News API using a headless browser. Results are cached for 12 hours.

## How to use it

Type a ticker symbol followed by DCOMP (for example, AAPL DCOMP). The panel will display a table with the requested ticker and its two closest competitors as column headers, with rows grouped into metric sections.

The first request for an uncached ticker may take 5 to 15 seconds while the data is scraped in real time. A loading spinner with an informational message is displayed during this wait. Subsequent requests within 12 hours are served instantly from cache.

## Reading the output

The table is organized into 9 sections, each with a visually distinct header row:

1. **Price information:** Exchange, Open, High, Low, Latest price, Change, % Change, Volume, 20-Day Average Volume, Previous Close, Industry, Has Options.
2. **Technicals:** 20-Day Moving Average, 20-Day Raw Stochastic, 20-Day Relative Strength, Weighted Alpha, Today's/Previous/Last Month's Opinion (with Buy/Sell percentage).
3. **Performance** (4 subsections): 5-Day, 1-Month, 3-Month, and 6-Month performance showing percentage change, period low, and period high with dates.
4. **Key statistics:** Market Capitalization, Shares Outstanding, Annual Sales, Annual Net Income, Last Quarter Sales, Last Quarter Net Income, 60-Month Beta.
5. **Per-share information:** Most Recent Earnings (with date), Latest Earnings Date, Most Recent Dividend (with date), Next Ex-Dividend Date.
6. **Ratios:** Price/Earnings TTM.
7. **Valuation Ratios**
8. **Profitability**
9. **Balance Sheet**

Positive values (price changes, percentages with + prefix, Buy opinions) are displayed in green. Negative values (declines, Sell opinions) are displayed in red. Clicking a company symbol in the table header fills the command bar with that ticker for quick navigation to other commands.

## Data sources and refresh rate

Data is scraped from Barchart's comparison page via the QST News API (headless Chromium

browser). The API caches results for 12 hours, and the terminal backend adds its own 6-hour cache layer. The panel does not auto-refresh; to get updated data after cache expiration, close and reopen the panel.

## Tips and caveats

- The number of competitors is typically 2 but may vary depending on what Barchart returns for the given ticker's industry.
- Some metric values include contextual dates (for example, "+2.79% since 03/30/26" or "2.84 on 01/29/26"). These are displayed as-is from the source.
- Non-US equities or very small-cap stocks may return no comparison data if Barchart does not have coverage.
- For a broader peer overview with more companies but fewer metrics, use the COMP command instead.
- The table columns resize proportionally when the panel is narrowed, and long values are truncated with ellipsis to keep all companies visible.

AGCO <b>DCOMP</b> vs CNH, ALG			
METRIC	AGCO Agco Corp	CNH CNH Industrial N.V.	ALG Alamo Group
<b>PRICE INFORMATION</b>			
Exchange	NYSE	NYSE	NYSE
Open	118.70	11.15	174.27
High	121.25	11.46	179.37
Low	118.25	11.15	174.27
Latest	119.90	11.33	176.71
Change	+5.53	+0.63	+8.51
% Change	+4.84%	+5.89%	+5.06%
Volume	178,465	3,392,935	72,006
20-Day Average Volume	681,514	17,547,533	157,462
Previous Close	114.37	10.70	168.20
Industry	Machinery - Farm	Machinery - Farm	Machinery - Farm
Has Options	Yes	Yes	Yes
<b>TECHNICALS</b>			
20-Day Moving Average	115.72	10.67	168.40
20-Day Raw Stochastic	76.65%	88.48%	89.48%
20-Day Relative Strength	50.16	52.61	49.88
Weighted Alpha	+31.99	-2.00	-1.48
Today's Opinion	56% Buy	24% Buy	56% Sell
Previous Opinion	24% Buy	8% Buy	56% Sell
Last Month's Opinion	80% Buy	8% Buy	24% Sell
<b>PERFORMANCE - 5-DAYS</b>			
%Chg	+3.88% since 03/31/26	+2.45% since 03/31/26	+7.46% since 03/31/26
Low	111.59 on 04/02/26	10.44 on 04/06/26	164.00 on 04/07/26
High	121.03 on 04/08/26	11.46 on 04/08/26	179.37 on 04/08/26
<b>PERFORMANCE - 1-MONTH</b>			
%Chg	-3.58% since 03/06/26	+1.08% since 03/06/26	+5.42% since 03/06/26
Low	107.72 on 03/20/26	9.81 on 03/19/26	158.70 on 03/09/26
High	125.96 on 03/10/26	11.46 on 04/08/26	179.37 on 04/08/26
<b>PERFORMANCE - 3-MONTH</b>			
%Chg	+5.40% since 01/08/26	+9.31% since 01/08/26	-4.97% since 01/08/26
Low	106.60 on 02/02/26	9.81 on 03/19/26	158.70 on 03/09/26
High	143.78 on 02/12/26	13.31 on 02/17/26	219.88 on 03/02/26
<b>PERFORMANCE - 6-MONTH</b>			
%Chg	+9.48% since 10/08/25	+5.52% since 10/08/25	-6.45% since 10/08/25
Low	99.21 on 11/20/25	9.00 on 11/07/25	156.29 on 11/20/25
High	143.78 on 02/12/26	13.31 on 02/17/26	219.88 on 03/02/26
<b>KEY STATISTICS</b>			
Market Capitalization, \$K	8,280,845	13,275,200	2,038,752
Shares Outstanding, K	72,404	1,240,673	12,121
Annual Sales	10,082,000,000	18,095,000,000	1,603,720,000
Annual Net Income	726,500,000	510,000,000	103,800,000
Last Quarter Sales	2,920,200,000	5,157,000,000	373,650,000
Last Quarter Net Income	95,500,000	86,000,000	15,510,000
60-Month Beta	1.16	1.26	1.20
<b>PER-SHARE INFORMATION</b>			
Most Recent Earnings	2.17 on 02/05/26	0.19 on 02/17/26	1.70 on 03/02/26
Latest Earnings Date	05/07/26	05/07/26	05/14/26
Most Recent Dividend	0.290 on 02/13/26	0.470 on 05/10/24	0.340 on 01/16/26

## CE - Company Events

**Command:** CE

**Category:** Markets

**Requires ticker:** No

### Overview

The Company Events command (**CE**) provides a market-wide corporate events calendar. It is designed to help investors track scheduled, forward-looking market catalysts (Earnings, Dividends, Splits, and IPOs) and retrospective corporate actions (Splits, Acquisitions, and Spinoffs) from the current year. This centralizes vital calendar data that can influence daily price action and long-term portfolio value, ensuring users are always aware of significant corporate announcements.

### How to use it

Type **CE** in the Command Bar and press Enter. The panel opens showing the **Events** tab for the current date by default. Use the date picker in the header to navigate to any past or future trading date. Click the **Actions** tab to view a list of all stock splits, acquisitions, and spinoffs that have occurred in the current year. Click any ticker symbol in the results table to fill the Command Bar with that symbol for follow-up analysis (e.g., **GP, DES, FA**).

### Reading the output

The panel is divided into two tabs: **Events** (default) and **Actions**.

1. **Events Tab:** Displays corporate events for the selected date, grouped into four sections: Earnings, Dividends, Splits, and IPOs. Each section has a color-coded header showing the event type and the count of tickers for that day.

The table columns are:

Column	Description
Type	Color-coded badge representing the event type.

Column	Description
Symbol	Clickable ticker symbol.
Company	Full company name.
Date	The date of the event.
Details	Key information specific to the event type (e.g., EPS forecast, dividend rate, split ratio, IPO price range).
Mkt Cap	Market capitalization in compact format (\$266.6B, \$56.4B, etc.).

The section headers are color-coded: cyan for Earnings, green for Dividends, gold for Splits, and purple for IPOs.

2. **Actions Tab:** Displays corporate actions that occurred in the current year, grouped by type: Stock Splits, Acquisitions, and Spinoffs. This tab does not require a date picker.

The table columns are: Type, Symbol, Company, Date, and Details. The headers for this tab are color-coded: gold for Splits, red for Acquisitions, and orange for Spinoffs.

## Data sources and refresh rate

The **CE** command pulls data from multiple external sources:

- **Events tab:** Data is sourced from the Nasdaq API via the QST News API ([api-news.qstmarkets.com](https://api-news.qstmarkets.com)). Results are cached for 2 hours.
- **Actions tab:** Data is sourced from Stockanalysis.com via the QST News API. Results are cached for 12 hours and filtered to the current calendar year.
- Market capitalization values missing from the primary source are enriched and cross-referenced from the QSTMarkets internal company profiles database.

## Tips and caveats

- The **Events** tab is most relevant on US trading days. If a non-trading day (weekend or holiday) is selected in the date picker, the API automatically returns data for the next available trading day.
- Use the **Details** column for a quick assessment of the event's significance: for earnings, it shows the EPS forecast and quarter; for dividends, the rate, payment date, and record date; for splits, the ratio; for IPOs, the exchange, price range, and share count.
- The Market Capitalization (**Mkt Cap**) column uses a compact format for readability.

Hover your mouse over the value to see the full, un-truncated number.

- The color-coded headers on both tabs allow for rapid visual identification of high-impact events: red for Acquisitions and purple for IPOs.
- Clicking a symbol is the fastest way to transition from calendar tracking to in-depth analysis (e.g., typing **GP** after clicking the symbol opens a price chart).

COMPANY EVENTS <span>CE</span>							14/04/2026	42 events	2026-04-14
EVENTS		ACTIONS							
TYPE	SYMBOL	COMPANY	DATE	DETAILS			MKT	CAP	
<b>EARNINGS</b>								15	
<span>EAR</span>	<b>JPM</b>	J P Morgan Chase & ...	2026-04-14	Forecast: \$5.46   Quarter: Mar/2026   Estima...			\$832.4B		
<span>EAR</span>	<b>JNJ</b>	Johnson & Johnson	2026-04-14	Forecast: \$2.68   Quarter: Mar/2026   Estima...			\$581.2B		
<span>EAR</span>	<b>WFC</b>	Wells Fargo & Compa...	2026-04-14	Forecast: \$1.57   Quarter: Mar/2026   Estima...			\$265.4B		
<span>EAR</span>	<b>C</b>	Citigroup Inc.	2026-04-14	Forecast: \$2.64   Quarter: Mar/2026   Estima...			\$218.3B		
<span>EAR</span>	<b>BLK</b>	BlackRock, Inc.	2026-04-14	Forecast: \$11.96   Quarter: Mar/2026   Estima...			\$155.8B		
<span>EAR</span>	<b>ACI</b>	Albertsons Companie...	2026-04-14	Forecast: \$0.39   Quarter: Feb/2026   Estima...			\$9.0B		
<span>EAR</span>	<b>KMX</b>	CarMax Inc	2026-04-14	Forecast: \$0.21   Quarter: Feb/2026   Estima...			\$6.4B		
<span>EAR</span>	<b>EQBK</b>	Equity Bancshares, ...	2026-04-14	Forecast: \$1.15   Quarter: Mar/2026   Estima...			\$976.3M		
<span>EAR</span>	<b>MAMA</b>	Mama's Creations, I...	2026-04-14	Forecast: \$0.05   Quarter: Jan/2026   Estima...			\$641.1M		
<span>EAR</span>	<b>GLOO</b>	Gloo Holdings, Inc.	2026-04-14	Forecast: (\$0.31)   Quarter: Jan/2026   Esti...			\$476.3M		
<span>EAR</span>	<b>BSVN</b>	Bank7 Corp.	2026-04-14	Forecast: \$1.01   Quarter: Mar/2026   Estima...			\$413.5M		
<span>EAR</span>	<b>RENT</b>	Rent the Runway, In...	2026-04-14	Quarter: Jan/2026   Estimates: 6			\$194.6M		
<span>EAR</span>	<b>HOVR</b>	New Horizon Aircraf...	2026-04-14	Forecast: (\$0.09)   Quarter: Feb/2026   Esti...			\$65.5M		
<span>EAR</span>	<b>CREX</b>	Creative Realities,...	2026-04-14	Forecast: (\$0.23)   Quarter: Mar/2026   Esti...			\$36.6M		
<span>EAR</span>	<b>VNAR</b>	Vision Marine Techn...	2026-04-14	Quarter: Feb/2026   Estimates: 6			\$1.9M		
<b>DIVIDENDS</b>								8	
<span>DIV</span>	<b>CHY</b>	Calamos Convertible...	4/14/2026	Rate: \$0.1   Payment: 4/21/2026   Record: 4/...			\$959.5M		
<span>DIV</span>	<b>CHI</b>	Calamos Convertible...	4/14/2026	Rate: \$0.095   Payment: 4/21/2026   Record: ...			\$910.9M		
<span>DIV</span>	<b>CCD</b>	Calamos Dynamic Con...	4/14/2026	Rate: \$0.195   Payment: 4/21/2026   Record: ...			\$644.3M		
<span>DIV</span>	<b>CHW</b>	Calamos Global Dyna...	4/14/2026	Rate: \$0.05   Payment: 4/21/2026   Record: 4...			\$523.0M		
<span>DIV</span>	<b>CGO</b>	Calamos Global Tota...	4/14/2026	Rate: \$0.08   Payment: 4/21/2026   Record: 4...			\$124.5M		
<span>DIV</span>	<b>CPZ</b>	Calamos Long/Short ...	4/14/2026	Rate: \$0.14   Payment: 4/21/2026   Record: 4...			\$293.7M		
<span>DIV</span>	<b>CSQ</b>	Calamos Strategic T...	4/14/2026	Rate: \$0.1225   Payment: 4/21/2026   Record:...			\$3.0B		
<span>DIV</span>	<b>NEWTH</b>	NewtekOne, Inc. 8.6...	4/14/2026	Rate: \$0.5390625   Payment: 4/15/2026   Reco...			--		
<b>SPLITS</b>								8	
<span>SPL</span>	<b>HDV</b>	iShares Core High D...	4/29/2026	Ratio: 5 : 1			--		
<span>SPL</span>	<b>IWF</b>	iShares Russell 100...	4/29/2026	Ratio: 4 : 1			\$127.5B		
<span>SPL</span>	<b>VUG</b>	Vanguard Growth ETF	4/21/2026	Ratio: 6 : 1			\$111.6B		

## ETFP - ETF Profile

Command: ETFP

Category: ETFs

**Requires ticker:** Yes

## Overview

The ETF Profile command (ETFP) is the dedicated analysis hub for exchange-traded funds, equivalent to what DES provides for individual stocks. While DES focuses on corporate data (earnings, executives, insiders, analyst consensus), ETFP is redesigned around what matters for a fund: who manages it, what it costs, how it has performed, and how risky it is. It consolidates fund identity, key financial metrics, and performance history into a single panel, making it the recommended starting point when analyzing an unfamiliar ETF. ETFP is the first command in a new ETFs category within the terminal.

## How to use it

The command is invoked by typing a ticker symbol followed by ETFP in the Command Bar. For example, **SPY ETFP**, **QQQ ETFP**, or **PSI ETFP**. The panel loads automatically. If the ticker is not an ETF (for example, **AAPL ETFP**), the terminal returns an error message: "Symbol is not an ETF. Use DES for stocks." Data is cached for 6 hours.

## Reading the output

The ETFP output is organized into six sections:

1. **Header:** Displays the ETF ticker (in orange), the fund's full name, and an ETFP command badge. A real-time price updates via WebSocket when the US market is open, with a **LIVE** indicator. The daily price change is shown in green (positive) or red (negative). A market status dot indicates whether the market is open (green) or closed (red). If the ETF is leveraged or inverse (2X, 3X, Ultra, Bear, Inverse, Short), a yellow **LEVERAGED** warning badge appears next to the name. The NAV (Net Asset Value) is displayed on the right side. Hovering over NAV shows an educational tooltip explaining that NAV represents the per-share value of the fund's total assets minus liabilities, and how comparing it to the market price reveals whether the ETF trades at a premium or discount.
2. **ETF Overview:** A text description of the fund's investment objective and strategy, sourced from the fund's prospectus summary. This section only appears when a description is available in the database.
3. **Fund Identity:** A two-column grid showing the fund's issuer (Fund Family), Morningstar category, exchange, base currency, inception date, and legal type. Fields like Tracked Index and Replication Type display "--" as they are not available from free data sources.
4. **Key Metrics:** A two-column grid with the most important financial metrics: AUM (Assets Under Management, formatted as \$651.6B), Expense Ratio (e.g., 0.09%), Dividend

- Yield, Average Volume (30-day), P/E Ratio, P/B Ratio, Beta (3-year), and Market Cap.
5. **Performance:** A table showing YTD, 3-Year (annualized), and 5-Year (annualized) returns. Positive returns appear in green, negative in red. The Category Average column shows "--" as category benchmarks are not available from free data providers.
  6. **Related Commands:** A row of buttons for future ETF commands (**ETFHOLD**, **ETFSEC**, **ETFRISK**, **ETFPERF**) currently disabled with a "Coming soon" tooltip. These will become active as the terminal's ETF feature set expands.

## Data sources and refresh rate

The command fetches data from two sources in parallel. First, yfinance provides the majority of fields: fund family, category, AUM, NAV, dividend yield, P/E, P/B, beta, YTD and multi-year returns, inception date, exchange, and real-time price data. Second, the Nasdaq API provides the expense ratio, which is the one field yfinance does not return for ETFs. The fund description comes from the QSTMarkets database (company\_profiles table), with yfinance as a fallback. Real-time prices are streamed via Tradier WebSocket during market hours, with a REST snapshot fallback. All profile data is cached in Redis for 6 hours.

## Tips and caveats

- ETFP works exclusively with ETFs. For stocks, use DES. The terminal validates the ticker type before loading the panel.
- Leveraged and inverse ETFs (SOXL, TQQQ, SH, SOXS) are automatically detected by name keywords and flagged with a yellow **LEVERAGED** badge. These products carry unique risks including daily reset decay and amplified volatility.
- The Expense Ratio comes from the Nasdaq API. If Nasdaq is temporarily unavailable, this field will show "--" while all other data loads normally.
- Some fields show "--" because they require premium data subscriptions (Tracked Index, Number of Holdings, Replication Type, Category Average returns). These may be populated in future updates as new data sources become available.
- For deeper ETF analysis, the upcoming **ETFHOLD** command will show top holdings, **ETFSEC** will break down sector and country allocations, **ETFRISK** will provide risk statistics, and **ETFPERF** will show historical performance charts.
- The NAV tooltip is an example of the terminal's educational design philosophy: hovering over financial terms reveals plain-language explanations aimed at retail investors and students.

AGEM abrdn Emerging Markets Dividend Active E...		ETFP		● CLOSED	
<b>\$43.38</b> +0.19 (+0.45%)		NAV: \$43.40			
<b>ETF OVERVIEW</b>					
Under normal circumstances, the fund invests at least 80% of the value of its net assets, plus any borrowings for investment purposes, in equity securities of emerging market companies that pay dividend income. The fund will invest primarily in common stocks but may also invest in other types of equity securities, including, but not limited to, preferred stock and depositary receipts.					
<b>FUND IDENTITY</b>					
Fund Family	abrdn Funds	Category	Diversified Emerging Mkts		
Exchange	NGM	Currency	USD		
Inception	Nov 1999	Legal Type	Exchange Traded Fund		
Tracked Index	--	Replication	--		
<b>KEY METRICS</b>					
AUM	\$249.2M	Expense Ratio	--		
Dividend Yield	2.18%	Avg Volume (30d)	37K		
P/E Ratio	15.49	P/B Ratio	--		
Beta (3Y)	1.10	Market Cap	--		
<b>PRICE DATA</b>					
Previous Close	\$43.19	52W High	\$45.76		
52W Low	\$24.21	52W Range	\$24.21 - \$45.76		
<b>PERFORMANCE</b>					
PERIOD	RETURN				
YTD	+304.26%				
3 Year (ann.)	+22.33%				
5 Year (ann.)	+8.72%				
<b>RELATED COMMANDS</b>					
ETFHOLD		ETFSEC		ETFRISK	
				ETFPERF	

## ETFHOLD - ETF Holdings

**Command:** ETFHOLD

**Category:** ETFs

**Requires ticker:** Yes

## Overview

The ETF Holdings command (ETFHOLD) reveals what is inside an exchange-traded fund by displaying its top holdings with portfolio weights, sector allocation, and aggregate valuation metrics. Understanding what an ETF actually owns is fundamental for any investor: two ETFs in the same category can have very different compositions and concentration levels. ETFHOLD answers the question "What am I really buying when I invest in this ETF?" and helps investors identify hidden concentration risk or sector bias within their fund.

## How to use it

The command is invoked by typing a ticker symbol followed by ETFHOLD in the Command Bar. For example, **SPY ETFHOLD**, **QQQ ETFHOLD**, or **PSI ETFHOLD**. The panel loads automatically. If the ticker is not an ETF, the terminal returns an error. You can also access ETFHOLD directly from the ETFP panel by clicking the **ETFHOLD** button in the Related Commands section. Data is cached for 6 hours.

## Reading the output

The ETFHOLD output is organized into three tabs:

1. **Holdings tab** (default): Displays the top 10 holdings ranked by portfolio weight. Each row shows a rank number, the holding's ticker symbol (clickable to fill the Command Bar for further analysis), company name, weight percentage, a visual orange bar proportional to the weight, and the holding's sector. The header shows the total concentration of the top 10 holdings as a percentage (e.g., "Top 10 = 44.9%"), along with a concentration label: "**Concentrated**" (yellow) if the top 5 holdings exceed 40% of the fund, "**Diversified**" (green) if below 20%, or "**Moderate**" (cyan) otherwise. This helps investors quickly assess whether the fund's performance depends heavily on a few large positions.
2. **Sectors tab**: Shows the sector allocation of the ETF's portfolio sorted from largest to smallest, with each sector displayed alongside its weight percentage and a cyan progress bar. This view reveals the thematic exposure of the fund. A technology-focused ETF like PSI will show nearly 100% in Technology, while a broad market ETF like SPY will show a diversified distribution across all 11 GICS sectors.
3. **Portfolio tab**: Displays aggregate valuation metrics for the ETF's underlying holdings: Price-to-Earnings (P/E), Price-to-Book (P/B), Price-to-Sales (P/S), and Price-to-Cash Flow (P/CF). Each metric is presented in a card format with an educational tooltip that explains what the metric measures and how to interpret it. Hovering over any card reveals the explanation. The ETF's Morningstar category is also displayed below the metrics.

## Data sources and refresh rate

The command uses yfinance's `funds_data` API exclusively. The `top_holdings` property provides the top 10 holdings with names and weights. The `sector_weightings` property returns the GICS sector breakdown. The `equity_holdings` property provides the aggregate portfolio valuation metrics (P/E, P/B, P/S, P/CF). Each holding's sector is enriched from the QSTMarkets database (`ref_tickers` table) via a batch SQL query. All data is cached in Redis for 6 hours. No API key is required.

## Tips and caveats

- yfinance provides the top 10 holdings. The actual ETF may contain hundreds or thousands of positions, but the top 10 typically represent the most significant portion of the fund's performance.
- The concentration indicator is calculated from the top 5 holdings, not the top 10. A fund where the top 5 holdings exceed 40% of total assets is labeled "**Concentrated**", which means its performance is heavily dependent on a small number of stocks.
- Clicking any holding's ticker symbol in the Holdings tab fills the Command Bar, allowing you to quickly launch **DES**, **GP**, **FA**, or any other command on that stock.
- Some international holdings may display with foreign exchange suffixes (e.g., 2330.TW for Taiwan Semiconductor, 005935 for Samsung). These are the tickers as reported by the fund and may not be available for all terminal commands.
- The sector shown for each holding comes from the QSTMarkets database. Holdings not present in the database (very small or foreign companies) will show "--" in the Sector column.
- For bond ETFs like BND or TLT, the Holdings tab may show bond-related instruments. For a detailed breakdown of bond ratings and duration, use the **ETFSEC** command instead.
- The Portfolio valuation metrics (P/E, P/B, etc.) are aggregate figures for the ETF's equity holdings. They represent the weighted average across all positions, not just the top 10 shown in the Holdings tab.
- Use **ETFHOLD** together with **ETFP** (fund overview) and **ETFSEC** (sector and asset class detail) for a complete ETF analysis workflow.

SPY		ETFHOLD	State Street SPDR S&P 500 ETF Trust		Top 10 = 36.4% <span>Moderate</span>	
Holdings (10)		Sectors (11)		Portfolio		
#	SYMBOL	NAME	WEIGHT		SECTOR	
1	NVDA	NVIDIA Corp	7.56%		Technology	
2	AAPL	Apple Inc	6.64%		Technology	
3	MSFT	Microsoft Corp	4.90%		Technology	
4	AMZN	Amazon.com Inc	3.63%		Consumer Cyclical	
5	GOOGL	Alphabet Inc Class A	2.99%		Communication Ser...	
6	AVGO	Broadcom Inc	2.62%		Technology	
7	GOOG	Alphabet Inc Class C	2.39%		Communication Ser...	
8	META	Meta Platforms Inc Class A	2.23%		Communication Ser...	
9	TSLA	Tesla Inc	1.86%		Consumer Cyclical	
10	BRK-B	Berkshire Hathaway Inc Class B	1.57%		--	

Source: yfinance (cached)

## ETFSEC - ETF Sectors

**Command:** ETFSEC

**Category:** ETFs

**Requires ticker:** Yes

### Overview

The ETF Sectors command (ETFSEC) provides a detailed breakdown of an ETF's internal composition across three dimensions: sector allocation, asset class distribution, and portfolio valuation. While ETFHOLD shows the individual stocks inside a fund, ETFSEC reveals the structural profile of the portfolio. This is particularly valuable for understanding thematic concentration (e.g., a technology ETF will show nearly 100% in one sector), for comparing equity vs. bond exposure, and for analyzing fixed-income ETFs where traditional sector breakdowns do not apply. ETFSEC adapts its display depending on whether the ETF holds equities, bonds, or a mix of both.

## How to use it

The command is invoked by typing a ticker symbol followed by `ETFSEC` in the Command Bar. For example, **SPY ETFSEC**, **BND ETFSEC**, or **PSI ETFSEC**. The panel loads automatically. If the ticker is not an ETF, the terminal returns an error. You can also access `ETFSEC` directly from the `ETFP` panel by clicking the **ETFSEC** button in the Related Commands section. Data is cached for 6 hours.

## Reading the output

The `ETFSEC` output is organized into three tabs:

1. **Sectors tab** (default): Displays the GICS sector allocation of the ETF's equity holdings, sorted from largest to smallest. Each sector is shown with its weight percentage and a cyan progress bar proportional to the allocation. This tab is most useful for equity ETFs. A broad market ETF like `SPY` will show all 11 GICS sectors (Technology, Healthcare, Financial Services, Consumer Cyclical, Industrials, Communication Services, Consumer Defensive, Energy, Utilities, Real Estate, Basic Materials), while a sector-specific ETF like `PSI` (semiconductors) will show Technology at approximately 97%, which is correct and expected behavior. For bond or fixed-income ETFs like `BND`, this tab displays an informative message: "No equity sector data for this ETF. This is a bond/fixed-income fund. Check the Asset Class tab for bond ratings."
2. **Asset Class tab**: Shows the portfolio composition breakdown into asset types: Stocks, Bonds, Cash, Preferred, Convertible, and Other, each with its weight percentage and an orange progress bar. This immediately reveals the fund's nature. `SPY` shows 99.7% Stocks, while `BND` shows 97.9% Bonds. For bond ETFs, this tab also displays a Bond Credit Ratings section with gold progress bars showing the distribution across credit quality tiers (US Government, AAA, AA, A, BBB, BB, B, Below B). Below the ratings, Duration and Average Maturity metrics are displayed in card format with educational tooltips. Duration measures how sensitive the bond portfolio is to interest rate changes. Average Maturity shows the weighted average time until the bonds mature. Both metrics include explanatory tooltips that appear on hover.
3. **Valuation tab**: Displays aggregate portfolio valuation metrics: Price-to-Earnings (P/E), Price-to-Book (P/B), Price-to-Sales (P/S), and Price-to-Cash Flow (P/CF). Each metric is presented in a card with an educational tooltip explaining what it measures and how to interpret it. For bond ETFs, this tab shows a note indicating that valuation metrics do not apply to fixed-income funds, since bonds are valued differently than equities.

## Data sources and refresh rate

The command uses `yfinance`'s `funds_data` API exclusively. The `sector_weightings` property provides the 11 GICS sector allocations. The `asset_classes` property returns the

stocks/bonds/cash/preferred/convertible/other breakdown. The `bond_ratings` property provides credit quality distribution for bond ETFs, and `bond_holdings` provides duration and maturity figures. The `equity_holdings` property returns aggregate P/E, P/B, P/S, and P/CF. All data is cached in Redis for 6 hours. No API key is required. Country weightings are not available from any free data source (FMP ETF endpoints return "Restricted Endpoint" on the free tier) and are therefore not included in this version.

## Tips and caveats

- ETFSEC automatically adapts to the type of ETF. Equity ETFs show sector data and valuation metrics. Bond ETFs show credit ratings, duration, and maturity instead. Mixed-asset ETFs will show data in all sections.
- A single-sector ETF showing one sector at nearly 100% is correct behavior, not an error. For example, PSI (Invesco Semiconductors) shows Technology at approximately 97% because that is the fund's design.
- The Asset Class tab is the quickest way to determine if an ETF is equity-focused, bond-focused, or mixed. Check this tab first when analyzing an unfamiliar ETF.
- Bond credit ratings follow the standard scale: US Government and AAA are the highest quality (lowest risk), while BB and below are considered high-yield or "junk" bonds. The distribution helps assess the credit risk profile of the fund.
- Duration is measured in years. A duration of 3.81 means that for every 1% increase in interest rates, the bond portfolio would lose approximately 3.81% in value. Higher duration means more sensitivity to rate changes.
- Country weightings are not available in the current version because FMP's ETF country-weightings endpoint is restricted on the free tier. For international ETFs (VEA, EEM, EWZ), refer to the fund's official fact sheet for geographic allocation details.
- Use ETFSEC together with **ETFP** (fund overview) and **ETFHOLD** (top holdings) for a complete ETF analysis workflow. ETFP provides the identity and key metrics, ETFHOLD shows what specific stocks the ETF owns, and ETFSEC reveals the structural composition.



## ETFRISK - ETF Risk

**Command:** ETFRISK

**Category:** ETFs

**Requires ticker:** Yes

### Overview

The ETF Risk command (ETFRISK) provides a comprehensive quantitative risk profile for any exchange-traded fund, calculated directly from historical price data. Unlike ETFP which shows identity and key metrics, or ETFHOLD which reveals composition, ETFRISK focuses exclusively on measuring how risky the fund is and whether its returns justify that risk. All metrics are computed locally from 5 years of daily prices using statistical methods (numpy), with the S&P 500 (SPY) as the benchmark. This makes the data fully transparent and reproducible. ETFRISK automatically detects leveraged and inverse ETFs and displays a prominent warning badge, as these products carry unique risks that standard metrics may understate.

### How to use it

The command is invoked by typing a ticker symbol followed by **ETFRISK** in the Command Bar. For example, **SPY ETFRISK**, **PSI ETFRISK**, or **SOXL ETFRISK**. The panel loads automatically. If the ticker is not an ETF, the terminal returns an error. You can also access **ETFRISK** directly from the **ETFP** panel by clicking the **ETFRISK** button in the Related Commands section. Data is cached for 6 hours.

## Reading the output

The **ETFRISK** output is organized into two tabs:

1. **Risk Summary tab** (default): Displays six key risk metrics in card format, each with a color-coded value and an educational tooltip accessible by hovering. The metrics are:
  - **Beta (3Y)**: Measures how sensitive the ETF is to overall market movements. A beta of 1.0 means it moves with the market (SPY). Above 1.0 means more volatile than the market, below 1.0 means less volatile. Shown in green if below 1.5, red if above.
  - **Volatility (1Y)**: The annualized standard deviation of daily returns over the past year. Below 15% is considered low risk, 15-25% moderate, above 25% high. Shown in green if below 30%, red if above.
  - **Max Drawdown (1Y)**: The largest peak-to-trough decline in the past year. A value of -15% means the ETF fell 15% from its highest point before recovering. Shown in green if shallower than -20%, red if deeper.
  - **Sharpe Ratio (1Y)**: Return earned per unit of risk taken, assuming a 0% risk-free rate. Above 1.0 is good, above 2.0 is excellent, negative means the ETF lost money. Shown in green if above 1.0, red if below.
  - **VaR 95% (daily)**: Value at Risk, the maximum expected daily loss 95% of the time based on historical simulation. A value of -2.5% means that on 95% of trading days, losses should not exceed 2.5%. Shown in green if better than -3%, red if worse.
  - **Calmar Ratio (1Y)**: Annualized return divided by the absolute value of max drawdown. A ratio above 1.0 means the ETF earned more than its worst decline, indicating good risk-adjusted performance. Shown in green if above 1.0, red if below.

Below the risk cards, a returns section shows the 3-year and 5-year annualized returns (from yfinance) and the 1-year beta versus SPY (locally calculated), displayed in green for positive and red for negative values.

2. **By Period tab**: Presents a comparison table with four risk metrics across three time horizons (1 Year, 3 Years, 5 Years): Volatility, Max Drawdown, Sharpe Ratio, and Beta vs SPY. Each row has an educational tooltip explaining the metric. A note at the bottom clarifies that SPY is used as the benchmark and the risk-free rate is assumed to be 0% for Sharpe calculations. This tab helps investors understand whether risk has been increasing or decreasing over time and whether longer time horizons show different risk characteristics than recent performance.

## Data sources and refresh rate

All risk metrics are calculated locally from historical price data, making them fully transparent and independent of any external risk analytics provider. The backend downloads 5 years of daily closing prices for the ETF and for SPY (the benchmark) using yfinance in parallel, then computes all metrics using numpy. Beta (3Y), three-year return, and five-year return come from yfinance's .info property. Morningstar risk ratings are not available from yfinance and are therefore not shown. All results are cached in Redis for 6 hours. No API key is required.

## Tips and caveats

- All risk metrics are backward-looking. Past volatility and drawdowns do not guarantee future risk levels. Markets can behave very differently in future crises.
- The Sharpe Ratio uses a risk-free rate of 0% for simplicity. In practice, comparing the Sharpe of two ETFs relative to each other is more useful than interpreting the absolute number.
- Leveraged ETFs (SOXL, TQQQ, UPRO) are automatically detected by name keywords and flagged with a yellow **LEVERAGED** badge. Their risk metrics will show extreme values (beta above 3, volatility above 50%) which is by design. These products reset daily and suffer from volatility decay over time, making them unsuitable for long-term holding.
- Max Drawdown over longer periods (3Y, 5Y) will almost always be larger than 1Y because it captures more market events. A 5Y drawdown of -60% likely includes a major correction or crash.
- The By Period tab is useful for detecting regime changes. If 1Y volatility is much higher than 5Y, the ETF may be entering a more turbulent phase. If 1Y Sharpe is much lower than 5Y, recent performance may be deteriorating.
- Beta vs SPY measures co-movement with the US stock market. A bond ETF (BND) will show a very low beta because bonds often move independently of stocks. An international ETF (VEA) will show moderate beta because international markets are partially correlated with the US.
- VaR 95% is based on historical simulation (the actual 5th percentile of daily returns), not a parametric model. This means it captures fat tails and non-normal distributions that parametric VaR would miss.
- Use **ETFRISK** together with **ETFP**, **ETFHOLD**, and **ETFSEC** for a complete ETF analysis workflow: identity and overview (**ETFP**), what is inside (**ETFHOLD**), structural composition (**ETFSEC**), and risk profile (**ETFRISK**).



## ETFPERF - ETF historical performance

**Command:** ETFPERF

**Category:** ETFs

**Requires ticker:** Yes

### Overview

The ETFPERF command provides a comprehensive historical performance analysis of any ETF, comparing its returns against the SPY (S&P 500 ETF) as a broad market benchmark. It answers the key question: "Has this ETF done its job well compared to the overall market?"

The panel is organized in three tabs: a returns comparison table, a cumulative return chart, and a monthly returns heatmap with consistency metrics.

### How to use it

Type the ETF ticker followed by ETFPERF (for example, QQQ ETFPERF, AIA ETFPERF, SOXL ETFPERF). The panel opens with the **Returns** tab selected by default. Use the three tabs at the top to switch between views.

You can also launch ETFPERF directly from the ETFP (ETF Profile) panel by clicking the **ETFPERF** button in the "Related commands" section.

## Reading the output

**Tab 1 - Returns:** Displays a table with cumulative total returns for eight time periods (1M, 3M, 6M, YTD, 1Y, 3Y, 5Y, 10Y). Each row shows the ETF return alongside the SPY return for the same period. Values are color-coded: green for positive returns and red for negative. The outperformer in each row is underlined. Important: these are cumulative total returns, not annualized. For example, +103% over 3Y means the price more than doubled in three years. An explanatory note below the table clarifies this distinction.

**Tab 2 - Chart:** Shows a normalized percentage return chart comparing the ETF (orange line) against SPY (cyan line). Both series start at 0% at the beginning of the selected period, making it easy to see which asset outperformed over time. Six timeframe buttons (1M, 3M, 6M, 1Y, 3Y, 5Y) allow you to adjust the lookback window. A crosshair tooltip displays both values and their difference at any point in time. A Data Window toggle provides a floating overlay with detailed values.

**Tab 3 - Heatmap:** Presents a grid of monthly returns with years as rows (most recent at top) and months as columns (January through December). Each cell is color-coded from deep green (strong positive, above +5%) through gray (neutral, between -1% and +1%) to deep red (strong negative, below -5%). Hovering over any cell shows the exact percentage. Below the heatmap, six consistency metric cards are displayed covering a 5-year window: percentage of positive months, best and worst month (with date), best and worst year, and the longest consecutive winning streak in months.

## Data sources and refresh rate

All data is sourced from yfinance. Period returns and monthly returns are calculated locally from historical daily close prices using numpy and pandas. The benchmark is always SPY (S&P 500 ETF). The cumulative chart covers up to 5 years of daily data points. The heatmap displays the full available history of the ETF (which can span 20+ years for older funds). Results are cached for 6 hours in Redis.

Category average returns are not available from free data sources and are therefore not shown.

## Tips and caveats

- For leveraged ETFs (such as SOXL, TQQQ), a yellow **LEVERAGED** badge appears in the header. The heatmap will show much more extreme color variations due to the amplified daily returns. Keep in mind that leveraged ETFs are designed for short-term trading and their long-term cumulative returns can be misleading due to volatility decay.
- When viewing SPY ETFPERF, both columns in the **Returns** tab will show nearly identical values since the ETF is being compared against itself as the benchmark.
- The chart reuses the same comparison engine as the **COMPARE** command, so the interaction (crosshair, Data Window, timeframe switching) works identically.
- Non-ETF tickers (such as AAPL) will return a 404 error since this command is exclusively for ETFs.
- Returns for periods longer than the ETF's history will show "--". For example, a fund launched in 2020 will not have a 10Y return.

The screenshot displays the 'Returns' tab for the Invesco Semiconductors ETF (PSI). The title bar shows 'PSI ETFPERF Invesco Semiconductors ETF'. Below the title bar are three tabs: 'Returns' (selected), 'Chart', and 'Heatmap'. The main heading is 'CUMULATIVE TOTAL RETURN VS SPY BENCHMARK'. A table compares the performance of PSI and SPY across various time periods. The PSI values are underlined in green, indicating outperformance. A text box explains that the values are total cumulative returns (not annualized) and that the underlined PSI values outperform the SPY benchmark. At the bottom, the category is listed as 'Technology'.

PERIOD	PSI	SPY
1M	<u>+20.47%</u>	+2.29%
3M	<u>+24.28%</u>	-1.84%
6M	<u>+50.01%</u>	+1.81%
YTD	<u>+33.27%</u>	-0.27%
1Y	<u>+137.58%</u>	+25.27%
3Y	<u>+184.48%</u>	+73.23%
5Y	<u>+163.31%</u>	+79.13%
10Y	<u>+1240.71%</u>	+287.76%

Values show total cumulative return (not annualized). For example, +103% over 3Y means the price more than doubled in three years. The underlined value outperforms in each row. SPY (S&P 500) is used as a broad market benchmark.

Category: Technology

## ETFALT - ETF alternatives

**Command:** ETFALT

**Category:** ETFs

**Requires ticker:** Yes

### Overview

The ETFALT command helps investors find alternative ETFs in the same Morningstar category as the one they are analyzing. It answers the question: "Are there similar ETFs with lower fees, higher liquidity, or better performance?" This is essential when choosing between competing funds that track similar strategies, sectors, or asset classes.

The panel displays a sortable comparison table with key metrics for up to 12 alternative ETFs, making it easy to compare options side by side.

### How to use it

Type the ETF ticker followed by ETFALT (for example, PSI ETFALT, VOO ETFALT, BND ETFALT). The panel shows a comparison table with all ETFs that share the same Morningstar category as the input ticker.

### Reading the output

The panel consists of a single comparison table with the following columns:

- Ticker: the ETF symbol, displayed in orange. Clicking any ticker opens its ETFP (ETF Profile) panel for deeper analysis.
- Name: the full fund name (truncated if too long; hover for full text).
- Family: the fund issuer (Vanguard, iShares, Invesco, etc.).
- AUM: Assets Under Management, formatted as \$1.4T, \$7.0B, \$262M, etc. This indicates

the fund's size and liquidity. Larger AUM generally means tighter spreads and more reliable tracking.

- YTD: Year-to-date return, color-coded green (positive) or red (negative).
- 3Y Ann.: Three-year annualized return, also color-coded. This helps assess medium-term performance consistency.
- Beta: Beta relative to the market over 3 years. A beta of 1.0 means the ETF moves in line with the market; above 1.0 means higher volatility, below 1.0 means lower.
- Volume: Average daily trading volume. Higher volume means better liquidity and easier entry/exit.

The current ETF (the one you searched for) is highlighted with an orange left border so you can easily locate it in the table. All columns are sortable: click any column header to sort ascending or descending. A triangle indicator shows the current sort direction.

ETFs are sorted by AUM (descending) by default, showing the largest and most liquid alternatives first. Only ETFs with at least \$50M in AUM are included to filter out insignificant funds. The Morningstar category is displayed as a green badge in the top-right corner of the header.

## Data sources and refresh rate

ETF categorization comes from FinanceDatabase, an open-source database of over 2,800 ETFs with Morningstar category classifications. For ETFs not covered by FinanceDatabase (approximately 18%, including some commodities ETFs like GLD), the system falls back to yfinance for category information. All financial metrics (AUM, returns, beta, volume) are fetched from yfinance in parallel for each peer ETF. Results are cached for 6 hours in Redis.

## Tips and caveats

- Categories can be broad. For example, "Technology" includes semiconductor ETFs alongside fintech, cybersecurity, and cloud computing ETFs. They are all in the same Morningstar category but may track very different sub-sectors.
- For a more precise comparison of two specific ETFs, consider using the COMPARE command (e.g., COMPARE PSI SOXX) which shows a normalized return chart.
- Leveraged ETFs (SOXL, TQQQ, etc.) will show a yellow LEVERAGED badge and their alternatives will be other leveraged products in the "Trading--Leveraged Equity" category.
- If no alternatives are found for a given category, a message will be displayed. This can happen for very niche or newly created ETFs.
- The table is horizontally scrollable on smaller panels to accommodate all columns.

AIA ETFALT iShares Asia 50 ETF		Emerging Markets					
ALTERNATIVE ETFS IN "EMERGING MARKETS"							
TICKER	NAME	FAMILY	AUM ▼	YTD	3Y ANN.	BETA	VOLUME
AVEM	Avantis Emerging Markets...	Avantis Investors	\$19.9B	+344.09%	+21.19%	0.96	2.2M
BBAX	JPMorgan BetaBuilders De...	JPMorgan	\$6.1B	+605.58%	+12.76%	0.98	307K
AAXJ	iShares MSCI All Country...	iShares	\$3.3B	+205.19%	+17.10%	0.94	1.2M
AIA	iShares Asia 50 ETF	iShares	\$3.3B	+841.96%	+26.33%	1.04	530K
ASHR	Xtrackers Harvest CSI 30...	Xtrackers	\$1.5B	-246.19%	+6.28%	0.69	7.1M
ARGT	Global X MSCI Argentina ...	Global X Funds	\$798M	+130.73%	+35.92%	0.63	258K
BRZU	Direxion Daily MSCI Braz...	Direxion Funds	\$135M	+4046.05%	+32.41%	1.35	65K
ADRE	Invesco BLDRS Emerging M...	Invesco	\$111M	+213.90%	+6.48%	1.10	0
ASEA	Global X FTSE Southeast ...	Global X Funds	\$93M	+420.08%	+13.75%	0.69	58K
BKF	iShares MSCI BIC ETF	iShares	\$87M	-748.40%	+8.89%	0.70	12K
BKEM	BNY Mellon Emerging Mark...	BNY Mellon	\$72M	-1.32%	+18.30%	1.00	5K

## ETFSCAN - ETF screener

Command: ETFSCAN

Category: ETFs

Requires ticker: No

### Overview

The ETFSCAN command is an interactive ETF screener that helps investors discover ETFs matching specific criteria. It is the ETF equivalent of the **SCAN** command for stocks. While **SCAN** filters equities by sector, market cap, and price, **ETFSCAN** filters the ETF universe by volume, performance, expense ratio, beta, and dividend yield.

The screener offers two modes: preset tabs for instant access to common screener views, and custom filters for more targeted searches.

## How to use it

Type **ETFSCAN** in the Command Bar and press Enter. The panel opens with no preset selected. Choose one of the five preset tabs at the top for instant results, or configure the filter dropdowns and click **Search** for a custom query.

The five preset tabs are:

- **Most Active:** ETFs with average daily volume over 1 million shares, sorted by volume descending. Useful for finding the most liquid ETFs.
- **Top Gainers:** ETFs with positive year-to-date performance and average volume over 100K, sorted by YTD return descending. Shows which ETFs are leading the market this year.
- **Top Losers:** ETFs with negative year-to-date performance and average volume over 100K, sorted by YTD return ascending. Identifies underperforming sectors or themes.
- **Low Cost:** ETFs with expense ratios below 0.10%, sorted by volume. Helps find the cheapest index-tracking funds.
- **High Yield:** ETFs with dividend yield above 3% and average volume over 100K, sorted by volume. Targets income-producing funds.

For custom searches, use the four filter dropdowns: **Avg Volume** (Over 100K to Over 5M), **Beta** (under 0.5 to over 2.0), **Expense Ratio** (under 0.10% to under 1.00%), and **Dividend Yield** (positive to over 5%). Then click **Search**. Custom searches query Finviz on demand and may take up to 2 minutes to return results.

## Reading the output

The results table displays up to 50 ETFs with the following columns:

Column	Description
<b>Ticker</b>	The ETF symbol in orange. Click any ticker to open its <b>ETFP</b> (ETF Profile) panel.
<b>Name</b>	The full fund name (truncated if long; hover for full text).
<b>Price</b>	Current market price.
<b>Change</b>	Daily percentage change, color-coded green (up) or red (down).
<b>YTD</b>	Year-to-date cumulative return, color-coded.

Column	Description
<b>1Y</b>	One-year return, color-coded.
<b>Vol. M</b>	Monthly volatility as a percentage.
<b>Avg Vol</b>	Average daily trading volume.
<b>Category</b>	Morningstar category (e.g., Large Cap, Technology, High Yield Bonds, Trading).

All columns are sortable by clicking the column header. A triangle indicator shows the current sort direction. The result count is shown in the top-right corner of the header.

### Data sources and refresh rate

Preset tabs read from a pre-computed database table that is refreshed every 20 minutes during US market hours by an automated ETL process. This makes preset results load instantly regardless of how many ETFs match the criteria.

Custom filter searches query Finviz on demand, which involves paginating through all matching ETFs. This is slower (typically 1-2 minutes) but allows full flexibility in combining filters. Morningstar categories are enriched from FinanceDatabase, an open-source database of over 2,800 ETFs.

### Tips and caveats

- Start with the preset tabs to get a quick overview of the ETF landscape, then refine with custom filters if needed.
- Preset data may be up to 20 minutes old during market hours. For the most current price of a specific ETF, use the **GP** (Graph Price) command.
- The **Expense Ratio** filter works as a maximum threshold (e.g., "under 0.10%") but the actual expense ratio value is not displayed in the results table, as Finviz does not expose it as an output column.
- Hovering over the **Beta** and **Expense Ratio** filter labels shows educational tooltips explaining what these metrics mean and typical ranges for ETFs.
- When switching between tabs, any in-progress search from the previous tab is automatically cancelled to avoid confusion.
- Custom searches without any volume filter may return thousands of results and take longer. Adding an **Avg Volume** filter significantly speeds up the query.
- ETFs without sufficient trading history may show "--" for longer-period metrics like 1Y return or volatility.

**ETF SCREENER** ETFSCAN 50 results

Most Active | Top Gainers | Top Losers | **Low Cost** | High Yield

AVG VOLUME: Any | BETA: Any | EXPENSE RATIO: Any | DIVIDEND: Any | **Search**

TICKER	NAME	PRICE	CHANGE	YTD	1Y	VOL. M	AVG VOL	CATEGORY
SPY	SPDR S&P 500 ETF Trust	\$686.10	+0.98%	+0.61%	+28.50%	+1.27%	88.3M	Large Cap
XLE	State Street Energy Select S...	\$57.11	+0.30%	+27.73%	+44.78%	+2.40%	59.9M	Energy
XLF	State Street Financial Selec...	\$51.66	+1.75%	-5.68%	+10.69%	+1.54%	55.5M	Financials
XLU	State Street Utilities Selec...	\$46.39	-1.21%	+8.67%	+21.57%	+1.56%	28.0M	Utilities
SCHX	Schwab U.S. Large-Cap ETF	\$27.04	+1.05%	+0.48%	+28.27%	+1.27%	24.8M	Large Cap
SCHD	Schwab US Dividend Equity ETF	\$30.74	+0.59%	+12.07%	+21.50%	+1.06%	24.5M	Value
XLP	State Street Consumer Staple...	\$81.55	-1.00%	+4.98%	+1.49%	+1.41%	21.0M	Consumer Staples
VEA	Vanguard FTSE Developed Mark...	\$68.21	+0.69%	+9.19%	+38.05%	+1.68%	20.7M	Developed Market
XLK	State Street Technology Sele...	\$145.61	+2.10%	+1.14%	+46.82%	+2.08%	19.3M	Technology
SCHG	Schwab U.S. Large-Cap Growth...	\$30.95	+1.44%	-5.12%	+27.05%	+1.59%	19.1M	Growth
IEMG	iShares Core MSCI Emerging M...	\$74.94	+0.93%	+11.48%	+45.06%	+1.86%	19.0M	Emerging Markets
SGOV	iShares 0-3 Month Treasury B...	\$100.51	+0.01%	+0.13%	+0.02%	+0.01%	18.2M	Treasury Bonds
IJH	iShares Core S&P Mid-Cap ETF	\$71.21	+1.08%	+7.89%	+30.97%	+1.68%	18.0M	Mid Cap
USHY	iShares Broad USD High Yield...	\$37.12	+0.38%	-0.74%	+4.01%	+0.52%	18.0M	High Yield Bonds

Source: Finviz + FinanceDatabase | On-demand, no cache

## ETFCMP - ETF comparison

**Command:** ETFCMP

**Category:** ETFs

**Requires ticker:** Yes (Requires two tickers)

### Overview

The ETFCMP command provides a detailed head-to-head comparison of two ETFs in a single panel. While the generic COMPARE command shows only a normalized return chart for any two assets, ETFCMP goes deeper with ETF-specific metrics: fund identity, size and liquidity, period returns, risk statistics, a cumulative return chart, and holdings overlap analysis. It is the ideal tool for deciding between two competing ETFs that serve the same investment objective.

## How to use it

Type **ETFCMP** followed by the two ETF tickers you wish to compare (for example, **ETFCMP QQQ PSI**). You can also place the command at the end: **QQQ PSI ETFCMP**. Both formats work identically. The panel opens with the **Compare** tab selected by default.

## Reading the output

The panel is organized in three tabs:

1. **Tab 1 - Compare:** A structured comparison table divided into four sections. The **Identity** section shows the fund name, family (issuer), and Morningstar category for each ETF. The **Size and Liquidity** section compares AUM (Assets Under Management) and average daily trading volume, with the larger value underlined as the winner. The **Returns** section compares YTD, 3-year annualized, and 5-year annualized returns, color-coded green for positive and red for negative, with the higher return underlined. The **Risk** section compares Beta (3Y), Volatility (1Y), Max Drawdown (1Y), and Sharpe Ratio (1Y). For volatility and drawdown, the lower value wins (less risk is better). For Sharpe ratio, the higher value wins (better risk-adjusted return). The first ETF (ticker A) appears in the left column in orange, the second (ticker B) in the right column in cyan.
2. **Tab 2 - Chart:** A cumulative return chart comparing both ETFs over time, using the same CompareChart component as the COMPARE command. ETF A is shown as an orange line and ETF B as a cyan line. Both series are normalized to 0% at the start of the selected period, making relative performance easy to compare. Six timeframe buttons (1M, 3M, 6M, 1Y, 3Y, 5Y) adjust the lookback window. A crosshair tooltip shows both values and their difference at any point.
3. **Tab 3 - Holdings:** Shows the holdings overlap between both ETFs. This is the feature that makes ETFCMP uniquely valuable compared to running two separate ETFP panels. The table lists every stock that appears in the top 10 holdings of both ETFs, showing its weight (percentage) in each fund. For example, comparing QQQ and PSI reveals that both hold NVIDIA and Broadcom, but at different weights. This helps investors understand whether holding both ETFs creates unintended concentration in the same stocks. If there are no shared holdings, a message indicates this. Clicking any holding ticker opens its **DES** (Description) panel.

The header shows both ticker symbols (ETF A in orange, ETF B in cyan) with the **ETFCMP** badge. If either ETF is leveraged, a yellow **LEVERAGED** badge appears.

## Data sources and refresh rate

All data is sourced from yfinance. Fund identity and returns come from the .info dictionary. Risk metrics (volatility, max drawdown, Sharpe ratio) are calculated locally from 5 years of daily

historical prices using numpy. Holdings overlap is computed from the top 10 holdings of each ETF via yfinance `funds_data`. Results are cached for 6 hours in Redis. The cache key is alphabetically ordered, so **QQQ PSI ETFCMP** and **PSI QQQ ETFCMP** share the same cache entry.

## Tips and caveats

- Use **ETFCMP** when choosing between two ETFs for the same allocation slot in your portfolio. For example, **ETFCMP SPY VOO** compares two S&P 500 trackers and will show near-identical returns but potentially different AUM and volume.
- The holdings overlap is limited to the top 10 holdings of each ETF. For broad ETFs like SPY (500+ holdings), this captures the largest positions but not the full portfolio. For concentrated ETFs like PSI (30 holdings), the top 10 represents a significant portion.
- Non-ETF tickers will return a 404 error. Use the generic **COMPARE** command for stocks.
- For a broader view of alternatives beyond a two-ETF comparison, use the **ETFALT** command first to find candidates, then **ETFCMP** to compare your top two choices.
- The Sharpe ratio assumes a risk-free rate of 0%. This is standard for relative comparison but means absolute Sharpe values may differ from other sources that use the current Treasury rate.

PSI vs QQQ ETFCMP		
Compare Chart Holdings (2)		
METRIC	PSI	QQQ
<b>IDENTITY</b>		
Name	Invesco Semiconductors ETF	Invesco QQQ Trust
Family	Invesco	Invesco
Category	Technology	Large Growth
<b>SIZE AND LIQUIDITY</b>		
AUM	\$1.3B	\$372.5B
Avg Volume	224K	65.6M
<b>RETURNS</b>		
YTD	+1965.66%	-586.49%
3Y Ann.	+43.31%	+26.75%
5Y Ann.	+22.51%	+13.97%
<b>RISK (1 YEAR)</b>		
Beta (3Y)	1.79	1.11
Volatility	+36.31%	+17.00%
Max Drawdown	-15.48%	-11.96%
Sharpe Ratio	2.67	2.02

## ETFFLOW - ETF fund flows

**Command:** ETFFLOW

**Category:** ETFs

**Requires ticker:** Yes

### Overview

The ETFFLOW command provides estimated fund flow data for an ETF, showing whether investors are putting money into or pulling money out of the fund over time. Fund flows are a powerful indicator of institutional sentiment: consistent inflows suggest growing confidence in the ETF's investment thesis, while sustained outflows may signal a shift in sentiment.

Since real fund flow data (creation and redemption of ETF shares) is only available through expensive institutional data providers like Bloomberg or Morningstar, QSTMarkets estimates flows using a mathematical approach: by comparing daily changes in Assets Under Management (AUM) against what would be expected from price movement alone. The difference represents the estimated net flow of capital into or out of the fund.

### How to use it

Type the ETF ticker followed by ETFFLOW (for example, **SPY ETFFLOW**, **QQQ ETFFLOW**, **GLD ETFFLOW**). The panel opens with the **Flows** tab selected by default. The data improves over time as the system accumulates daily snapshots.

### Reading the output

The panel has two tabs:

1. **Tab 1 - Flows:** Displays period cards showing estimated net flows for five time windows: 1W (one week), 1M (one month), 3M (three months), YTD (year to date), and 1Y (one year). Each card shows the net flow amount formatted in dollars (e.g., +\$1.2B for inflows, -\$340M for outflows), color-coded green for inflows and red for outflows. Below the amount, a label indicates "Inflows" or "Outflows". If there is not enough historical data for a given period, the card shows "--".
2. **Tab 2 - Chart:** Shows a cumulative flow chart rendered as an SVG area chart. The horizontal axis represents dates and the vertical axis represents cumulative estimated

flow in dollars. The zero line is marked with a dashed gray line. When cumulative flow is positive (net inflows over time), the area is filled in green. When negative (net outflows), the area is filled in red. This chart gives a visual sense of whether the ETF has been gaining or losing investor capital over the observation period.

The header shows the ETF ticker, the **ETFFLOW** badge, the fund name, and the current AUM (Assets Under Management) on the right side.

A transparency note is always visible at the bottom of the panel, above the footer. It reads: "Estimated flows calculated from daily AUM and price changes. Real fund flows require creation/redemption data not available from free sources." It also shows when data collection started and how many days of data are available.

## Data sources and refresh rate

Flow estimation relies on daily AUM snapshots collected by an automated ETL process that runs every weekday after US market close (18:00 UTC). Each snapshot records the ETF's total assets, shares outstanding, NAV (Net Asset Value), and market price from yfinance. Approximately 225 ETFs are tracked, including the most liquid and popular funds.

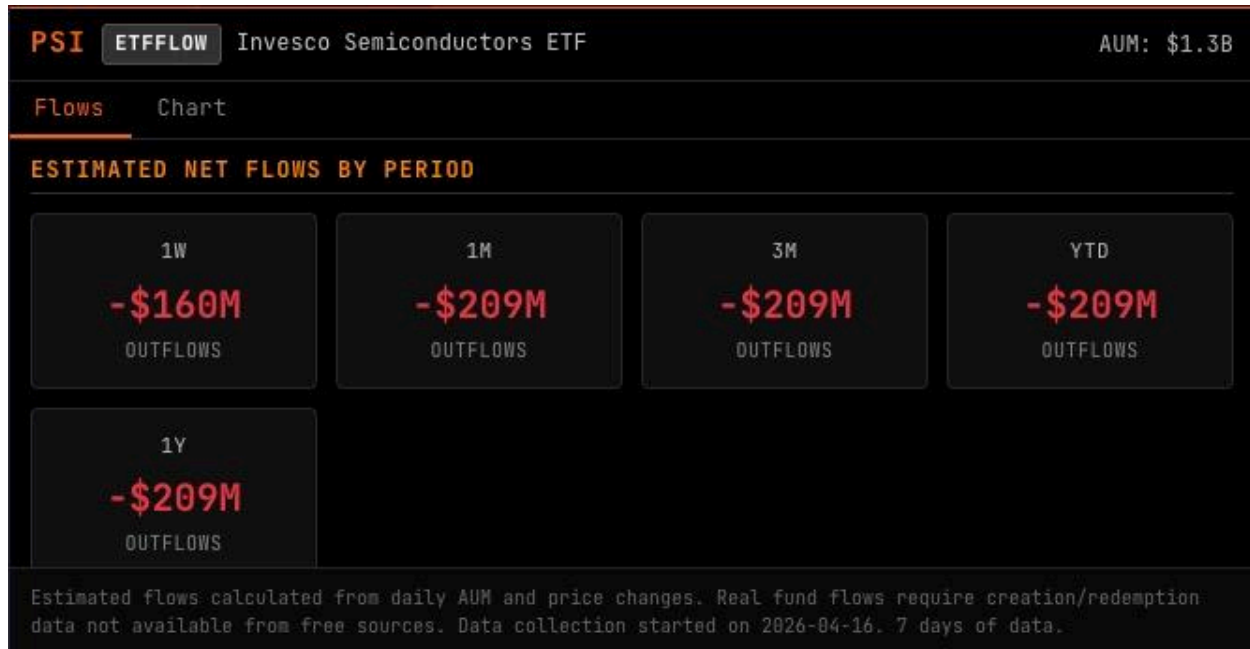
The estimation formula is: Estimated Daily Flow = Today's AUM minus (Yesterday's AUM multiplied by (1 + today's price return)). This isolates the portion of AUM change that cannot be explained by price movement, which represents the estimated net capital flow.

Data accumulates progressively: after 7 days, weekly flows become available. After 30 days, monthly flows appear. After 90 days, quarterly flows become meaningful. Results are cached for 1 hour in Redis.

## Tips and caveats

- This command requires accumulated data to be useful. If you see "Insufficient data", it means the daily ETL has not yet collected enough snapshots for the requested ETF. Check back after a few days.
- The flow estimates are approximations, not exact figures. They work well for identifying the direction and magnitude of flows (large inflows vs large outflows) but should not be treated as precise dollar amounts.
- Large discrepancies between NAV and market price (premium/discount) can introduce noise in the estimates, particularly for less liquid ETFs.
- For the most liquid ETFs (SPY, QQQ, VTI), the estimates tend to be more reliable because their prices track NAV closely and AUM data is consistently reported.
- The system tracks approximately 225 ETFs. If a specific ETF is not in the tracking list, the panel will show no data. The tracked list includes the top ETFs by volume from the **ETFSCAN** presets plus a curated list of popular funds.
- **ETFFLOW** complements **ETFALT** and **ETFCMP**: use **ETFALT** to find alternatives,

**ETFCMP** to compare two candidates side by side, and **ETFFLOW** to check which one is attracting more investor capital.



## WMAP - World Weather Map

**Command:** WMAP

**Category:** Markets

**Requires ticker:** No (standalone command)

### Overview

The World Weather Map command (**WMAP**) is the first tool in QSTMarkets designed to link global weather patterns directly to commodity markets. It renders an interactive global map highlighting 20 commodity-critical regions across four categories: Agriculture, Softs, Energy, and Metals/Battery. As weather is the single most important factor influencing the supply and price of most physical commodities—from wheat yields and coffee harvests to the cost of energy production and the logistics of mining—this command provides macro-focused investors with a crucial, real-time input often overlooked in equity-centric analysis. WMAP provides temperature and precipitation forecasts expressed as anomalies (deviations from long-term averages) to help users identify potential weather-related supply risks.

## How to use it

Type **WMAP** in the Command Bar and press Enter. The panel loads automatically, displaying the interactive world map centered on a global view.

Use the controls in the top toolbar to switch between three visualization modes:

- **Temperature Anomaly:** Shows the 14-day mean temperature forecast as a deviation from the 30-year average.
- **Precipitation Anomaly:** Shows the 14-day total precipitation forecast as a percentage deviation from the 30-year average.
- **14-Day Forecast:** Shows the raw mean temperature over the next 14 days for absolute context.

The map includes standard Leaflet zoom controls ([+] and [-]) and a custom "Reset view" button (globe icon) to quickly re-center the world view if the map has been panned while docked.

## Reading the output

The map displays markers for 20 regions. Hovering over any marker reveals a detailed tooltip containing:

- Region name and primary commodity (e.g., US Corn Belt, Brazilian Cerrado).
- Current temperature and 14-day forecast mean.
- Temperature anomaly (in degrees Celsius).
- 14-day precipitation total and anomaly (as percentage deviation).
- A categorical drought label (Very Dry, Dry, Normal, Wet, Very Wet) derived from the precipitation anomaly.
- The linked futures ticker (e.g., ZW=F, KC=F).

Below the map, a **Rankings strip** highlights the top-3 regions currently experiencing the most extreme conditions across three categories: Hottest, Driest, and Wettest, based on the respective anomaly values.

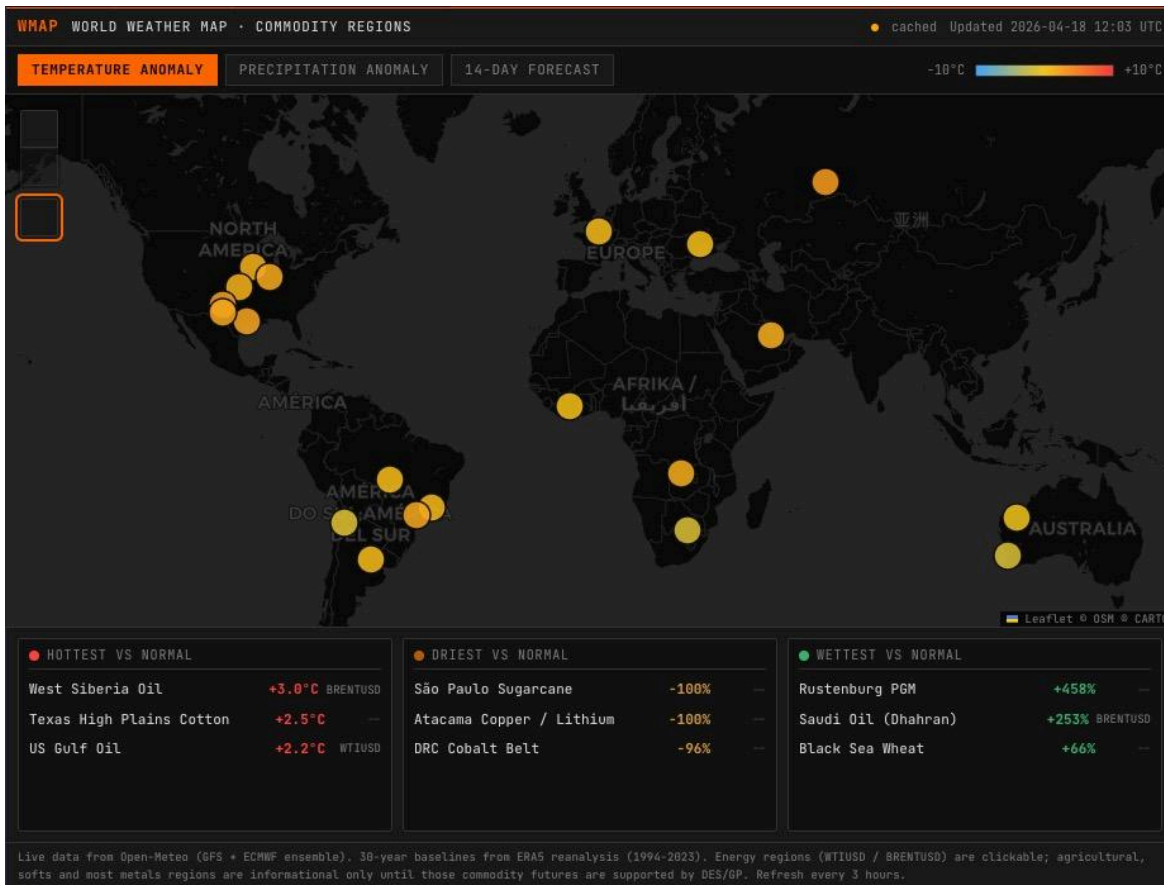
## Data sources and refresh rate

The WMAP command utilizes the Open-Meteo API (provided under a free, non-commercial license) as its exclusive data source. Live conditions and 14-day forecasts are pulled from the high-resolution GFS and ECMWF ensemble models. The critical 30-year historical baseline data (1994-2023) used for computing the anomalies is derived from the ERA5 reanalysis and is pre-calculated once per year to ensure fast loading times and reproducibility.

Results are cached in Redis for 3 hours. If the upstream API fetch fails, a stale cache item will be served for up to 24 hours, and a small "cached" indicator will appear in the panel header.

## Tips and caveats

- Currently, only the four **Energy regions** (mapped to WTIUSD and BRENTUSD internal tickers) are clickable. Clicking one fills the Command Bar with `{ticker} DES` (e.g., WTIUSD DES), allowing you to immediately inspect the relevant futures description. The 16 Agricultural, Softs, and Metals regions are informational only in this release; their tickers display full data on hover but do not react to clicks until the terminal extends DES/GP support to those commodity futures (a planned roadmap item).
- Long-range (days 8-14) precipitation forecasts, especially the **Precipitation Anomaly**, should be interpreted cautiously as global ensemble models tend to be conservative. A "Very Dry" or "Very Wet" label in this window indicates a forecast-biased signal, not an observed drought or flood.
- In very arid climates (such as the Saudi Oil region or the Atacama Copper/Lithium region), the 30-year monthly precipitation baseline can be extremely low (a few millimeters). This can cause small absolute precipitation totals to result in very large and potentially misleading percentage anomalies. It is best to read the underlying millimeter values in the tooltip when analyzing these regions.
- The data from Open-Meteo is provided under a Creative Commons Attribution 4.0 (CC BY 4.0) license for non-commercial use. WMAP is suitable for personal research and educational purposes but is not licensed for redistribution as part of a paid commercial product without obtaining a proper external license.
- Use the globe-icon **"Reset view"** control in the map toolbar to return the display to the default full world view after panning or zooming.



## WFORECAST - Weather Forecast (commodity region)

Command: WFORECAST

Category: Markets

Requires ticker: Yes (region slug, e.g., CORN-BELT or PERMIAN)

### Overview

The Weather Forecast command (**WFORECAST**) is the drill-down companion to the **WMAP** (World Weather Map) command. While WMAP provides a global, 20-region, 14-day anomaly snapshot, WFORECAST takes a single commodity-critical region and exposes the hourly meteorological detail that agricultural, energy, and metals analysts require. By integrating high-resolution forecast data with agricultural concepts like Growing Degree Days (GDD) and

soil moisture metrics, WFORECAST helps investors translate raw weather data into plausible supply risk and price pressure for specific commodities. The panel is designed to be opened multiple times, allowing users to compare conditions between two or three competing production regions side-by-side.

## How to use it

Type **WFORECAST** in the Command Bar and press Enter. This opens the panel defaulting to the **US Corn Belt** region.

Alternatively, type **WFORECAST** followed by a region slug to open the panel directly to your desired location.

### CLI Examples:

- **WFORECAST** — opens with US Corn Belt as default
- **WFORECAST CORN-BELT** — slug form (most common)
- **WFORECAST PERMIAN** — energy slug
- **WFORECAST CERRADO**, **WFORECAST PAMPAS**, **WFORECAST COFFEE**, etc.
- **WFORECAST us-corn-beIt** — canonical backend id also accepted

A region dropdown in the header, grouped by commodity category (Agriculture, Softs, Energy, Metals), lets the user switch regions without reopening the command. While the new region data is fetching, the body displays a "Fetching weather data for {region}..." spinner; the dropdown remains interactive, allowing the user to select another region mid-load.

### Supported Regions:

Category	Regions
Agriculture	US Corn Belt, US Wheat Plains, US Soybeans, Brazilian Cerrado, Argentine Pampas, Black Sea Wheat, Australian Wheat Belt, EU Wheat - Paris basin
Softs	Minas Gerais Coffee, Ivory Coast Cocoa, São Paulo Sugarcane, Texas High Plains Cotton
Energy	US Gulf Oil, Permian Basin, West Siberia Oil, Saudi Oil - Dhahran

Category	Regions
Metals	Atacama Copper/Lithium, DRC Cobalt Belt, Pilbara Iron Ore, Rustenburg PGM

## Reading the output

The panel is organized into four vertical sections:

1. **Snapshot Cards:** A row of four cards providing a 15-day summary:
  - o 15-day mean temperature and its anomaly (deviation) versus the 30-year seasonal norm.
  - o Total 15-day precipitation and its anomaly (both in mm and as a percentage).
  - o Average soil moisture in the 0-1 cm surface layer (with a visual warning when it drops below 0.15 m<sup>3</sup>/m<sup>3</sup>).
  - o The 15-day total FAO reference evapotranspiration (a measure of water stress).
2. **Hourly Forecast Chart:** An interactive dual-axis line chart showing the hourly forecast over the selected timeframe (3D, 7D, or 15D). Temperature is displayed as an orange line on the left axis, and precipitation is displayed as a cyan area on the right axis.
3. **Growing Degree Days (GDD) Chart:** This chart is **only visible** when the region's commodity is a crop (Corn, Soybeans, or Wheat). It uses green bars to represent daily GDD above the crop's base temperature (10 °C for corn/soybeans, 0 °C for wheat) with an amber line representing the cumulative GDD over the season. This is a critical metric for tracking crop maturity.
4. **AI Commodity-Risk Summary:** A three-sentence summary generated by DeepSeek AI that interprets the forecast (temperature, precipitation, GDD) in terms of plausible price pressure for the linked commodity over the next 2-4 weeks. If the AI service is briefly unavailable, the card shows a "Retry" button.

## Data sources and refresh rate

The command uses the Open-Meteo Forecast API (free, non-commercial) for all meteorological data, including hourly variables: temperature\_2m, precipitation, windspeed\_10m, soil\_moisture\_0\_1cm, and FAO reference evapotranspiration. The 30-year seasonal baseline used to compute anomalies is the same ERA5 reanalysis climatology (1994-2023) shared with the **WMAP** command. The AI summary is generated by DeepSeek ([deepseek-chat](#) model) based on the aggregated forecast metrics. The full panel response (including the AI summary) is cached in Redis for one hour per region. A "cached" chip appears in the header when the payload was served from cache.

## Tips and caveats

- Use **WFORECAST** to drill down from **WMAP**. When WMAP flags a region as having extreme anomalies (Very Dry, Very Hot, Very Wet), open the matching panel with **WFORECAST {slug}** to see the hourly details, GDD progression, and AI interpretation behind that flag.
- **WFORECAST** is not a singleton command. You can keep two or three regions open at once and dock them side-by-side to compare, for example, Brazilian Cerrado vs. Argentine Pampas (soybean supply) or Permian vs. West Siberia (crude oil). Opening the same region twice will, however, focus the existing panel instead of duplicating it.
- Long-range (days 8-14) precipitation forecasts from global ensemble models tend to be conservative. A "Very Dry" anomaly that far out should be read as a forecast-biased signal rather than a firm call, and the AI summary will normally acknowledge that uncertainty.
- The GDD chart is only meaningful for crops—it is hidden automatically for energy and metals regions. Base temperatures used are 10 °C for corn and soybeans and 0 °C for wheat.
- In very arid climates (Saudi Arabia, Atacama), the 30-year seasonal precipitation baseline can be just a few millimeters, so a small absolute change translates into a very large percentage anomaly. When in doubt, read the raw millimeter values in the snapshot cards rather than the percentage.
- Currently, only energy regions (WTIUSD, BRENTUSD) open a **DES** panel when their linked commodity is clicked. Commodity **DES/GP** support for agriculture, softs, and industrial metals is on the roadmap and will retroactively activate the remaining region links.
- If the AI summary card shows "AI summary unavailable," press the "Retry" button. If it keeps failing, the three-sentence interpretation is unavailable for that region at that moment, but the meteorological data above is still fully valid.



## DROUGHT - Global Drought Monitor

**Command:** DROUGHT

**Category:** Markets

**Requires ticker:** No (standalone command)

### Overview

The Global Drought Monitor command (**DROUGHT**) provides a real-time, standardized assessment of drought and excess wetness across 20 global regions critical for commodity production. It complements the **WMAP** (global weather anomaly snapshot) and **WFORECAST** (single-region hourly detail) commands by quantifying moisture conditions using the Standardized Precipitation Index over the last 3 months (SPI-3). SPI is the World Meteorological Organization's (WMO) reference index for drought monitoring, offering a statistically robust measure of how unusual current rainfall is compared to historical norms. The panel uses the familiar D0-D4 severity scale adopted by the US Drought Monitor, translating complex meteorological data into an easily digestible visual risk profile for macro-focused investors.

## How to use it

Type **DROUGHT** in the Command Bar and press Enter. The panel loads automatically, displaying the interactive world map centered on a global view. No additional configuration is required as the command is a singleton panel that shows the global picture instantly.

## Reading the output

The panel is organized into six functional areas:

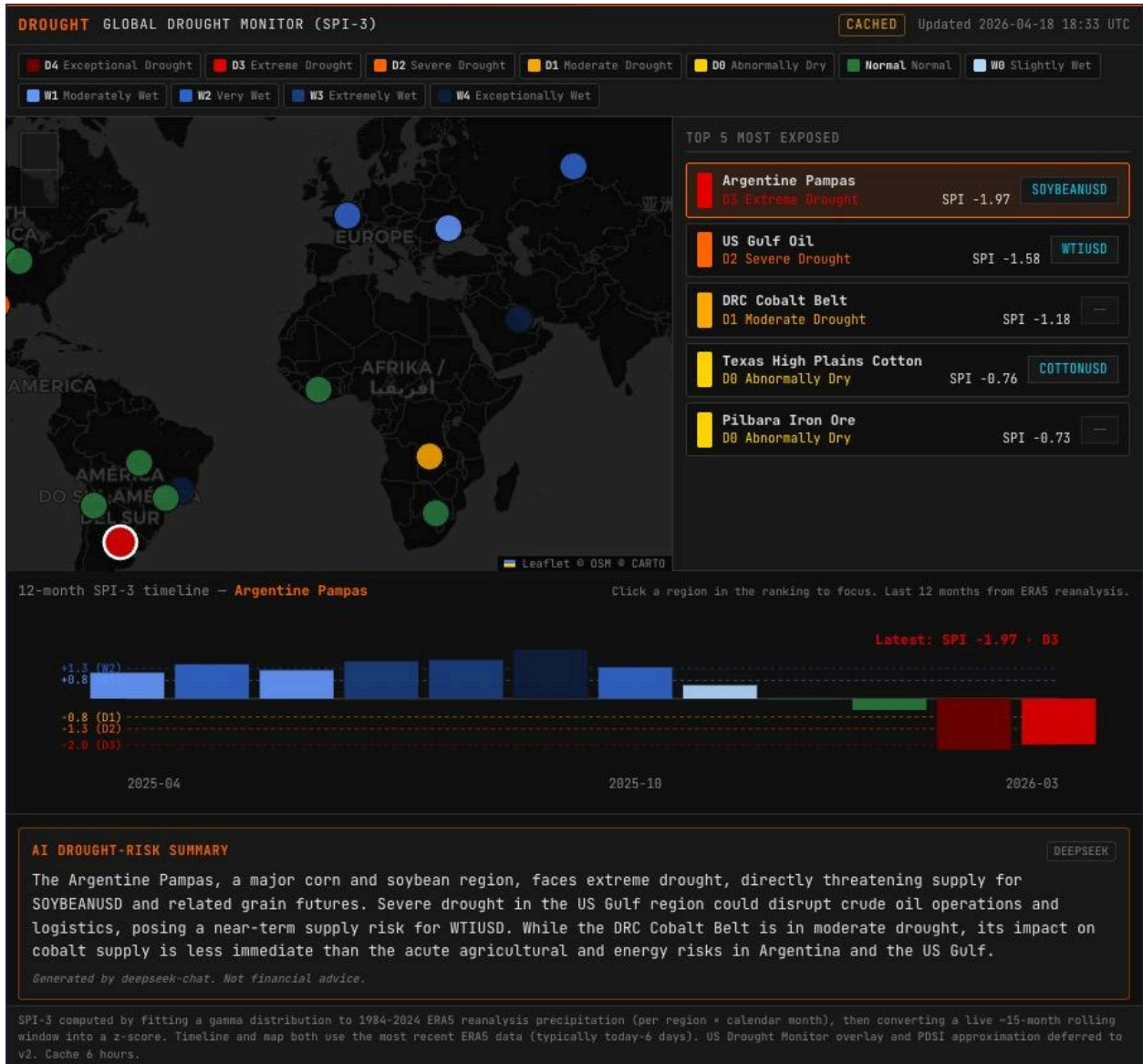
1. **Header Bar:** Displays the command title, an informative badge, a "cached" chip when results are served from the backend cache, and the timestamp of the last data generation.
2. **Severity Legend:** An 11-cell horizontal legend showing the color-coded severity scale and the corresponding SPI-3 value thresholds, ranging from D4 Exceptional Drought (SPI  $\leq$  -2.0) through Normal conditions (-0.5  $<$  SPI  $<$  0.5) to W4 Exceptionally Wet. This visual key is essential for interpreting the map colors.
3. **Interactive World Map:** A Leaflet map (using CartoDB Dark tiles) featuring 20 commodity-critical regions marked by **CircleMarkers**. Each marker is colored to match its current drought or wetness severity (D0-D4 and W0-W4). Hovering over a marker reveals a tooltip with the region name, commodity, current SPI-3 value, severity label, the total precipitation over the last 3 months, the historical seasonal norm for that period, and the percentage deviation from that norm. Markers are clickable for regions linked to a supported commodity futures ticker (e.g., CORNUSD for the US Corn Belt).
4. **Top 5 Most Exposed:** A sidebar panel that instantly identifies the five regions currently experiencing the worst drought conditions (lowest SPI values). Each row shows the severity color, region name, severity label, current SPI-3 value, and a **clickable ticker button** that automatically loads the Command Bar with `[ticker] DES` so the user can open the linked commodity's description panel with a single Enter press. Clicking anywhere on the row focuses the corresponding region in the 12-month timeline chart below.
5. **12-Month SPI-3 Timeline:** An SVG bar chart displayed below the map. This chart tracks the selected region's SPI-3 evolution month-by-month over the past year. Each bar is color-coded by the month's severity class. Dashed horizontal lines mark key thresholds (D1, D2, D3, W1, W2) for visual context. The most recent month's SPI value and severity code are displayed in the top-right corner. This chart is dynamic and updates when a different region is selected from the Top 5 list.
6. **AI Drought-Risk Summary:** A card containing a three-sentence interpretation of the current global drought landscape, generated by DeepSeek AI. This summary names the most-affected regions and suggests which commodity futures are most likely to experience price pressure over the next one to two months based on the SPI data.

## Data sources and refresh rate

SPI-3 is computed by fitting a gamma distribution to 41 years of ERA5 reanalysis precipitation (1984-2024) for each region and each calendar month, sourced from Open-Meteo's Historical Archive API. The current 3-month total and the 12-month timeline both come from a live Open-Meteo Archive call covering the last 15 months of daily precipitation per region, so the map and the timeline share the same up-to-date window (typically ending 5-6 days before today due to the ERA5 reanalysis lag). Arid-climate months with many zero-precipitation samples are handled with the classical mixed-distribution correction so that a bone-dry desert summer is correctly classified as Normal rather than as an extreme wet anomaly. The AI risk summary is produced by DeepSeek's [deepseek-chat](#) model. Results are cached on the backend for six hours per panel load.

## Tips and caveats

- SPI is an anomaly index, not a precipitation total. A reading of -1.5 means the last three months were drier than roughly 93% of the same three-month windows in the 41-year historical record — it is a relative measure of how unusual the current conditions are, not an absolute "dry / wet" threshold.
- For arid regions such as Saudi Arabia's Dhahran, zero precipitation in summer is the normal state; the panel classifies it as Normal conditions thanks to the built-in zero-inflation correction. Do not expect desert regions to show up as drought-affected even when they report 0 mm.
- Long-range SPI readings can look more volatile in the Northern Hemisphere winter-to-spring window because the 3-month total concentrates the drier months of the year. Compare against the 12-month timeline to contextualize whether the current reading is part of a longer trend or a seasonal artifact.
- The Leaflet map has the standard zoom controls; when a marker lies near the antimeridian use the map's world-copy-jump behavior by dragging sideways.
- PDSI (Palmer Drought Severity Index) and the US Drought Monitor weekly CSV overlay are on the roadmap for a future version and are NOT available in this release. The current SPI-3 reading is the single drought metric in the panel.
- Clicking a clickable region's ticker opens the DES panel for the corresponding futures contract, which in turn exposes price and live quotes from Yahoo Finance continuous futures. From DES, the user can jump to the GP chart to see the long-term price history.



## AGRI - Agricultural Commodity Dashboard

Command: AGRI

Category: Markets

Requires ticker: No (standalone command)

### Overview

The Agricultural Commodity Dashboard command (**AGRI**) provides a dedicated, single-screen analytical view for the main global agricultural futures contracts. It is the deeper analytical component of the Weather & Commodities suite, designed to cross-reference the five key data layers an agricultural analyst consults: live price action, US crop health statistics, critical growing region weather, the USDA report calendar, and an AI-generated market summary. **AGRI** is complementary to the simpler **COMM** command: **COMM** provides a quick 6-card price and day-range reference; **AGRI** delivers the comprehensive, contextual analysis required to form a near-term price view on major agri-futures.

## How to use it

Type **AGRI** in the Command Bar and press Enter. The panel loads automatically, displaying the dashboard populated with current data. No additional input or configuration is required. The panel is a singleton, meaning only one instance can be open at a time.

## Reading the output

The dashboard is organized into five vertical sections under a persistent header:

1. **Agricultural futures — live prices:** A 4x2 grid of eight price cards covering the main CME and ICE grain, softs, and livestock contracts, including Corn (CORNUSD), Wheat (WHEATUSD), Soybeans (SOYBEANUSD), Coffee (COFFEEUSD), Sugar (SUGARUSD), Cotton (COTTONUSD), Live Cattle (CATTLEUSD), and Lean Hogs (HOGSUSD). Each card displays the symbol, short name, last price in its native unit (e.g., cents per bushel), the intraday change as a signed percentage (green for up, red for down), and the day high/low. Six cards (grains and softs) are clickable; clicking fills the Command Bar with `[symbol] DES` for quick navigation to the description panel.
2. **USDA NASS · Crop conditions (national):** A compact table tracking the health of US-grown crops. It includes rows for Corn, Soybeans, Wheat, and Cotton. Columns show the percentage of the crop rated Very Poor (VP), Poor (P), Fair (F), Good (G), and Excellent (E), plus a headline **Good+Excellent (G+E)** column. The G+E percentage is color-coded (green  $\geq 70\%$ , amber 50-70%, red  $< 50\%$ ) to give an instant assessment of supply risk. Hovering over any column header reveals a detailed educational tooltip. If current-year data is unavailable (e.g., early spring), the table transparently displays the final report from the previous year.
3. **Weather anomaly by crop region:** A table showing the 14-day forecast anomaly for key growing regions: US Corn Belt, US Wheat Plains, US Soybeans, Minas Gerais Coffee, São Paulo Sugarcane, and Texas High Plains Cotton. It displays the forecast deviation for Temperature (in degrees Celsius) and Precipitation (as a percentage deviation). The colors used for the anomalies are consistent with those in the **WMAP** command. The data is pulled from the **WMAP** cache to ensure consistency.
4. **Upcoming USDA reports (WASDE calendar):** A simple list showing the next three scheduled release dates for the monthly WASDE (World Agricultural Supply and Demand Estimates) report, each with a human-readable countdown. Hovering the

section title provides a brief explanation of the WASDE report's significance and highlights the most market-moving releases (May, August, and October).

5. **AI agri-market summary:** A three-sentence summary card generated by DeepSeek AI that interprets the combined data (price moves, USDA ratings, weather) into a near-term (two-to-four-week) price outlook for the relevant commodities (CORNUSD, WHEATUSD, SOYBEANUSD, etc.). A "Retry" button appears if the AI service is temporarily unavailable.

## Data sources and refresh rate

Live prices are pulled from Yahoo Finance continuous futures via a single batched `yfinance.download` call for all eight symbols at once, using a 5-day window so the previous trading day's close is always available for the change calculation. Crop conditions come from the USDA NASS Quick Stats API (`commodity_desc=CORN, SOYBEANS, WHEAT, COTTON; statisticcat_desc=CONDITION; agg_level_desc=NATIONAL`) with automatic year-1 fallback if the current year has no data yet; USDA publishes Crop Progress weekly during the growing season, usually Monday at 4:00 PM Eastern. Weather anomalies are read from the WMAP endpoint's Redis cache (14-day Open-Meteo forecast vs 30-year ERA5 baseline, 1994-2023). The WASDE calendar is a static JSON list committed to the repository and regenerated once a year when the USDA publishes the next year's release schedule. The AI summary is produced by DeepSeek's `deepseek-chat` model. The full panel response is cached on the backend for one hour per panel load, with a 24-hour stale fallback if any upstream source fails.

## Tips and caveats

- The **Good+Excellent (G+E)** column in the Crop Conditions table is the single metric most commodity desks watch. As a rule of thumb,  $\geq 70\%$  signals a healthy crop and is typically bearish for prices (supply abundance), 50-70% is a concern worth watching, and below 50% is a clear supply stress signal that is typically bullish. Always compare the G+E figure to the previous week's reading (to gauge the trend) and to the five-year average (for relative context) before drawing conclusions.
- In early spring (roughly January through April) the USDA Crop Progress report has not yet restarted for corn, soybeans and cotton, so the table will show the previous autumn's final reading with a transparent note. Winter wheat is the exception—it is rated from April onward, so Wheat can carry fresh data while the other three still trail.
- Coffee, sugar and cocoa futures trade on ICE and are produced outside the United States. The USDA NASS does not publish condition ratings for them, so no row appears in the Crop Conditions table for those commodities. Their weather context still appears in the Weather anomaly table for Minas Gerais (coffee) and São Paulo (sugar), which drive the majority of global production.
- Live Cattle and Lean Hogs are displayed for price reference only in this release. Clicking their cards has no effect because livestock futures are not yet wired into the **DES / GP** subsystem. This is a roadmap item; the cards will become clickable once livestock

futures are added to the internal commodity registry.

- Price units differ by contract and are labeled in small print under each card—grains quote in cents per bushel (one bushel of corn is roughly 25.4 kilograms), coffee, sugar, cotton, cattle and hogs quote in cents per pound, and cocoa quotes in US dollars per metric ton. A raw price of 1167.25 for soybeans therefore means \$11.67 per bushel, not \$1167.
- The AI summary is a starting point for further research, not a trade recommendation. It is based only on the metrics visible in the panel at request time and does not incorporate positioning data, macro flows or technical indicators.
- Hover any column header in the Crop Conditions table or the Weather anomaly table—every acronym (VP / P / F / G / E / G+E) and every metric has an educational tooltip explaining both the definition and the typical market interpretation. The dotted underline on the header is the visual cue.

AGRI AGRICULTURAL COMMODITY DASHBOARD
CACHED Updated 2026-04-18 20:42 UTC

**AGRICULTURAL FUTURES - LIVE PRICES** Clickable cards open DES for the commodity. Livestock (CATTLEUSD / HOGSUSD) informational only in v1.

<p><b>Corn</b> CORNUSD</p> <p style="font-size: 1.2em; font-weight: bold;">448.75</p> <p style="font-size: 0.8em;">+0.06%</p> <p style="font-size: 0.7em;">cents/bushel H 451.00 · L 443.25</p>	<p><b>Wheat</b> WHEATUSD</p> <p style="font-size: 1.2em; font-weight: bold;">591.25</p> <p style="font-size: 0.8em;">-1.21%</p> <p style="font-size: 0.7em;">cents/bushel H 602.50 · L 582.75</p>	<p><b>Soybeans</b> SOYBEANUSD</p> <p style="font-size: 1.2em; font-weight: bold;">1167.25</p> <p style="font-size: 0.8em;">+0.30%</p> <p style="font-size: 0.7em;">cents/bushel H 1167.50 · L 1151.50</p>	<p><b>Coffee</b> COFFEEUSD</p> <p style="font-size: 1.2em; font-weight: bold;">289.30</p> <p style="font-size: 0.8em;">-2.41%</p> <p style="font-size: 0.7em;">cents/lb H 298.50 · L 288.35</p>
<p><b>Sugar</b> SUGARUSD</p> <p style="font-size: 1.2em; font-weight: bold;">13.31</p> <p style="font-size: 0.8em;">-2.56%</p> <p style="font-size: 0.7em;">cents/lb H 13.74 · L 13.22</p>	<p><b>Cotton</b> COTTONUSD</p> <p style="font-size: 1.2em; font-weight: bold;">77.40</p> <p style="font-size: 0.8em;">+2.25%</p> <p style="font-size: 0.7em;">cents/lb H 77.50 · L 74.33</p>	<p><b>Live Cattle</b> CATTLEUSD</p> <p style="font-size: 1.2em; font-weight: bold;">249.95</p> <p style="font-size: 0.8em;">-0.14%</p> <p style="font-size: 0.7em;">cents/lb H 250.70 · L 246.40</p> <p style="font-size: 0.6em;">no DES yet</p>	<p><b>Lean Hogs</b> HOGSUSD</p> <p style="font-size: 1.2em; font-weight: bold;">93.40</p> <p style="font-size: 0.8em;">-0.69%</p> <p style="font-size: 0.7em;">cents/lb H 94.60 · L 92.75</p> <p style="font-size: 0.6em;">no DES yet</p>

**USDA NASS · CROP CONDITIONS (NATIONAL)** Weekly Crop Progress report. "Good+Excellent" is the headline metric.

CROP	VP	P	F	G	E	G+E	WEEK ENDING
Corn	3	7	24	49	17	66%	2025-09-28
Soybeans	3	8	27	49	13	62%	2025-09-28
Wheat	12	20	34	29	5	34%	2026-04-12
Cotton	5	12	36	37	10	47%	2025-09-28

\* Pre-season crops may show the previous year's final reading until the spring Crop Progress report resumes.

**WEATHER ANOMALY BY CROP REGION** 14-day forecast vs 30-year ERAS baseline (shared with WRAP).

REGION	COMMODITY	TEMPERATURE	PRECIPITATION
US Corn Belt	Corn	+1.9°C	-33%
US Wheat Plains	Wheat	+1.4°C	-67%
US Soybeans	Soybeans	+1.9°C	-44%
Minas Gerais Coffee	Coffee	+0.7°C	-100%
São Paulo Sugarcane	Sugar	+1.8°C	-9%
Texas High Plains Cotton	Cotton	+2.7°C	-9%

**UPCOMING USDA REPORTS (WASDE CALENDAR)** Official USDA release dates.

2026-05-12	WASDE + Crop Production	in 24 days
2026-06-10	WASDE	in ~7 weeks
2026-07-10	WASDE	in ~2 months

**AI AGRI-MARKET SUMMARY** DEEPSEEK

Near-term pressure on SUGARUSD and COFFEEUSD is likely to persist due to severe dryness in Brazil's key growing regions, though the market has already sold off sharply. Wheat (WHEATUSD) faces headwinds from poor crop ratings and dry US Plains weather, potentially limiting further downside. Conversely, COTTONUSD's recent strength may find support from the ongoing drought stress reflected in the Texas High Plains weather anomaly.

Generated by deepseek-chat. Not financial advice.

## METALS - Precious and industrial metals dashboard

**Command:** METALS

**Category:** Markets

**Requires ticker:** No (Type METALS and press Enter)

### Overview

The METALS command opens a full-screen dashboard covering four major precious metals (gold, silver, platinum, palladium), four industrial metals (copper, aluminium, and two miner ETF proxies), and six battery and critical minerals ETFs (lithium, rare earth, uranium). It combines live prices, mining-region weather risk, a 90-day macro correlation matrix, an AI-generated market brief, the latest metals headlines, and LME warehouse inventory in one panel, refreshed every hour.

### How to use it

Type METALS followed by Enter to launch the dashboard. The panel is organized into four navigational tabs located at the top: Markets, Context, News, and Inventory. You can switch between these tabs to view different data sets, and clicking on individual price cards or news headlines will open deeper analysis panels or original source articles.

### Reading the output

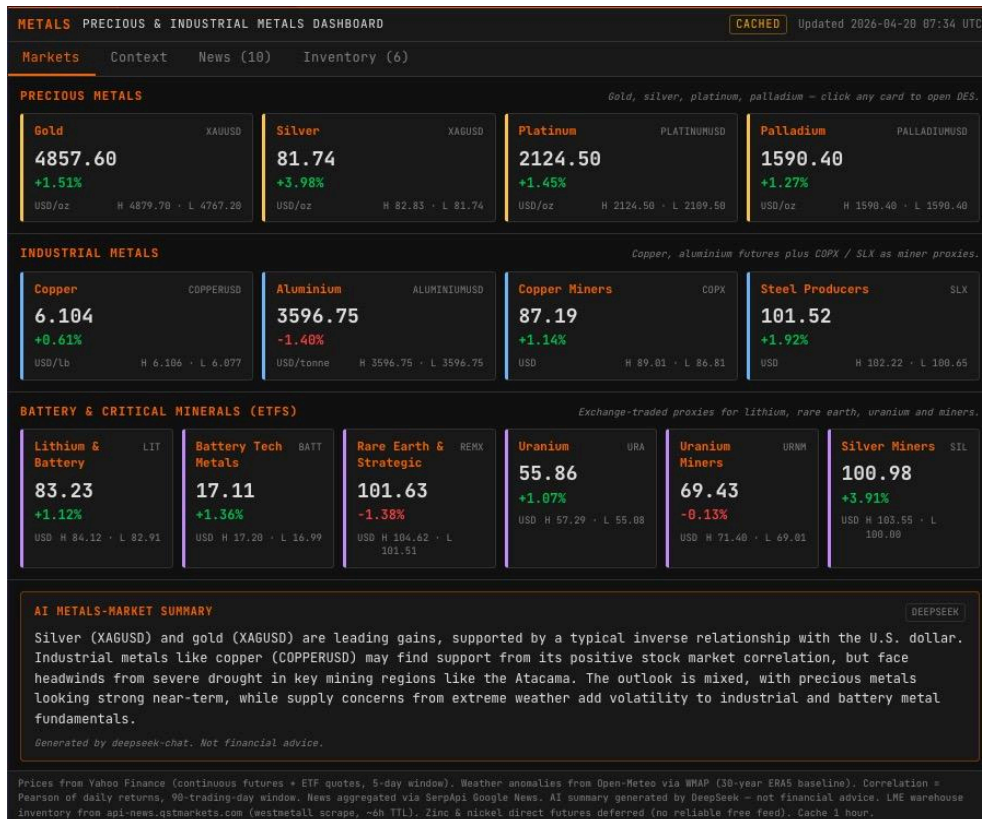
- **Markets tab:** This is the default view. It displays price cards with current values, daily percentage changes, and highs/lows. It includes sections for precious metals, industrial metals, and battery/critical minerals. At the bottom, a three-sentence AI brief summarizes movers, macro correlations, and weather anomalies.
- **Context tab:** Provides a weather anomaly table for key mining regions (like the Atacama or Pilbara) compared to a 30-year baseline. It also contains a 9×9 heatmap showing correlations between metals and macro assets like the S&P 500 (SPX) or the US Dollar Index (DXY).
- **News tab:** Displays up to ten headlines covering the metals sector. Each entry includes the source and date.
- **Inventory tab:** Lists London Metal Exchange (LME) warehouse stocks in metric tonnes. Note that the color coding is inverted: green indicates falling stocks (bullish), while red indicates rising stocks (bearish).

### Data sources and refresh rate

Price data is sourced from Yahoo Finance continuous futures and ETF quotes. Weather anomalies are calculated using Open-Meteo forecasts against ERA5 baselines. The correlation matrix uses Pearson coefficients derived from 120 days of Yahoo Finance history. News is aggregated via SerpApi, and the market summary is generated by DeepSeek. LME inventory data is scraped from westmetall.com via an internal API. All dashboard data is cached for one hour.

## Tips and caveats

- Clicking any price card on the Markets tab opens the DES (Description) panel for that symbol, providing access to full price charts (GP) and fundamental data.
- Gold and silver prices utilize continuous futures (GC=F and SI=F), which may result in a small contango gap (less than 1%) compared to spot prices shown in other views.
- For lithium, cobalt, and rare earths, the ETF section provides the most reliable tradeable proxy as spot feeds for these minerals are not available.
- The LME inventory color scale is intentionally inverted: a green value means stocks fell, signaling physical demand and bullish price pressure.
- The AI summary is generated once per hour. If the generation fails, use the Retry button to request a fresh summary.
- The correlation matrix helps identify market regimes. For example, a positive copper/SPX correlation is typical as both often track the industrial cycle.



# ENERGY - Energy Commodities & Weather Demand Dashboard

**Command:** ENERGY

**Category:** Markets

**Requires ticker:** No (standalone command)

## Overview

The ENERGY command opens a full-screen analytical dashboard dedicated to the global energy commodities complex. It consolidates critical market factors including live price action for crude oil, natural gas, and refined products; real-time energy demand metrics derived from US weather (HDD/CDD); supply risk indicators from key global production regions; and the latest weekly inventory data from the EIA. This command is designed to provide macro-focused investors and analysts with a single, comprehensive view for formulating a near-term price outlook on energy futures and related equities.

## How to use it

Type **ENERGY** in the Command Bar and press Enter. The panel loads automatically, populating the dashboard with current data across its four tabs: Markets, Context, Storage, and News. As a singleton panel, only one instance can be open at a time. Users should primarily navigate using the four tabs at the top to switch between price monitoring, weather/correlation context, supply data, and news aggregation.

## Reading the output

The dashboard is organized into four main tabs. The **Markets** tab displays price cards for five key futures contracts (WTI Crude, Brent Crude, Natural Gas, Heating Oil, RBOB Gasoline), the spot price for European Carbon Allowances (EUA), and six related energy ETFs (XLE, XOP, UNG, USO, URA, KRBN). The **Context** tab shows a table of 7-day Heating Degree Days (HDD) and Cooling Degree Days (CDD) for five US cities (base 18.3°C), a weather anomaly table for four major oil-producing regions, and a 90-day correlation matrix covering WTI, Brent, Natural Gas, XLE, SPX, US10Y, and DXY. The **Storage** tab tracks the EIA's latest weekly inventory reports for Crude Oil and Natural Gas, highlighting the percentage deviation from the 5-year average. Finally, the **News** tab aggregates the latest sector-specific headlines. The dashboard includes a 3-sentence AI summary, generated by DeepSeek, which interprets the combined

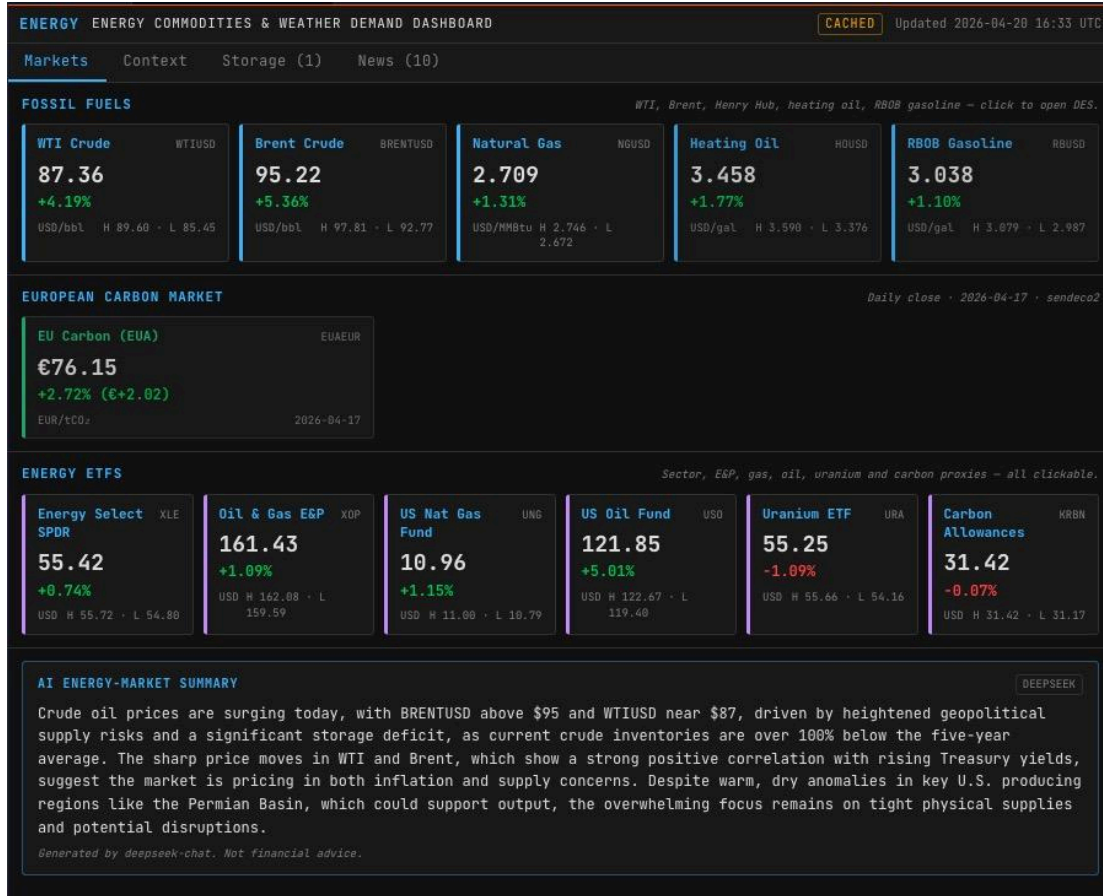
data and provides an outlook on price drivers.

## Data sources and refresh rate

Live prices for futures and ETFs are sourced from Yahoo Finance continuous futures and ETF quotes, using a 5-day historical window. The HDD/CDD data is derived from the Open-Meteo 7-day forecast. Weather anomalies are pulled from the WMAP command's cached snapshot (Open-Meteo vs 30-year ERA5 baseline). The EIA weekly storage data comes from the EIA Open Data API v2 and is cached for six hours. The European Carbon Allowance (EUA) price is sourced from sendeco2.com via the internal api-news service, cached for four hours. News is supplied by the TOPENE prefetch cache, and the AI summary is generated by DeepSeek. The full dashboard panel is cached for one hour.

## Tips and caveats

- The WTI Crude, Brent Crude, and Natural Gas futures cards are clickable, and will open the **DES** (Description) panel for that commodity, allowing instant access to the full **GP** (Graph Price) chart history.
- Heating Oil (HOUSD) and RBOB Gasoline (RBUSD) are displayed as price-only cards in the current version; full **DES** and **GP** functionality for these refined product futures will be implemented in a future roadmap release.
- The EIA Storage tab provides the most market-moving scheduled event for energy traders: a decrease in stocks (drawdown) is color-coded green (bullish), while an increase (build) is red (bearish). A deviation greater than 2 MMbbl vs the 5-year average for crude oil typically triggers a significant price response.
- The correlation matrix in the Context tab frequently shows a negative correlation between WTI and the US Dollar Index (DXY), meaning that dollar strength can suppress crude prices. Any sustained positive correlation suggests a potential shift in macro-market dynamics.



## CARBON - Carbon markets & emissions allowances dashboard

Command: CARBON

Category: Markets

Requires ticker: No

### Overview

The CARBON command provides a consolidated view of the global carbon markets and emissions allowances ecosystem. It covers the EU Emissions Trading System (EU ETS), California Cap and Trade, the Regional Greenhouse Gas Initiative (RGGI), and the UK Emissions Trading Scheme (UK ETS). This dashboard is unique among retail terminals in offering the EU Allowance (EUA) real-time spot price alongside compliance market prices for the three other major cap and trade systems, a European weather demand signal, carbon linked ETF prices, and an AI generated market outlook. Carbon markets directly affect the profitability of utilities, steelmakers, cement producers, and airlines, and are receiving increasing attention

from institutional macro investors.

## How to use it

Type CARBON and press Enter. No ticker is required. The panel opens as a singleton (only one instance at a time) and loads all data automatically. The panel has four tabs: Markets, Compliance, Context, and News.

- **Markets tab (default):** Shows the EUA spot price card at the top, followed by four carbon linked ETF cards (KRBN, KCCA, GRN, ICLN), and an AI generated market outlook at the bottom.
- **Compliance tab:** Shows a table with the current spot price for each of the four major cap and trade systems, including their geographic coverage and a brief status note. Below the table there is a 7x7 correlation heatmap covering KRBN, KCCA, GRN, ICLN, SPX, DXY, and Gold over a 90 day rolling window.
- **Context tab:** Shows a European weather demand signal table for five major cities (Berlin, Paris, Warsaw, London, Amsterdam). Each city shows a 7 day temperature anomaly versus the same period last year, a demand signal (BULLISH, NEUTRAL, or BEARISH for EUA prices), and an interpretation line. HDD and CDD values are also displayed.
- **News tab:** Shows recent carbon market headlines from specialised news sources.

## Reading the output

The EUA Spot Price card in the Markets tab shows the price in EUR per tonne of CO<sub>2</sub> (EUR/tCO<sub>2</sub>) with the day change in both absolute and percentage terms. The date and data source are shown on the right.

In the Compliance tab, rows marked with a green SPOT badge display real auction or market settlement prices (not ETF proxies). The EU ETS price is the EUA front month futures price. The California price is the CARB quarterly auction settlement. The RGGI price is the quarterly auction clearing price from [rggi.org](http://rggi.org). The UK ETS price is the UKA front month futures price from ICE Endex.

In the Context tab, the demand signal reflects the relationship between temperature and energy consumption: a cold anomaly (below last year) increases heating demand, which raises gas consumption, which in turn puts upward pressure on EUA prices (BULLISH). A warm anomaly has the opposite effect (BEARISH).

The ETF cards show price, day change, and the daily high/low range. KRBN tracks global carbon markets, KCCA tracks California carbon allowances, GRN tracks RGGI allowances, and ICLN tracks global clean energy equities (an inverse proxy for carbon demand).

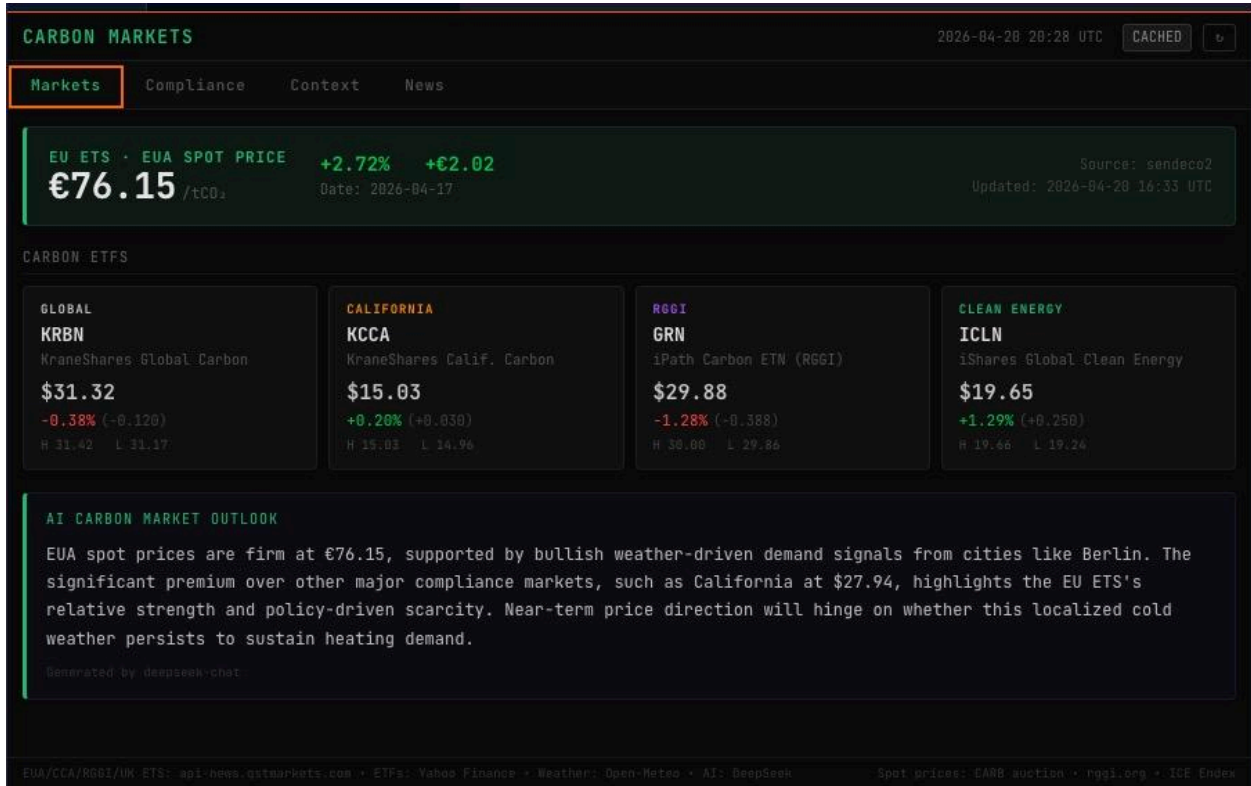
## Data sources and refresh rate

- **EUA spot price:** api-news.qstmarkets.com (proprietary feed, sourced from Sendeco2)
- **California CCA, RGGI, and UK ETS spot prices:** api-news.qstmarkets.com
- **ETF prices (KRBN, KCCA, GRN, ICLN):** Yahoo Finance
- **European weather data:** Open Meteo forecast API
- **Correlation matrix:** Yahoo Finance (90 day daily returns, Pearson)
- **News headlines:** SerpAPI Google News
- **AI market outlook:** DeepSeek (deepseek-chat model)

The dashboard data is cached for 1 hour. The cache timestamp is shown in the top right corner of the panel header. If the cache is more than 1 hour old but less than 24 hours old, the panel serves the stale cache and marks it as CACHED while fetching fresh data in the background.

### Tips and caveats

- The EUA price is the most reliable real time signal for EU carbon market sentiment. A spread between the EUA price and the California or RGGI prices reflects structural differences in each system's supply cap and policy strength.
- Cold weather in Berlin or Warsaw in winter is historically one of the strongest short term bullish signals for EUA prices, as it increases gas fired power generation demand.
- ICLN (clean energy ETF) tends to move inversely to carbon prices: when renewables generation is high, less fossil fuel is burned, reducing demand for allowances.
- The correlation heatmap is useful for understanding how carbon markets co-move with broader risk assets (SPX), the US dollar (DXY), and gold during risk off episodes.
- Carbon markets are illiquid compared to equity markets. EUA prices can gap significantly on policy announcements from the European Commission or CARB.



## CROPZONE - Crop Zone Monitor

**Command:** CROPZONE

**Category:** Markets

**Requires ticker:** Yes (requires a crop name)

### Overview

The CROPZONE command is the most specialized command in the Markets suite. It provides a complete agronomic and meteorological deep-dive for a single agricultural commodity. Where the AGRI command gives a broad overview of eight commodities in parallel, CROPZONE focuses on one crop and goes deeper: weekly USDA condition ratings with an 8-week trend, the current phenological growth stage, a weather suitability score calibrated to that stage, a 14-day regional forecast with Growing Degree Day (GDD) accumulation, USDA production and yield estimates, and a DeepSeek AI-generated 3-sentence agronomic outlook. The target users are agricultural analysts, commodity traders, and finance students. No equivalent free tool bundles all of this in one panel.

## How to use it

Type CROPZONE followed by a crop name (CORN, WHEAT, SOYBEANS, COTTON, COFFEE, or SUGAR). If typed without a crop name, the panel opens defaulting to Corn. A dropdown selector in the panel header allows switching between all six crops without opening a new panel. Each crop can also be opened as its own independent panel (CROPZONE CORN and CROPZONE WHEAT open as separate panels). The panel has four tabs: Overview, Conditions, Weather, and Outlook.

## Reading the output

The CROPZONE output is organized into four tabs:

1. **Overview tab:** Displays the live futures price card (with day change and high/low), a USDA Good+Excellent % spotlight card with a 5-tier colour mini-bar, the current phenological stage badge with a stage-completion percentage, a weather suitability score bar (0–100, labelled Ideal / Good / Fair / Stressed / Severe), and the AI 3-sentence outlook.
2. **Conditions tab:** Shows the full USDA 5-tier breakdown (Very Poor / Poor / Fair / Good / Excellent) as horizontal percentage bars, an 8-week sparkline trend of Good+Excellent %, and a detailed 8-week history table. Coffee and Sugar show an explanatory message as USDA NASS does not cover non-US crops.
3. **Weather tab:** Shows four KPI cards (7-day average temperature with year-on-year anomaly, 7-day precipitation with anomaly, GDD accumulated over 7 days, soil moisture at 0–1 cm depth), plus a 14-day daily forecast table with Tmax, Tmin, precipitation, and GDD per day. Coordinates are the primary growing region for each crop (e.g. US Corn Belt 41.8°N, 93.1°W for corn; Minas Gerais, Brazil for coffee).
4. **Outlook tab:** Shows three USDA production KPIs (total production, yield per acre, area harvested in million acres) sourced from USDA NASS Quick Stats. When current-year estimates have not yet been published (typical before August), the previous year's final figures are shown with a note. Also shows a countdown to the next USDA WASDE report, and a list of recent crop-specific news headlines.

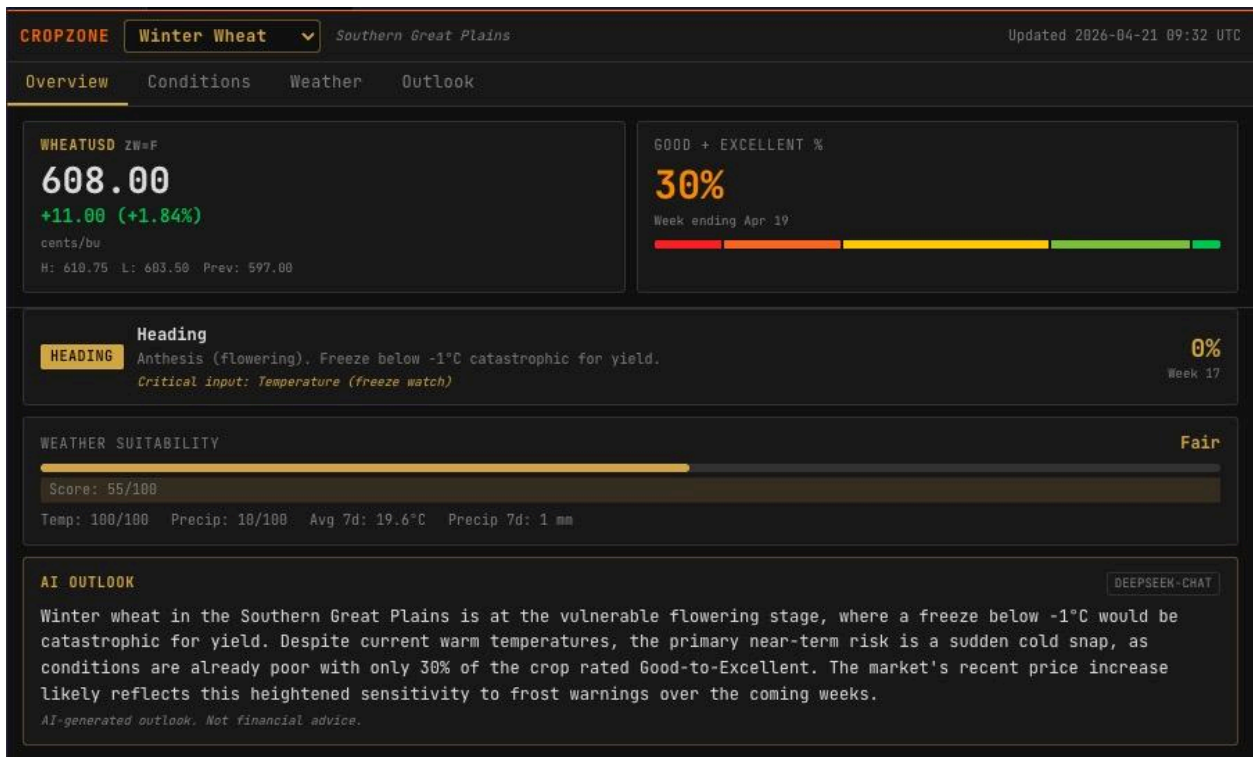
## Data sources and refresh rate

Futures prices are sourced from Yahoo Finance (yfinance). Crop condition ratings and production estimates come from the USDA NASS Quick Stats API (updated weekly; crop progress season runs approximately April–November for US row crops). Weather forecast and soil moisture are sourced from the Open-Meteo free API (14-day forecast; year-ago archive used for anomaly calculation). The AI outlook is generated by DeepSeek (deepseek-chat model, 3 sentences). News is aggregated from Google News via SerpAPI. Data is cached for 1 hour

per crop. On upstream failure, stale cache up to 24 hours is served. The panel shows a CACHED badge and the generation timestamp when serving cached data.

## Tips and caveats

- Coffee and Sugar use Brazilian growing region coordinates (Minas Gerais and São Paulo respectively). USDA NASS condition data is not available for these two crops as it only covers US-grown commodities.
- USDA production estimates for the current year (e.g. 2026) are typically not published until August. Until then, the Outlook tab shows the previous year's final figures with a clear note.
- The weather suitability score (0–100) is calibrated per growth stage: the same temperature that is ideal during Grain Fill may be suboptimal during Silking. The score reflects agronomic thresholds, not general weather comfort.
- Growing Degree Days (GDD) measure heat accumulation above a crop-specific base temperature. Corn uses a base of 10°C, wheat 0°C, cotton 15.6°C. Higher GDD generally accelerates development toward the next phenological stage.
- Each crop opens as its own independent panel, so you can have CROPZONE CORN and CROPZONE WHEAT side by side for comparison.



## CREDIT - US Credit Market Spreads (OAS)

**Command:** CREDIT

**Category:** Markets

**Requires ticker:** No — it is a singleton panel showing global US credit market data.

### Overview

The CREDIT command provides a specialized, in-depth view of US corporate credit markets by displaying Option-Adjusted Spreads (OAS) for both Investment Grade (IG) and High Yield (HY) bonds. OAS measures the extra compensation investors demand for holding corporate debt over risk-free US Treasuries. This command is essential for monitoring credit risk appetite, detecting signs of potential financial stress, and understanding the cost of corporate borrowing.

### How to use it

Type **CREDIT** in the Command Bar and press Enter. The panel loads automatically, providing an instant snapshot of credit conditions across various rating tiers and maturity profiles. As a singleton panel, only one instance can be open at a time, ensuring a focused view of the global US credit market.

### Reading the output

The panel is structured to provide both a headline risk assessment and detailed breakdowns. At the top, two main cards display the **US Investment Grade (IG) OAS** and **US High Yield (HY) OAS**. Each card presents the current spread in basis points (bps), the daily and weekly change (color-coded red for widening spreads/rising risk, green for tightening spreads/falling risk), and a **5-Year Percentile** that contextualizes the current level. The **Regime** label (**Tight/Neutral/Wide**) provides a quick assessment of credit risk appetite relative to the last five years.

Below the headlines, the **Rating Breakdown** table displays OAS values for each credit rating tier (AAA through CCC & Lower), showing precisely where credit risk is concentrated. The

**Maturity Term Structure** table focuses on IG bonds, breaking the OAS by time to maturity (e.g., 1–3 Year, 15+ Year) to reveal if stress is localized at the short or long end of the corporate debt curve. Finally, a **5-year historical chart** visually tracks the divergence between IG and HY spreads, alongside the crucial **HY/IG Ratio**, which is an indicator of selective versus systemic credit stress.

## Data sources and refresh rate

The command sources all data from the FRED (Federal Reserve Bank of St. Louis) ICE BofA OAS series, a reliable and publicly available dataset. OAS (Option-Adjusted Spread) is a market-implied metric that represents the credit risk premium. Data is updated by FRED each business day but typically lags the market by 1–2 business days. The panel data is cached for 1 hour to ensure fast loading, and in the event of an upstream API failure, the last known data is served for up to 24 hours, with a clear "Data as of" timestamp in the header to indicate the reference date.

## Tips and caveats

- OAS is a market-implied measure of credit risk, not a rating agency opinion — it moves in real time as market sentiment shifts.
- The regime label (Tight / Neutral / Wide) uses the past 5 years as context, so a "Wide" reading during a calm market may look "Tight" compared to a crisis period.
- If the HY/IG ratio is rising while absolute IG spreads are stable, it typically signals stress concentrated in lower-quality borrowers, not systemic credit risk.
- The term structure table is useful for detecting curve inversions: if short-dated spreads exceed long-dated ones, it often indicates acute near-term refinancing stress.
- Data lags 1–2 business days from FRED publication; the panel header shows the "Data as of" date so you always know the reference date.



## CDX - Global Credit Default Swaps (CDS) Indices

**Command:** CDX

**Category:** Markets

**Requires ticker:** No — it is a singleton panel showing global CDS index data and sovereign credit risk.

### Overview

The CDX command provides an essential, real-time snapshot of credit risk across major global markets by tracking key Credit Default Swap (CDS) indices. It serves as a vital barometer of institutional risk appetite, indicating whether the cost to insure against corporate and sovereign defaults is rising or falling. The panel combines proxy data for the highly opaque North American CDX indices with official fixing data for European and Asian iTraxx indices.

## How to use it

Type **CDX** in the Command Bar and press Enter. The panel loads automatically, providing an instant, four-tab view of global credit risk. As a singleton panel, only one instance can be open at a time, ensuring a focused view. Navigate between the **Indices**, **Sovereign CDS**, **ETF Proxies**, and **Education** tabs to access the full analytical view.

## Reading the output

### Tab 1 — Indices

This tab displays five major global CDS index levels in a table. CDX.NA.IG (US Investment Grade) and CDX.NA.HY (US High Yield) are shown in basis points (bps), along with their one-day ( $\Delta 1d$ ), five-day ( $\Delta 5d$ ) changes, and 52-week range. Note that the CDX figures are correlated approximations derived from the FRED ICE BofA OAS bond-spread series, not the actual OTC index fixings. The iTraxx Europe Main (European IG), iTraxx Crossover (European HY), and iTraxx Japan (Asia-Pacific IG) indices display their official fixing level and one-day change, sourced directly from settlement data. Below the table, a 5-year interactive chart visualizes the **HY minus IG spread differential** (weekly samples), with red shading indicating historically wide differentials (stress signal) and green shading for tight differentials (risk-on signal). The current differential is prominently displayed in the top-right corner of the chart.

### Tab 2 — Sovereign CDS

This section shows 5-year sovereign CDS levels for 20 major countries, grouped by region: Europe (EU), North America (NA), Asia-Pacific (APAC), and Latin America (LATAM). Each row provides the country name, current CDS level in bps, the previous close, and changes over one day ( $\Delta 1d$ ), one week, and one month. Spread widening (higher perceived default risk) is color-coded in red, and tightening is in green. This tab helps assess the cost of insuring against default for national governments, providing context for international equity and bond exposure.

### Tab 3 — ETF Proxies

Since the CDX and iTraxx indices are Over-The-Counter (OTC) derivatives unavailable to retail investors, this tab lists five tradeable ETFs that offer highly correlated exposure to credit spreads. The list includes LQD (for Investment Grade exposure), HYG and JNK (for High Yield exposure), SJB (for short/inverse High Yield exposure), and HYZD (for duration-hedged High Yield exposure). Each ETF is presented with its current price, one-day percentage change, 52-week range, a description of its correlation, and its recommended use case. A prominent disclaimer notes that these ETFs carry interest rate duration risk, which pure CDS indices do not.

### Tab 4 — Education

This educational section consists of four concept cards explaining the core components of the credit market. The cards cover: (1) the nature of CDX (North American OTC CDS index), (2) the role of iTraxx (the European equivalent), (3) the key difference between holding a bond ETF (which has duration risk) and trading a pure CDS index (which only measures credit risk), and (4) how to interpret the HY/IG spread differential as a market risk-appetite signal. A decision

table maps various market signals (e.g., "iTraxx widens while CDX stable") to their interpretation and a suggested ETF action.

## Data sources and refresh rate

CDX.NA.IG and CDX.NA.HY data are sourced from the FRED ICE BofA OAS bond-spread series and serve as highly correlated proxies; they are updated once per business day with a 1–2 business day lag. iTraxx Europe Main, Crossover, and Japan use official end-of-day settlement prices from ICE Clear Credit and JPX, respectively. Sovereign CDS data is sourced from Boursorama (provided by Markit Group Limited) and is updated once per business day. ETF prices are live and sourced from yfinance. The CDX panel caches data for 30 minutes and will serve stale data for up to 2 hours if upstream sources fail.

## Tips and caveats

- CDX and iTraxx indices are interbank OTC derivatives — individual investors cannot buy or sell them directly. The ETF Proxies tab is the practical action layer for retail portfolios.
- The key difference between a bond ETF and a CDS index: bond ETFs embed duration risk (price falls when interest rates rise), while CDS indices measure pure credit risk. When rates rise but credit quality is stable, bond ETF prices can fall even though CDX/iTraxx barely move.
- On the Sovereign CDS tab, a high CDS level for a country (e.g. Italy or Greece above 100 bps) signals the market is pricing meaningful sovereign default risk — useful context when evaluating European equity or bond exposure.
- The HY/IG differential chart in the Indices tab is a leading indicator: when the differential starts widening rapidly, it often precedes broader equity market stress by days or weeks.
- iTraxx data is official settlement (not a proxy), so it is the most accurate publicly available measure of European credit market conditions accessible without a Bloomberg Terminal subscription.
- The "Data as of" date in the panel header always tells you the reference date for FRED-sourced data, which can lag 1–2 business days.

**CDX** CDS Index Dashboard Data as of 2026-04-23 CACHED

Indices **Sovereign CDS** ETF Proxies Education

SOVEREIGN CDS 5Y - BY COUNTRY

**EU** Europe

COUNTRY	LEVEL	PREV. CLOSE	Δ 1D	Δ 1W	Δ 1M
Norway	8 bps	8 bps	+0.0	-0.2	-1.2
Sweden	8 bps	8 bps	+0.0	+0.2	-0.9
Germany	9 bps	9 bps	-0.1	-0.5	-1.2
Netherlands	9 bps	9 bps	+0.0	-0.1	-0.4
Ireland	16 bps	16 bps	+0.2	+0.3	-0.4
Portugal	17 bps	17 bps	+0.1	-0.1	-2.8
Spain	17 bps	17 bps	+0.3	-0.2	-3.9
Belgium	18 bps	18 bps	+0.0	-0.2	-1.4
United Kingdom	19 bps	19 bps	+0.4	+0.3	-2.6
France	28 bps	27 bps	+0.4	-0.4	-5.2
Italy	31 bps	30 bps	+0.9	-1.2	-6.0
Greece	32 bps	32 bps	+0.2	-0.5	-3.2
Poland	54 bps	53 bps	+1.0	-0.6	+0.2

**NA** North America

COUNTRY	LEVEL	PREV. CLOSE	Δ 1D	Δ 1W	Δ 1M
Canada	13 bps	13 bps	+0.0	-0.4	-0.7
United States	32 bps	32 bps	+0.3	-0.6	-3.0

**APAC** Asia-Pacific

## SOVCDS - Sovereign CDS dashboard

Command: SOVCDS

Category: Markets

Requires ticker: No (standalone command)

### Overview

The SOVCDS command opens a standalone panel that tracks 5-year sovereign Credit Default Swap (CDS) spreads for 29 countries worldwide. This tool is essential for monitoring sovereign credit risk and understanding how default protection costs often precede movements in the bond market.

## How to use it

Type SOVCDS and press Enter to launch the dashboard. The interface is organized into three tabs: World Map, Ranking Table, and Education, which can be navigated at the top of the panel.

## Reading the output

The dashboard provides a multi-dimensional view of sovereign risk:

- **World Map tab:** This interactive map uses circle markers where the color and radius represent risk levels on a log scale. Hovering over a marker displays a tooltip with the country name, 5-year CDS level in basis points (bps), one-month change, risk regime, and credit ratings from S&P and Moody's.
- **Ranking Table tab:** This tab displays countries sorted by risk level, with the highest spreads at the top. You can use filter pills to narrow the view by region (such as Europe, Asia-Pacific, or Latin America) or sort the table by CDS level and country name.
- **Education tab:** This section includes five information cards that explain what sovereign CDS represents, how to read the spreads, the specific thresholds for risk regimes, and historical reference points like the 2008 financial crisis.

## Data sources and refresh rate

Data is sourced from worldgovernmentbonds.com via the api-news.qstmarkets.com service and is updated once per day. Because CDS spreads are over-the-counter (OTC) instruments, the data reflects daily settlement prices rather than real-time quotes. The information is cached for up to 6 hours, and the header indicates the data date and cache status.

## Tips and caveats

- Risk regimes are color-coded based on specific thresholds: Safe (under 50 bps), Monitor (50 to 200 bps), Elevated (200 to 500 bps), and Distress (500 bps or higher).
- Only the one-month change ( $\Delta$  1M) is available for comparison, as daily and weekly changes are not published by the primary data source.
- Credit ratings from S&P and Moody's are static as of Q1 2026 and are updated manually when the agencies publish changes.
- The dashboard is particularly useful for comparing the credit health of emerging versus developed markets during periods of global economic volatility.



## BDCMON - BDC Sector Monitor

**Command:** BDCMON

**Category:** Markets

**Requires ticker:** No — it is a singleton panel showing a fixed set of BDC stocks and sector data.

### Overview

The BDCMON command opens the BDC Sector Monitor, a panel dedicated to Business Development Companies (BDCs). BDCs are publicly traded vehicles that lend to US middle-market companies (typically \$10M–\$250M EBITDA) and must distribute at least 90% of their taxable income, resulting in structurally high dividend yields, typically between 7–12%. The panel covers 10 major BDCs: ARCC, MAIN, BXSL, OCSL, FSK, GBDC, OBDC, TCPC, HTGC, and PSEC, providing essential metrics for evaluating their health and valuation.

## How to use it

Type **BDCMON** in the Command Bar and press Enter. The panel loads automatically, providing an instant snapshot of the BDC sector. As a singleton panel, only one instance can be open at a time. The panel is organized into three tabs—**Sector**, **BDC Table**, and **Education**—which you can navigate using the tab selector at the top.

## Reading the output

The panel is organized into three tabs:

1. **Tab 1 — Sector:** Provides a high-level view of the BDC complex.
  - **Hero Card:** Displays the live price and day change for BIZD (VanEck BDC Income ETF), the sector benchmark.
  - **Performance Chart:** A normalized return chart comparing BIZD against SPY (S&P 500) and HYG (US High Yield Corporate Bond ETF). Use the toggle buttons to view performance over 3 Months, 6 Months, or 1 Year.
  - **Sector Metric Cards:** Four cards display key aggregate metrics: the sector's average dividend yield, the average P/NAV (Premium/Discount to Estimated Net Asset Value), a count of BDCs trading at a discount versus a premium, and a portfolio health indicator showing how many BDCs have non-accrual rates above 2%.
2. **Tab 2 — BDC Table:** A detailed, sortable, and filterable table of the 10 monitored BDCs.
  - **Ticker/Name:** The BDC symbol and full name, with the fund manager shown in smaller text below.
  - **Price/Day Change %:** Current market price and the intraday percentage change.
  - **Dividend Yield:** The current trailing 12-month dividend yield. Color-coded: green ( $\geq 10\%$ ), amber (7%–10%), dim red ( $\leq 7\%$ ).
  - **NAV est.:** The estimated Net Asset Value per share, based on the latest Book Value Per Share from yfinance.
  - **P/NAV:** The percentage premium or discount of the current market price relative to the estimated NAV. Orange coloring indicates a discount greater than 5%.
  - **Non-Accrual %:** The percentage of the BDC's investment portfolio at fair value that is on non-accrual status (loans where interest payments are overdue). Color-coded: green ( $\leq 1\%$ ), amber (1%–3%), red ( $\geq 3\%$ ). A dash (--) means data was not found in the filing.
  - **PIK %:** The percentage of interest income received as Payment-in-Kind (PIK) rather than cash. A dash (--) means data was not found in the filing.
  - **Leverage:** The debt-to-equity ratio, a measure of balance sheet leverage. Color-coded: green ( $\leq 1.0x$ ), amber (1.0x–1.5x), red ( $\geq 1.5x$ ).
  - **Filters:** Filter pills allow quick filtering to view All BDCs, those At Discount, those At Premium, or those with High Non-Accrual ( $\geq 2\%$ ). All columns are sortable.
3. **Tab 3 — Education:** Provides six information cards explaining BDC-specific financial concepts: BDC definition, the 90% distribution rule, NAV and P/NAV, non-accruals, PIK income, and the leverage rules under the SBCAA 2018 regulatory framework.

## Data sources and refresh rate

Market data (price, yield, book value, leverage) is sourced from Yahoo Finance and is refreshed every 30 minutes. A stale cache will be served for up to 6 hours if the primary fetch fails. Non-accrual percentage and PIK percentage are extracted from the primary HTML document of each BDC's most recent 10-Q filing via the SEC EDGAR public API, first attempting XBRL structured data, then falling back to regex on the filing HTML. The cache for SEC-extracted data is 24 hours fresh, with a 7-day stale fallback. The performance chart uses 1 year of daily close prices for BIZD, SPY, and HYG from Yahoo Finance, fetched together with the market data.

## Tips and caveats

- Non-accrual and PIK values are extracted automatically from SEC filings and may not be found for all BDCs (shown as --). This should not be interpreted as a value of zero.
- The NAV est. uses the publicly available book value per share as a proxy, which may differ from the BDC's officially reported Net Asset Value.
- The data presented is for informational and educational purposes only and does not constitute investment advice.
- Since SEC filings are quarterly, the non-accrual and PIK data will only change immediately following a new 10-Q filing.
- High P/NAV (trading at a premium) often signals strong market confidence in the manager and the quality of the portfolio's underlying loans.

BDC Sector Monitor <small>CACHED</small>										
As of 2026-04-24 yfinance + SEC EDGAR										
SECTOR <b>BDC TABLE</b> EDUCATION										
<input checked="" type="radio"/> ALL <input type="radio"/> At Discount <input type="radio"/> At Premium <input type="radio"/> High Non-Accrual (>2%)										
Sort: Yield ▾ P/NAV Non-Accrual Mkt Cap Day Chg										
Ticker	Name	Price	Δ%	Yield	NAV est.	P/NAV	Non-Accrual	PIK	Leverage	
<b>FSK</b>	FS KKR Capital Corp FS/KKR Advisor	\$10.52	-0.57%	24.5%	\$20.88	-49.6%	2.90%	3.50%	1.3x	
<b>TCPC</b>	BlackRock TCP Capital BlackRock TCP	\$4.14	+1.22%	22.2%	\$7.07	-41.5%	3.50%	10.65%	1.7x	
<b>PSEC</b>	Prospect Capital Corp Prospect Capital Mgmt	\$2.73	+0.74%	19.8%	\$6.21	-56.0%	0.70%	2.60%	0.4x	
<b>OBDC</b>	Blue Owl Capital Corp Blue Owl Credit	\$11.27	-0.70%	13.4%	\$14.81	-23.9%	1.29%	9.50%	1.3x	
<b>BXSL</b>	Blackstone Secured Lending Blackstone Credit	\$23.40	-1.35%	13.2%	\$26.92	-13.1%	--	10.00%	1.3x	
<b>OCSL</b>	Oaktree Specialty Lending Oaktree Capital	\$12.31	-1.44%	13.0%	\$16.30	-24.5%	6.50%	10.00%	1.1x	
<b>HTGC</b>	Hercules Capital Hercules Capital Mgmt	\$15.51	+1.04%	12.1%	\$12.28	+26.3%	--	1.25%	1.0x	
<b>GBDC</b>	Golub Capital BDC Golub Capital	\$13.29	+1.53%	11.3%	\$14.84	-10.5%	1.30%	5.00%	1.2x	
<b>ARCC</b>	Ares Capital Corp Ares Management	\$18.67	+0.27%	10.3%	\$19.94	-6.4%	1.80%	5.75%	1.1x	
<b>MAIN</b>	Main Street Capital Main Street Capital	\$54.06	+0.07%	5.8%	\$33.33	+62.2%	1.20%	10.00%	0.8x	

## **PRIVCR - Private credit composite**

**Command:** PRIVCR

**Category:** Markets

**Requires ticker:** No

### **Overview**

The PRIVCR command provides a comprehensive dashboard for the private credit market, an asset class that was historically reserved for large institutional investors. This tool allows retail users to track yields, spreads, and performance across leveraged loans, collateralized loan obligations (CLOs), and private lending benchmarks to better understand the health of corporate credit.

### **How to use it**

Simply type PRIVCR and press Enter to launch the singleton panel. Users can navigate between the four primary tabs (Overview, Instruments, Credit Metrics, and Education) using the navigation bar located at the top of the interface.

### **Reading the output**

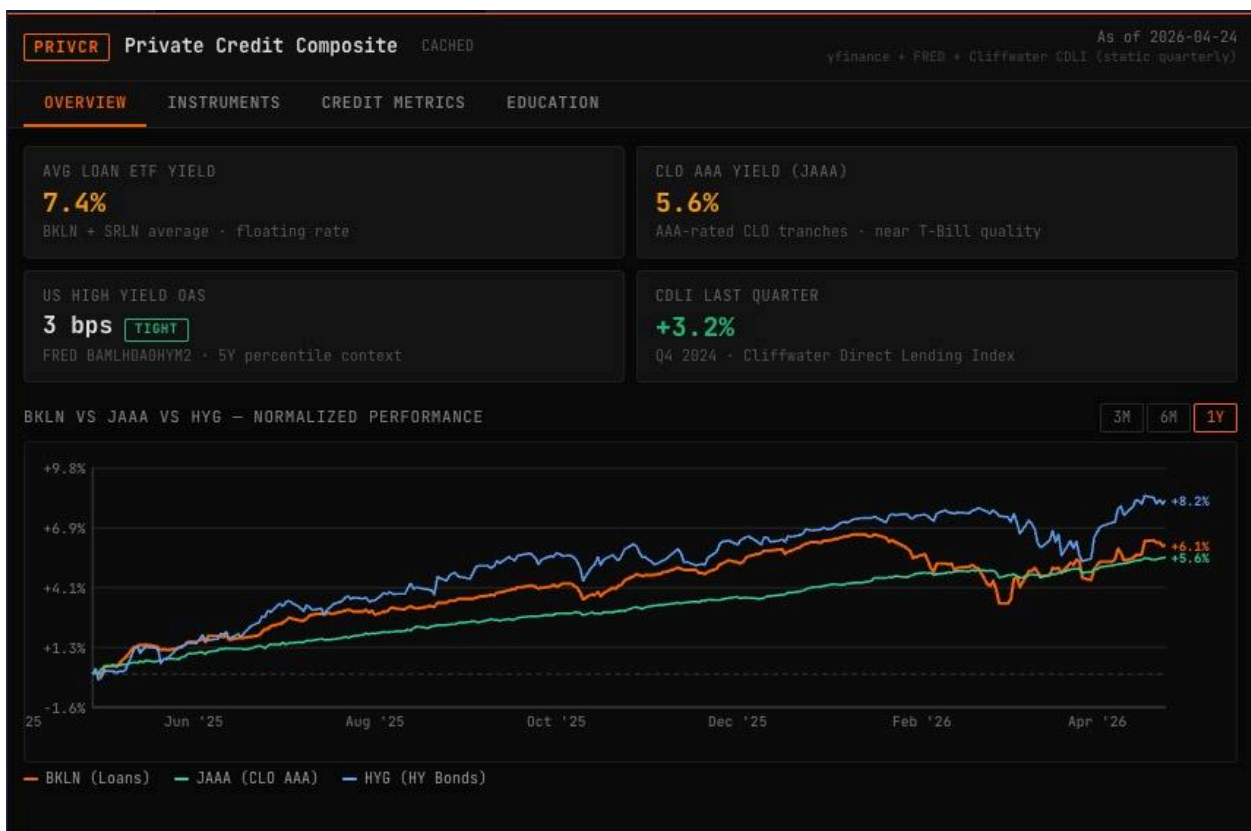
The Overview tab features four metric cards displaying current yields for senior loans and AAA CLOs, alongside high yield option-adjusted spreads (OAS) and the latest Cliffwater CDLI quarterly return. Below these metrics, a normalized performance chart compares the returns of senior loans, AAA CLOs, and high yield bonds over toggleable 3-month, 6-month, or 1-year periods. The Instruments tab provides a detailed table of specific ETFs and interval funds, which can be filtered by asset type or sorted by yield and assets under management (AUM). In the Credit Metrics tab, the FRED Credit Spreads table uses 5-year percentile progress bars and color-coded regime badges to indicate if market spreads are currently Tight (below 25th percentile), Neutral, or Wide (above 75th percentile). Finally, the CDLI table offers a historical look at the last eight quarters of returns for the US middle-market direct lending benchmark.

### **Data sources and refresh rate**

Market data, including prices, yields, and AUM, is sourced from Yahoo Finance and refreshes every 30 minutes, with a 6-hour stale cache fallback if the source is unavailable. Credit spreads are pulled from the Federal Reserve FRED API every hour and typically lag by 1 to 2 business days. The Cliffwater CDLI data is static and manually updated on a quarterly basis from official sources. Please note that data for interval funds like CCLFX or CRDIX may be partially limited because these instruments do not trade on continuous secondary markets.

## Tips and caveats

- Interval funds have significant liquidity limitations and typically only offer quarterly redemption windows, unlike the continuously tradeable ETFs listed in the dashboard.
- The OAS regime badges help identify market cycles, where Tight spreads often signal market complacency and Wide spreads indicate increased credit risk or stress.
- The Cliffwater CDLI serves as the primary benchmark for the private credit industry but reflects quarterly valuation changes rather than daily market fluctuations.
- Expense ratios for private credit interval funds are notably higher than traditional bond ETFs, often exceeding 1.30% due to the management of non-public loans.
- The Education tab provides a helpful reference for understanding the structural differences between liquid bonds and the private credit instruments tracked in this panel.



## CRCYCL - Credit Cycle Indicator

**Command:** CRCYCL

**Category:** Markets

**Requires ticker:** No

## Overview

The **CRCYCL** command opens a dedicated panel that classifies the current phase of the US credit cycle. It utilizes a transparent, rule-based algorithm that synthesizes data from eight key Federal Reserve Economic Data (FRED) indicators into a composite score ranging from -10 to +10. This score is then mapped to five distinct phases: Early Expansion, Late Expansion, Slowdown, Deterioration, and Distress. Unlike opaque black-box models, the exact scoring weights, thresholds, and normalization formulas are fully disclosed within the panel itself, allowing for complete verification of the interpretation. The command functions as an interpretive indicator designed to provide educational context on market risk appetite and should not be viewed as a definitive trading signal.

## How to use it

Type **CRCYCL** in the Command Bar and press Enter. No ticker is required. The panel opens as a singleton, meaning only one instance can be open at a time, ensuring a focused view of the credit cycle. The panel is organized into four distinct tabs: **PHASE**, **INDICATORS**, **HISTORY**, and **EDUCATION**, which users can navigate using the tab selector in the header.

## Reading the output

**PHASE tab:** The core of this view is an SVG semicircular gauge dial marked with five distinct, color-coded arc segments: green for Early Expansion, lime for Late Expansion, amber for Slowdown, orange for Deterioration, and red for Distress. A needle points to the current composite score, which is also displayed numerically in the center of the dial. A confidence badge (High / Moderate / Low) is shown next to the score, indicating how far the current score is from the zero-line threshold. Below the gauge, a brief 2–3 sentence narrative provides a description of the current phase. A signal consensus grid shows the individual classifications (expansion, neutral, caution, or stress) generated by each of the eight underlying indicators.

**INDICATORS tab:** This tab provides the full quantitative breakdown of the composite score. A detailed table lists all eight FRED indicators, showing the current value, the 1-day change, a 5-year percentile represented as a mini progress bar, the current signal classification pill, and the data-as-of date for each series. Hovering over any column header reveals an educational tooltip explaining the underlying economic concept (e.g., what OAS measures, how SLOOS is calculated, or the market significance of an inverted yield curve). At the bottom of the tab, a collapsible section discloses the exact scoring algorithm, including the weights applied to each indicator, the phase thresholds, and the normalization formula, enabling users to verify the composite score calculation independently.

**HISTORY tab:** This view provides historical context for the current phase. A chart displays 5 years of credit cycle phase bands as colored background regions, with each color corresponding to one of the five phases. Overlaid on these phase bands is the High Yield Option-Adjusted Spread (HY OAS) line, which covers approximately the last 3 years. The full 5-year phase band background is computed using all indicators, but the OAS overlay length reflects a rolling 3-year API access window for the proprietary ICE BofA BAML series. Below the chart, three cards identify the historical months whose composite score was most similar to the current reading, displaying the HY OAS at that time and the OAS level 12 months later, serving as a forward historical reference.

**EDUCATION tab:** This section provides essential background information on the credit cycle via six information cards arranged in a two-column grid. The cards cover: the definition of the credit cycle and its historical tendency to lead equity markets, how to interpret Option-Adjusted Spreads (OAS) from the ICE BofA FRED series, the role of the Senior Loan Officer Opinion Survey (SLOOS) as a key leading credit indicator, the relationship between the Treasury yield curve and corporate credit conditions, the CCC spread as a gauge of deep credit distress, and a plain language explanation of the CRCYCL algorithm, including its known limitations.

## Data sources and refresh rate

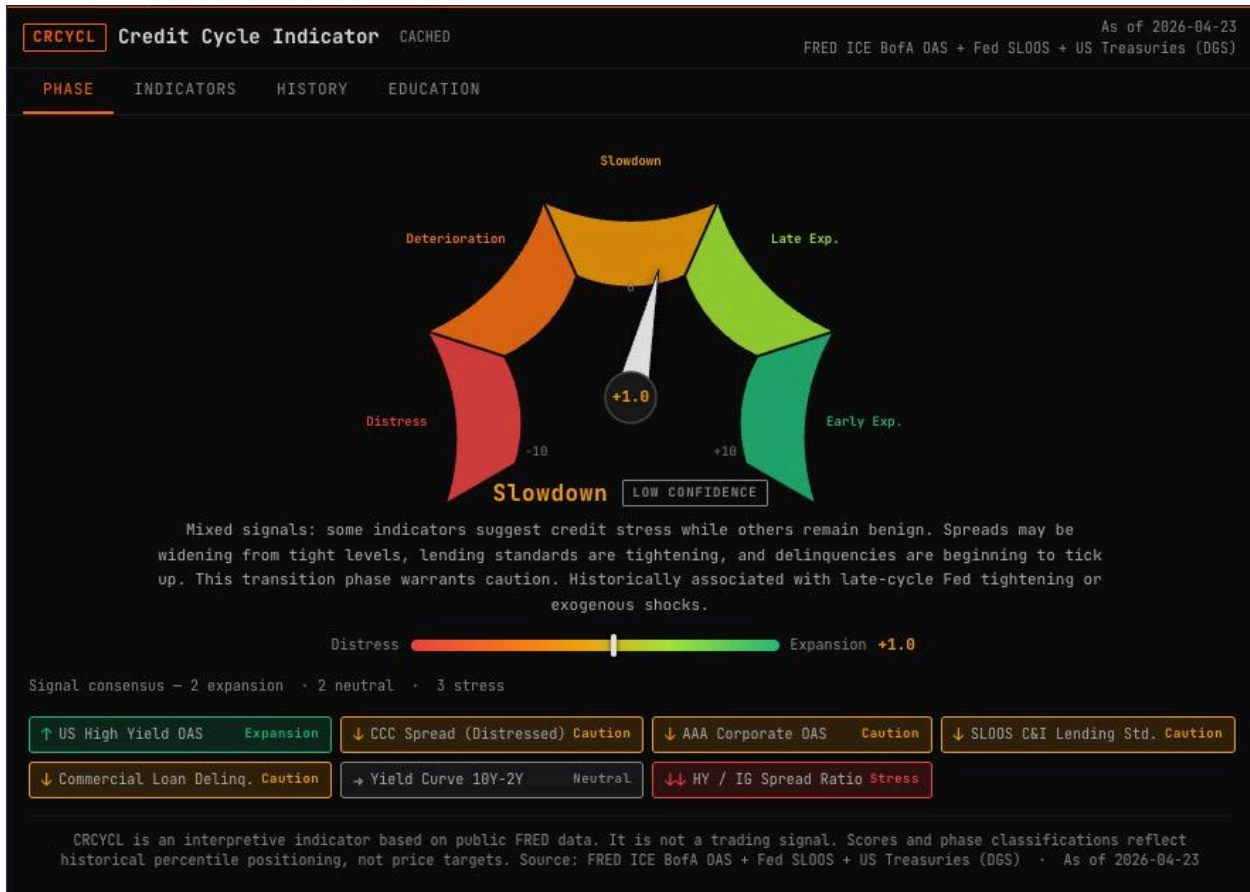
All data for the CRCYCL command are sourced exclusively from FRED (Federal Reserve Bank of St. Louis). The inputs include: ICE BofA OAS series (US High Yield OAS, US Investment Grade OAS, CCC Spread, AAA Corporate OAS), the Federal Reserve Senior Loan Officer Opinion Survey on C&I lending standards (SLOOS), the commercial and industrial loan delinquency rate, and US Treasury yields at the 2-year and 10-year maturities. Derived metrics, specifically the yield curve (10Y minus 2Y in basis points) and the HY/IG ratio, are calculated server-side. The panel's data cache is refreshed every hour. OAS series typically lag the market by 1–2 business days. SLOOS and the delinquency rate are quarterly surveys; their last published value is carried forward until the next official Fed release. The cache will serve stale data for up to 24 hours if the primary fetch fails.

## Tips and caveats

- The composite score measures where each indicator sits relative to its own 5-year history, not its absolute level. A score of +3 in a structurally wide-spread environment can still signal relative expansion compared to the recent months captured in the window.
- SLOOS and loan delinquency are quarterly. Their contribution to the score remains constant between Fed release dates and will not move on a daily basis.
- The HY OAS line in the HISTORY chart covers approximately 3 years. This reflects an ICE Data licensing restriction on the FRED API access window for BAML series—it is not a data error. The 5-year phase band background is unaffected and uses all other indicators.
- CRCYCL is an interpretive composite designed for educational and analytical context. It

is not a trading signal and should be read alongside price action, earnings trends, and other market data.

- The algorithm disclosure in the INDICATORS tab lists exact weights and thresholds. Users who want to stress-test the classification can replicate every component score directly from the FRED website using the same series IDs shown in the table.



## STRESS - Financial System Stress Index

**Command:** STRESS

**Category:** Markets

**Requires ticker:** No

### Overview

The STRESS command displays a composite Financial Stress Index, which aggregates 6 publicly available official stress indicators into a transparent Meta-Score from 0 to 100. It functions as a "thermometer" of the financial system, combining key Fed stress indices, market volatility measures, banking sector signals, and funding market spreads. The algorithm used to compute the Meta-Score is fully disclosed for complete transparency.

## How to use it

Type **STRESS** in the Command Bar and press Enter. The panel opens as a singleton (only one instance at a time) with four navigational tabs: Overview, Markets, History, and Education.

## Reading the output

The panel is organized into four tabs:

1. **Overview:** Displays the current Meta-Score on a speedometer-style SVG gauge (0-100) with an animated needle. Below the gauge, you will see the level name (Low, Moderate, Elevated, High, or Extreme) and a narrative description of current conditions. The tab also includes four cards for the official stress indices (STLFSI4, NFCI, KCFSI, OFR FSI), each with its current value, weekly change, 5-year percentile bar, and level badge. A consensus strip at the bottom shows a mini badge for each of the six components that factor into the composite score (STLFSI4, NFCI, VIX, OVX, GVZ, KCFSI).
  - **Meta-Score Algorithm:** The score is a weighted average of six components, normalized to a 0-100 range based on their 5-year history. Weights are: STLFSI4 (30%), NFCI (25%), VIX (20%), KCFSI (10%), OVX (8%), and GVZ (7%). Score bands are: 0-20 Low, 20-40 Moderate, 40-60 Elevated, 60-80 High, 80-100 Extreme.
2. **Markets:** This tab provides three dedicated sections for the Meta-Score's underlying drivers:
  - **Volatility Complex:** A table listing VIX, MOVE, OVX, GVZ, and VVIX, each showing its current value, daily change, 5-year percentile bar, and level badge. Tooltips on the column headers explain each indicator.
  - **Banking Sector Stress:** Shows the KRE/XLF ratio, comparing the SPDR Regional Banking ETF (KRE) to the Financial Select Sector ETF (XLF). A falling ratio signals regional banks underperforming, an early warning of localized banking stress.
  - **Funding Markets:** Displays key funding spreads, such as the spread between SOFR (Secured Overnight Financing Rate) and the 3-Month Treasury yield (DGS3MO). A rising spread signals funding stress or counterparty concerns.
3. **History:** Presents a 5-year line chart of the composite Meta-Score, including shaded bands that highlight four major historical stress episodes for context: Fed Tightening Cycle (2022), SVB/Banking Crisis (March 2023), Oct 2023 Treasury Selloff, and 2025 Trade War Shock.

4. **Education:** Contains 6 educational cards that provide detailed explanations of financial stress, the Fed stress indices, the volatility complex, banking sector signals, funding markets, and the exact methodology used to compute the STRESS Meta-Index.

## Data sources and refresh rate

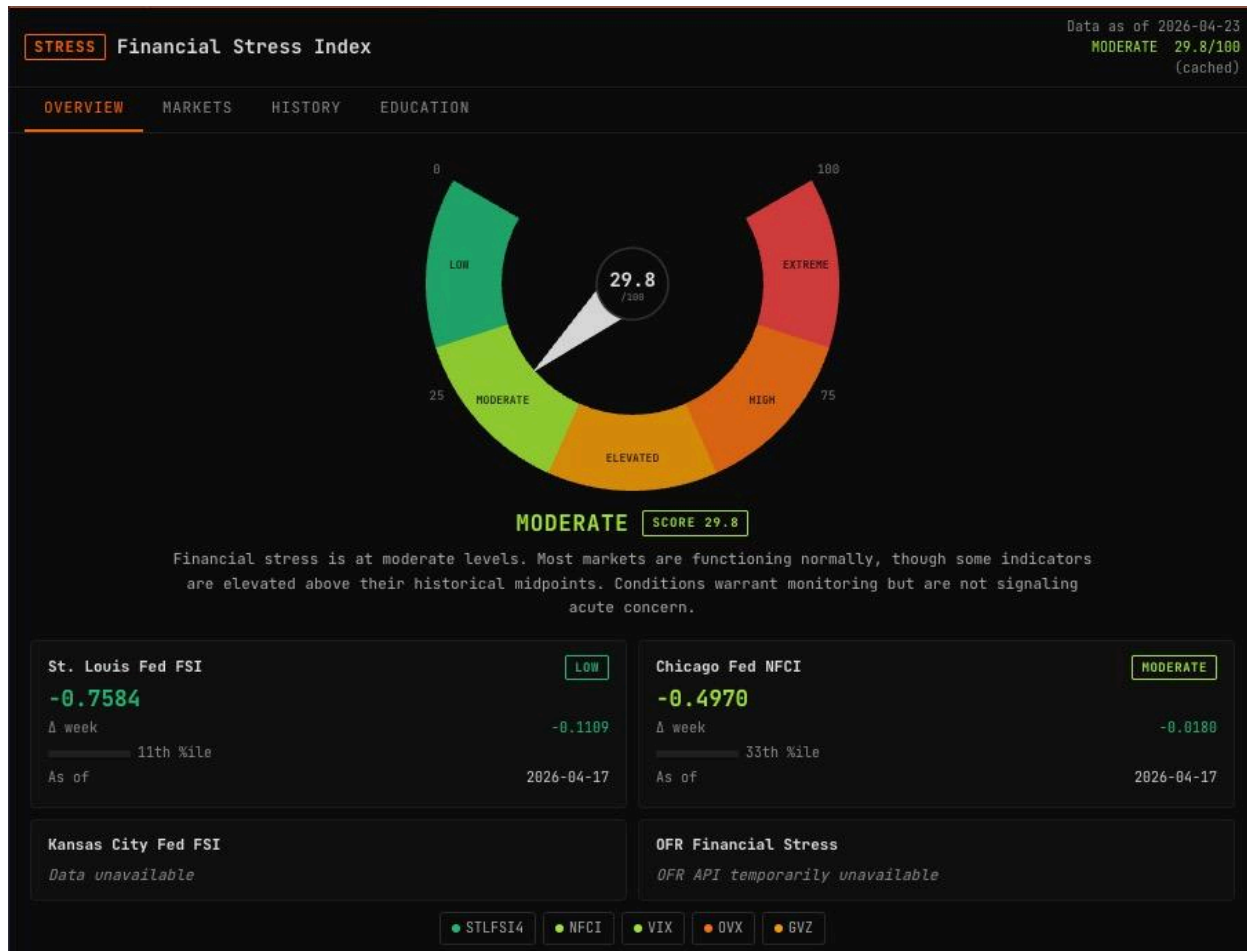
The command aggregates data from multiple sources:

- **FRED API:** Used for official Federal Reserve data including STLFSI4 (weekly), NFCI (weekly), KCFSI (monthly), SOFR (daily), and DGS3MO / 3-Month Treasury (daily). FRED series typically carry a 1-2 business day lag. KCFSI is a monthly release and its value is carried forward until the next release.
- **yfinance:** Used for market-based inputs (^VIX, ^MOVE, ^OVX, ^GVZ, ^VVIX, KRE, XLF).
- **OFR Financial Stress Index:** Sourced from the Office of Financial Research public API (best-effort basis).

All panel results are cached for **1 hour** (fresh) with a 24-hour stale fallback.

## Tips and caveats

- This is an educational and analytical tool for macro-level monitoring. It is **NOT** a trading signal.
- KCFSI (Kansas City Fed) is a monthly index; it may show "data unavailable" between releases due to its slower update frequency.
- The OFR FSI may show "temporarily unavailable" if the OFR public API is down, but this does not affect the composite Meta-Score as it is excluded from the calculation to avoid external API dependency.
- A **low** KRE/XLF percentile means regional banks are underperforming broad financials, which is the stress signal—not a high percentile.
- The Meta-Score reflects stress relative to the past **5 years** only, not absolute historical extremes. A score of 100 means the highest stress observed in the last 5 years, not necessarily an all-time crisis level.
- All weights and normalization thresholds are fully disclosed in the **Education** tab under "How STRESS computes the Meta-Score."
- MOVE and VVIX are displayed in the **Markets** tab but do **NOT** enter the composite score calculation, primarily because they can occasionally be unavailable.



## SWAPSP - Swap Spread and SOFR Curve Monitor

**Command:** SWAPSP

**Category:** Markets

**Requires ticker:** No

### Overview

The SWAPSP command opens the Swap Spread and SOFR Rate Curve Monitor, a highly specialized tool for analyzing US dollar interest rate and credit funding conditions. A swap spread is the difference, in basis points, between the ICE USD Swap Rate (the fixed rate in a SOFR-based interest rate swap) and the equivalent-maturity US Treasury yield. It serves as a vital barometer for institutional risk appetite, balance sheet pressure among major banks, and liquidity stress in funding markets—metrics typically reserved for Bloomberg Terminal and Refinitiv Eikon users.

Historically, swap spreads were always positive, but they began to turn negative after the 2008 financial crisis. This structural shift was driven by massive Treasury issuance, regulatory changes like Dodd-Frank that made holding long-dated assets expensive for dealer banks, and foreign central bank demand. Negative spreads are now the post-GFC norm, not an automatic sign of distress unless they reach severely inverted levels. SWAPSP contextualizes these movements for the retail investor.

## How to use it

Type **SWAPSP** in the Command Bar and press Enter. The panel loads instantly as a singleton, displaying the global US swap and SOFR curve data. The panel is organized into four main tabs—**SPREADS**, **SOFR CURVE**, **HISTORY**, and **EDUCATION**—which you can navigate using the selector at the top. The header provides a persistent, real-time snapshot of the critical 10-Year swap spread and its current risk regime.

## Reading the output

**Tab 1 — SPREADS** is the core tab, presenting a four-row table for the key tenors: 2Y, 5Y, 10Y, and 30Y. Each row displays the ICE USD Swap Rate, the corresponding US Treasury Constant Maturity (CMT) yield, and the resulting Swap Spread in basis points. An essential **Regime badge** classifies the current risk environment for each tenor: **Wide** (>20 bps, signaling high funding costs), **Normal** (0–20 bps), **Compressed** (–20 to 0 bps), or **Inverted** (<-20 bps, signaling deep stress).

**Tab 2 — SOFR CURVE** displays the full US dollar interest rate curve from the shortest maturity (Overnight) to 30 years in an SVG chart. The curve synthesizes data from three sources: the SOFR Overnight rate (Orange), the CME Term SOFR rates (Teal), and the ICE Swap Rates (Blue). This consolidated curve is the modern replacement for the old LIBOR-based curve. The underlying data table shows the rate, source, and date for each of the nine points.

**Tab 3 — HISTORY** provides 5 years of historical context via a chart tracking the short-end SOFR-Treasury basis spread (90-day compound SOFR average minus the 3-month T-Bill yield). This basis spread serves as a reliable proxy for funding pressure. The chart includes shaded bands to highlight major historical stress episodes like the SVB/Banking Crisis and the 2025 Trade War Shock, helping users contextualize the current reading.

**Tab 4 — EDUCATION** offers six detailed concept cards explaining the nuances of the swap market, including the shift from LIBOR to SOFR, why swap spreads turned negative post-GFC, and the methodology used to classify the swap spread risk regimes.

## Data sources and refresh rate

The SWAPSP command aggregates data from two primary sources. US Treasury yields (CMT) and SOFR rates are sourced directly from the **FRED API** (Federal Reserve H.15 release), ensuring reliability. The ICE USD Swap Rates and CME Term SOFR rates are sourced via an internal API service (api-news) that scrapes global-rates.com and Chatham Financial. This dual-source approach allows the panel to show the most current official and dealer-market rates. In the event the internal API fails, the panel transparently shows Treasury and

FRED-based data, with the swap-rate cells marked as "unavailable." The full panel data is cached for **1 hour**; a "(cached)" label appears in the header when stale data is served.

## Tips and caveats

- The 10Y swap spread is the most-watched tenor by market practitioners, often referred to as "the" swap spread. The 2Y spread is a leading indicator sensitive to short-term funding conditions and year-end balance sheet effects.
- A Compressed or Inverted regime (a negative spread between 0 and -20 bps) is normal post-2010. Only readings below -20 bps signal elevated stress. Do not read a slightly negative spread as a crisis indicator.
- The HISTORY tab shows the SOFR-Treasury basis (a FRED-based proxy), not the historical ICE swap spread, because historical ICE data is not available from free public sources. For current-day swap spreads, always use the SPREADS tab.
- All nine points on the SOFR CURVE tab, when combined, form the complete USD interest rate curve that officially replaced the LIBOR curve after June 2023.
- SWAPSP refreshes data once per hour. The panel can be left open, but re-typing SWAPSP and pressing Enter will force a fresh data load immediately.



## DEFAULT - Credit default and delinquency rate tracker

**Command:** DEFAULT

**Category:** Markets

**Requires ticker:** No

## Overview

The **DEFAULT** command tracks credit default and delinquency rates across seven segments of the US credit market in a single panel. It combines two types of data that are usually monitored separately: corporate default rates (High Yield bonds, Investment Grade bonds, and Leveraged Loans, sourced from Moody's) and bank delinquency rates (credit cards, commercial real estate, commercial and industrial loans, and consumer loans, sourced from the Federal Reserve FRED database). For each segment, the panel shows the current rate, the change over the past year, the cycle peak since 2004, and the position within the 5-year historical range expressed as a percentile. A narrative summary is generated automatically based on the current readings and trends.

## How to use it

Type **DEFAULT** and press Enter. No ticker is required. The panel loads the latest available data and opens on the **RATES** tab. It has four tabs:

1. **RATES:** the main dashboard. A table with seven credit segments, each showing the current default or delinquency rate, 1-year change with a trend arrow, cycle peak since 2004, and a 5-year percentile bar. A short narrative paragraph at the top synthesises the overall picture.
2. **HISTORY:** a 10-year quarterly line chart showing the historical evolution of all seven series simultaneously. Each series can be toggled on or off by clicking its legend entry. The chart marks four historical stress episodes as shaded bands: the Global Financial Crisis (2008-2009), COVID-19 (2020), the Fed tightening cycle (2022-2023), and the 2025 trade war period.
3. **FORECASTS:** a table with base case, optimistic, and pessimistic 12-month forecast scenarios for High Yield, Investment Grade, and Leveraged Loans, sourced from Moody's and S&P via the terminal data pipeline.
4. **EDUCATION:** six explanatory cards covering the key concepts needed to interpret the data correctly.

## Reading the output

Each row in the **RATES** table represents one credit segment. The current rate is the most recent available quarterly figure. The 1Y change column shows how much the rate has moved in the past twelve months: a rising rate (shown with an upward arrow) signals deteriorating credit conditions; a falling rate signals improvement. The cycle peak column anchors the current reading to the worst level seen since 2004, providing context for how far conditions could worsen in a severe stress scenario. The percentile bar indicates where the current rate sits relative to its own 5-year history: a reading above 80% means conditions are near the worst seen in the past five years. The **HISTORY** chart is the most powerful view for spotting trends.

Lines rising together across corporate and bank segments simultaneously indicate a broad credit deterioration, which has historically preceded recessions by 6 to 18 months. Divergence between segments (e.g. HY rising while bank delinquencies stay flat) can indicate sector-specific stress rather than a systemic event. The **FORECASTS** tab shows forward-looking scenarios. The base case reflects the consensus expectation; the pessimistic scenario indicates the level consistent with a mild recession; the optimistic scenario reflects a soft landing.

## Data sources and refresh rate

- Moody's corporate default rates (High Yield, Investment Grade, Leveraged Loans) and 12-month forecasts: sourced via the terminal api-news pipeline, which aggregates publicly available Moody's research data.
- Bank delinquency and charge-off rates (credit cards, commercial real estate, commercial and industrial loans, consumer loans): Federal Reserve FRED database, quarterly series updated with a one-quarter lag.
- Data is cached for 24 hours (fresh) and up to 7 days (stale fallback). Because the underlying series are quarterly, the panel data changes at most once per quarter for the FRED series and monthly for the Moody's series.
- The header does not show a live price; it shows the as-of date of the most recent data point loaded.

## Tips and caveats

- Default and delinquency rates are lagging indicators. They typically peak 12 to 18 months after the economic downturn that caused them. Use this panel to confirm a credit cycle, not to predict its start.
- The COVID-19 episode (2020) is an anomaly in the historical chart: default rates stayed unusually low despite a severe GDP shock because of government stimulus programmes and loan forbearance schemes. Do not use 2020 as a baseline for what a normal recession looks like in this data.
- A High Yield default rate below 3% is historically associated with benign credit conditions. Rates above 5% indicate a credit stress episode; above 8% is consistent with a severe recession (GFC peak was approximately 13%).
- The Leveraged Loan series is particularly sensitive to the floating-rate environment: rising base rates increase the debt service burden for leveraged borrowers faster than for fixed-rate bond issuers.
- Toggle individual series off in the **HISTORY** chart to isolate the segment you want to study. The chart rescales automatically.
- Use the **FORECASTS** tab alongside the **CDX** or **CREDIT** commands to cross-check whether market-implied credit spreads are consistent with the forecast default rate scenarios.

DEFAULT Credit Default & Delinquency Rates							HY Default: 3.63%	As of 2025-Q4 cached
RATES		HISTORY	FORECASTS	EDUCATION				
<p>US HY corporate default rate at 3.6% (Moody's) – near the historical average; credit card delinquency at 2.9% – slightly above the post-pandemic average; commercial loan delinquency at 1.3%; commercial real estate delinquency rising at 1.6%. Rising consumer delinquencies typically precede corporate default rate increases by 2-4 quarters – a key leading relationship in the credit cycle.</p>								
Segment	Metric (?)	Current (?)	1Y Ago (?)	Cycle Peak (?)	Trend (?)	5Y %tile (?)		
US High Yield <span>MOODY'S</span>	Default Rate	3.63%	--	--	+	--		
Leveraged Loans <span>LCD</span>	Default Rate	1.43%	--	--	+	--		
IG Corporate <span>MOODY'S</span>	Default Rate	0.04%	--	--	+	--		
Commercial Loans <span>FRED</span>	Delinquency Rate	1.34%	1.27%	4.39% (2009-Q3)	+	100th pct		
Commercial RE <span>FRED</span>	Delinquency Rate	1.58%	1.56%	8.76% (2010-Q2)	+	100th pct		
Credit Card <span>FRED</span>	Delinquency Rate	2.94%	3.08%	6.77% (2009-Q2)	+	83th pct		
Consumer Loans <span>FRED</span>	Delinquency Rate	2.62%	2.76%	4.85% (2009-Q2)	+	88th pct		
Sources: FRED (Federal Reserve H.8) + Moody's Investors Service + Morningstar LCD (via api-news)								

## CDSEVT - Credit Event Timeline (ISDA DC)

**Command:** CDSEVT

**Category:** Markets

**Requires ticker:** No (singleton panel — type CDSEVT with no ticker)

### Overview

The CDSEVT command provides an essential historical record of corporate and sovereign default risk by tracking official Credit Event determinations made by the ISDA Credit Derivatives Determinations Committees (DC). It covers all five major regions (Americas, EMEA, Asia ex-Japan, Japan, Australia-NZ) and is the ultimate lagging indicator for credit market stress.

### How to use it

Type **CDSEVT** in the Command Bar and press Enter. The panel loads automatically with the **Timeline** tab as the default view, displaying a chronological record of all past credit events.

## Reading the output

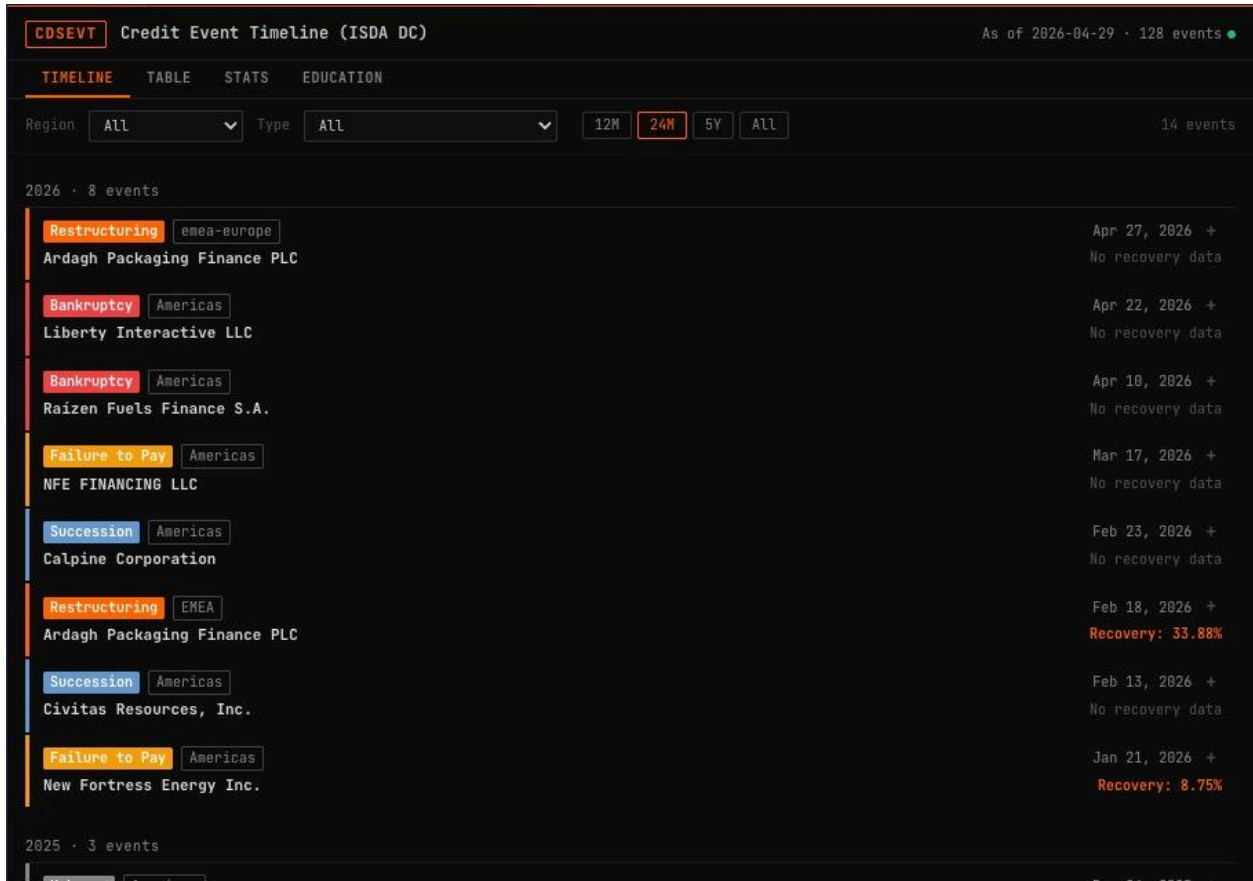
The panel is structured across four tabs. The **Timeline** tab provides a scrollable, chronological view of credit events, where each entry is a color-coded card indicating the event type (e.g., Bankruptcy in red, Restructuring in orange). The **Table** tab offers a filterable and sortable list of all events, allowing users to narrow results by region, event type, or date range, with columns including Entity, Event Type, and the final Recovery Rate (%) from the auction. The **Stats** tab provides visual context, displaying the number of credit events per year and the average recovery rates categorized by event type. Finally, the **Education** tab explains the six official ISDA credit event types, the DC process, and the mechanism for setting recovery rates via auction.

## Data sources and refresh rate

Data is sourced directly from the official ISDA DC website ([cdsdeterminationscommittees.org](https://cdsdeterminationscommittees.org)) for event decisions and from [creditfixings.com](https://creditfixings.com) for auction recovery rates. Because credit events are infrequent, the data is refreshed once every 24 hours to ensure consistency with the official records.

## Tips and caveats

- CDSEVT is a singleton panel; only one instance opens at a time and no ticker is needed.
- Recovery rates are only available for events that went through an official ISDA auction; events resolved bilaterally will show no recovery figure.
- Credit events are rare but highly consequential. The Stats tab's year-by-year chart helps put individual events in historical context (e.g., peak event years were 2009, 2012, and 2020).
- Use CDSEVT alongside **CDX** (CDS index spreads) and **CREDIT** (macro OAS spreads): CDX indices typically widen before a systemic event, and CDSEVT provides the official confirmation and final loss severity afterward.
- The Education tab highlights the Credit Suisse 2023 case, where AT1 bondholders received 0% recovery due to Governmental Intervention—a key historical example demonstrating an unusual outcome.



## CDSBASIS - Credit Spread Analysis (CDS-Bond Basis)

**Command:** CDSBASIS

**Category:** Markets

**Requires ticker:** Yes — type the equity ticker followed by CDSBASIS (e.g., AAPL CDSBASIS, NVDA CDSBASIS, F CDSBASIS)

### Overview

The CDSBASIS command provides a specialized view of a US corporate issuer's credit risk by comparing the Option-Adjusted Spread (OAS) of its credit rating tier against the overall market (Investment Grade or High Yield). The resulting basis (the difference in basis points) indicates whether the company's debt class is trading tight (relatively expensive) or wide (relatively cheap) compared to the broad credit market. This is an essential analytical tool for fixed-income investors and credit analysts.

## How to use it

Type the equity ticker followed by CDSBASIS (e.g., [AAPL CDSBASIS](#)) and press Enter. The terminal resolves the issuer's credit rating and opens the panel populated with the rating-tier specific spread data and its historical context.

## Reading the output

The panel is structured across four tabs. The **Spreads** tab displays the current credit risk in basis points (bps) across three rows: Bond OAS Proxy (the ICE BofA OAS for the company's rating tier), Market Reference (the broad IG or HY index OAS), and the Basis (the difference). Each value includes its change versus one and six months ago. A percentile gauge and a **Regime badge** (TIGHT, NEUTRAL, or WIDE) contextualize the current basis relative to its 2-year history. The **History** tab charts the 2-year daily evolution of the Bond OAS Proxy and the Market Reference, with the space between them shaded to represent the basis. The **Debt** tab provides issuer-specific credit metrics (Total Debt, Leverage Ratio) and a list of outstanding individual bonds (coupon, maturity, yield). The **Education** tab explains the core concepts of the CDS-bond basis, credit spreads, and the limitations of this proxy analysis.

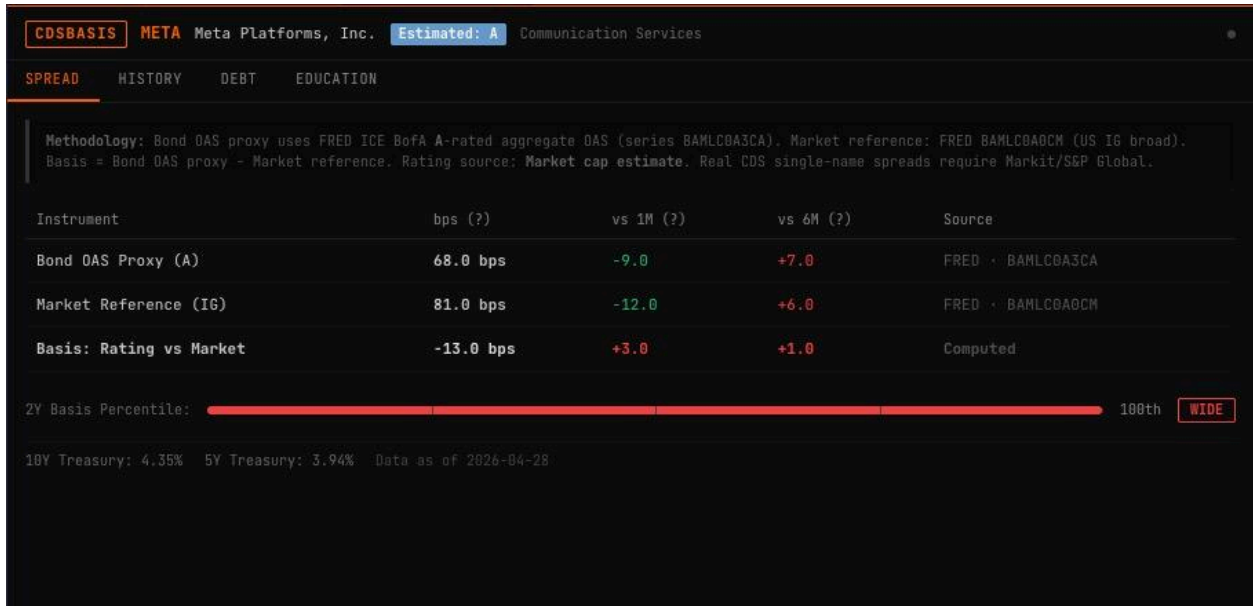
## Data sources and refresh rate

The core spread data (OAS series) is sourced from the FRED (Federal Reserve Bank of St. Louis) ICE BofA OAS series, updated daily with a typical 1–2 business day lag. The company's credit rating and debt metrics are sourced from FMP. If an official rating is unavailable, a market-cap heuristic is used to assign a proxy rating for analysis. Individual bond data is populated from an internal api-news service using OpenFIGI discovery and pricing enrichment. All panel data is cached for 4 hours to ensure quick access.

## Tips and caveats

- CDSBASIS is not a singleton: you can open multiple panels simultaneously for different tickers (e.g., [AAPL CDSBASIS](#) and [F CDSBASIS](#)) to compare credit positioning across issuers.
- The bond OAS proxy uses a rating-tier aggregate (e.g., all A-rated US corporates), not the company's own single-name bond OAS. Two companies in the same rating bucket will show the same OAS Proxy and Basis figures.
- A negative basis is common for high-quality issuers (AAA, AA, A) as their debt often trades tighter than the broad Investment Grade index. A persistently positive basis in the WIDE regime for a BBB issuer is a more significant stress signal.

- The WIDE regime (basis above the 75th percentile of its 2-year range) suggests the rating tier is currently paying an elevated spread premium relative to its recent history.
- Real single-name CDS spreads and individual bond OAS are not available in the free-tier data stack. The Education tab fully explains these limitations and the assumptions made in this panel.
- Use CDSBASIS alongside **CREDIT** (macro OAS), **CDX** (CDS index levels), and **CDSEVT** (credit event history) for a complete credit picture.



## DTCCTOP - DTCC CDS market activity monitor

**Command:** DTCCTOP

**Category:** Markets

**Requires ticker:** No

### Overview

The DTCCTOP command displays the weekly activity of the global Credit Default Swap (CDS) market using official public data published by the CFTC under Dodd-Frank Title VII reporting requirements. It shows which CDS index products (CDX and iTraxx series) are the most actively traded, alongside aggregate market statistics such as total gross notional outstanding, the Investment Grade / High Yield breakdown, and the percentage of the market settled via central clearing. This data is sourced from two CFTC public feeds: the GTR S3 daily trade files and the

CFTC Weekly Swaps Report Excel. It is the same underlying data used by institutional risk desks, made accessible to retail investors at no cost.

## How to use it

Type **DTCCTOP** and press Enter. No ticker is required. The panel opens and immediately loads the latest available weekly snapshot. It has four tabs:

- **Top Products:** ranked table of CDX and iTraxx indices by daily trade count. Use the class filter pills (All / IG / HY / EM) or the region dropdown (All / AMER / EMEA / APAC) to narrow the list. The search box filters by product name. Clicking the Daily trades column header toggles sort order.
- **Market Stats:** four summary cards showing total CDS gross notional (~\$7.6T), IG gross notional (~\$5.7T), HY gross notional (~\$1.2T), and the percentage of the market centrally cleared (~68%).
- **IG / HY Split:** proportional SVG bar chart visualising the share of total market notional attributed to Investment Grade, High Yield, and Other (Emerging Markets and unclassified contracts).
- **Education:** six explanatory cards covering key concepts: what DTCC TIW is, what CDX.NA.IG is, IG vs HY in CDS, gross vs net notional, central clearing and systemic risk, and how this data differs from Bloomberg CDSW.

## Reading the output

The **Top Products** tab ranks CDS index products by daily trade count, the only publicly available activity metric for centrally cleared index contracts (CFTC does not publish notional amounts for these instruments). A higher rank means more market participants were actively trading that index in the reference period. CDX.NA.IG and CDX.NA.HY consistently rank first and second as the most liquid North American credit benchmarks. iTraxx Europe and iTraxx Europe Crossover follow as the European equivalents.

The **Market Stats** tab shows the scale of the global CDS market. The **Centrally cleared percentage** is a systemic risk indicator: a rising figure means more of the market is settling through a central counterparty (CCP such as LCH or ICE), which reduces bilateral default risk. A sudden drop would signal stress.

The **IG / HY Split** chart shows credit market risk appetite at a glance: a rising HY share relative to IG indicates increasing speculative positioning across the market.

## Data sources and refresh rate

- **Product ranking:** CFTC GTR public S3 bucket (kgc0418-tdw-data-0.s3.amazonaws.com), daily CDS trade files. Data refers to the most recent Tuesday available; the terminal retries up to two weeks back if the latest file is not

yet published.

- **Market statistics:** CFTC Weekly Swaps Report, published every Monday.
- The terminal caches data for 4 hours (fresh) and up to 7 days (stale fallback). Because CFTC publishes weekly, the displayed data is at most one week old plus up to one day of cache delay.
- The header shows "As of YYYY-MM-DD" and a CACHED badge when serving from cache rather than a live fetch.

## Tips and caveats

- Notional amounts are not shown for the product ranking table. This is a CFTC policy: gross notional is not disclosed for centrally cleared index CDS contracts in public files. Daily trade count is the only available activity metric.
- This panel shows index CDS activity (CDX / iTraxx). It does not show single-name CDS positions (e.g. CDS on Italy or Goldman Sachs) because CFTC systematically obfuscates reference entity names in public SDR files to protect counterparty privacy.
- The data is updated once per week. Do not use it for intraday decisions.
- For a deeper understanding of each metric, open the **Education** tab before reading the other tabs.
- To compare this data against live CDS spreads, use the **CDX** command (CDX index spread history) alongside DTCCTOP.

DTCCTOP DTCC CDS Market Activity Monitor As of 2026-04-28 weekly CACHED

Top Products Market Stats IG · HY Split Education

ALL IG HY EM All regions Search product..

#	Product	Reg	Class	Daily trades
1	CDX.NA.IG	AM	IG	400
2	CDX.NA.HY	AM	HY	388
3	ITRAXX EUROPE	EU	IG	320
4	ITRAXX EUROPE CROSSOVER	EU	HY	308
5	CDX.EM	AM	EM	89
6	ITRAXX EUROPE SENIOR FINANCIALS	EU	IG	40
7	ITRAXX EUROPE SUB FINANCIALS	EU	IG	29
8	ITRAXX ASIA EX-JAPAN IG	AP	IG	11
9	ITRAXX AUSTRALIA	AP	IG	3

Source: CFTC GTR S3 + CFTC Weekly Swaps Report · Activity date: 2026-04-28 · cached  
Notional not published by CFTC for centrally cleared index contracts.

# RATES - Sovereign Yield Curves

**Command:** RATES

**Category:** Markets

**Requires ticker:** No (optional country code)

## Overview

The RATES command is a specialized sovereign bond yield curve monitor, providing comprehensive, up-to-date data for 16 major global economies. It is the definitive tool for tracking interest rate expectations and assessing fixed-income market risk across the world's most traded sovereign debt. When launched without an argument, the panel displays a global overview table of all supported countries, including key spreads and curve status. When launched with a country code (e.g., **RATES US** or **RATES DE**), it opens a focused detail view for that specific nation, providing historical context, curve shape analysis, and real-yield metrics.

## How to use it

Type **RATES** in the Command Bar and press Enter for the global overview. Alternatively, type **RATES** followed by a two-letter country code (e.g., **RATES JP**) to immediately open the country-specific detail view. The global table includes countries like the United States, Germany, Japan, United Kingdom, and peripheral Eurozone members. Clicking any country row in the overview table automatically transitions the panel to the detail view for that country.

## Reading the output

The **Global Overview** panel presents a sortable table detailing the 2-Year, 5-Year, 10-Year, and 30-Year yields, the 2s10s spread, and the curve's current status (Inverted, Flat, Normal, or Steep). Below the main table, a section monitors key sovereign spreads against the German 10-Year Bund, highlighting the risk premium required by investors for peripheral debt. The **Country Detail View** (e.g., **RATES US**) features the 10-Year yield as a hero metric and displays a visual SVG Yield Curve Chart, which plots the current curve against curves from one month, three months, and one year ago to illustrate recent shifts. For US and Japanese bonds, a full tenor table shows the daily, weekly, and monthly changes for all maturities. US-specific metrics include inflation-indexed TIPS Real Yields and the New York Fed's 10-Year Term Premium estimate. All detail views include a table of key slope metrics (like the 2s10s and 5s30s spreads), color-coded to indicate the level of inversion or steepness, alongside an educational callout explaining the current curve's economic implications.

## Data sources and refresh rate

Global yield curve data for all 16 nations is sourced primarily from World Government Bonds (WGB). US-specific data, including the TIPS real yields and the New York Fed ACM Term Premium model estimates, are sourced from the FRED (Federal Reserve Economic Data) API. The global overview panel data is cached and refreshes every four hours, and the country-specific detail views also refresh every four hours.

## Tips and caveats

- The 2s10s spread is the classic recession signal: when it turns negative (inverted), US recessions have followed historically with a 12-18 month lag. A negative spread is shown in red.
- You can use the country dropdown inside the detail panel to switch between countries without reopening the command.
- The 1Y overlay on the yield curve chart is particularly useful: if the current curve is meaningfully above or below the 1Y-ago line, it shows the cumulative effect of the central bank's hiking or cutting cycle.
- TIPS real yields below zero indicate negative real rates — bonds that do not keep up with inflation — which historically correlates with gold outperformance.

RATES Sovereign Yield Curves							Updated 07:38 PM	
SOVEREIGN YIELD CURVES								
Country	2Y ⓘ	5Y ⓘ	10Y ⓘ ▼	30Y ⓘ	2s10s ⓘ	Status	Source	
Australia	4.73%	4.74%	5.03% +14.2 (2026-03)	5.42%	+29 bps	Normal	WGB	
United Kingdom	4.43%	4.49%	4.97% +26.8 (2026-03)	5.65%	+55 bps	Normal	WGB	
United States	3.88%	4.02%	4.40% -2.0	4.98%	+52 bps	Normal	FRED	
Italy	2.85%	3.23%	3.86% +10.4 (2026-02)	4.65%	+102 bps	Normal	WGB	
Greece	2.83%	3.15%	3.83% +32.0 (2026-03)	4.48%	+100 bps	Normal	WGB	
France	2.78%	3.11%	3.70% +13.0 (2026-02)	4.52%	+92 bps	Normal	WGB	
Canada	2.94%	3.18%	3.53% +15.2 (2026-03)	3.90%	+59 bps	Normal	WGB	
Belgium	2.72%	2.98%	3.52% +21.0 (2026-03)	4.40%	+80 bps	Normal	WGB	
Spain	2.74%	2.98%	3.50% +19.6 (2026-03)	4.21%	+76 bps	Normal	WGB	
Portugal	2.69%	2.94%	3.47% +24.0 (2026-03)	4.07%	+78 bps	Normal	WGB	
Austria	2.65%	2.88%	3.31% -1.1 (2026-02)	3.87%	+66 bps	Normal	WGB	
Netherlands	2.64%	2.78%	3.11% -9.1 (2026-02)	3.57%	+47 bps	Normal	WGB	
Germany	2.65%	2.75%	3.04% +16.0 (2026-03)	3.56%	+40 bps	Normal	WGB	
Sweden	2.48%	2.64%	2.92% +12.0 (2026-03)	N/A	+44 bps	Normal	WGB	
Japan	1.38%	1.80%	2.37% -0.2 (2026-03)	3.64%	+99 bps	Normal	MoF Japan	
Switzerland	0.14%	0.26%	0.39% +15.0 (2026-03)	0.62%	+25 bps	Normal	WGB	

SOVEREIGN SPREADS VS GERMAN BUND 10Y	
Spread	Value
Italy 10Y - Bund 10Y	+48 bps
Spain 10Y - Bund 10Y	+47 bps
France 10Y - Bund 10Y	+50 bps
Portugal 10Y - Bund 10Y	+47 bps
Greece 10Y - Bund 10Y	+81 bps
US 10Y - Bund 10Y	+150 bps
Japan 10Y - Bund 10Y	-56 bps

Positive spread = higher yield than Bund (risk premium). Negative = Lower yield.

## CB - Central bank monitor

Command: CB

Category: Markets

Requires ticker: No (optional central bank code)

## Overview

The **CB** command opens the Central Bank Monitor, a dedicated panel for tracking global monetary policy. It covers the 12 most systemically important central banks, providing a consolidated view of current policy rates, the central bank's position in its current rate cycle (Hiking, Cutting, or Hold), and its forward schedule. This tool is critical for macro traders and fixed-income analysts who need to correlate interest rate expectations with bond yields, currency movements, and credit spreads.

## How to use it

Type **CB** and press Enter for the global overview. The panel displays a sortable table of all 12 monitored central banks, including the US Federal Reserve (FED), European Central Bank (ECB), and Bank of Japan (BOJ). To focus on a specific institution, type **CB** followed by the bank's three-letter code (e.g., **CB FED** or **CB ECB**). Clicking any row in the global table also transitions the panel to the detailed country view.

## Reading the output

The **Global Overview** panel presents a table showing the current policy rate, a color-coded cycle badge (red for Hiking, green for Cutting, yellow for Hold), the date and action of the last decision, the governor's name, and the days-until countdown for the next scheduled meeting.

The **Country Detail View** provides a deep dive. The header features the current policy rate as the hero value and the cycle badge. Metrics boxes display the bank's mandate (e.g., "Dual mandate: maximum employment + price stability" for the Fed), the last rate change, and the governor's name. A **Recent Decisions** table lists the last three meetings, showing the date, the action taken (Cut, Hike, or Hold), the rate after the decision, and the vote split. For the four major central banks (FED, ECB, BOE, BOJ), this table is enriched with dissenter names and a direct link to the official press statement ([↗](#)). The view also includes a 20-year history chart of the policy rate (available for the Fed) and a list of upcoming meeting dates with a calendar countdown.

## Data sources and refresh rate

The command uses a static registry for basic information (governor names, mandates, 2026 meeting schedules) for all 12 banks. Historical US rate data is sourced from FRED (DFEDTARU series). Live decision data, including vote tallies, dissenter names, and direct statement links for the FED, ECB, BOE, and BOJ, is sourced from the terminal's proprietary news intelligence

layer. This layer is cached for 24 hours for decisions and 7 days for the calendar, though the days-until countdown is always freshly calculated. The detail views are cached for four hours server-side.

## Tips and caveats

- The most powerful macro workflow is to combine **CB FED + RATES US + INFL US**: the Fed's cycle direction, the yield curve shape, and the CPI trend together tell you where monetary policy stands relative to inflation.
- The vote split reveals internal conviction. A 12-0 unanimous decision signals consensus; a 7-5 split signals internal disagreement and increases the probability of a policy reversal at the next meeting.
- Dissenter names (visible for FED, ECB, BOE, and BOJ) are worth tracking over time. A hawk dissenting against a cut, or a dove dissenting against a hold, often foreshadows the next policy shift before the market prices it in.
- Cross-referencing **CB** with **SOVCD** for the same country gives a cleaner signal on sovereign risk: if policy rates are falling but CDS spreads are widening, the market is pricing something beyond monetary policy (fiscal stress, political risk).

CB Central Banks – Global Overview		12 CBs · policy rates · meeting calendars					
Overview		Calendar		Recent Moves			
POLICY RATES AND MONETARY CYCLE – 12 CENTRAL BANKS – CLICK ROW TO OPEN DETAIL							
Central Bank	Rate ( name)	Change	Cycle ?	Last Decision	Next Meeting	Pre	
Federal Reserve USA	4.50% Federal Funds Rate	-25 bps	Cutting	2025-01-29	2026-05-07	Jer	
European Central Bank Eurozone	2.40% Deposit Facility Rate	-25 bps	Cutting	2025-04-17	2026-06-04	Chr	
Bank of England United Kingdom	4.50% Bank Rate	-25 bps	Cutting	2025-02-06	2026-05-07	Anc	
Bank of Japan Japan	0.50% Overnight Call Rate	+25 bps	Hiking	2025-01-24	2026-06-17	Kaz	
People's Bank of China China	3.10% 1-Year Loan Prime Rate (LPR)	-25 bps	Cutting	2024-10-21	2026-05-20	Par	
Swiss National Bank Switzerland	0.25% SNB Policy Rate	-25 bps	Cutting	2025-03-20	2026-06-18	Mar	
Bank of Canada Canada	2.75% Overnight Rate	-25 bps	Cutting	2025-03-12	2026-06-03	Tif	
Reserve Bank of Australia Australia	4.10% Cash Rate Target	-25 bps	Cutting	2025-02-18	2026-05-19	Mic	
Banco Central do Brasil Brazil	13.25% SELIC Rate	+100 bps	Hiking	2025-03-19	2026-05-06	Gat	
Reserve Bank of India India	6.25% Repo Rate	-25 bps	Cutting	2025-02-07	2026-06-04	Sar	
Banco de Mexico Mexico	9.00% Overnight Interbank Rate	-50 bps	Cutting	2025-03-27	2026-05-14	Vic	
Central Bank of Turkey Turkey	42.50% One-Week Repo Rate	-250 bps	Cutting	2025-03-06	2026-05-22	Fat	

<p><b>Dual vs Single mandate</b></p> <p>The Fed targets both 2% inflation AND maximum employment. Most other CBs have a single mandate (price stability only).</p>	<p><b>Hiking / cutting / hold cycle</b></p> <p>The CB is raising rates to cool inflation. Higher rates slow borrowing, spending, and economic activity.</p>
<p><b>Real rate</b></p> <p>Policy rate minus current inflation. Positive real rates are restrictive (cooling the economy); negative real rates are stimulative.</p>	<p><b>Voting record</b></p> <p>Most CB committees vote publicly. Dissents signal internal disagreement and often hint at future policy direction.</p>

## GDP - Global GDP Growth Dashboard

**Command:** GDP

**Category:** Markets

**Requires ticker:** No (optional: two-letter country code)

### Overview

The GDP command opens the global GDP growth dashboard, providing a consolidated view of economic expansion and contraction for 53 major global economies. It aggregates official data and forecasts from sources including the IMF, World Bank, FRED, and OECD. The command operates in two modes: a high-level Global Overview, which allows for quick comparison and filtering across countries, and a focused Country Detail view, which provides historical charts, multi-year forecasts, and granular data for a single nation. This tool is essential for macro investors seeking to understand global economic health and potential sources of future growth.

### How to use it

Type **GDP** in the Command Bar and press Enter to launch the Global Overview table. You can use the filter pills (G7, G20, OECD, Emerging) to quickly narrow the list. Clicking any country row in the table automatically transitions the panel to the Country Detail view for that nation. To bypass the overview and open a specific country, type **GDP** followed by the two-letter ISO country code (e.g., **GDP US** for the United States, **GDP JP** for Japan).

### Reading the output

The **Global Overview** panel provides a quick statistical bar at the top, summarizing the number of countries currently in contraction, the G20 average growth rate, and the IMF's global forecast for the current year. The main sortable table lists countries with their current Nominal GDP (in USD), Year-over-Year (YoY) growth percentage, Quarterly Annualized (QoQ) growth, and IMF forecasts for the current and next year. A color-coded Status badge provides an instant assessment: green for **Expansion** ( $\geq 2.5\%$  growth), lime for **Moderate** ( $\geq 0.5\%$ ), yellow for **Slowdown** ( $\geq 0\%$ ), and red for **Contraction** ( $< 0\%$ ).

The **Country Detail View** opens with a header displaying the country's flag, Nominal GDP, YoY growth, and its current Status badge. Four metric boxes show GDP Per Capita, QoQ Annualized growth, and the IMF's current and next year forecasts. The historical chart displays

20 years of GDP growth; for the US, official NBER recession periods are shaded in red for context. Forecasted periods are visually differentiated by a dashed line. The IMF Forecasts table lists annual projections through 2028, clearly marking estimated or projected figures with an "E" badge. For the US only, a dedicated **Components** tab breaks down growth by contribution from Personal Consumption, Private Investment, Government Spending, and Net Exports, using colored bars to indicate positive or negative percentage point contributions. An educational callout at the bottom provides an economic interpretation tailored to the country's current growth phase.

## Data sources and refresh rate

The dashboard utilizes the IMF World Economic Outlook (WEO) Datamapper API for multi-year forecasts, nominal GDP, and GDP per capita across all 53 countries. The historical 20-year annual growth is sourced from the World Bank API. For the United States, quarterly real GDP, QoQ annualized growth, and the components breakdown are sourced from the FRED API. QoQ annualized growth for non-US OECD members is sourced from the OECD QNA dataset. The NBER recession dates for the US chart are statically embedded. All panel data is cached for 24 hours, and the header will clearly indicate if the panel is serving cached data.

## Tips and caveats

- The QoQ Annualized growth column is only populated for the US (via FRED) and OECD member countries (via OECD QNA). Non-OECD countries will show a dash (--).
- The **Components** tab showing the contribution of Consumption, Investment, Government, and Net Exports (C/I/G/NX) is exclusive to the United States.
- Years that are estimates or projections in the IMF table are marked with an "E" badge. The dashed line in the historical chart also clearly delineates forecast periods.
- The recession bands on the US chart use the official NBER Business Cycle Dating Committee dates, which may differ from the informal "two consecutive negative quarters" definition.
- GDP growth figures are based on **Real GDP** (inflation-adjusted), while the Nominal GDP figure in the header reflects current prices.
- Use the dropdown selector in the country detail view to switch between countries without needing to re-enter the **GDP** command.

GDP Global GDP Growth Dashboard						IMF WEO cached
IN CONTRACTION 0	G20 AVG GROWTH +2.3%	IMF 2026F N/A	TRACKED 53			
ALL	G7	G20	OECD	EMERGING	<input type="text" value="Search country..."/>	
Country	GDP (\$)	YoY	QoQ Ann.* ▲	2026F	2027F	Status
Ireland	\$718B	+12.3%	-7.8%	+2.5%	+2.4%	EXPANSION
Sweden	\$669B	+1.5%	-5.4%	+2.0%	+1.9%	MODERATE
Belgium	\$725B	+1.0%	-3.9%	+0.7%	+1.1%	MODERATE
Lithuania	\$95B	+2.9%	-1.8%	+2.9%	+2.2%	EXPANSION
Portugal	\$346B	+1.9%	-1.1%	+1.9%	+1.8%	MODERATE
South Korea G20	\$1.9T	+1.0%	-0.9%	+1.9%	+2.1%	MODERATE
Hungary	\$247B	+0.4%	-0.7%	+1.7%	+2.0%	SLOWDOWN
Iceland	\$39B	+1.3%	-0.7%	+1.9%	+2.1%	MODERATE
Canada G7	\$2.3T	+1.7%	-0.6%	+1.5%	+1.9%	MODERATE
United Kingdom G7	\$4.0T	+1.3%	+0.2%	+0.8%	+1.3%	MODERATE
Czech Republic	\$389B	+2.5%	+0.6%	+2.2%	+2.2%	EXPANSION
France G7	\$3.4T	+0.9%	+0.8%	+0.9%	+0.9%	MODERATE
New Zealand	\$259B	+0.2%	+1.0%	+2.1%	+2.4%	SLOWDOWN
Mexico G20	\$1.8T	+0.6%	+1.4%	+1.6%	+2.2%	MODERATE
Austria	\$580B	+0.6%	+1.4%	+0.7%	+1.0%	MODERATE
Germany G7	\$5.0T	+0.2%	+1.5%	+0.8%	+1.2%	SLOWDOWN
Slovenia	\$80B	+1.1%	+1.5%	+2.0%	+2.1%	MODERATE
Netherlands	\$1.3T	+1.9%	+1.5%	+1.2%	+1.4%	MODERATE
Turkey	\$1.6T	+3.6%	+1.5%	+3.4%	+3.5%	EXPANSION
Greece	\$281B	+2.1%	+1.6%	+1.8%	+1.7%	MODERATE
United States G7	\$30.8T	+2.1%	+2.0%	+2.3%	+2.1%	MODERATE

## EMPLOY - Global Employment Dashboard

Command: EMPLOY

Category: Markets

Requires ticker: No

### Overview

The EMPLOY command opens a comprehensive dashboard dedicated to tracking global labor market conditions. It consolidates unemployment rates, participation rates, and wage growth for over 50 major economies, providing a vital tool for macro investors and analysts. This panel is essential for assessing economic health, gauging inflation pressures stemming from labor shortages, and understanding central bank policy drivers, particularly for institutions with dual

mandates like the US Federal Reserve.

## How to use it

Type **EMPLOY** in the Command Bar and press Enter to launch the Global Overview table. To focus on a specific country, type **EMPLOY** followed by its two-letter ISO country code (e.g., **EMPLOY US** or **EMPLOY DE**). Clicking any country row in the Global Overview table will transition the panel to the Country Detail view.

## Reading the output

### Global Overview (EMPLOY)

The header bar provides four quick-stat boxes: the OECD Average Unemployment %, the count of Tight Markets (countries below 5% unemployment), the count of countries In Crisis (unemployment above 12%), and the total Countries Tracked. The main table is sortable and filterable by regional filter pills (G7, G20, OECD, Emerging) or a country search box.

- **Table Columns:** Columns display Country (flag and name), Unemployment %, MoM (month-over-month change in percentage points), Participation Rate, Wage YoY, Period (data vintage), and a Status badge.
- **Status Badge:** Uses color-coding to signal labor market health: **TIGHT** (green, <5% unemployment), **MODERATE** (lime, 5-8%), **ELEVATED** (yellow, 8-12%), and **CRISIS** (red, ≥12%).
- **MoM Column:** A rising unemployment rate is color-coded red (negative signal); a falling rate is green (positive signal). A dash (—) indicates the source is annual-only.

### Country Detail View (EMPLOY XX)

The sub-header displays the current unemployment rate, MoM change arrow, status badge, and the data period and source.

- **Metric Boxes:** Four key metrics are displayed: Unemployment Rate, Participation Rate, Employment Rate, and Wage Growth YoY. The US detail view includes a fifth box for the **U-6 Rate** (broad unemployment).
- **Historical Chart:** A 20-year SVG line chart of the unemployment rate is displayed. For the US, official NBER recession periods are shaded in transparent red for economic context.
- **Educational Callout:** Provides context-sensitive text explaining the current labor market status (Tight / Balanced / Elevated / Crisis), often referencing central bank mandates and wage-price dynamics.
- **Related Commands:** A row at the bottom lists relevant commands for macro analysis (INFL, CB, GDP, RATES, and JOBS for US).
- **Country Dropdown:** Located in the header, this allows switching to another country's detail view without re-entering the command.

## Data sources and refresh rate

Unemployment data for 38 OECD countries is sourced monthly from the OECD SDMX LFS, typically with a 1–2 month lag. US-specific data (Unemployment, Participation, U-6, and Wage Growth) is sourced monthly from the FRED API. Wage Growth YoY for non-US OECD countries uses the OECD AV\_AN\_WAGE series (annual frequency). Non-OECD country data for unemployment and participation is sourced annually from the World Bank (1–2 year lag). All data is cached for 24 hours.

### Tips and caveats

- The Wage Growth YoY column shows "—" for non-OECD countries due to the lack of comparable public data sources.
- The MoM change column shows "—" for non-OECD countries because World Bank data is updated annually.
- Wage growth figures for countries experiencing hyperinflation, such as Turkey (currently >100%), are accurate reflections of nominal price changes and should not be interpreted as a data error.
- A decline in the Participation Rate can mask true unemployment as discouraged workers exit the labor force; use the Participation Rate metric alongside the Unemployment Rate for a complete view.
- The US Federal Reserve has an explicit dual mandate (maximum employment + price stability); EMPLOY is the most direct panel to monitor the employment side of that mandate.
- Use **EMPLOY** alongside the **INFL** command to assess real wage growth (nominal wages minus CPI) and with the **CB** command to understand central bank policy reactions.

EMPLOY Global Employment Dashboard						50 countries
OECD AVG UNEMPLOYMENT		TIGHT MARKETS	IN CRISIS	COUNTRIES TRACKED		
5.8%		24	1	50		
ALL	67	620	OECD	Emerging	Search country...	
Country	Unemployment	MoM	Participation	Wage YoY	Period	Status
South Africa	32.4%	—	60.6%	—	2025	CRISIS
Finland	10.5%	-0.2pp	79.4%	+1.6%	2026-03	ELEVATED
Spain	10.3%	+0.0pp	75.0%	+3.4%	2026-03	ELEVATED
Sweden	9.2%	+0.8pp	83.8%	+4.5%	2026-03	ELEVATED
Greece	9.0%	+0.4pp	70.0%	+4.5%	2026-03	ELEVATED
Turkey	8.5%	+0.3pp	60.8%	+113.3%	2026-02	ELEVATED
Chile	8.5%	—	70.9%	+8.6%	2026-01	ELEVATED
Colombia	8.3%	—	69.1%	+9.3%	2025	ELEVATED
France	7.7%	+0.0pp	74.0%	+3.0%	2026-03	MODERATE
Argentina	7.1%	—	70.7%	—	2025	MODERATE
Denmark	6.9%	-0.7pp	82.2%	+5.7%	2026-03	MODERATE
Estonia	6.9%	-0.1pp	81.1%	+5.8%	2026-03	MODERATE
Luxembourg	6.9%	+0.0pp	74.7%	+3.3%	2026-03	MODERATE
Egypt	6.8%	—	47.4%	—	2025	MODERATE
Canada	6.7%	+0.0pp	80.0%	+2.6%	2026-03	MODERATE
Costa Rica	6.6%	—	65.3%	+6.4%	2026-01	MODERATE
Lithuania	6.5%	-0.1pp	78.8%	+7.6%	2026-03	MODERATE
Latvia	6.4%	-0.3pp	76.6%	+9.8%	2026-03	MODERATE
Belgium	6.3%	-0.1pp	71.0%	+4.3%	2026-03	MODERATE

\* Wage growth: US via FRED AHE (monthly). OECD countries via OECD AV\_AN\_WAGE (annual, nominal). Non-OECD: not available.  
Participation rate: World Bank (annual) except US (FRED CIVPART, monthly).

## NFP - Non-Farm Payrolls

**Command:** NFP

**Category:** Markets

**Requires ticker:** No (singleton panel — one instance, no arguments needed)

### Overview

The NFP command opens the Non-Farm Payrolls dashboard, providing a consolidated, real-time snapshot of the US labor market data released monthly by the Bureau of Labor

Statistics (BLS). The Non-Farm Payrolls report is arguably the most critical scheduled US economic indicator, driving significant volatility in equity, bond, and currency markets upon release. This panel is designed to present the headline figures and underlying metrics—such as the Unemployment Rate, Average Hourly Earnings (AHE), and sector decomposition—in a structured, easily digestible format for macro analysts and traders.

The data presented is essential for forecasting Federal Reserve policy decisions, as the NFP report is the primary measure of the "maximum employment" side of the Fed's dual mandate. By consolidating the headline, key metrics, historical trends, and market reaction in one view, the NFP command enables users to rapidly assess the report's impact on the credit cycle and interest rate expectations.

## How to use it

Type **NFP** in the Command Bar and press Enter. The panel loads automatically, populating the dashboard with the latest available monthly data. The NFP command operates as a singleton, ensuring a focused view of this single, critical economic release. On the first Friday of each month at 8:30 AM Eastern Time, a pulsing green "LIVE" badge appears in the panel header to signal the live data release.

## Reading the output

The dashboard is structured into seven distinct sections:

- **Hero Stats:** Four top-level metric boxes display the **NFP Headline** (MoM change in total nonfarm payrolls, in thousands), **Private Payrolls** (excluding government workers), **VS Consensus** (the difference between the actual NFP and the Wall Street consensus forecast, in thousands), and **Revisions** (the combined upward or downward adjustment to the two prior months' NFP readings).
- **Key Metrics Table:** This detailed table lists eight crucial labor market metrics, including Non-farm Payrolls, Unemployment Rate (U-3), Average Hourly Earnings (YoY and MoM), the Labor Force Participation Rate (LFPR), the broad U-6 Rate, and Average Weekly Hours. The table presents the Actual figure, the Consensus Forecast (for NFP only), the Previous month's reading, and the Surprise (Actual minus Forecast). Educational tooltips are available on all column headers to explain the metric's relevance to Federal Reserve policy.
- **Monthly NFP Change Chart:** A 24-month bar chart visualizes the historical trend of job growth: green bars indicate monthly job gains, and red bars indicate job losses. An orange line is overlaid, representing the 3-month moving average, which helps smooth volatility and identify the underlying trend in hiring.
- **Sector Decomposition:** A table showing the MoM job change (in thousands) for nine major employment sectors (e.g., Construction, Manufacturing, Government, Professional & Business Services). The table is sorted by the absolute change, ensuring the sectors with the greatest momentum are visible at the top. A proportional trend bar provides a

quick visual measure of the sector's contribution to the headline NFP figure.

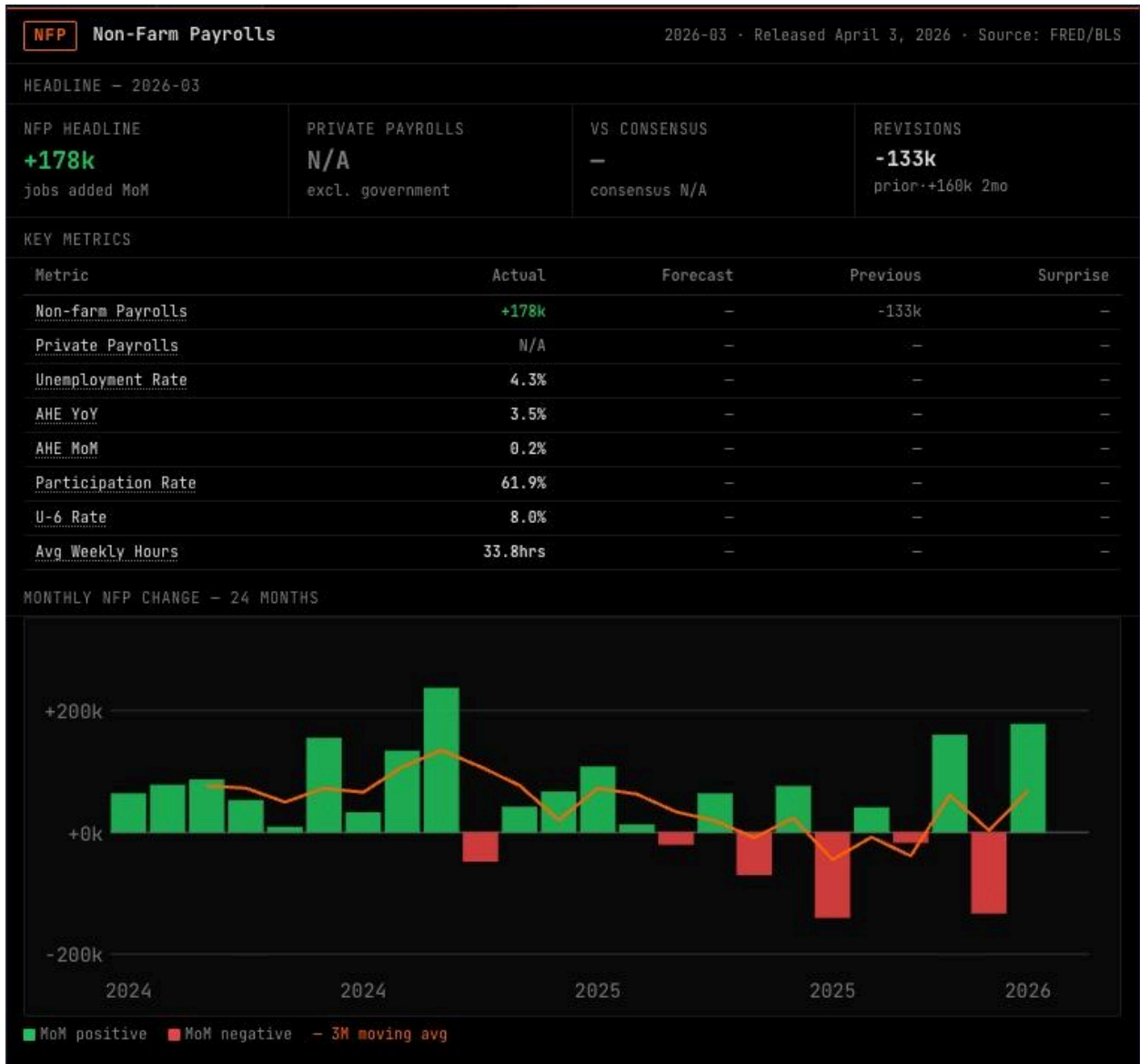
- **Complementary Indicators:** A 2x2 grid displays related, forward-looking labor market indicators: Initial Jobless Claims, Continuing Claims, JOLTS Job Openings, and the JOLTS Quits Rate. These provide context on labor demand and slack that the NFP report may not capture.
- **Upcoming Release Calendar:** This section shows the date of the next NFP release (always the first Friday of the following month), the available Wall Street consensus estimate for the headline, and a reminder of key leading indicators (like ADP and Initial Claims) to monitor in the week before the NFP release.
- **Market Reaction Table:** A history table showing the market's response to the last 12 NFP releases. Columns include the Release Date, NFP Actual, a Beat/Miss/Inline badge (relative to the 3-month average), the S&P 500 (SPY) day return, and the 10-Year Yield Change (DGS10) in basis points.

## Data sources and refresh rate

All macroeconomic time series (PAYEMS, UNRATE, AHE, sector data, JOLTS, etc.) are sourced exclusively from the **FRED REST API** (Federal Reserve Bank of St. Louis), ensuring official and reliable data. The consensus forecast for the headline NFP figure is sourced from the Nasdaq Economic Calendar API (the same source used for the ECOCAL command). The S&P 500 reaction is calculated using SPY Open/High/Low/Close data from the internal [market\\_data\\_daily](#) database. The panel data is cached for 2 hours (using a Redis TTL) to ensure data updates quickly following the 8:30 AM ET release without requiring a manual server refresh.

## Tips and caveats

- The NFP report is released on the first Friday of each month at 8:30 AM Eastern Time. The pulsing **LIVE** badge in the header signals the exact day of the release.
- The Forecast column shows N/A for granular metrics like the Unemployment Rate or AHE because precise, publicly available consensus forecasts are typically only tracked for the headline NFP number.
- The JOLTS data in the Complementary Indicators section is typically 1–2 months behind the NFP reference period due to the BLS's staggered publication schedule. The reference month is always shown below the JOLTS figures.
- The S&P 500 Day column in the Market Reaction table may show a dash (--) if the NFP release date fell on a US market holiday (e.g., Good Friday).
- The Beat/Miss badge in the Market Reaction table uses a comparison against the 3-month rolling average as a proxy for market expectation, not the true Wall Street consensus. It is intended as a directional indicator of surprise.
- Cross-reference buttons at the bottom of the panel link to related macro dashboards: **JOBS** (US labor market), **EMPLOY US** (global employment), **INFL** (inflation), **RATES** (interest rates), and **CB** (central banks).



## PMI - Purchasing Managers Index

Command: PMI

Category: Markets

Requires ticker: No (standalone command, accepts country slugs)

### Overview

The Purchasing Managers Index (**PMI**) command provides a crucial, forward-looking snapshot

of the global business cycle. PMI is a monthly, survey-based indicator that measures business activity and health across a nation's manufacturing and services sectors. The index is built from diffusion sub-indices—such as new orders, production, and employment—where a value above 50.0 indicates a general *expansion* in activity compared to the previous month, and a value below 50.0 indicates a *contraction*. As one of the first hard economic data points released each month, it is closely watched by traders, central banks, and macro investors for real-time clues on the direction of GDP, inflation, and corporate earnings.

## How to use it

Type **PMI** in the Command Bar and press Enter to open the global overview panel, which displays a summary table for 12 major world economies. To access granular detail for a specific country, use a country slug after the command:

### CLI Examples:

- **PMI** — opens the global 12-economy overview table as default
- **PMI US** — opens the detailed US ISM panel
- **PMI DE, PMI GB, PMI JP, PMI FR, PMI IN, PMI BR, PMI CA, PMI AU** — common country snapshots
- **PMI CN** or **PMI CNX** — opens the detail panel for China's official NBS or private-sector Caixin release, respectively.

Clicking any country's row within the global overview table will automatically open that country's dedicated detail panel.

## Reading the output

The output adjusts based on whether the global or a country-specific view is selected.

### Global View (PMI)

The top bar displays three KPI counts (Expanding, Borderline, Contracting) and the global manufacturing average to provide a consolidated risk assessment. The main table shows the latest Manufacturing PMI value, its month-over-month (MoM) change, the latest Services PMI value, and a color-coded status badge (e.g., Strong Expansion, Borderline, Deep Contraction) for each economy. Green tones indicate expansion (typically above 52.0), amber indicates a borderline condition (50.0–52.0), and red indicates a contraction (below 50.0).

### Country Detail (PMI US)

This panel provides the most detail due to the availability of the US ISM data. Hero cards display the Manufacturing PMI and Services PMI with their prior-month values and

month-over-month delta. Below these, two sub-index tables are shown: the ISM Manufacturing sub-indices (New Orders, Employment, Prices Paid) and the ISM Services sub-indices (Business Activity, New Orders, Employment, Prices Paid). Each sub-index shows its current value, the previous month's value, and the change.

### **Country Detail (non-US)**

Panels for non-US countries (e.g., PMI DE) show hero cards for the Manufacturing PMI and Services PMI with their prior values and MoM deltas. The granular sub-index breakdown is only available for the US ISM releases.

### **PMI Guide**

Below the main data, a persistent **PMI Guide** section explains six key concepts: the critical 50.0 expansion/contraction threshold, the difference between the US ISM and non-US S&P Global surveys, the distinction between Manufacturing and Services activity, the role of 'Flash' versus 'Final' releases, the divergence between China's NBS and Caixin indices, and the PMI's function as a leading indicator for GDP and employment.

### **Data sources and refresh rate**

The PMI data is sourced from the Nasdaq economic calendar, which aggregates releases from official providers: ISM (United States), S&P Global / HCOB (Europe and many other regions), HSBC (India), China's NBS (official), and China's Caixin (private sector). PMI is a monthly release; the panel refreshes automatically on the official release day for each country, ensuring the latest data is available within the cache window. The panel caches its data for 6 hours.

### **Tips and caveats**

- The 50.0 line is the single most-watched level in any PMI report; the direction of change (i.e., whether the index is accelerating or decelerating) often matters more to markets than the absolute value.
- ISM Manufacturing (typically released on the second business day of the month) is historically the biggest market mover for USD assets. However, ISM Services (released a few days later) has grown significantly in importance, as the services sector now represents over 70% of US GDP.
- For China, the official NBS PMI covers large state-owned enterprises (released on the last day of the month), while the Caixin PMI covers private and smaller firms (released on the first day of the next month). They can diverge sharply during periods of policy shifts—the terminal shows both.
- S&P Global publishes a 'Flash' PMI mid-month (based on approximately 75% of the survey panel) before the 'Final' PMI. The Flash release is typically the bigger market mover; the Final rarely surprises.

- Cross-reference buttons at the bottom of the panel link directly to the **JOBS**, **NFP**, **INFL**, **CB FED** and **GDP** panels, allowing users to instantly contextualize the PMI reading with related macro data.
- Historical 24-month charts showing the trend for both Manufacturing and Services PMI are planned for a future release.

**PMI** Global PMI
Reference period: 2026-04

<b>8</b> EXPANDING	<b>5</b> BORDERLINE	<b>4</b> CONTRACTING	<b>51.1</b> GLOBAL MFG AVG
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LATEST PMI READINGS – 2026-04

Country	Source	Mfg PMI	MoM Δ	Svcs PMI	Status
United States (ISM)	ISM	52.7	+0.3	54.0	EXPANSION
Eurozone	S&P Global / HCOB	51.6	+0.8	–	BORDERLINE
Germany	S&P Global / HCOB	52.2	+1.3	–	EXPANSION
France	S&P Global / HCOB	50.0	-0.2	–	BORDERLINE
United Kingdom	S&P Global	51.0	-0.7	–	BORDERLINE
Japan	S&P Global	51.6	+0.2	53.4	BORDERLINE
China (NBS)	NBS	50.4	+1.4	50.1	BORDERLINE
China (Caixin)	Caixin	50.8	-1.3	52.1	BORDERLINE
India	HSBC / S&P Global	53.9	-3.0	57.5	EXPANSION
Brazil	S&P Global	49.0	+1.7	50.1	CONTRACTION
Canada	S&P Global	50.0	-1.0	47.2	BORDERLINE
Australia	S&P Global	49.8	-1.2	46.3	CONTRACTION

PMI GUIDE

<p><b>THE 50 THRESHOLD</b></p> <p>Values above 50 indicate expansion (more purchasing managers reporting improvement than decline). Below 50 = contraction. It is the single most-watched line in any PMI report.</p>	<p><b>ISM vs S&amp;P GLOBAL</b></p> <p>ISM surveys only US firms; S&amp;P Global covers 40+ countries. Both use the same 50-line methodology but sample different universes. ISM is older and more market-moving for USD.</p>
<p><b>MANUFACTURING vs SERVICES</b></p> <p>Services represents 70-80% of GDP in developed economies yet manufacturing PMI moves markets first (releases ~2 days earlier). Watch divergence: strong services with weak manufacturing = soft landing.</p>	<p><b>FLASH vs FINAL</b></p> <p>S&amp;P Global publishes a Flash PMI mid-month (~75% of panel) before the Final PMI in early next month. Flash is the bigger market mover; Final rarely surprises.</p>
<p><b>NBS vs CAIXIN (CHINA)</b></p> <p>NBS covers large state-owned enterprises (released last day of month). Caixin covers private and smaller firms (released day 1 of next month). They can diverge sharply during policy shifts.</p>	<p><b>PMI AS LEADING INDICATOR</b></p> <p>Composite PMI has a ~0.85 correlation with next quarter GDP growth. Manufacturing new orders sub-index leads production by 1-2 months. ISM employment leads NFP by ~4 weeks.</p>

JOBS
NFP
INFL
EMPLOY US
CB FED
GDP

Source: Nasdaq economic calendar · ISM (United States) · S&P Global / HCOB (Europe) · HSBC (India) · NBS (China) · Cached 6h

## TRADE - Global current account and trade balance

**Command:** TRADE

**Category:** Markets

**Requires ticker:** No

### Overview

The TRADE command provides a global snapshot of international trade flows by tracking the Current Account (CA) balance for over 50 major economies. The Current Account, typically expressed as a percentage of GDP (CA/GDP %), measures the net flow of goods, services, and transfers between a country and the rest of the world. This tool is essential for assessing a nation's external financial health, identifying global imbalances, and monitoring for vulnerability to currency crises, particularly in emerging markets.

### How to use it

Type **TRADE** in the Command Bar and press Enter to launch the Global Overview table, which is automatically sorted by external vulnerability (STRESS countries first). To focus on a specific country, type **TRADE** followed by its two-letter ISO country code (e.g., **TRADE US** or **TRADE JP**). The global view includes filter pills (ALL, G7, G20, OECD, SURPLUS, DEFICIT / STRESS) and a real-time search box to quickly narrow the 53+ monitored economies. The panel is non-singleton, allowing users to open multiple country views simultaneously for comparison.

### Reading the output

The Global Overview panel features a KPI bar displaying the aggregate count of Surplus, Deficit, and Stress countries, alongside the global current account average (% of GDP). The main table uses the CA/GDP % as the core metric, color-coded with a Status badge: green for **SURPLUS** (CA/GDP > +2%), grey for **BALANCED** (between -2% and +2%), amber for **DEFICIT** (between -5% and -2%), and red for **STRESS** (CA/GDP below -5%). Clicking any country row opens the Country Detail panel, which features four hero metric cards, a 25-year historical chart of CA/GDP %, a table of IMF forecasts, and an educational callout explaining the country's current external position.

### Data sources and refresh rate

The CA/GDP % and CA Balance figures are sourced from the IMF World Economic Outlook (WEO) DataMapper (indicators BCA\_NGDPD and BCA) and are updated twice a year (April and October WEO). Data marked "E" are WEO estimates for the current year, and "F" tags indicate formal forecasts. Foreign Exchange (FX) Reserves are sourced annually from the World Bank. The US country detail view uses monthly FRED data (BOPGSTB series) for the historical chart,

while all other countries use the annual IMF data. All data is cached for 24 hours (TTL).

### **Tips and caveats**

- A STRESS reading (CA/GDP below -5%) does not guarantee a crisis, but every major EM currency crisis since 1997 was preceded by a reading in that zone. Use it as an early-warning signal, not a verdict.
- The US runs a persistent DEFICIT (around -3% to -4%) without crisis because the dollar is the global reserve currency and the deficit is financed by foreign demand for US Treasuries. Apply the same CA/GDP threshold differently to reserve-currency vs. non-reserve economies.
- Germany and China consistently show large SURPLUS readings. A surplus is not always positive: it can reflect suppressed domestic consumption or an undervalued exchange rate, and both countries face diplomatic pressure from trading partners.
- FX Reserves below 3 months of imports (shown in the Import Coverage card) is the IMF's critical threshold for external vulnerability. Use this alongside the CA/GDP status badge for a fuller picture.
- The TRADE GUIDE panel at the bottom is resizable: drag the horizontal separator up to expand the educational content, or drag it down to give more screen space to the country table.
- Use the cross-reference buttons (GDP, INFL, RATES, SOVCDS) at the bottom to jump to related macro panels for the same country with a single click.

**TRADE** Global Trade

SURPLUS **17**      DEFICIT **14**      STRESS (<-5%) **1**      GLOBAL CA AVG **+1.3%**

**ALL** G7 G20 DECD SURPLUS DEFICIT / STRESS

Country (2025E)	CA/GDP %	CA Balance	Status
Greece	-5.7%	-\$16B	STRESS
Egypt	-4.2%	-\$15B	DEFICIT
New Zealand	-3.7%	-\$10B	DEFICIT
Iceland	-3.6%	-\$1B	DEFICIT
Slovakia	-3.6%	-\$6B	DEFICIT
United States	-3.6%	-\$1116B	DEFICIT
Latvia	-3.4%	-\$2B	DEFICIT
Philippines	-3.3%	-\$16B	DEFICIT
United Kingdom	-3.1%	-\$125B	DEFICIT
Brazil	-3.0%	-\$69B	DEFICIT
Saudi Arabia	-3.0%	-\$38B	DEFICIT
Australia	-2.6%	-\$48B	DEFICIT
Colombia	-2.4%	-\$11B	DEFICIT
Chile	-2.3%	-\$8B	DEFICIT
Belgium	-2.1%	-\$15B	DEFICIT

TRADE GUIDE

**CURRENT ACCOUNT vs TRADE BALANCE**

Trade balance = exports minus imports of goods and services. Current Account (CA) is broader: it adds investment income (dividends, interest) and unilateral transfers (remittances). CA is the complete measure of a country's external account.

**THE 5% STRESS LINE**

A CA deficit exceeding 5% of GDP is the IMF's canonical vulnerability threshold. Every major EM currency crisis (Asia 1997, Turkey 2018, Argentina 2018, Eurozone periphery 2010-12) was preceded by a CA deficit near or above this line.

INFL GDP EMPLOY RATES CB SOVCDS

Source: IMF DataMapper BCA\_NGDPD/BCA - World Bank FI.RES.TOTL.CD - FRED BOPGSTB (US) - Cached 24h

## HOUSING - House price index global dashboard

Command: HOUSING

Category: Markets

Requires ticker: No (a two-letter country code is optional: HOUSING = global table; HOUSING US / HOUSING DE / HOUSING ES = country detail)

### Overview

The HOUSING command opens a global real estate market dashboard covering approximately 48 countries. Real estate represents 5 to 15 percent of GDP in most economies and is the primary transmission channel of monetary policy: when central banks raise rates, housing is the first and fastest sector to react. A House Price Index (HPI) falling more than 5 percent year-on-year is considered an IMF macro-financial warning threshold. The command offers two complementary views: a global overview table that ranks all countries by HPI momentum with color-coded status badges, and a country-level detail view with a historical HPI chart, mortgage rate data, and (for the United States) a comprehensive set of housing activity metrics drawn from FRED.

## How to use it

Type **HOUSING** to open the global overview table. To open a country detail view, type **HOUSING** followed by the ISO two-letter country code (for example, **HOUSING US**, **HOUSING DE**, **HOUSING ES**, **HOUSING GB**, or **HOUSING JP**). In the global view, use the filter pills at the top of the table to narrow by group: ALL, G7, G20, OECD, EMERGING, HEATING, or CORRECTING. A search box filters the list by country name. Clicking any row in the global table opens that country's detail view directly. The GUIDE section at the bottom of the panel contains six educational panels; drag the resize handle to expand it.

## Reading the output

**Global view:** A KPI bar at the top shows four market-wide counts (number of Heating countries, Rising, Cooling, and a global HPI average). The main table displays each country's Nominal HPI year-on-year percentage, Real (inflation-adjusted) HPI year-on-year percentage, Mortgage Rate where available, most recent data period, and a Status badge. The five status tiers are: **HEATING** (above +10 percent nominal YoY, bubble risk), **RISING** (+2 to +10 percent, healthy appreciation), **STABLE** (-2 to +2 percent, sideways market), **COOLING** (-5 to -2 percent, early correction phase), and **CORRECTING** (below -5 percent, systemic risk threshold).

**Country detail view:** Four hero cards show the country's latest Nominal HPI YoY, Real HPI YoY, Mortgage Rate (where available from the country's central bank source), and the data period. An educational callout below the cards explains what the current status means with historical precedents. The HPI chart plots two lines: nominal HPI YoY in orange and real inflation-adjusted HPI YoY as a grey dashed line, covering all available years. For the United States, an additional activity metrics table shows: existing home sales, new home sales, housing starts, building permits, months of supply, median home price (with YoY), 30-year and 15-year fixed mortgage rates, the mortgage spread versus the 10-year Treasury (in basis points), and the mortgage delinquency rate. The GUIDE section at the bottom contains six educational panels covering: HPI versus median price, the affordability crisis mechanics, mortgage rate transmission, the months-of-supply leading indicator, real versus nominal HPI, and global housing cycle synchronization.

## Data sources and refresh rate

Global HPI data (nominal and real year-on-year percentages) is sourced from the Bank for International Settlements BIS WS\_SPP Property Price Statistics, which covers approximately 48 countries on a quarterly basis with a typical lag of one to two quarters. Mortgage rates are sourced by country from official central bank APIs: FRED MORTGAGE30US for the United States (30-year fixed rate), ECB MIR composite APRC for the eleven eurozone countries (Austria, Belgium, Germany, Spain, Finland, France, Greece, Ireland, Italy, Netherlands, Portugal), Bank of Canada for Canada, and Bank of England Bankstats for the United Kingdom. US activity metrics (home sales, housing starts, building permits, months of supply, median price, and delinquency rate) are sourced from FRED. All data is cached for 24 hours.

## Tips and caveats

- Nominal HPI above 10 percent YoY is a bubble-risk signal. Historical examples: United States 2004 to 2006 (approximately +15 percent per year, followed by a 30 percent crash from 2006 to 2012), Ireland 2006, and Spain 2007.
- Real HPI (inflation-adjusted) is more economically meaningful than nominal HPI during high-inflation periods. A nominal gain of 5 percent with 4 percent inflation represents only 1 percent real appreciation. Spain 2000 to 2007 saw nominal HPI rise 200 percent and real HPI rise 150 percent: both were unsustainable.
- BIS data typically lags one to two quarters. A period shown as 2024 reflects Q3 or Q4 2024 data published in early 2025.
- The months-of-supply indicator (visible in the US detail view) is a forward-looking signal that typically leads price changes by 6 to 12 months. Below 3 months indicates a seller's market where prices tend to rise; above 6 months indicates a buyer's market where prices tend to fall.
- Mortgage rate data is available for 14 countries: the United States, Canada, the United Kingdom, and the 11 eurozone members listed above. All other countries display N/A for the mortgage rate column.
- Use the HEATING and CORRECTING filter pills to isolate the most market-relevant countries quickly without scrolling the full table.
- Cross-reference with **RATES** (central bank interest rates), **INFL** (inflation), and **GDP** panels using the shortcut buttons at the bottom of the panel to analyze housing within its broader macro context.

HOUSING
Global Housing

HEATING  
**10**

RISING  
**24**

COOLING  
**2**

GLOBAL HPI AVG  
**+5.8%**

ALL
G7
G20
OECD
EMERGING
HEATING
CORRECTING

Search country...

Country	HPI Nominal	HPI Real	Period	Status
China	-5.7%	-6.3%	2025	CORRECTING
Turkey	+30.6%	-0.8%	2025	HEATING
Hungary	+21.2%	+16.8%	2025	HEATING
Portugal	+18.9%	+16.3%	2025	HEATING
Russia	+14.3%	+7.2%	2025	HEATING
Colombia	+12.9%	+7.2%	2025	HEATING
Spain	+12.9%	+9.6%	2025	HEATING
Slovakia	+12.7%	+8.6%	2025	HEATING
Latvia	+11.0%	+6.9%	2025	HEATING
Lithuania	+10.8%	+6.8%	2025	HEATING
Czech Republic	+10.4%	+8.0%	2025	HEATING
Canada	-3.4%	-5.5%	2025	COOLING
Finland	-3.1%	-3.5%	2025	COOLING
Mexico	+8.9%	+5.0%	2025	RISING
Australia	+7.8%	+6.0%	2025	RISING

HOUSING GUIDE

**HPI vs MEDIAN HOME PRICE**

HPI tracks repeat-sales of the same homes (no mix shift); median price reflects what's selling today (skewed by mix). S&P/Case-Shiller = gold standard for controlling quality. NAR median = market

**THE AFFORDABILITY CRISIS**

Combine HPI + mortgage rate + income. US 2022-2024: worst affordability since 1984. A \$300k home at 3.5% rate = \$1,347/mo. At 7% = \$1,996/mo (+48%). Incomes did not change at the same pace. The Fed funds rate

RATES
CB
INFL
GDP
EMPLOY

Source: BIS WS\_SPP Property Price Statistics - FRED MORTGAGE30US (US) - Cached 24h

## RATEPATH - Central bank interest rate trajectory

Command: RATEPATH

Category: Markets

Requires ticker: No

### Overview

The RATEPATH command displays the market-implied trajectory of central bank policy rates for the four major central banks: the FED, the ECB, the BOE, and the BOJ. It answers critical questions regarding what the market expects central banks to do at their next meetings, serving

as a retail-accessible version of institutional tools like the WIRP or WCRS screens.

## How to use it

Type RATEPATH to open a global overview panel featuring a KPI bar for all four banks and navigation tabs to switch between them. Alternatively, you can jump directly to a specific central bank by typing RATEPATH FED, RATEPATH ECB, RATEPATH BOE, or RATEPATH BOJ. The terminal allows multiple panels to be open simultaneously, enabling you to compare the Federal Reserve and the European Central Bank side by side.

## Reading the output

The panel is divided into several analytical sections. The KPI bar shows the current policy rate, the cycle direction (CUTTING, HIKING, or HOLD), and a countdown to the next meeting. Below this, the meeting probability table lists the next eight scheduled meetings and the odds of a hold, cut, or hike derived from derivatives markets. A colored probability bar provides an at-a-glance visualization of these expectations.

The dashboard also includes an implied rate path that shows the weighted expected outcome for the next 12 months and an SVG line chart tracking the last 20 years of rate history with markers for major economic events. Additionally, an overnight rate box monitors benchmark rates like SOFR or ESTR: a spread near zero is normal, while wider spreads may signal short-term funding stress. For newer investors, a built-in GUIDE section explains OIS mechanics, dot plots, and terminal rates.

## Data sources and refresh rate

Current rates and 20-year history are sourced from the St. Louis Fed (FRED) using series like DFEDTARU and ECBDFR. Meeting probabilities for the Fed are provided by the Atlanta Fed Market Probability Tracker, while ECB and BOE probabilities are derived from OIS forwards via centralbank.watch. Data for the Bank of Japan is limited to a meeting calendar because the JPY OIS market currently lacks sufficient liquidity for reliable probability derivation. The panel refreshes automatically every hour during market hours and uses a 1-hour cache.

## Tips and caveats

- If the market prices a probability above 70% for a specific move, that change is considered fully priced in. A surprise decision in the opposite direction would likely cause a sharp market reaction.
- For the FED, only the next FOMC meeting displays specific probabilities because the Atlanta Fed Tracker publishes one meeting at a time. All subsequent meetings show the calendar only.
- Meetings marked with a dot indicator are particularly important because they include new economic projections, such as the Fed dot plot or the BOE Monetary Policy Report.

- The implied 12-month rate represents the weighted cumulative path across all upcoming meetings. This value is null if market probability data is currently unavailable.
- BOJ probabilities are not shown due to insufficient market liquidity. Use the calendar view provided to track the schedule of upcoming Bank of Japan policy decisions.
- The GUIDE section at the bottom of the panel is a built-in reference for investors unfamiliar with how OIS markets or forward guidance language works.



## FXRATES - FX Rates & Currency Pairs

**Command:** FXRATES

**Category:** Markets

**Requires ticker:** No (optional: currency pair code)

### Overview

The FXRATES command opens a comprehensive dashboard for tracking global foreign exchange (FX) market conditions. It provides real-time spot rates, historical performance, and key volatility metrics for major and emerging market currency pairs, including the US Dollar Index (DXY). This tool is essential for traders and investors monitoring global currency flows, assessing central bank policy impact, and identifying potential stress points in emerging markets. The panel uses transparent volatility calculations and policy rate differentials to contextualize currency movements.

### How to use it

Type **FXRATES** in the Command Bar and press Enter to launch the global overview panel, which includes tables for Major and Emerging Market pairs. To open a detailed analysis for a specific currency, type **FXRATES** followed by the currency pair code (e.g., **FXRATES EURUSD**, **FXRATES USDJPY**). Typing **FXRATES DXY** will open a focused view of the US Dollar Index. You can open multiple detail panels simultaneously for comparison.

### Reading the output

The **Global Overview** panel is divided into four tabs:

- **MAJORS** and **EMERGING MARKETS** tabs display sortable tables showing the current rate, 1-day percentage change, year-to-date (YTD) performance, and 1-month realized volatility. Emerging Market pairs where the US Dollar has appreciated by more than 5% YTD are marked with an orange stress dot, indicating a potential vulnerability.
- **VOLATILITY** tab ranks all tracked pairs by their 1-month realized volatility, highlighting the most actively moving currencies.
- **GUIDE** tab contains six educational panels explaining currency fundamentals.

The **Pair Detail View** provides granular analysis:

- A 5-year price history chart for the pair, complete with 50-day (MA50) and 200-day (MA200) moving average overlays.
- A metrics grid featuring: **Realized Volatility** (annualized for 1M, 3M, and 1Y), **Performance** (1-day, YTD, 1Y change), **52-Week Range** (showing the current rate's position within the annual high/low), and **Carry Trade** (displaying the policy rate differential between the two currencies and the implied direction of the carry trade).

## Data sources and refresh rate

Spot FX rates and historical pricing are sourced from Yahoo Finance (yfinance) and typically carry a 15-minute delay due to free-tier provider policies. Policy rates for the Carry Trade calculation are sourced from the FRED API (Federal Reserve Economic Data) using official central bank series (e.g., DFEDTARU for the US). Realized volatility is calculated server-side from daily log-returns, requiring no external API. The Global Overview refreshes every 15 minutes, and the Pair Detail View refreshes every 30 minutes.

## Tips and caveats

- FXRATES is not a singleton; you can compare multiple currency pairs side-by-side (e.g., FXRATES EURUSD and FXRATES USDJPY).
- The orange stress dot in the Emerging Markets tab signals significant US Dollar appreciation (>5% YTD), which historically precedes episodes of capital flight and economic strain in emerging economies.
- The Carry Trade card shows the interest rate differential. A positive differential favors buying the base currency (the first in the pair, e.g., EUR in EURUSD) and selling the quote currency.
- Spot rates are subject to a 15-minute delay due to the free data source; do not use this panel for high-frequency or day-trading decisions.
- Realized Volatility is a backward-looking metric based on historical price movement. It is distinct from Implied Volatility (which measures market expectation) and should be used only as a reference.
- Use the cross-reference buttons at the bottom to jump directly to **RATES**, **RATEPATH**, **CB**, or **INFL** to analyze the underlying macro drivers for the currency pair.

FXRATES FX Rates & Currency Pairs <span style="float: right;">15m · 30m cache</span>						
<span style="border: 1px solid black; padding: 2px;">DXY</span> <b>98.00</b> <span style="color: red;">-0.02%</span> <span style="color: red;">YTD -0.43%</span> 52W 96.22 - 101.79 <span style="float: right; border: 1px solid black; padding: 2px;">Detail DXY →</span>						
MAJORS	EMERGING MARKETS	VOLATILITY		GUIDE		
Pair	Rate <sup>?</sup>	1D %	YTD % <sup>?</sup>	1Y %	Vol 1M <sup>?</sup>	52W Range <sup>?</sup>
EUR/USD	1.1767	+0.44%	+0.14%	+3.74%	4.9%	<div style="width: 100%; height: 5px; background: linear-gradient(to right, orange, grey);"></div>
USD/JPY	156.57	-0.70%	-0.10%	+9.46%	8.1%	<div style="width: 100%; height: 5px; background: linear-gradient(to right, orange, grey);"></div>
GBP/USD	1.3606	+0.27%	+0.98%	+1.87%	5.7%	<div style="width: 100%; height: 5px; background: linear-gradient(to right, orange, grey);"></div>
USD/CHF	0.7777	-0.47%	-1.81%	-5.81%	7.3%	<div style="width: 100%; height: 5px; background: linear-gradient(to right, orange, grey);"></div>
AUD/USD	0.7244	+0.55%	+8.47%	+11.33%	8.8%	<div style="width: 100%; height: 5px; background: linear-gradient(to right, orange, grey);"></div>
USD/CAD	1.3630	+0.19%	-0.63%	-1.01%	4.6%	<div style="width: 100%; height: 5px; background: linear-gradient(to right, orange, grey);"></div>
NZD/USD	0.5965	+1.05%	+3.60%	-0.83%	9.9%	<div style="width: 100%; height: 5px; background: linear-gradient(to right, orange, grey);"></div>

See also: RATES RATEPATH CB INFL

Source: yfinance (15-min delay) · FRED (policy rates for carry) · Cached · Generated 18:29:48

## INFEXP - Inflation Expectations

**Command:** INFEXP

**Category:** Markets

**Requires ticker:** No

### Overview

The INFEXP command opens a dedicated dashboard for monitoring inflation expectations—a critical signal monitored by central banks and institutional investors to assess the credibility of

their monetary policy targets. The panel aggregates market-based measures (Breakeven Rates derived from US Treasury Inflation-Protected Securities, or TIPS) and survey-based measures (Consumer and Professional Forecaster surveys from the US and Eurozone) into five navigable tabs. Expectations are classified as "Anchored" when the Fed's preferred long-run measure, the 5-Year, 5-Year Forward Inflation Expectation Rate (5Y5Y Forward), sits within the 1.5% to 2.5% band, or "De-Anchored" if it moves outside this range, signaling a potential policy challenge. The command functions as a singleton, providing a focused view of the underlying drivers of long-term bond yields and monetary policy.

## How to use it

Simply type **INFEXP** in the Command Bar and press Enter. The panel opens as a singleton, meaning only one instance can be open at a time. Users can navigate between the five primary tabs (**BREAKEVENS**, **SURVEYS**, **EUROZONE**, **ANCHORING**, and **GUIDE**) using the selector located at the top of the interface. The header displays a persistent status badge (ANCHORED, DE-ANCHORED HIGH, or DE-ANCHORED LOW) based on the latest 5Y5Y Forward reading.

## Reading the output

1. **BREAKEVENS tab:** This tab is the core US market-based view. It displays the 5-Year, 10-Year, and 30-Year Breakeven Rates, along with the critical 5Y5Y Forward Rate, which is highlighted with an orange left border. Each row shows the current rate, the 1-day and 1-month changes in basis points (bps), the underlying TIPS Real Yield, and the Nominal Treasury Yield. A visual split bar confirms the fundamental relationship (Real Yield + Breakeven Rate = Nominal Yield). A status dot is color-coded to indicate if the breakeven rate is within the Fed's target band (green), above (red), or below (blue). Positive changes in bps are displayed in red to signal increasing inflation pressure; negative changes are in green, signaling normalization.
2. **SURVEYS tab:** This tab provides US consumer and model-based expectations. It includes raw consumer responses from the Michigan Survey (1Y and 5-10Y horizons) and statistical model estimates from the Cleveland Fed (1Y, 3Y, and 10Y horizons). The table lists the source, horizon, value, month-over-month change, and the data-as-of date, with a **SURVEY** (green) or **MODEL** (yellow) badge for context.
3. **EUROZONE tab:** This section displays key inflation expectations for the Euro Area, which inform European Central Bank (ECB) policy. It includes the ECB Consumer Expectations Survey (CES) for 1Y and 3Y, and the ECB's Survey of Professional Forecasters (SPF) for 1-year, 2-year, and Longer term HICP forecasts.
4. **ANCHORING tab:** This historical view charts 12 years of the US 5Y5Y Forward Inflation Rate (the Fed's key indicator) as an orange line. A semi-transparent green horizontal band marks the Fed's preferred long-run target range (1.5%–2.5%), with a dashed gray line at the 2.0% objective. Historical markers (Taper Tantrum, COVID, Rate Hike Cycle) provide context, and users can toggle between 5-year and 10-year chart views.
5. **GUIDE tab:** Six educational cards provide essential background, including the definition of a breakeven rate, how to interpret the 5Y5Y forward, the difference between market

and survey expectations, and how TIPS function as an inflation hedge.

## Data sources and refresh rate

All US market-based breakeven rates and survey data are sourced from the **FRED API** (Federal Reserve Bank of St. Louis). Eurozone CES data is sourced from the **ECB SDW SDMX REST API**. Eurozone SPF data is extracted from ECB quarterly publications via an internal api-news microservice. The panel's data cache is refreshed every 4 hours. Note that the SPF data, published quarterly (February, May, August, November), is cached for up to 7 days, as the underlying series only updates once per quarter. All data loads on panel open; there is no continuous auto-refresh.

## Tips and caveats

- The 5Y5Y Forward Rate is the critical metric: if it persistently falls below 1.5% or rises above 2.5%, the market is signaling a lack of confidence in the Fed's ability to maintain its 2% inflation target.
- Breakeven rates are market-based expectations and are therefore more volatile than survey-based measures, which tend to be stickier and slower to react to events.
- Consumer surveys (Michigan Survey) often show higher inflation expectations than professional forecasters or market-based metrics because they reflect current, real-world price changes more directly.
- The **ANCHORING** chart shows the effect of the Federal Reserve's policy success (or failure) over the past decade in maintaining credibility.
- Use **INFEXP** alongside the **INFL** (actual CPI/PCE data), **RATES** (yield curve), and **CB** (central bank monitor) commands for a comprehensive macro view.
- Positive bps changes for breakevens are color-coded red because they indicate a tightening financial condition or a failure of anchoring.

INFEXP		Inflation Expectations				ANCHORED (2.26%)		cached
BREAKEVENS		SURVEYS	EUROZONE	ANCHORING	GUIDE			
Tenor	Breakeven	1D (bps)	1M (bps)	Real (TIPS)	Nominal	Split		
5Y	2.58% ●	-9.0 bps	-2.0 bps	1.41%	4.08%			
10Y	2.42% ●	-5.0 bps	+6.0 bps	1.96%	4.43%			
30Y	2.29% ●	-	-	2.69%	4.98%			
5Y5Y Fwd Fed fav.	2.26% ●	-1.0 bps	+14.0 bps	-	-			

Green dot = within Fed target band (1.5%-2.5%) · Red = above band · Blue = below band · Split bar: ■ real yield + ■ breakeven = nominal · FRED series: T5YIE, T10YIE, T30YIE, T5YIFR, DFII5/10/30, DGS5/10/30

See also: [INFL US](#) [RATES US](#) [RATEPATH](#) [CB](#) [FXRATES](#)

Sources: FRED (breakevens, surveys) · ECB SDW (eurozone surveys) · Updated: 2026-05-07 20:09 UTC

## WEO - World Economic Outlook

**Command:** WEO

**Category:** Markets

**Requires ticker:** No

### Overview

The WEO command opens the World Economic Outlook dashboard, providing a comprehensive view of macro-economic forecasts and historical data for 63 major global economies. It aggregates critical indicators from the International Monetary Fund (IMF), including Real GDP Growth, CPI Inflation, Unemployment Rate, and key fiscal metrics like Gross Government Debt and the Fiscal Balance. This panel is an essential resource for macro investors, sovereign risk analysts, and students seeking to understand the global economic landscape and the consensus expectations for future growth.

The dashboard uses the IMF's widely cited WEO database, which includes actual historical data up to the most recent completed year, a staff estimate for the current year, and a multi-year forecast horizon (currently through 2030). The ability to compare economic paths of analytical groups like the G7, Emerging Markets, and the Euro Area makes it a powerful tool for identifying global economic imbalances and divergence in regional performance.

## How to use it

Type **WEO** in the Command Bar and press Enter to open the global dashboard. This default view provides regional summaries and a sortable table of all 63 countries. To jump directly to a country's detailed view, type **WEO** followed by its ISO country code (e.g., **WEO US**, **WEO DEU**, or **WEO CHN**). The panel supports both two-letter (ISO-2) and three-letter (ISO-3) country codes for convenience.

The WEO panel is non-singleton, allowing users to open the global overview, a country detail view (e.g., WEO US), and a comparison view (COMPARE tab) all at the same time to facilitate complex, side-by-side analysis.

## Reading the output

The **WORLD** tab provides a top-down view, summarizing global and regional GDP and CPI forecasts for 2026, alongside lists of the world's fastest and weakest growing economies. The **COUNTRIES** tab is a filterable, sortable table offering quick assessment of GDP growth, Debt/GDP, and Fiscal Balance, with traffic-light color-coding to signal potential financial stress.

The **COUNTRY** tab provides a 15-year chart of Real GDP Growth, clearly distinguishing between historical actuals (solid line) and IMF staff forecasts (dashed line). It also features a full table of eight key indicators across a multi-year horizon (2019-2030). The **COMPARE** tab allows users to chart multiple countries simultaneously (e.g., all G7 members) across different indicators (GDP, CPI, Debt/GDP), facilitating peer analysis of fiscal sustainability and growth momentum.

## Data sources and refresh rate

All data for the WEO command is sourced from the official IMF Datamapper public API. This includes all economic indicators and the formal IMF staff estimates and projections. Because the IMF World Economic Outlook is published quarterly (typically April, July, October, and January editions), the terminal panel data is cached for **7 days**. The panel header indicates the specific WEO edition (e.g., April 2026) to provide context for the forecast vintage.

## Tips and caveats

- WEO alone opens the global dashboard; adding a country code (WEO US, WEO CHN) jumps directly to that country's detail view.
- Each panel is independent: you can have WEO, WEO US, and WEO DEU open simultaneously as separate tabs in the terminal.
- The COMPARE tab is useful for side-by-side fiscal stress analysis: select BRICS+ and switch to Govt Debt to see which emerging markets carry the heaviest debt burdens.
- The IMF WEO is updated quarterly. The 7-day cache means data refreshes automatically after each IMF publication without any user action.
- Forecast years marked (F) are IMF staff projections and will be revised in subsequent editions. For investment decisions, always cross-reference with **CB** (central bank) and **RATEPATH** panels for current policy context.

**WEO** World Economic Outlook April 2026 cached · 63 countries

**WORLD** COUNTRIES COUNTRY: BGD COMPARE GUIDE

WORLD GDP 2026F ?

**+3.1%** ▼

vs 2025E: 3.4%

ADVANCED ECON. 2026F ?

**+1.8%** ▼

vs 2025E: 1.9%

EMERGING MKTS 2026F ?

**+3.9%** ▼

vs 2025E: 4.4%

GLOBAL CPI 2026F ?

**+4.4%**

REGIONAL GROUPS - IMF ANALYTICAL GROUPINGS

Group	GDP 2024(A) <span>?</span>	GDP 2025(E) <span>?</span>	GDP 2026(F) <span>?</span>	CPI 2024 <span>?</span>	CPI 2026(F) <span>?</span>
Advanced Economies <small>ADVEC</small>	+1.8%	+1.9%	+1.8% <sup>F</sup>	2.6%	2.8% <sup>F</sup>
Emerging Markets & Developing <small>DEMDC</small>	+4.5%	+4.4%	+3.9% <sup>F</sup>	8.0%	5.5% <sup>F</sup>
G7 <small>MAE</small>	+1.7%	+1.5%	+1.6% <sup>F</sup>	2.7%	2.9% <sup>F</sup>
Euro Area <small>EURO</small>	+0.9%	+1.4%	+1.1% <sup>F</sup>	2.4%	2.6% <sup>F</sup>
Developing Asia <small>DA</small>	+5.4%	+5.5%	+5.0% <sup>F</sup>	1.0%	2.4% <sup>F</sup>

TOP 10 FASTEST-GROWING ECONOMIES (2026F GDP GROWTH) ?

#	Country	Region	GDP 2024(A)	GDP 2026(F)	CPI 2026(F) <span>?</span>
1	Ethiopia	Middle East & Africa	+8.1%	+9.2% <sup>F</sup>	11.8%
2	Vietnam	Asia-Pacific	+7.0%	+7.1% <sup>F</sup>	4.9%
3	India	Asia-Pacific	+7.1%	+6.5% <sup>F</sup>	4.7%
4	Taiwan POC	Asia-Pacific	+5.3%	+5.2% <sup>F</sup>	1.5%
5	Indonesia	Asia-Pacific	+5.0%	+5.0% <sup>F</sup>	3.0%

WEAKEST GROWTH / CONTRACTING (2026F)

Country	Region	GDP 2026(F)	Debt/GDP <span>?</span>	Fiscal Bal. <span>?</span>
Qatar	Middle East & Africa	-8.6% <sup>F</sup>	41%	+0.7%
Iran	Middle East & Africa	-6.1% <sup>F</sup>	31%	-2.7%
Kuwait	Middle East & Africa	-0.6% <sup>F</sup>	3%	+26.0%
Italy	Europe	+0.5% <sup>F</sup>	135%	-3.4%
Belgium	Europe	+0.7% <sup>F</sup>	104%	-4.4%

Edition: April 2026. Actuals through 2024. Forecasts for 2025-2030 per IMF Datamapper API.  
Group codes: ADVEC=Advanced Economies, DEMDC=Emerging Markets, MAE=G7, EURO=Euro Area.

See also: [GDP](#) [INFL](#) [JOBS](#) [RATEPATH](#) [INFEXP](#) [CB](#)

## CONFIDENCE - Consumer and Business Sentiment Surveys

**Command:** CONFIDENCE

**Category:** Markets

**Requires ticker:** No (macro command, no ticker needed)

### Overview

The CONFIDENCE command opens a dedicated dashboard for monitoring forward-looking

consumer and business sentiment surveys. These "soft" data releases are critical for investors because they measure psychological expectations, which often shift before official "hard" economic data (like GDP, employment, or industrial production) can confirm a turning point in the business cycle. The command consolidates the most influential global and US-specific sentiment indicators, providing an early-warning mechanism for potential recessions or accelerations in growth.

The panel focuses on major US surveys, including those from the Conference Board and the University of Michigan, as well as two crucial German and Euro Area indicators (ZEW and IFO). It also uses the OECD's Composite Leading Indicators (CLI) to provide a unified framework for assessing the economic outlook across 28+ developed and emerging economies.

## How to use it

Type **CONFIDENCE** in the Command Bar and press Enter. The panel loads as a singleton, displaying the global snapshot. It is organized into five navigational tabs: **USA**, **GLOBAL**, **EUROPE**, **COMPARE**, and **GUIDE**, which you can select from the panel header. The panel is a singleton, meaning only one instance can be open at a time, ensuring a focused view of the macro sentiment picture.

## Reading the output

### USA tab

This tab provides a deep dive into four critical US sentiment and leading composite indicators:

- **Conference Board Consumer Confidence:** A monthly survey of 3,000 US households, highly focused on the labor market outlook.
- **University of Michigan Consumer Sentiment:** A monthly survey of approximately 500 households, tracking personal financial conditions and long-term expectations. Readings below 70 have historically correlated with US recessions.
- **NFIB Small Business Optimism Index:** A monthly index measuring the hiring, investment, and sales plans of approximately 620 small business owners. Small businesses account for nearly half of private-sector employment, making this a key gauge of Main Street health.
- **Conference Board Leading Economic Index (LEI) MoM % change:** A composite index of 10 disparate leading indicators. Sustained year-over-year declines of 3–5% are considered a reliable pre-recession signal.

Each indicator is displayed with its current value, month-over-month (MoM) change, and a 10-year percentile badge (red = below 10th percentile, green = above 50th percentile) to provide historical context. Below the cards, a **20-year history chart** overlays the Michigan Sentiment, Conference Board CC, and a normalized LEI line, with official NBER recession periods shaded in gray.

### GLOBAL tab

This tab presents a sortable table of **OECD Composite Leading Indicators (CLI)** for over 28 countries. The CLI is designed to anticipate economic turning points 6–9 months in advance. Values above 100 indicate the economy is performing above its long-run trend, while values below 100 signal below-trend performance. The table includes:

- **CLI value** and **MoM change**.
- A **Status badge** that classifies the country's business cycle into one of four states based on both the level and the direction of the CLI: **Expanding** (>100 and rising), **Slowing** (>100 but falling), **Recovering** (<100 but rising), or **Contracting** (<100 and falling).

## EUROPE tab

This tab focuses on the Euro Area and Germany, home to some of the world's most influential sentiment indicators:

- **Header Cards:** Display six key indices: the ECB Economic Sentiment Indicator (ESI), Euro Area Consumer Confidence, Eurostat Industrial Confidence, Eurostat Services Confidence, ZEW Economic Sentiment Germany, and IFO Business Climate Germany.
- **IFO Business Cycle Clock:** A unique scatter plot for Germany that maps **Current Assessment** (X-axis) against **Business Expectations** (Y-axis). The movement of the most recent 24 data points traces the German business cycle clockwise through the four quadrants: Boom (top-right, green), Slowdown (bottom-right, amber), Recession (bottom-left, red), and Recovery (top-left, blue). The latest data point is highlighted in orange.
- **ZEW Sentiment Bars:** A visual bar display for ZEW's 6-month Economic Sentiment outlook and Current Economic Situation, scaled from –100 to +100.
- 

## COMPARE tab

This tab allows for side-by-side analysis of the OECD CLI values for major economies. Users can toggle between two pre-set groups: the **G7** (US, Germany, UK, France, Italy, Japan, Canada) or the **Euro Area** countries, charting their CLI against the critical 100 long-run trend line.

## GUIDE tab

This section contains six detailed educational cards explaining: the difference between confidence (leading) and hard (lagging) data, the methodologies of the Conference Board and Michigan surveys, the significance of the NFIB, how to interpret the OECD CLI, a guide to reading the IFO Business Cycle Clock, and what it signals when soft sentiment diverges sharply from hard economic prints.

## Data sources and refresh rate

The CONFIDENCE command aggregates data from several primary public sources to ensure

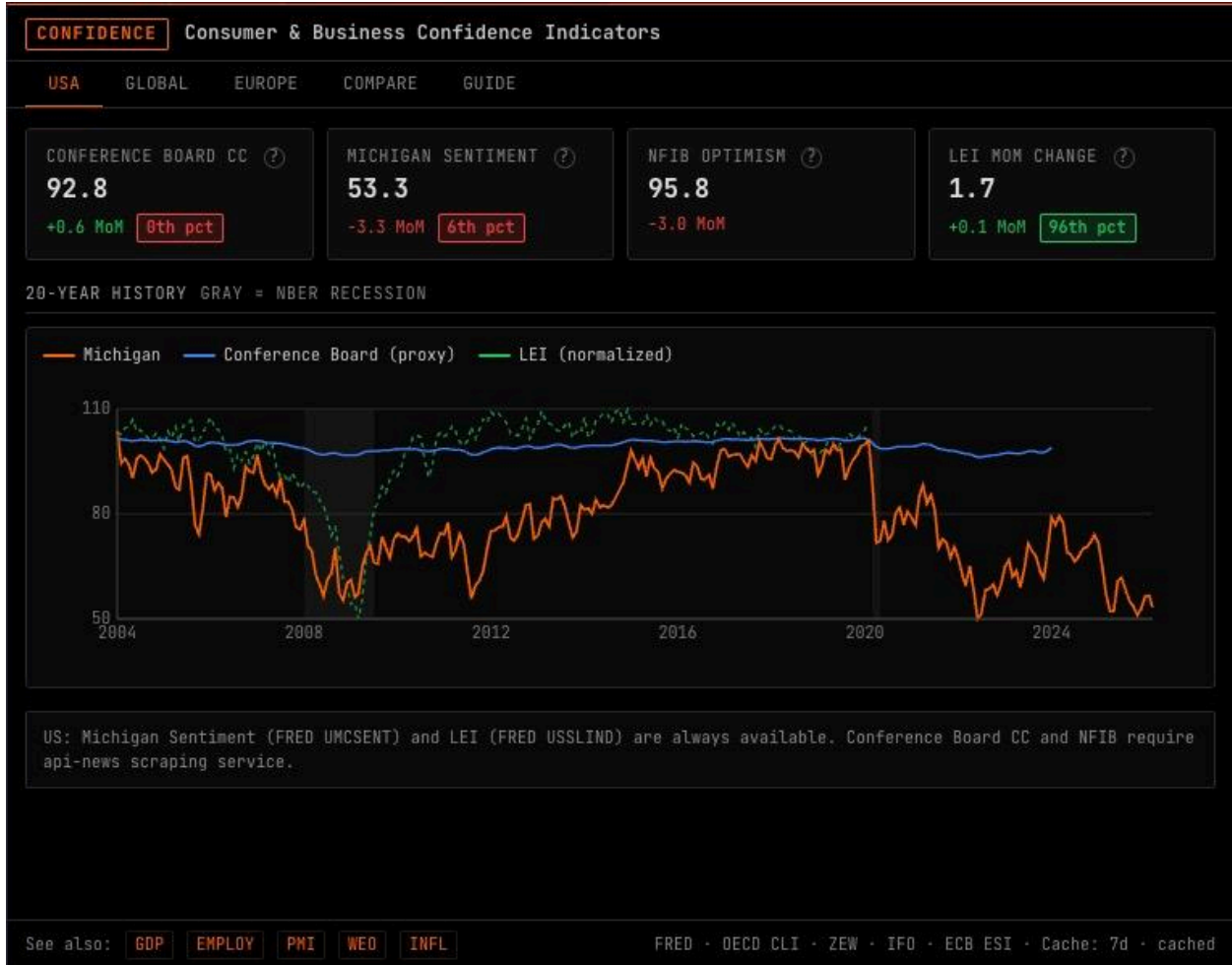
reliability:

- **FRED API:** Used for core guaranteed US data, including the University of Michigan Sentiment (UMCSENT), a proxy for the Conference Board CC (CSCICP03USM665S), the Conference Board LEI (USSLIND), and NBER recession dates (USREC).
- **OECD SDMX-JSON:** Used for the Composite Leading Indicators (CLI) for 28+ countries.
- **Eurostat BCS SDMX:** Used for Industrial and Services confidence for the Euro Area.
- **api-news scraping service:** Used for the most current headline data for the Conference Board CC, NFIB, ZEW, IFO (climate/current/expectations), and the ECB ESI. This is a best-effort source; if unavailable, the panel displays "—" and defaults to the guaranteed FRED/OECD data.

Since most core sentiment releases are monthly, the panel data is cached for **7 days** to align with the weekly update cadence of the underlying series.

## Tips and caveats

- Confidence indicators are **leading** indicators. They typically move 3–6 months before major economic turning points. Use them to anticipate, not confirm, a recession.
- Pay close attention to the **20-year history chart** on the USA tab: when both the Michigan and Conference Board lines fall sharply and cross below a significant historical trough (e.g., Michigan below 70), a recession is likely imminent.
- Divergence between the **Michigan Survey** (focus on personal finances) and the **Conference Board** (focus on the labor market) can signal different stress points. High unemployment fears show up faster in the CB index.
- The **NFIB Small Business** index is a powerful leading indicator for business investment and hiring. A persistent drop signals that job growth and capital spending are likely to slow down.
- In the **GLOBAL** tab, the most concerning state is **Contracting** (<100 and falling). Look for the number of countries in this state to increase as a sign of synchronized global downturn risk.
- The **IFO Business Cycle Clock** (EUROPE tab) is highly reliable for Germany, Europe's largest economy. The crucial signal is the dot moving from the Slowdown (bottom-right) quadrant into the **Recession** (bottom-left, red) quadrant.



## SWING - Swing trading candidate scanner

**Command:** SWING

**Category:** Portfolio

**Requires ticker:** No (The ticker is optional; entering a ticker takes you directly to the detail view for that asset, while entering only the command opens the full list of candidates.)

### Overview

The SWING command surfaces daily ranked swing trading setups across all US equities. This is accomplished using a quantitative model that identifies short-term mean reversion opportunities, primarily relying on the Relative Strength Index (RSI) with a two-period lookback and the Internal Bar Strength (IBS) metric. The methodology is derived from established work in short-term trading strategies, as documented in "Short Term Trading Strategies That Work" (2008) by Connors and Alvarez. The model runs overnight to deliver 100 to 400 highly ranked candidates, providing both long and short opportunities with suggested entry, target, and stop levels, for an average expected holding period of 2–5 trading days.

## How to use it

To access the full list of ranked long candidates, simply type **SWING** into the Command Bar and press Enter. Alternatively, you can directly access the full detail view for a specific asset by appending its ticker, for example, **SWING NVDA**. The resulting panel is organized with five essential tabs: LONG, SHORT, DETALLE, SCANNER, and GUIDE, which allow you to navigate the ranked tables or explore the underlying strategy and data sources. Clicking on any row in the LONG or SHORT tables will automatically load the DETALLE tab for that selected ticker.

## Reading the output

The main LONG and SHORT tables present several key metrics to help you evaluate potential trades. The **#** column indicates the rank, with 1 being the strongest signal for the day. **Ticker** is clickable, allowing you to view the detailed setup (DETALLE tab) or double-click to open the full price chart (GP command). The **Score** is a composite metric ranging from 60 to 100+, color-coded to instantly convey signal strength: blue (60-69), cyan (70-79), orange (80-89), and green (90+). Key levels are provided with **Entry** (suggested entry price), **Target** (the short-term mean, approximately SMA5), and **Stop** (a protective stop-loss below the recent swing low). Additionally, the **RSI(2)** raw value shows the input from the 2-period RSI, where values below 10 indicate an extremely oversold condition for long setups.

## Data sources and refresh rate

The SWING scan relies on end-of-day (EOD) OHLCV data, which includes up to 10 years of history sourced from the **market\_data\_daily** table. Supplementary data feeds are used for specific sub-scores, including earnings announcement data for the PEAD component (using a 7-day lookback) and unusual options flow signals. The entire Extract, Transform, Load (ETL) process runs nightly at 03:45 UTC, ensuring the scan is calculated immediately after the daily OHLCV data is fully updated. If the data is not current (due to a market holiday or incomplete ETL), the panel will display a **STALE** badge, although the panel itself is locally cached for 30 minutes to ensure fast retrieval during your session.

## Tips and caveats

- Always remember that these are purely quantitative signals generated by a model, not official trading recommendations. You should always review the GP chart and recent news using the **CN** command before committing to a position.
- Be cautious with short candidates, as they expose you to unlimited loss risk; consider using these advanced setups primarily as hedges rather than speculative bets.
- The PEAD sub-score contributes to the total score only if the ticker had an earnings event with a positive surprise in the preceding seven calendar days; outside this window, the sub-score is zero, and its weight is proportionally redistributed.
- If the **Avg Vol** is low (below 500K), you should anticipate a potentially wide bid-ask spread and utilize limit orders when entering the trade.
- The score reflects the strength of the signal at the close of the scan date, not real-time intraday conditions; if the stock experiences a significant gap at the open, you must re-evaluate your entry before taking action.

SWING		2026-05-21		STALE		▲ 100 Longs ▼ 100 shorts					
LONG		SHORT		DETALLE: DOW		SCANNER		GUIDE			
#	Ticker	Sector	Score	Setup	Entry	RSI(2)	IBS	Target	Stop	Hold	Avg Vol
1	DAR	Consumer Defensi...	111.3	rsi2_ibs_combo	\$57.86	0.9	0.022	\$64.40	\$53.50	3d	2.3M
2	WMT	Consumer Defensi...	107.5	rsi2_mean_revert	\$121.34	4.4	0.180	\$131.29	\$114.70	3d	17.8M
3	BCRX	Healthcare	106.5	rsi2_ibs_combo	\$8.37	2.9	0.044	\$9.66	\$7.51	3d	4.3M
4	DOW	Basic Materials	104.0	rsi2_mean_revert	\$35.91	0.9	0.193	\$40.75	\$32.68	3d	11.2M
5	ADI	Technology	103.8	rsi2_mean_revert	\$384.21	1.6	0.190	\$425.51	\$356.68	3d	3.7M
6	PBF	Energy	101.1	rsi2_mean_revert	\$39.07	7.6	0.106	\$47.00	\$33.78	3d	2.8M
7	ACHC	Healthcare	100.4	rsi2_mean_revert	\$23.02	1.6	0.364	\$27.37	\$20.12	3d	2.9M
8	LYB	Basic Materials	98.5	rsi2_mean_revert	\$70.08	4.8	0.207	\$79.02	\$64.12	3d	5.1M
9	ADM	Consumer Defensi...	97.7	ibs_mean_revert	\$77.12	5.8	0.053	\$84.05	\$72.50	3d	3.5M
10	NXE	Energy	97.3	rsi2_mean_revert	\$10.53	11.0	0.362	\$12.34	\$9.32	3d	5.5M
11	LFST	Healthcare	97.2	rsi2_mean_revert	\$7.46	8.0	0.128	\$8.45	\$6.80	3d	5.6M
12	DVN	Energy	96.6	rsi2_mean_revert	\$47.11	8.6	0.170	\$52.27	\$43.67	3d	13.3M
13	AR	Energy	95.8	ibs_mean_revert	\$37.04	15.4	0.045	\$40.74	\$34.58	3d	4.4M
14	FSLY	Technology	95.3	rsi2_mean_revert	\$16.40	29.0	0.145	\$23.19	\$11.87	3d	12.2M
15	SBUX	Consumer Cyclical	94.9	rsi2_mean_revert	\$104.13	4.3	0.201	\$111.92	\$98.93	3d	7.1M
16	RRC	Energy	94.9	rsi2_mean_revert	\$41.14	15.2	0.109	\$44.92	\$38.62	3d	2.7M
17	LNG	Energy	94.3	rsi2_mean_revert	\$240.45	14.5	0.270	\$264.51	\$224.41	3d	2.2M
18	PR	Energy	94.0	rsi2_mean_revert	\$20.43	16.9	0.109	\$22.45	\$19.09	3d	11.5M
19	NXT	Technology	93.9	rsi2_mean_revert	\$121.02	5.5	0.246	\$151.00	\$101.03	3d	2.2M
20	DINO	Energy	93.9	ibs_mean_revert	\$68.39	13.8	0.069	\$76.61	\$62.91	3d	2.1M
21	RIG	Energy	93.4	ibs_mean_revert	\$6.82	12.5	0.042	\$7.90	\$6.10	3d	33.5M
22	FTI	Energy	93.4	rsi2_mean_revert	\$71.41	18.7	0.129	\$78.33	\$66.80	3d	3.3M
23	CME	Financial Servic...	93.3	ibs_mean_revert	\$289.29	12.4	0.080	\$308.94	\$276.19	3d	2.2M

## PSWING - Paper Swing Portfolio panel

**Command:** PSWING

**Category:** Portfolio

**Requires ticker:** No (opens as a singleton panel; no ticker needed)

### Overview

The Paper Swing Portfolio command, PSWING, initiates a dedicated paper trading simulator for the opportunities identified by the SWING algorithm. This tool allows you to rigorously test and track your strategy performance using hypothetical capital without any real financial risk. You can simulate entries from SWING candidates and continuously monitor key portfolio metrics and trade execution results over time.

### How to use it

You must be logged in to use this feature; if not authenticated, a login gate will appear when you attempt to execute the command. Type PSWING in the Command Bar and press Enter to open

the panel with your portfolio overview. To initiate a new paper trade, you must first navigate to the SWING panel, select a ticker's Detail tab, and click the dedicated PSWING button displayed alongside other functions like GP and FA. An inline form will appear, pre-filled with the SWING algorithm's suggested entry price and direction; you can modify the entry price and the default share count of 100 before clicking Confirm to record the trade, which immediately populates your open positions table.

## Reading the output

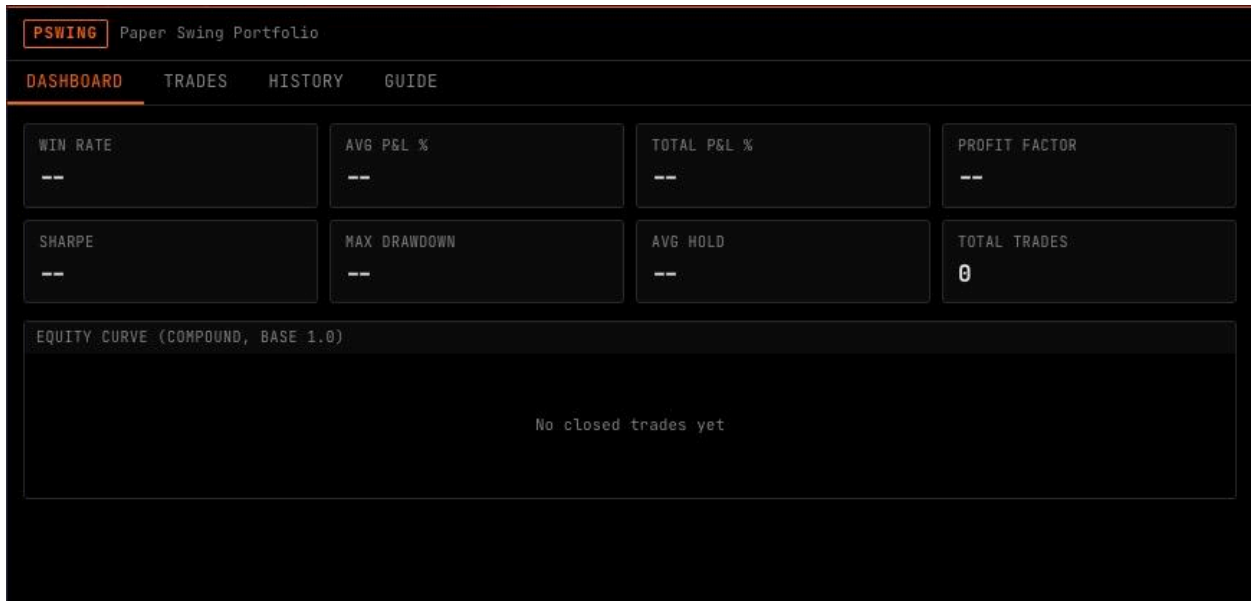
The panel is organized into four main tabs: DASHBOARD, TRADES, HISTORY, and GUIDE. The DASHBOARD provides a snapshot of simulated performance via an 8-metric KPI grid—including Win Rate, Profit Factor, and Sharpe Ratio—and an Equity Curve chart that compounds returns starting at 1.0. The TRADES tab displays your open positions, showing details like Direction, Entry Price, Score, and includes a Close button to manually exit a trade at the current market price. The HISTORY tab lists closed trades, marking the Exit Reason with a colored badge: target (green), stop (red), time (gray), or manual (cyan). All open trades are automatically checked by the EOD Closer job each night, which respects a priority order of target, stop, and maximum expected hold days to determine the exit reason.

## Data sources and refresh rate

The system stores your individual trade records within the QSTMarkets database in the `swing_paper_trades` table. Target and Stop prices are derived from the `swing_candidates` algorithm output if the ticker was a candidate on entry, or calculated using an ATR(14) formula otherwise (e.g., Long Target = Entry + 3×ATR). Portfolio KPIs are cached for fast loading but refresh automatically when a new trade is opened or closed, or after a maximum of 5 minutes. The automated EOD closer, which executes stop-loss and take-profit logic, runs once per trading day after the US market closes.

## Tips and caveats

- Opening a paper trade is done exclusively from the **SWING** panel's Detail tab, not directly from the **PSWING** panel itself.
- The entry price defaults to the **SWING** algorithm's suggested entry; you should edit it to accurately simulate fills below or above the suggested level.
- While the absolute P&L value scales directly with your chosen share count (default: 100), the P&L percentage and all portfolio KPIs are independent of the share count.
- The Sharpe Ratio initially shows -- and will only calculate and display a value once a minimum of 5 trades have been closed, ensuring the displayed value is not statistically meaningless.
- All calculated Key Performance Indicators (Win Rate, Sharpe, Max Drawdown, Profit Factor) are computed based exclusively on trades that have been formally closed, although the Total Trades count includes both open and closed positions.
- Paper trading simulates ideal fills at target or stop prices; when transitioning to live trading, you must account for slippage and liquidity constraints that may lead to less optimal execution prices.
- Use **PSWING** strategically to calibrate and refine your personal confidence in the underlying **SWING** signal before you commit any real capital to the strategy.



## AUTOTRADER BOT - Automated paper trading engine

**Command:** PSWING, then navigate to the BOT tab

**Category:** Portfolio

**Requires ticker:** No

### Overview

The AutoTrader Bot is QSTMarkets Terminal's built-in automated paper trading engine. It monitors SWING signal candidates and opens or closes simulated positions automatically, without any user interaction. All activity is strictly paper trading and no real capital is ever involved. The bot evaluates eligible candidates during the 09:30-10:30 ET entry window, running a scoring cycle approximately every 5 minutes on market days.

### How to use it

To access the bot, type PSWING in the command bar to open the paper trading panel. Click the **BOT** tab, which is located between **HISTORY** and **PROFILE**. The first time you enable the bot, a disclaimer modal will appear which you must accept to confirm the paper-only nature of all activity. Use the **ENABLED/DISABLED** toggle to turn the bot on or off, or use **PAUSE** and **RESUME** to temporarily halt or restart it without losing your configuration. You can save all configuration changes using the **Save** button in the Bot Configuration section.

### Reading the output

The **BOT** tab is organized into three distinct sections. **Section 1 - Status and Controls** displays

a table showing the current bot state, including "Bot enabled," "Status," "Last cycle," "Trades opened today," "Open positions," and "Next cycle." The Status is color-coded: ACTIVE in green, PAUSED with reason in orange, and DISABLED in grey; contextual **PAUSE** and **RESUME** buttons appear below the table. You will also see a flashing "**BOT PAUSED**" badge in the panel header if the bot is temporarily halted.

**Section 2 - Bot Configuration** is a form with five groups of settings, allowing you to configure parameters such as scoring filters for minimum signal score thresholds (range 60-100), concurrent position limits, and the maximum sector concentration. You can also define the **Sizing model** (risk\_parity\_scored, fixed\_dollar, or fixed\_pct\_equity), set **Simulation slippage** to approximate real-world friction, and enable **Circuit breakers** to automatically pause the bot based on daily paper P&L or VIX levels.

**Section 3 - Activity Log** provides a paginated table (50 rows per page) listing every action the bot has taken, with columns for Time (ET), Action, Ticker, and Detail. Circuit breaks are logged with an orange badge, circuit resumes with green, and filter rejects with dark; you can use the Action filter dropdown to narrow results or click **Export CSV** to download the current view.

#### Data sources and refresh rate

The Status section refreshes automatically every 60 seconds while the **BOT** tab is actively viewed. The core bot logic runs server-side, meaning no active browser session is required for it to operate. Any changes you save in the configuration panel will take effect on the next bot cycle after saving. Activity log entries are stored persistently and remain accessible regardless of how long ago the action occurred.

#### Tips and caveats

- **PAUSE** temporarily stops the bot while preserving your settings; one click on **RESUME** brings it back. **DISABLE** turns the bot fully off; you can re-enable it at any time from the same toggle.
- Circuit breakers trigger automatically and log a `circuit_break` entry in the Activity Log with the exact reason (for example: "vix 35.2 > threshold 30.0"). After an automatic pause you must click **RESUME** manually.
- The scoring thresholds (**Min score LONG / SHORT**) are the highest-impact settings. Raising them reduces trade frequency but improves average signal quality.
- **Reset to Defaults** restores all configuration fields to the original values: `min_score_long` 80, `min_score_short` 85, `max_concurrent_positions` 10, `max_new_positions_per_day` 5, sizing model `risk_parity_scored` at 1% risk per trade, slippage 0.1%, daily loss circuit at 5%, and VIX circuit at 30.
- Configuration changes affect new positions only; open positions already held are not modified retroactively.
- For a complete CSV export of the activity log, set the Action filter to **All** before clicking **Export CSV**.
- The disclaimer modal appears only on first activation. To reset it (for testing purposes) clear the browser `localStorage` key `autotrader_activated_v1`.

**PSWING** Paper Swing Portfolio 1 open

DASHBOARD TRADES HISTORY **BOT** PROFILE GUIDE

---

**BOT STATUS**

Bot enabled ENABLED

Status ACTIVE

Last cycle 2 h ago

Trades opened today 0 / 5

Open positions 1 / 10

Next cycle in 4 min

---

**PAUSE**

---

**BOT CONFIGURATION**

**SCORING FILTERS**

Min score LONG 80

Min score SHORT 85

---

**POSITION LIMITS**

Max concurrent positions 10

Max new positions / day 5

Max sector exposure % 30%

---

**SIZING MODEL**

Model Risk parity (scored) ▾

Risk per trade % 1.00%

---

**SIMULATION**

Slippage % 10bp

---

**CIRCUIT BREAKERS**

Pause if daily P&L < -5.0% of equity 5.0%

Pause if VIX > 30 30

Skip LONG candidates in bearish regime

---

**Save** Reset to defaults

---

**BOT ACTIVITY LOG**

All actions ▾ Refresh Export CSV

Time (ET)	Action	Ticker	Detail
5/25/2026, 10:57:13 AM	<span style="border: 1px solid green; padding: 2px;">circuit_resume</span>	--	{"source": "manual"}

## SWMET - Swing methodology & benchmarks

**Command:** SWMET

**Category:** Markets

**Requires ticker:** No (This is a singleton command, providing system-wide reference data.)

## Overview

SWMET provides comprehensive documentation on the proprietary quantitative methodology underpinning the SWING command's ranking system. It serves as a necessary transparency tool, detailing the academic and statistical foundation for identifying mean-reversion setups. The system integrates established indicators like the 2-period Relative Strength Index (RSI(2)) and Internal Bar Strength (IBS), along with Post-Earnings Announcement Drift (PEAD) analysis, to formulate a composite score. This panel is crucial for users seeking to validate and fully comprehend the rationale behind the suggested entry and exit levels provided by SWING.

## How to use it

To access the methodology reference, simply type **SWMET** into the command bar and press Enter; no ticker input is required. The command opens a single, multi-tabbed panel that acts as a centralized library for the swing model's context. You can switch between the three main sections—Benchmarks, Guide, and FAQ—using the horizontal tabs at the top of the panel. For detailed insights into signal efficacy, you should start with the Benchmarks tab to review historical performance data.

## Reading the output

The output is divided across three tabs designed for different levels of detail. The default **Benchmarks** tab presents a table summarizing key backtest results, such as Win Rate, CAGR, and Sharpe Ratio, for core strategies tested on major ETFs like SPY and QQQ, alongside a binding Legal Disclaimer. The **Guide** tab features academic cards explaining core concepts like IBS (Internal Bar Strength) and PEAD, explicitly listing the composite score weightings (e.g., RSI(2) 35%, PEAD 30%, Options Flow 15%). The **FAQ** tab addresses common user queries, including the justification for using the 2-period RSI window and the calculation of realistic win rate targets. **Data sources and refresh rate**

The core historical performance data in SWMET is derived from pre-computed backtest results stored in the platform's database. These calculations utilize five years of daily OHLCV (Open, High, Low, Close, Volume) data for liquid index ETFs (SPY, QQQ, and IWM). Since the displayed performance metrics reflect historical in-sample testing, they are not live data and merely document the performance under a specific set of tested parameters. The underlying cache is refreshed periodically to incorporate system updates, but the data should always be treated as non-live reference material.

## Tips and caveats

- SWMET is purely a reference panel, not a trading signal generator; use it to understand the statistical foundation behind the specific scores shown in the SWING and PSWING panels.
- Backtest results reflect in-sample data, meaning the metrics measure performance on the same historical period used to design the strategies, so out-of-sample performance may differ significantly.
- The high historical win rates reported (e.g., 79–82% for RSI(2), 57–59% for IBS) are specific to the tested ETFs and chosen parameters; individual stock results will vary.
- The Legal Disclaimer at the bottom of the Benchmarks tab is legally binding, and all SWMET data should be understood as purely informational, not investment advice.
- After reviewing the Guide tab's signal weights, cross-reference them with actual ticker scores in the SWING panel to fully understand the daily ranking mechanics.

SWMET Swing Methodology & Benchmarks								
Benchmarks		Guide	FAQ					
<b>BACKTEST BENCHMARKS (5Y, IN-SAMPLE)</b>								
Strategy	Symbol	Win Rate	CAGR	Total Return	Sharpe	Max DD	Trades	Avg Hold
IBS Mean Reversion	IWM	50.7%	-3.70%	-17.14%	-0.336	-25.57%	69	6.3d
IBS Mean Reversion	QQQ	59.0%	+5.02%	+27.67%	0.587	-12.10%	78	5.1d
IBS Mean Reversion	SPY	57.6%	+3.57%	+19.08%	0.548	-7.80%	85	5.1d
Connors RSI(2)	IWM	82.3%	+4.05%	+21.87%	0.941	-4.13%	17	5.0d
Connors RSI(2)	QQQ	81.3%	+1.52%	+7.80%	0.301	-10.98%	16	5.8d
Connors RSI(2)	SPY	79.0%	+2.98%	+15.73%	0.790	-7.67%	19	5.8d
<b>KNOWN LIMITATIONS</b>								
<ul style="list-style-type: none"> <li>• Backtests use historical daily closes, not intraday prices. Actual fill prices may differ from next-day open.</li> <li>• PEAD signal requires earnings data; tickers without recent earnings history receive a neutral PEAD score.</li> <li>• Options flow signal is computed from public open interest data and may lag real smart-money positioning.</li> <li>• The SMA(200) trend filter reduces drawdowns but also misses early-cycle recovery trades after bear markets.</li> <li>• Sharpe ratio is computed without a risk-free rate (assumed 0%). Adjust mentally for the current treasury yield.</li> <li>• All backtest results shown are in-sample over the strategy's development period. No forward-testing guarantee.</li> </ul>								
<p>QSTMarkets SWING signals are for educational and informational purposes only. They do not constitute investment advice, a solicitation, or a recommendation to buy or sell any security. Past backtest performance is not indicative of future results. All trading involves substantial risk of loss. Paper trading results may differ materially from live trading outcomes due to slippage, liquidity constraints, and execution latency. Always conduct your own research and consult a qualified financial advisor before making investment decisions.</p>								

## SWBT - Swing strategy backtester

**Command:** TICKER SWBT (e.g., AAPL SWBT, WMT SWBT)

**Category:** Portfolio

**Requires ticker:** Yes — one US equity ticker

## Overview

SWBT opens a full strategy backtesting panel for a specific ticker, comparing its performance against a passive Buy & Hold benchmark. It runs rule-based algorithmic strategies against up to 10 years of historical daily OHLCV data. The panel opens by default on the Connors RSI(2) mean-reversion strategy, the core signal engine behind the SWING scanner. Requires login.

## How to use it

Execute the command using a valid US equity ticker, such as AAPL SWBT, to launch the backtesting panel. Once open, select a strategy from the **Strategy dropdown selector**, adjust the **Strategy-specific parameter inputs**, choose a **Period selector** (1Y, 3Y, 5Y, or 10Y), specify the **Initial capital input** (default: \$10,000), and click **RUN BACKTEST**.

The available strategies are:

- **Connors RSI(2) — mean-reversion:** Buys when RSI(2)  $\leq 5$  AND price is above SMA(200) trend filter; sells when RSI(2)  $\geq 65$ . Parameters: SMA filter period, RSI(2) buy threshold, RSI(2) sell threshold.
- **IBS Mean Reversion:** Buys when Internal Bar Strength ( $= (\text{Close-Low})/(\text{High-Low})$ )  $\leq 0.2$ , sells when IBS  $\geq 0.8$ ; optional SMA(200) trend filter toggle. Parameters: IBS buy level, IBS sell level, SMA(200) filter on/off.
- **RSI Threshold (RSI 14):** Classic oversold/overbought strategy that buys when RSI  $<$  buy level and sells when RSI  $>$  sell level. Parameters: buy threshold, sell threshold.
- **SMA Crossover:** Buys when the fast SMA crosses above the slow SMA, and sells on the reverse cross. Parameters: fast period, slow period.

## Reading the output

The results are displayed side-by-side for both the Strategy and the Buy & Hold benchmark.

- **Performance Metrics:** Displays metrics such as **Total Return (%)**, **CAGR (%)**, **Max Drawdown (%)**, and **Sharpe ratio**.
- **Trading Statistics:** Shows operational data including **Win Rate (%)**, **Trades** (with W/L breakdown), **Exposure** (% time invested), and **Avg Hold (days)**.
- **Analysis Tools:** A central **Equity curve chart** overlays the Strategy performance, the Buy & Hold benchmark, and a flat line representing the Initial capital. The panel also includes an AI-generated **INTERPRETATION** paragraph and an expandable trade list, **"Show N trades"**. A **"HOW TO READ THESE RESULTS"** explanatory section is always visible.

## Data sources and refresh rate

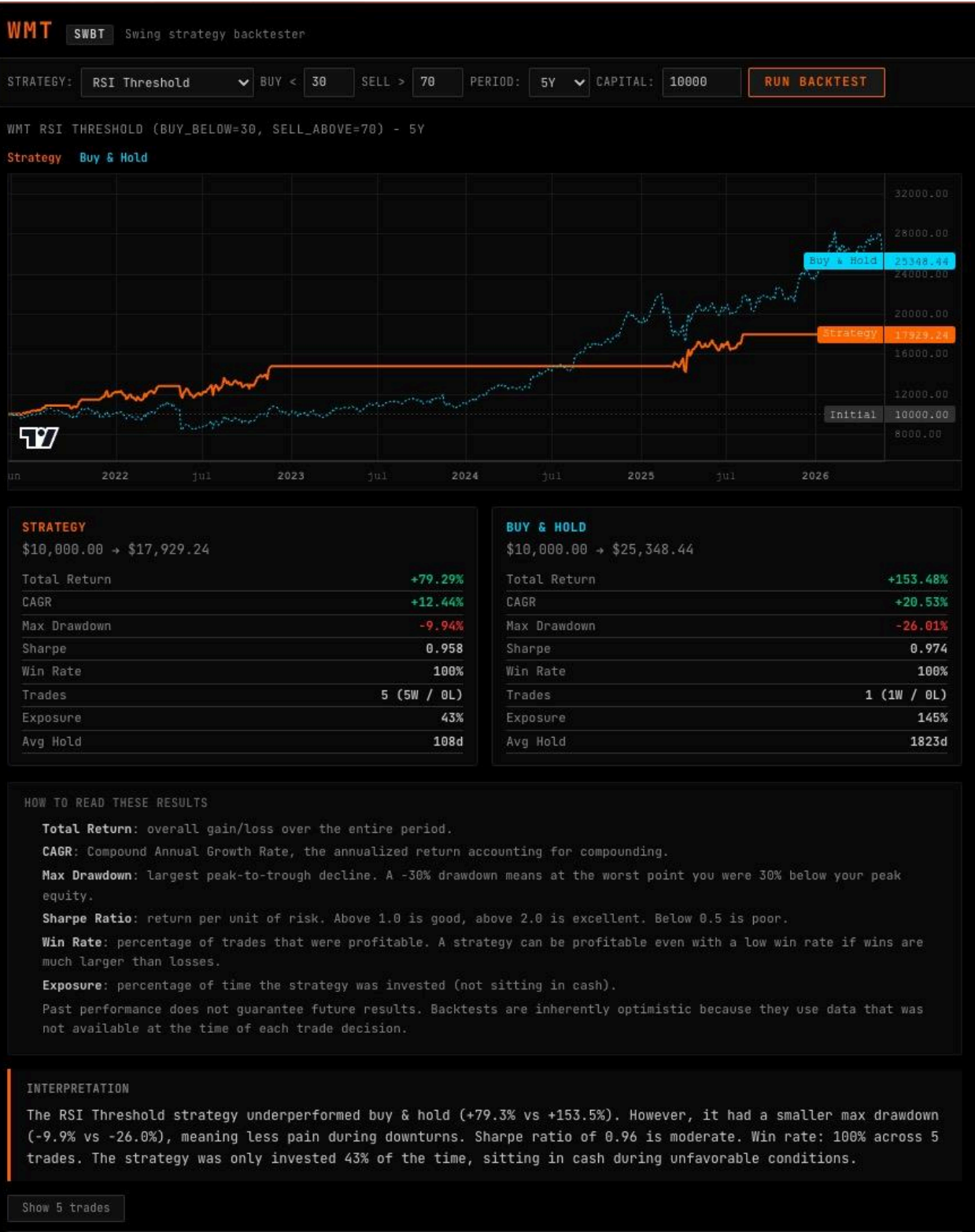
The tool utilizes historical daily OHLCV data from the QSTMarkets database, which is sourced from Alpaca/yfinance. Re-running a backtest with identical parameters will return results instantly because they are cached per parameter combination.

## Tips and caveats

- The panel opens by default on Connors RSI(2) because that is the primary strategy

scored by the SWING scanner; changing to another strategy lets users benchmark alternatives on the same ticker.

- All backtests are in-sample and inherently optimistic because they use data that was not available at the time of each trade decision.
- A high **Sharpe ratio** (above 1.0) is good, above 2.0 is excellent. Below 0.5 is considered poor risk-adjusted performance.
- **Exposure** below 100% means the strategy spends part of the time in cash — useful for understanding real capital utilisation vs Buy & Hold.
- The SWBT command always requires a ticker (e.g. AAPL SWBT). Typing SWBT alone without a ticker will not open the panel.
- For the same ticker and strategy you can also run a system-level benchmark via the SWMET command, which shows pre-computed results across SPY, QQQ and IWM.



**HELP - Help**

**Command:** HELP

**Category:** System

**Requires ticker:** No

## Overview

The Help command is the master reference manual built directly into the terminal. It provides a searchable index of every available command, explaining what they do and how to format them.

## How to use it

Type HELP and press Enter. The panel organizes commands into logical category tabs (Charts, Fundamentals, News, Markets, Portfolio, System). You can browse these tabs or use the search bar within the panel to find a specific command.

## Reading the output

Each entry displays the command syntax, required parameters, and a brief description of its function. A clickable "TRY" button is provided for most commands, which automatically executes a sample query to demonstrate how it works.

## Tips and caveats

- Whenever you forget a command mnemonic, or simply want to explore new features added to QSTMarkets, the HELP panel should be your first destination.

NETA DES Help X

**HELP** HELP Command reference & keyboard shortcuts 33 commands

Search commands...

ALL (33) CHARTS (2) FUNDAMENTALS (9) NEWS (5) MARKETS (12) PORTFOLIO (1) SYSTEM (4)

COMMANDS - 33 TOTAL

<p><b>GP</b> Graph Price <span>CHARTS</span></p> <p><b>TICKER GP *</b></p> <p>Candlestick price chart with volume. Overlays: SMA (20/50/200), EMA (20), Bollinger Bands. Live price via WebSocket. Supports equities, crypto (BTCUSD, ETHUSD), metals (XAUUSD, XAGUSD) and energy (WTIUSD, BRENTUSD, NGUSD).</p> <p>REV: <a href="#">AAPL GP</a></p>	<p><b>COMPARE</b> Compare Two Tickers <span>CHARTS</span></p> <p><b>COMPARE TICKER1 TICKER2</b></p> <p>Normalized % return chart for two tickers from a common start date. Both series start at 0% and diverge based on performance. Timeframes: 1M, 3M, 6M, 1Y, 3Y, 5Y. Supports equities, crypto, metals and energy.</p> <p>REV: <a href="#">COMPARE AAPL MSFT</a></p>	<p><b>DES</b> Description <span>FUNDAMENTALS</span></p> <p><b>TICKER DES *</b></p> <p>Company overview: sector, industry, HQ, employees, analyst consensus (Buy/Hold/Sell), Key executives with compensation, P/E, EPS, Dividend Yield. Major holders (13F), upcoming earnings &amp; dividend dates.</p> <p>REV: <a href="#">MSFT DES</a></p>	<p><b>FA</b> Financial Analysis <span>FUNDAMENTALS</span></p> <p><b>TICKER FA *</b></p> <p>Financial statements: Income, Balance Sheet, Cash Flow. Annual / quarterly toggle. Derived margins, CAGR, ROE, ROA. Trend sparklines.</p> <p>REV: <a href="#">GOOGL FA</a></p>
<p><b>RV</b> Relative Valuation <span>FUNDAMENTALS</span></p> <p><b>TICKER RV *</b></p> <p>P/E, P/B, EV/EBIT, P/S vs 7 closest sector peers (selected by log-distance of market cap). Sector medians highlighted.</p> <p>REV: <a href="#">NVDA RV</a></p>	<p><b>EE</b> Earnings Estimates <span>FUNDAMENTALS</span></p> <p><b>TICKER EE *</b></p> <p>Last 12 quarters of EPS (reported vs estimated). Surprise % bar chart, beat rate, avg surprise. Revenue estimates included.</p> <p>REV: <a href="#">ANZN EE</a></p>	<p><b>DVDF</b> Dividends &amp; Yield <span>FUNDAMENTALS</span></p> <p><b>TICKER DVDF *</b></p> <p>Full dividend history with annual trend chart. Yield calculated from latest price. Ex-date, record date, payment date, frequency.</p> <p>REV: <a href="#">JNJ DVDF</a></p>	<p><b>CN</b> Company News <span>NEWS</span></p> <p><b>TICKER CN *</b></p> <p>Company news from Finnhub (default) or MarketAux (+sentiment scores). Filter by source, date range, and sentiment.</p> <p>REV: <a href="#">TSLA CN</a></p>
<p><b>TOP</b> Top News <span>NEWS</span></p> <p><b>TOP</b></p> <p>Aggregated market news from Finviz + Finnhub. Items interleaved 1-for-1. Auto-refresh every 30 s. Always on news feed.</p> <p>REV: <a href="#">TOP</a></p>	<p><b>TOPCRYP</b> Top Crypto News <span>NEWS</span></p> <p><b>TOPCRYP</b></p> <p>Aggregated Bitcoin &amp; Ethereum news from Yahoo Finance (BTC-USD, ETH-USD) and DuckDuckGo News. Background pre-fetch refreshes every ~4 minutes. Endpoint reads from Redis cache.</p> <p>REV: <a href="#">TOPCRYP</a></p>	<p><b>TOPMET</b> Top Metals News <span>NEWS</span></p> <p><b>TOPMET</b></p> <p>Aggregated precious metals news (gold, silver) from Yahoo Finance and DuckDuckGo News. Background pre-fetch refreshes every ~4 minutes. Endpoint reads from Redis cache.</p> <p>REV: <a href="#">TOPMET</a></p>	<p><b>TOPENE</b> Top Energy News <span>NEWS</span></p> <p><b>TOPENE</b></p> <p>Aggregated energy news (crude oil, natural gas) from Yahoo Finance (USD, UKG ETF proxies) and DuckDuckGo News. Background pre-fetch refreshes every ~4 minutes. Endpoint reads from Redis cache.</p> <p>REV: <a href="#">TOPENE</a></p>
<p><b>WL</b> WatchLists <span>PORTFOLIO</span></p> <p><b>WL</b></p> <p>Personal ticker watchlists. Create, rename, add/remove symbols. Synced to the cloud when signed in (multi-device).</p> <p>REV: <a href="#">WL</a></p>	<p><b>WEI</b> World Indices <span>MARKETS</span></p> <p><b>WEI</b></p> <p>~15 major global indices grouped by region (US, Europe, Asia-Pacific, Americas). Current value, change, %/L. Auto-refresh 60 s.</p> <p>REV: <a href="#">WEI</a></p>	<p><b>ECO</b> Economic Indicators <span>MARKETS</span></p> <p><b>ECO</b></p> <p>Key US macro data from FRED: Fed Funds Rate, 10Y Treasury, Yield Curve, CPI, Core PCE, Unemployment, Payrolls, GDP, Housing, Consumer Sentiment.</p> <p>REV: <a href="#">ECO</a></p>	<p><b>SPER</b> Sector Performance <span>MARKETS</span></p> <p><b>SPER</b></p> <p>NASDAQ sector performance sorted best to worst. Diverging bar chart: green bars right (positive) and red bars left (negative). Data from FMP, refreshed daily.</p> <p>REV: <a href="#">SPER</a></p>
<p><b>INS</b> Insider Trades <span>FUNDAMENTALS</span></p> <p><b>TICKER INS *</b></p> <p>Latest insider buy/sell/award transactions (SEC Form 4). Dual source: finvizfinance (fast) with automatic EDGAR fallback. Director, officer, and 10%+ owner filings. LINK to each Form 4.</p> <p>REV: <a href="#">AAPL INS</a></p>	<p><b>INSB</b> Insider Buys Feed <span>FUNDAMENTALS</span></p> <p><b>INSB</b></p> <p>Market-wide feed of the latest insider purchases across all tickers. Up to 200 transactions sourced from Finviz. Sorted by most recent. Auto-cached 10 min.</p> <p>REV: <a href="#">INSB</a></p>	<p><b>INSS</b> Insider Sales Feed <span>FUNDAMENTALS</span></p> <p><b>INSS</b></p> <p>Market-wide feed of the latest insider sales across all tickers. Up to 200 transactions sourced from Finviz. Sorted by most recent. Auto-cached 10 min.</p> <p>REV: <a href="#">INSS</a></p>	<p><b>ECCOAL</b> Economic Calendar <span>MARKETS</span></p> <p><b>ECCOAL</b></p> <p>Upcoming economic events for US, Euro Area, Germany, UK, and Japan. Shows date/time ET, importance (low/medium/high), forecast, actual, and previous values. Tabs: TODAY / WEEK. Filter by country or tags-importance only. Primary sources: Trading Economics; fallback: FMP. Cached 60 min.</p> <p>REV: <a href="#">ECCOAL</a></p>

\* Requires a ticker symbol (e.g., AAPL)

qstmarkets.com - open source financial terminal

## What is the AutoTrader Bot?

The AutoTrader Bot is an autonomous paper-trading engine built into the PSWING panel. Every 5 minutes it evaluates today's SWING candidates against your configured filters, opens paper positions that pass all checks, and closes them automatically when they hit their target, stop, or maximum hold time. No real capital is ever involved.

## Getting Started

### Recommended first-time flow:

1. Open *PSWING* and go to the **PROFILE** tab.

- Configure your starting capital, account type (Cash / Margin), and slippage.
- 2. 2. Switch to the **BOT** tab — Section 1 (Status).
  - Review the default parameters before enabling anything.
- 3. 3. In Section 2 (Configuration), adjust the scoring thresholds and sizing model
  - to match your risk tolerance. The defaults (score  $\geq$  80, risk 1% per trade,
  - daily loss circuit at 5%, VIX pause at 30) are conservative and safe for a first run.
- 4. 4. Click **ENABLE BOT** in Section 1.
  - A one-time confirmation modal will appear. Click "Enable Bot" to proceed.
  - The bot is now active and will open its first positions at the next market open
  - (09:30-10:30 ET entry window).
- 5. 5. Monitor progress in the **ACTIVITY** section (Section 3) and in the **DASHBOARD** tab.

## Configuration Reference

All parameters live in **BOT tab > Section 2**. Changes take effect at the next cycle.

### Scoring filters

Parameter	Description	Default
Min Score LONG	Minimum SWING score to open a long position	80
Min Score SHORT	Minimum SWING score to open a short position	80

Raising these thresholds means fewer but higher-conviction entries.

### Position limits

Parameter	Description	Default
Max Concurrent Positions	Total open paper trades at any time	5
Max New Positions / Day	New openings per calendar day	3
Max Sector Exposure %	No single sector exceeds this % of equity	30%

## Sizing models

### **Risk Parity (Scored)** *(recommended)*

Sizes each trade so the distance from entry to stop represents N% of equity, then scales the position by the candidate's score (0.5x to 1.0x multiplier).

Produces consistent dollar-risk per trade regardless of price level.

### **Fixed Dollar**

Invests the same dollar amount every trade. Simple but ignores stop distance.

### **Fixed % of Equity**

Invests a fixed percentage of current equity per trade.

Position size grows as the account grows and shrinks after losses.

## Circuit breakers (automatic safeguards)

<b>Breaker</b>	<b>Condition</b>	<b>Effect</b>
Daily Loss	Realized P&L today < -N% of equity	Bot pauses until next 09:30 ET
VIX Spike	VIX index > threshold	Bot pauses until VIX drops below threshold
Bearish Regime	Market regime score is bearish	LONG entries skipped; closures continue

Circuit breakers activate automatically and resume automatically when conditions normalize (except Daily Loss, which always waits for the next market open).

## Simulation settings

**Slippage %** Applied to every entry and exit price to simulate real-world execution friction. Default 0.05% per side.

## Enabling and Pausing the Bot

**ENABLE / DISABLE** (toggle in Section 1)

- Enabled: bot opens new positions and auto-closes existing ones every cycle.
- Disabled: bot is fully off. No openings, no auto-closures. Manual closes still work from the TRADES tab.

**PAUSE / RESUME** (buttons in Section 1)

- Paused: new position openings are suspended. The bot still evaluates and closes existing open trades at target, stop, or time exit every cycle.
- Use PAUSE when market conditions look unusual but you want to resume easily later.
- The PSWING header shows a flashing **BOT PAUSED** badge when paused.

## Reading the Activity Log

The activity log (Section 3, BOT tab) records every action the bot takes.

Action	Color	Meaning
open_position	Green	A new paper trade was opened
close_position	Grey	A trade was closed (target / stop / time)
circuit_break	Orange	Bot paused -- Detail column shows the reason
circuit_resume	Green	Bot resumed -- Detail column shows the source
filter_reject	Dark grey	A candidate was rejected by a filter

Use the **Action** dropdown to filter by event type.

Use **Export CSV** to download the full log for offline analysis.

## Dashboard Metrics

The **DASHBOARD** tab shows live portfolio statistics.

## Equity Bar (top of Dashboard)

Metric	Description
Total Equity	Cash + mark-to-market value of open positions
Cash	Available cash in the paper account
Open Pos (MtM)	Sum of (current price x shares) for all open trades
Buying Power	Equity available to open new positions
Gain Since Inception	$(\text{Total Equity} / \text{Initial Capital} - 1) \times 100$

Open Pos (MtM) uses the latest intraday price available (Tradier > TwelveData > last close cascade).

## KPI Cards

KPI	Healthy target
Win Rate	> 55%
Avg P&L %	> 0%
Profit Factor	> 1.5
Sharpe Ratio	> 1.0 (shown after 5+ closed trades)
Max Drawdown	< 20%

## Performance Attribution: Manual vs Autotrader

When you have closed trades from both manual entries and bot-opened entries, a comparison table appears at the bottom of the Dashboard. It shows Win Rate and Avg P&L % broken down by origin, letting you compare the bot's decisions against your own judgment.

## The "Bot will auto-open" Badge (SWING panel)

When you view a ticker's detail in the **SWING** panel (e.g., *SWING NVDA*), an orange badge reading "**Bot will auto-open at next cycle**" appears below the candidate score if all four conditions are met simultaneously:

1. You are logged in.
2. The bot is enabled and not paused.
3. The ticker is in today's SWING candidates.
4. The candidate's score meets or exceeds your configured threshold (Min Score LONG or Min Score SHORT depending on direction).

If any condition is false the badge is hidden. This gives you a real-time preview of the bot's next action without waiting for the cycle to run.

## Frequently Asked Questions AUTOTRADER

### **Will the bot trade with my real brokerage account?**

No. PSWING is a paper trading simulator. All positions are simulated and stored in your user profile. No orders are ever sent to any broker.

### **The bot opened a trade at a price I did not expect. Why?**

The bot uses the suggested entry from the SWING scanner, calculated at scan time (typically overnight). Intraday price movement between the scan and the entry window (09:30-10:30 ET) can result in a different actual price. Slippage is also applied on top of the entry price.

### **Can I close a bot-opened trade manually?**

Yes. Any open trade -- regardless of origin -- can be closed from the TRADES tab using the Close button. The bot will not re-open that position unless the ticker appears in a future scan and passes all filters again.

### **Why does the bot skip a candidate that looks good to me?**

Common rejection reasons (visible in the Activity log as filter\_reject):

- Score below your threshold
- A position in the same ticker and direction is already open
- Max concurrent positions or max per day limit reached
- Sector exposure limit would be exceeded
- Bearish regime with a long-only candidate

- Insufficient buying power

### How long should I run the bot before drawing conclusions?

A minimum of 60 trading days is recommended before evaluating performance. Fewer than 20-30 closed trades produces statistics (win rate, Sharpe) that are statistically unreliable. Patience is part of the strategy.

### What happens to open positions if I disable the bot?

They remain open and visible in the TRADES tab. The bot will not auto-close them. You can close them manually at any time, or re-enable the bot to resume auto-closure at target, stop, or time exit.

## Section 3 - Keyboard shortcuts and tips

QSTMarkets is designed to be highly efficient for power users who prefer to keep their hands on the keyboard. Mastering these shortcuts will significantly speed up your workflow.

Action	Shortcut / Tip	Description
Open Command Bar	/ (Forward slash)	Instantly focuses the Command Bar from anywhere in the terminal, ready for typing.
Execute Command	Enter	Runs the typed command and spawns the panel.
Close Panel	Esc (while panel focused)	Closes the currently active/focused panel. You can also click the 'X' in the panel header.
Clear Workspace	CLEAR command	Type CLEAR in the Command Bar to close all open panels instantly.
Reset Layout	RESET command	Returns all panels to their default size and tiled arrangement if your workspace gets messy.

<b>Navigate Tabs</b>	Tab / Shift + Tab	Use standard tab navigation to cycle through interactive elements (filters, timeframe selectors, tabs) within an active panel.
<b>Quick Ticker Change</b>	Spacebar syntax	If you have an AAPL chart open and want to see MSFT, just click the Command Bar, type MSFT GP and hit Enter. The terminal is smart enough to open a new panel or update focus.
<b>Modal Selection</b>	Arrow Up/Down	When using search modals like LF, use arrow keys to highlight a result and Enter to select it.

## Section 4 - Data sources reference

QSTMarkets relies on a robust architecture of free and freemium data providers to deliver institutional-grade analysis without subscription fees. Below is a comprehensive list of the APIs and data sources powering the terminal.

<b>Provider</b>	<b>Data supplied</b>	<b>Refresh rate &amp; caveats</b>
<b>yFinance</b>	Historical pricing, analyst ratings (UPDN), some fundamentals.	Delayed quotes depending on exchange. Robust historical data. Rate limited on heavy concurrent requests.
<b>Alpaca</b>	Real-time equity market data.	Requires active market hours for live WebSocket streaming. Very low latency.
<b>FMP</b>	Sector performance, economic calendar fallback, SEC filings (LEO, RCRO), top	Highly reliable financial modeling data. Cached hourly to respect free-tier

	movers.	API request caps.
<b>Finnhub</b>	Company news (CN), top market news (TOP).	Fast news delivery. Free tier limits apply, leading to caching mechanisms.
<b>Finviz</b>	Stock screener (SCAN), insider feeds (INSB, INSS), top news aggregation.	Screeners are on-demand; feeds are typically delayed by 10-15 minutes.
<b>SEC EDGAR</b>	Raw company filings, Form 4 insider verification.	Direct from the government. 100% accurate, but parsing can be complex. Used primarily as a verification fallback.
<b>FRED</b>	Core US macroeconomic indicators (ECO).	The gold standard for macro data. Updated dynamically as the St. Louis Fed publishes new prints.
<b>BLS</b>	Inflation data (INFL), labor market data (JOBS, HURG).	Government sourced. Very reliable, updated monthly according to strict release schedules.
<b>Trading Economics</b>	Primary economic calendar events.	Highly accurate forecasts and actuals. Cached hourly.
<b>Tiingo</b>	Supplementary end-of-day pricing and fundamental data.	Used as a redundant fallback for equity pricing to ensure terminal stability.
<b>NASDAQ FTP</b>	Security master list, symbol directories.	Used to populate the internal search database (LF). Updated nightly.
<b>CCXT/Binance</b>	Cryptocurrency spot pricing.	24/7 uptime. Very low latency for crypto charts.
<b>DuckDuckGo News</b>	Specialized news aggregation (TOPCRYP, TOPMET, TOPENE).	Used via search algorithms to pull niche sector news. Cached to prevent IP

		rate-limiting.
<b>DeepSeek</b>	AI Market Analysis generation (QSTA).	Relies on LLM inference. Analysis is generated dynamically; generation can take 5-10 seconds.

## Section 5 - Frequently asked questions

### How do I create an account?

In QSTMarkets creating a free account allows your panel layout, theme preferences, and watchlists to be saved to the cloud and synced across different browsers or devices. Click the profile icon in the top right corner to sign up using an email address.

### Why is my chart not updating in real time?

Real-time WebSocket data is only active during standard US market hours (09:30 to 16:00 ET, Monday through Friday). If you are viewing a chart outside of these hours, on a weekend, or on a market holiday, the chart will display the final closing price and remain static until the market reopens.

### Why does a specific command show "No data found" for my ticker?

Not all data providers cover every asset class. For example, trying to pull a financial statement (FA) on a cryptocurrency (BTCUSD) will fail because cryptocurrencies do not file SEC 10-K reports. Similarly, very small micro-cap stocks or newly listed IPOs might not yet have analyst coverage (EE) or established dividend histories (DVDF).

### Which web browsers are supported?

QSTMarkets is optimized for modern, Chromium-based browsers (Google Chrome, Microsoft Edge, Brave) and Firefox. For the best performance, especially when running multiple live WebSocket charts simultaneously, hardware acceleration should be enabled in your browser settings.

### Is there a mobile app?

Currently, QSTMarkets is a web-only application designed primarily for desktop and laptop displays due to the dense, multi-panel nature of financial data. While it will load on a mobile browser, the interface is difficult to navigate on small touchscreen devices. A tablet in landscape mode is the minimum recommended mobile setup.

## How do I report a bug or suggest a new command?

We actively encourage community feedback. Click the *Contact us* link in the bottom bar, to the left of the version number. A short form will appear, type your message and click Send. Your feedback is delivered directly to the development team. No account details beyond your registered email are required; that is included automatically.

## What does it mean if the terminal says it is in "Maintenance Mode"?

Because QSTMarkets relies on over a dozen external data APIs, we occasionally need to put the terminal into Maintenance Mode to upgrade our backend routing, rotate API keys, or implement rate-limit protections. During this time, live data feeds may be paused. Maintenance is almost exclusively performed on weekends to avoid disrupting trading activities.

The screenshot displays the QSTMarkets Terminal interface, which is a multi-panel application. The top panel shows the main stock data for Marvell Technology, Inc. (MRVL), including its current price of \$89.57, a change of +13.89 (+18.35%), and various market statistics. Below this, there are sections for company details, a company overview, and a candlestick price chart. The middle panel is divided into 'TOP NEWS' and 'CRYPTO' sections, displaying headlines and articles related to the market and cryptocurrency. The bottom panel shows a detailed financial statement for Google (GOOGL), including metrics like Total Revenue, Operating Income, Net Income, EPS Basic, EPS Diluted, Gross Margin, Operating Margin, Net Margin, and Revenue CAGR.