

Chande Momentum Continuation

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend-Momentum Continuation	M15 – H4	www.algotbot.live

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Overview

Chande Momentum Continuation is a trend-momentum pullback-continuation system. It does *not* chase breakouts, and it does *not* fade extremes. Instead, it waits for an already-established trend to take a brief momentum "breather" and then re-joins the move the instant momentum turns back in the trend's direction — capturing the resumption of a proven move rather than gambling on a new one.

Three orthogonal filters each remove a different family of false signals before a single trade is allowed:

- **Regime (dual EMA)** — a trade may only be taken *with* the prevailing trend, discarding the counter-trend setups where continuation trades fail most often.
- **Trend Strength (ATR-normalised EMA separation)** — the gap between the two EMAs must be wide enough, relative to volatility, to prove a *real*, expanding trend and skip flat, whipsaw-prone chop.
- **Momentum Timing (Chande Momentum Oscillator)** — the CMO must pull back into a neutral band and then cross back out of it in the trend's direction, marking the exact moment a healthy pullback resolves into renewed thrust.

Risk is fully volatility-scaled: stop, target, and trailing distances are all expressed as multiples of the Average True Range (ATR), so the strategy self-adjusts across symbols and timeframes without re-tuning point values. All signals are read from **closed bars only**, so nothing repaints. Only one position per magic number is ever held at a time.

Design intent: Because every threshold is expressed either as a bounded oscillator value ($-100\dots+100$) or as an ATR multiple, the logic is point-size- and timeframe-agnostic. It suits trending FX majors, gold, or an index on the M15 through H4 timeframes.

How It Works

1. Regime Filter — Dual EMA Trend Direction

A fast EMA (`EmaFastPeriod`, default 21) and a slow EMA (`EmaSlowPeriod`, default 55) define the trend regime. The system will only look for long setups when the market is structurally bullish, and only short setups when it is structurally bearish:

- **Uptrend** requires `EmaFast > EmaSlow` and the last closed price above the slow EMA.
- **Downtrend** requires the exact mirror: `EmaFast < EmaSlow` and the last close below the slow EMA.

2. Trend-Strength Gate — ATR-Normalised Separation

Direction alone is not enough — tangled EMAs in a flat market technically point one way but produce nothing but whipsaw. The strategy therefore demands that the distance between the two EMAs exceed `TrendStrengthMult × ATR`. Because the gap is measured in ATR multiples, this is a dimensionless test that behaves identically on a 5-digit FX pair, gold, or an index.

```
trendUp = EmaFast > EmaSlow AND close > EmaSlow AND (EmaFast - EmaSlow) ≥ TrendStrengthMult × ATR  
trendDn = EmaFast < EmaSlow AND close < EmaSlow AND (EmaSlow - EmaFast) ≥ TrendStrengthMult × ATR
```

3. Momentum Timing — CMO Pullback & Cross-Back

The Chande Momentum Oscillator (CMO) measures net directional pressure over `CmoPeriod` bars on a bounded $-100\dots+100$ scale. Rather than buying strength, the strategy waits for the CMO to pull back toward a neutral band around zero, and then cross *back out* of that band in the trend direction. That cross is the trigger:

- **Long trigger:** CMO was at or below `+PullbackLevel` on the prior bar, and closes above `+PullbackLevel` on the just-closed bar.
- **Short trigger:** CMO was at or above `-PullbackLevel` on the prior bar, and closes below `-PullbackLevel` on the just-closed bar.

A trade is opened only when the regime, the trend-strength gate, and the momentum cross all agree in the same direction.

Worked example — long continuation

EURUSD on H1 is trending up: the 21-EMA sits above the 55-EMA and the gap is $1.4 \times \text{ATR}$ (well above the 0.10 floor). Price dips for three bars and the CMO cools from +38 down to +3, entering the neutral band. On the next closed bar the CMO prints +11 — crossing back above the +5 pullback level. All three filters align, so the EA buys at the ask, sets a stop $1.6 \times \text{ATR}$ below entry and a target $3.2 \times \text{ATR}$ above.

Entry Orders

When a long triggers, the EA buys at the current ask; when a short triggers, it sells at the current bid. Each order carries a protective stop and take-profit computed from ATR at the moment of entry:

- **Stop loss:** $\text{StopLossAtrMult} \times \text{ATR}$ away from entry (default $1.6 \times \text{ATR}$).
- **Take profit:** $\text{TakeProfitAtrMult} \times \text{ATR}$ away from entry (default $3.2 \times \text{ATR}$).

With the defaults, the initial reward-to-risk ratio is $3.2 / 1.6 = \mathbf{2.0 : 1}$.

Trade Management — ATR Trailing Stop

Once an open position advances $\text{TrailStartAtrMult} \times \text{ATR}$ in the trader's favour, a trailing stop activates at $\text{TrailDistanceAtrMult} \times \text{ATR}$ behind price. The trailing stop **only ever tightens** — it ratchets closer to price as the move extends but never loosens — locking in open profit while letting winners run toward the target.

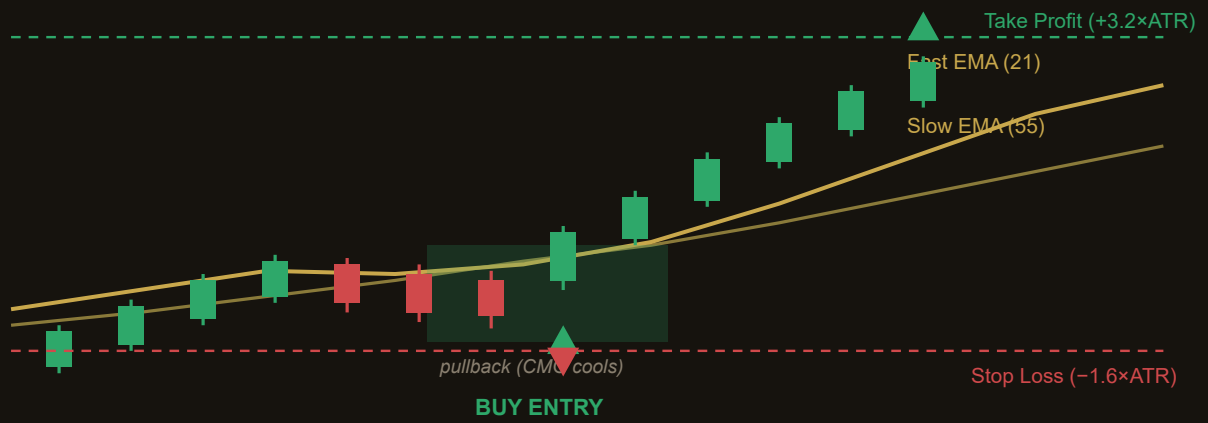
Trade Filters & Safeguards

- **Spread cap:** entries are skipped whenever the live spread exceeds MaxSpreadPoints (default 30 points), avoiding trades when execution cost is abnormally high.
- **One position per magic:** while a position is open, the EA only manages it — no stacking or averaging.
- **No repainting:** the CMO is computed from closed-bar closes only, and every signal reads the just-closed bar (shift 1). Live-forming bars never influence a decision.

Strategy in Action

The illustration below shows an example of how the strategy identifies a setup and triggers its entry and exit. This is a simplified, illustrative example for educational purposes — not real market data.

Long Continuation Setup — EMA trend + CMO cross-back



Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
CmoPeriod	14	Lookback for the Chande Momentum Oscillator, in bars. Range 6–40, step 2.
EmaFastPeriod	21	Fast EMA period of the trend regime. Range 5–80, step 1.
EmaSlowPeriod	55	Slow EMA period of the trend regime. Range 20–200, step 5.
PullbackLevel	5.0	Neutral CMO band (in CMO points) the oscillator must pull back into and then cross back out of to trigger. Range 0.0–40.0, step 5.0.
AtrPeriod	14	ATR length used for the trend-strength gate, stops, targets, and trailing. Range 7–30, step 1.
TrendStrengthMult	0.10	Minimum EMA separation (in ATR multiples) required to call the trend "real". Range 0.0–1.0, step 0.05.
StopLossAtrMult	1.6	Initial protective stop distance, in ATR multiples. Range 0.8–4.0, step 0.2.
TakeProfitAtrMult	3.2	Take-profit distance, in ATR multiples. Range 1.0–7.0, step 0.2.
TrailStartAtrMult	1.0	Open profit (in ATR multiples) required before the trailing stop activates. Range 0.2–3.0, step 0.2.
TrailDistanceAtrMult	1.4	Trailing-stop distance from price once active, in ATR multiples. Range 0.5–3.5, step 0.2.
MaxSpreadPoints	30	Skip entries when the current spread (in points) exceeds this cap. Range 5–150, step 5.
Lots	0.10	Trade volume in lots. Range 0.01–1.00, step 0.05.
Magic	8815	Expert magic number identifying this EA's positions. Range 0–9,999,999, step 1.

Reward-to-risk: With the default stop (1.6× ATR) and target (3.2× ATR), each trade risks one unit to make two — a 2.0 : 1 reward-to-risk ratio before trailing. Adjust `TakeProfitAtrMult` and `StopLossAtrMult` together to preserve a sensible ratio.

Recommended Settings

The defaults are a balanced starting point for trending markets. Suggested tuning by profile:

Profile	Suggested Adjustments	Notes
Balanced (default)	All defaults	Best on trending FX majors, gold, or an index, M15–H4.
Conservative	TrendStrengthMult 0.20–0.30; MaxSpreadPoints 20	Demands a stronger, wider trend and cheaper execution — fewer but higher-quality signals.
Aggressive	PullbackLevel 10–15; TrendStrengthMult 0.05	Loosens the momentum band and trend gate for more frequent continuation entries.
Wider trailing	TrailStartAtrMult 1.5; TrailDistanceAtrMult 2.0	Gives strong trends more room to breathe before the stop ratchets.

Tip: Because all risk parameters are ATR multiples, you can move the EA between symbols and timeframes without re-tuning point values. Always run the MT5 Strategy Tester on your broker's data and account currency before going live, and forward-test on a demo account first.

How to Install on MetaTrader 5

- 1 Copy `ChandeMomentumContinuation.ex5` to your MT5 `MQL5\Experts\` folder
- 2 Restart MetaTrader 5 and refresh the Navigator panel
- 3 Drag the EA onto a chart matching the recommended symbol and timeframe
- 4 Configure the input parameters and click **OK**
- 5 Enable **Algo Trading** in the MT5 toolbar

Note: The EA acts once per newly-closed bar and holds only one position per magic number at a time. Ensure the chart timeframe matches your intended holding horizon (M15–H4 recommended), and confirm that Algo Trading is enabled — the EA cannot place orders while it is off.

Risk Warning

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