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Forecast Baseline Reclaim

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend-Following Pullback	M15 – H1	www.algobot.live

Overview

Forecast Baseline Reclaim is a trend-following pullback Expert Advisor built around a **least-squares Time Series Forecast (TSF) baseline**. Rather than using one of the many trailing moving-average families (EMA, Hull, KAMA, McGinley, VIDYA, FRAMA), the baseline here is the **end-point of an ordinary least-squares regression line** fitted to the last *N* closing prices.

By construction, that regression end-point is a **zero-lag estimate of "fair value."** It sits on the freshest price instead of trailing behind it, so when price dips away and then closes back through the line, the reclaim is an early, low-lag pullback signal — not a laggy one that fires long after the move is over.

The strategy trades pullbacks *only in the direction of an established trend*. The same regression that produces the baseline also produces a slope, which — normalized into ATR-per-bar units — acts as the regime filter. Flat markets are simply ignored, keeping the system out of chop where a "reclaim" carries no information.

The Three Regression Quantities

Every completed bar, one least-squares fit over the last `RegPeriod` closes yields three linked measurements:

- **Baseline (F)** — the regression line value at the newest bar: `F = intercept + slope × (N−1)`. This is the zero-lag "fair value" reference.

- **Slope (b)** — price change per bar. Divided by ATR it becomes `slope / ATR`, the trend-direction and strength gauge.
- **Forecast Oscillator** — `(Close − F) / ATR`, how far the close sits off its own fair-value line, measured in ATR units.

How It Works

Regime Filter

Direction is decided entirely by the regression slope expressed in ATR-per-bar units (`slope / ATR`):

- **Uptrend** when `slope / ATR > +SlopeThreshold`
- **Downtrend** when `slope / ATR < −SlopeThreshold`
- **Flat / no trade** when the slope sits between the thresholds

Normalizing by ATR makes the threshold instrument- and volatility-agnostic: a slope of `0.05` means "the baseline is advancing at 5% of an ATR per bar," regardless of the symbol's price scale.

Entry Logic

Entries are the classic *buy-the-dip-in-an-uptrend* pattern, fully mirrored for shorts. A signal requires three conditions to align on consecutive completed bars:

LONG ENTRY

1. The market is in an **uptrend** (`slope / ATR > SlopeThreshold`).
2. The **prior completed bar** pulled back — it closed at least `PullbackDepth` ATRs *below* the baseline (Forecast Oscillator ≤ −PullbackDepth). This confirms a genuine dip, not noise.
3. The **newest completed bar reclaims** the baseline — the Forecast Oscillator crosses back to `≥ 0`.

SHORT ENTRY

1. The market is in a **downtrend** (`slope / ATR < −SlopeThreshold`).
2. The prior completed bar rallied — it closed at least `PullbackDepth` ATRs *above* the baseline (Forecast Oscillator ≥ +PullbackDepth).
3. The newest completed bar loses the baseline — the Forecast Oscillator crosses back to `≤ 0`.

> **Why two consecutive bars?** The strategy stores the previous bar's Forecast Oscillator (`prevDev`) and compares it with the current reading (`curDev`). The pullback must exist on the *prior* bar and the reclaim must complete on the *current* bar. This two-reading design is what turns a static "price is below the line" observation into a genuine *reclaim* event.

Exit & Reversal Logic

The EA holds **one position at a time**. Positions close in one of three ways:

- **Stop loss** — ATR-based protective stop is hit.
- **Take profit** — ATR-based target is hit.
- **Opposite reclaim** — if a valid signal fires against the open position (e.g. a short reclaim while long), the current position is closed and the EA reverses into the new direction on the same event.

Risk Management (Stop Loss & Take Profit)

Both stops and targets are volatility-scaled off ATR and are fully symmetric for longs and shorts:

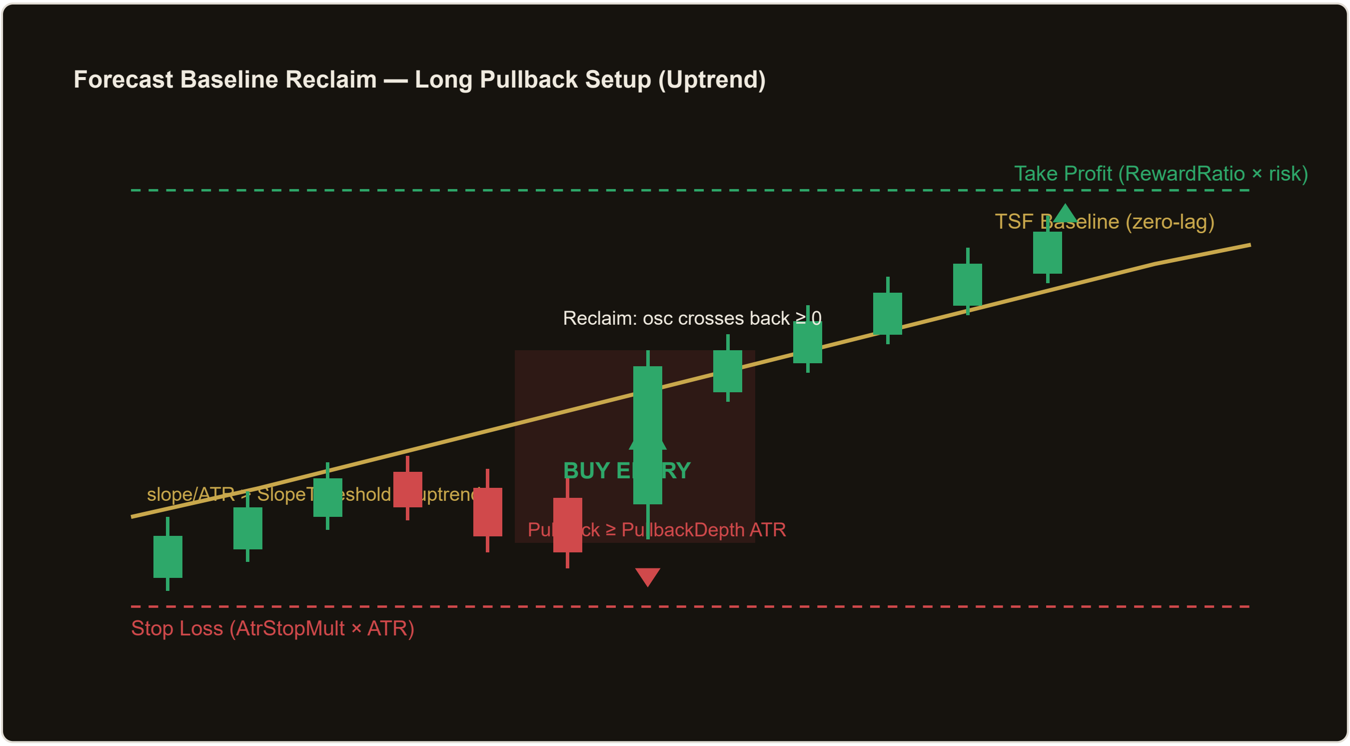
```
stopDistance = AtrStopMult × ATR
Long : SL = entry − stopDistance ;  TP = entry + RewardRatio × stopDistance
Short: SL = entry + stopDistance ;  TP = entry − RewardRatio × stopDistance
```

With the defaults (`AtrStopMult = 2.0`, `RewardRatio = 1.8`), the stop sits two ATRs from entry and the target is 1.8× that distance — a reward-to-risk profile of roughly 1.8 : 1.

> **Single-timeframe by design.** Every price and indicator read uses the chart's own timeframe (`ctx.PrimaryTimeframe` in C#, `_Period` in MQL5). Nothing is hardcoded, so the logic runs on whatever timeframe you attach it to. It was designed with liquid FX and index trends on **M15–H1** in mind.

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.



Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
RegPeriod	`20`	Number of closes in the least-squares regression window — the baseline's “memory.” Range 8–60, step 2. Shorter reacts faster but is noisier; longer is smoother but slower to reclaim.
SlopeThreshold	`0.05`	Minimum absolute slope in ATR-per-bar units required to call the market trending. Range 0.00–0.30, step 0.01. Higher demands a stronger trend before any trade is allowed.
PullbackDepth	`0.50`	The prior bar must sit at least this many ATRs off the baseline to qualify as a real dip. Range 0.10–2.00, step 0.10. Larger values wait for deeper pullbacks.
AtrPeriod	`14`	ATR averaging window used for oscillator normalization and for sizing stops. Range 5–40, step 1.
AtrStopMult	`2.0`	Stop-loss distance as a multiple of ATR. Range 0.5–5.0, step 0.5. Wider stops survive noise but risk more per trade.
RewardRatio	`1.8`	Take-profit distance as a multiple of the stop distance. Range 0.8–4.0, step 0.2. Sets the reward-to-risk ratio of each trade.
Lots	`0.10`	Fixed position size in lots. Range 0.01–1.0, step 0.05.
Magic	`7311`	Magic number used to tag and track this EA's orders and positions independently of other EAs on the account.

Recommended Settings

The defaults are a balanced starting point for liquid FX pairs and index CFDs on **M15–H1**. Use these as a baseline and optimize on your own broker's historical data before any live use.

Instrument & Timeframe

- **Symbols:** Liquid, trend-prone instruments — major FX pairs (EURUSD, GBPUSD, USDJPY) and major index CFDs.
- **Timeframe:** M15 to H1. Lower timeframes generate more signals but suffer more noise; higher timeframes give cleaner but rarer setups.

Tuning Guidance

- **Choppy / ranging market:** raise `SlopeThreshold` (e.g. 0.08–0.12) and `PullbackDepth` (e.g. 0.8–1.2) to demand stronger trends and deeper dips.
- **Strong trending market:** lower `SlopeThreshold` slightly and keep `PullbackDepth` modest to catch shallow pullbacks in a persistent trend.
- **Wider protective stops:** increase `AtrStopMult` if you find price frequently stops out just before continuing in your favour.

Example configuration — EURUSD M30

RegPeriod = 20, SlopeThreshold = 0.06, PullbackDepth = 0.60, AtrPeriod = 14, AtrStopMult = 2.0, RewardRatio = 1.8, Lots = 0.10. A moderate-trend profile: waits for a clear regression slope and a half-to-full-ATR dip before buying the reclaim.

Always forward-test first. Run the EA on a demo account across varied market conditions before committing real capital. Re-optimize parameters per instrument — a setting that works on EURUSD will not necessarily transfer to an index CFD.

How to Install on MetaTrader 5

1. Copy `ForecastBaselineReclaim.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

Tip: To edit or recompile the source, place `ForecastBaselineReclaim.mq5` in the same `MQL5\Experts\` folder and press **Compile** in MetaEditor to regenerate the `.ex5`.

Risk Warning

Trading foreign exchange, CFDs, and other leveraged financial instruments involves substantial risk of loss and is not suitable for all investors. The strategies and tools described in this document are provided for **educational purposes only** and do not constitute financial advice, investment recommendations, or solicitation to trade. Always consult a qualified financial adviser before making trading decisions. Past backtest performance is not indicative of future results.