Early Momentum

This system is designed to identify early trend momentum on weekly charts by combining trend efficiency and momentum velocity measurements with range filters and volatility-based risk management. The goal is to catch emerging directional moves with confirmation while controlling risk dynamically.

Core components

1. **Trend efficiency measurement**
   The system calculates an efficiency ratio comparing net price change over a lookback period to total absolute price movement. This metric signals how directional and "clean" the trend is. A rising value indicates strengthening trend momentum.

2. **Momentum velocity measurement**
   This component captures the acceleration or deceleration of momentum by measuring the rate of change in a risk-adjusted momentum statistic over time. It highlights when momentum gains or loses strength relative to a recent baseline.

3. **Range mode filter**
   In order to reduce false signals during low-volatility, sideways markets, the system applies a filter based on the recent price range as a percentage of low price. When the market is inside this defined narrow range, new trades are avoided.

4. **Breakout confirmation**
   Long entries require price to break above recent highs; short entries require a break below recent lows. This reinforces momentum signals with concrete price action confirmation.

5. **Entry conditions**

   - Long entries occur when the trend efficiency and momentum velocity are both rising, the momentum metric is at least neutral or positive, the system is outside range mode, and price breaks out upwards.

   - Short entries trigger when momentum velocity and trend efficiency are both declining, momentum is neutral, the market is not in a narrow range, and price breaks down below recent lows.

    - Long entries are restricted when momentum is significantly negative to avoid chasing weak trends.

6. **Risk management**
   The system utilises layered stop-loss methods to protect capital and lock profits:

    - A fixed percentage stop loss provides a hard loss limit.

    - Volatility-adjusted stops based on average true range (ATR) percentages adapt to changing market conditions.

    - Trailing stops move with new price peaks or troughs to protect gains while allowing room for momentum to extend.

7. **Trade management and exits**
   Positions are monitored continuously with stops updated dynamically. Exits are triggered if price breaches any stop or if a contrary signal emerges, signalling weakening momentum or a reversal.

Strengths

- Combining efficiency and velocity provides a refined view of trend momentum and its acceleration.

- Range filtering reduces noise and false entries during consolidations.

- Breakout confirmation adds robustness to signals by requiring price action validation.

- Layered stops cater to different market conditions, balancing capital protection with opportunity capture.

- Weekly timeframe usage smooths noise and targets medium-term moves.

This system is suitable for medium-term traders who prefer disciplined trend following with volatility-aware risk controls on weekly data, aiming to capture directional momentum while limiting drawdowns.