

Parameters

Channel Observations m 2 - 400 (default 10)

Trend Observations n 2 - 400 (default 10) where $n \geq m$
This should be long enough to minimise false alarms but small enough to track the price with minimal lag.

$$\text{Trading Filter}_i = xx_i - n * vv_i$$

$$\begin{aligned} vv_i &= vv_{i-1} + \beta * n * (close_i - est_xx_i) \\ xx_i &= ext_xx_i + \alpha * n * (close_i - est_xx_i) \\ est_xx_i &= xx_{i-1} + vv_{i-1} \end{aligned}$$

iterative definition s.

xx_0 and vv_0 are again initialising values used in the following

Where :

$$vv_0 = v_0$$

$$xx_0 = x_0$$

$$\beta = \frac{\alpha}{\alpha + 0.5}$$

$$\alpha = \frac{n + 1.5}{2}$$

Calculation of Trading Filter

$$\text{LowerBand}_i = Y_i - s * \sigma_i$$

$$\text{UpperBand}_i = Y_i + s * \sigma_i$$

$$\sigma_i = \sqrt{\frac{\sigma_i^2}{2}}$$

End If

$$\sigma_i^2 = \frac{1}{n} * (close_i - Y_i)^2 + \left(1 - \frac{1}{n}\right) * (\sigma_i^2 - 1)^2$$

Else If $(i > n)$

$$\sigma_i^2 = \frac{1}{n} * \sum_{j=1}^n (close_j - Y_j)^2$$

Else If $(i = n)$

$$\sigma_i^2 = 0$$

If $(i < n)$ Then

End If

$$Y_i = x_i$$

Else

$$Y_i = x_{n+m} - (n + m - i) * v_{n+m}$$

Else If $(n + 1 \leq i \leq n + m)$

$$Y_i = x_{i+m} - m * v_{i+m}$$

If $(i \leq n)$ Then

$$v_i = v_{i-1} + -m * (p_i - est_x_i)$$

$$x_i = est_x_i + -m * (p_i - est_x_i)$$

$$x_{i-1} + v_{i-1}$$