

List of definitions and equations

Effective exchange rates:

$$w_{\text{eff}} = a_1 \left(\frac{\text{EUR}}{\text{USD}} - \text{Index} \right) + a_2 \left(\frac{\text{EUR}}{\text{JPY}} - \text{Index} \right) + a_3 \left(\frac{\text{EUR}}{\text{GBP}} - \text{Index} \right) + \dots$$

where a_1, a_2, \dots are weights

Covered interest parity

$$\frac{(1 + i_{\text{€}})}{(1 + i_{\text{\$}})} = \frac{w^t}{w} \quad \text{approx. } i_{\text{€}} - i_{\text{\$}} = \frac{\Delta w^t}{w}$$

Uncovered interest parity

$$\frac{(1 + i_{\text{€}})}{(1 + i_{\text{\$}})} = \frac{w^e}{w} \quad \text{approx. } i_{\text{€}} - i_{\text{\$}} = \frac{\Delta w^e}{w}$$

The real x-rate

$$z = w (P^* / P)$$

Gross domestic product

$$GDP = Y = C + I + G + (Ex - Im)$$

Aggregate domestic saving

$$S = Y - (C + G)$$

Absolute purchasing power parity

$$\hat{w} = \frac{P}{P^*}$$

Relative purchasing power parity

$$\frac{\Delta w}{w} = \pi - \pi^*$$