Real Exchange Rate, ℓ

"Nominal" = in terms ℓ a currency

"Real" = in terms ℓ goods ⅈ services purchasable

Nominal Exch Rate = # price ℓ foreign currency

Real Exch Rate = the # price ℓ one country's goods ⅈ services relative to another country

Normally, Nominal → Real ⇒ $\frac{\text{Nominal}}{P}$ = Real.

So $\frac{E}{P} = ?$ $\quad E = \frac{P}{P^*} \rightarrow \frac{E}{P} = \frac{1}{P^*}$

Value ℓ Foreign Good $= EP^*$ ⇒ $\frac{EP^*}{P} = 1$ ⅈ PPP holds

Problems w/ PPP (pp 396 - 397)

① Trade Barriers ⅈ NT goods ⇒ overall P-levels may not be equal

② Dyantures from free Competition
- Pricing To MEt

③ Different Consumption Pattern.

Definition of RER

$$q = \frac{EP^*}{P} = \frac{\left(\frac{\$}{\cancel{€}}\right)\left(\frac{\cancel{€}}{\text{Euro Basket}}\right)}{\frac{\$}{\text{US Basket}}} = \frac{\text{US Basket}}{\text{Euro Basket}}$$

So q = # US Baskets of goods per Euro Basket.

↑q "real depreciation"
- must trade more US baskets for each foreign basket

↓q "real appreciation"
- costs fewer US baskets for each foreign basket.

Ex: $P^* = €100$, $P = \$120$, $E = \$1.20/€$ } $q = \frac{(1.2)(100)}{120} = 1$

Suppose ↑E so $E = \$1.32$ (10% Nominal Depreciation)

$$q = \frac{(1.32)(100)}{120} = 1.1$$

Long Run RER Determination

(1) Δ World Relative Demand for Domestic Products

↑RD for Domestic Products → domestic goods become scarce ∴ thus ↑ value relative to foreign goods → ↓q

(2) Δ World Relative Supply for Domestic Products

↑RS for domestic products → domestic goods flood the market ∴ thus ↓ value relative to foreign goods → ↑q

General E Theory

General E

$$q = \frac{EP^*}{P} \rightarrow E = q\left(\frac{P}{P^*}\right)$$

q: Real S & D

$\frac{P}{P^*}$: Relative Mon Policy

4 Determinants of E

1. Δ relative M^S levels : $\uparrow M \rightarrow \uparrow P$
2. Δ relative M^S growth rates : $\uparrow \hat{M} \rightarrow \uparrow \pi$

} $\frac{P}{P^*}$

3. Δ Relative Demand
4. Δ Relative Supply

} q