Derivation of NEER.

$$NEER = \left(\frac{USD}{THB}\right)^{w_1} \left(\frac{CNY}{THB}\right)^{w_2} \left(\frac{IDR}{THB}\right)^{w_3}$$

where.
USD = $US
THB = Thai Baht
CNY = Chinese Yuan
IDR = Indonesian Ringgit

w_1, w_2, w_3 = Weight on each currency.

$$= \left(\frac{USD}{THB} \times \frac{USD}{USD}\right)^{w_1} \left(\frac{CNY}{THB} \times \frac{USD}{USD}\right)^{w_2} \left(\frac{IDR}{THB} \times \frac{USD}{USD}\right)^{w_3}$$

$$= \left(\frac{USD}{THB}\right)^{w_1+w_2+w_3} \left(\frac{USD}{USD}\right)^{w_1} \left(\frac{CNY}{USD}\right)^{w_2} \left(\frac{IDR}{USD}\right)^{w_3}$$

$$= \left(\frac{USD}{THB}\right)^{1} \cdot (1)^{w_1} \left(\frac{CNY}{USD}\right)^{w_2} \left(\frac{IDR}{USD}\right)^{w_3}$$

$$= \left(\frac{THB}{USD}\right)^{-1} \left(\frac{CNY}{USD}\right)^{w_2} \left(\frac{IDR}{USD}\right)^{w_3}$$

put log and solve Δ between $t, t-1$

$$\%\Delta NEER = w_2 \times \%\Delta\left(\frac{CNY}{USD}\right) + w_3 \times \%\Delta\left(\frac{IDR}{USD}\right) - \%\Delta\left(\frac{THB}{USD}\right)$$

$\therefore$ As NEER increases $\rightarrow$ Baht appreciates.