

## Useful Formulas

PPP

$$E_{\$/\epsilon}^* = P_{US} / P_{EUR}$$

Relative PPP

$$\% \Delta E_{\$/\epsilon} = \pi_{US} - \pi_{EUR}$$

Quantity Theory of Money

Level form:

$$M = LPY \quad \text{or} \quad P = M/LY$$

Rate of Growth form:

$$\pi = \% \Delta M - \% \Delta L - \% \Delta Y$$

Uncovered Interest Rate Parity

$$\% \Delta E_{\$/\epsilon}^e = i_{\$} - i_{\epsilon}$$