103: LIST OF VARIABLES

(foreign variables carry an asterisk, April 3, 2006
superscript e denotes the expected value of a variable or change)

1. Stock variables

K  Capital stock
W  Net wealth of a country (net claims on the future output of the rest of the world)
M  Domestic nominal money supply
M*  Foreign nominal money supply
B  Domestic (government) bonds

2. Flow variables

Y  Income (Output)—Gross National Product, the income generated by domestic factors of production in one year. \( Y^{GDP} \) roughly equals national income
C  Consumption of private households
G  Government spending, T: Taxes
I  Investment, \( I = \Delta K \) (increase of capital stock)
EX  Exports (value; volume \( X: EX = P \times X \))
IM  Imports (value; volume \( M: IM = P^* \times M \))
CA  Current account balance, assumed to be roughly \( CA = EX - IM \) (net exports).

3. Prices

\( E \) Nominal (spot) exchange rate (denominated in [USD/units of foreign currency]). A nominal appreciation is a decrease of \( E \).
\( E^e \) Expected future nominal exchange rate.
\( F \) Forward nominal exchange rate (denominated in [USD/units of foreign currency] tomorrow)
\( P \) Domestic price level (price of domestic consumption basket). Individual prices: \( p_i \). So, \( P = a_1 p_1 + \ldots + a_i p_i + \ldots + a_N p_N \)
\( P^* \) Foreign price level (price of foreign basket)
\( q \) Real exchange rate, defined as \( q = \frac{EP^*}{P} \) (denominated in quantities: [1]). It denotes the relative price of a unit of the foreign consumption basket (numerator) in terms of the domestic consumption basket (denominator). A real appreciation is equivalent to a reduction of \( q \).
\( R \) Nominal interest rate; long-term: \( R^{LT} \)
\( \pi^e \) (Expected) inflation rate,
\( r^e \) (Expected) real interest rate;

\( S \) Savings, \( S = I + CA = \Delta K + \Delta W \). In an open economy, national savings are applied to domestic investment and foreign lending.

\( Y^{GDP} \) Output—Gross Domestic Product, the production of goods and services within domestic borders in one year. Domestic wealth invested abroad yields interest income for domestic residents: \( R^* \cdot W \). So, \( Y^{GDP} = R^* \cdot W + Y^{GDP} \) and the precise current account balance is \( CA = R^* \cdot W + EX - IM \).