103: LIST OF VARIABLES

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

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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^{GNP} Income (Output)—Gross National Product, the income generated by domestic factors of production in one year. Y^{GNP} roughly equals national income

C Consumption of private households

G,T *G:* Government spending, *T*: Taxes

I Investment, $I=\Delta K$ (increase of capital stock)

EX Exports (value; volume X: $EX = P\,X$)

IM Imports (value; volume M: $IM = P^*\,M$)

CA Current account balance, assumed to be roughly $CA \approx EX - IM$ (net exports).

The financial view $CA = \Delta W$ is precise.

A current account surplus is equivalent to net foreign lending. Domestic consumers give up consumption of their goods today in exchange for future consumption of foreign goods. A current account surplus is therefore an accumulation of claims on the future output of the rest of the world. A current account deficit is equivalent to net borrowing from abroad. If *private* capital flows do not match the current account surplus (or deficit), the central increases or reduces its reserves accordingly. Reserves are part of the country's net wealth.

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, $Y^{GNP} = R^*\cdot W + Y^{GDP}$ and the precise current account balance is $CA = R^*\cdot W + EX - IM$.

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 $[\text{USD/units of foreign currency}]_{\text{tomorrow}}$)

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 $q \equiv \frac{EP^*}{P}$ (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}

π^e (Expected) inflation rate,

r^e (Expected) *real* interest rate;