International Economics: Lecture 23

Intertemporal Approach to CAB

Arman Gabrielyan
Three approaches to Current Account Balance (CAB)

- **Elasticities approach:**
  How exchange rate must change for the CAB to improve.

- **Absorption approach:**
  How domestic spending must change relative to domestic income for the CAB to improve.

- **Intertemporal approach:**
  How domestic savings must change relative to domestic investments for the CAB to improve.

  - Investments and savings are intertemporal decisions, as an economic agent saves or invests if expects to be alive in the next period.
  - By saving one postpones current consumption, expecting to consume more later.
  - By investing one expects to produce and thus to consume more later.
CAB = Investments – Savings


Private Savings
$S_{priv} = Y – T – C$

Government Savings
$S_{gov} = T – G$

National Savings
$S = S_{priv} + S_{gov}$

National Income
$Y = C + G + I + CAB$

National Savings
$S = Y – C – G$

National Savings
$S = I + CAB$
Goods market equilibrium

*Cpl* = planned consumption  
*Ipl* = planned investments  
*Spl* = planned savings

- **Planned spending equals production**
  
  \[ Y = C^{pl} + I^{pl} + G + CAB \]

- **Planned investments equal savings**
  
  \[ S^{pl} = I^{pl} + CAB \]

\[ \text{CAB} = S^{pl} - I^{pl} \]

_CAB_ is the difference between desired savings and investments.  
If investments exceed national savings, then current account is in deficit.
Small open economy and world real interest rate

- *Small open economy* = an economy that is so small compared to world that has no effect on world prices, incomes or interest rates. The country is thus a price taker in world markets. The *economy is open* in the sense, that has perfect access to the international capital market.

- *World real interest rate* = the rate that prevails in the international capital market, where savings are being conveyed to those who wish to use it for investments.
  - Small open economy may borrow or lend in international capital markets as much as it wants.
Savings /Investments functions

**Savings /Investments vs. Real interest rate**

- Higher real interest rate *leads to*
  - ... higher level of savings
  - ... lower level of investments

At 4% domestic savings equal domestic investments, and CAB = 0. This rate is the closed economy real interest rate.
\[ \text{CAB} = S^{pl} - I^{pl} < 0: \text{Deficit} \]

At 2% planned domestic investments exceed savings.

In the open economy the excess demand for investments is met from abroad and the country runs a current account deficit.

\[ \text{CAB} = 1 - 3 = -2B \]

Thus, in the small open economy, when world real interest rate is below the autarky interest rate, the CAB is in deficit.
CAB surplus

\[ \text{CAB} = S^{pl} - I^{pl} > 0: \text{Surplus} \]

At 7% planned domestic savings exceed investments.

In the open economy the excess supply of savings results in capital outflow and the country runs a current account surplus.

\[ \text{CAB} = 4 - 1 = 3B \]

Thus, in the small open economy, when world real interest rate is above the autarky interest rate, the CAB is in surplus.
The poorest 20% of Danes are more joyful than the richest Greeks.

Source: Economist