

**3543 Fiscal and Financial System in Japan A  
/ KC3002 International Finance**

Fall 2013

Lecture 8(Nov 29)

National Income Accounting(cont.)//

Equilibrium in Goods Market

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# Current Account (經常收支)

The current account balance is the difference between payments received from foreigners and payments made to foreigners.

$$CA = \underbrace{EX - IM}_{\text{Trade balance}} + \underbrace{EX_{FS} - IM_{FS}}_{\text{Net factor income from abroad}} + \underbrace{UT_{IN} - UT_{OUT}}_{\text{Net unilateral transfers}}$$

$CA > 0 \rightarrow$  Current account *surplus* (經常黒字)

$CA < 0 \rightarrow$  Current account *deficit* (經常赤字)

# Current Account

Assume that NFIA and NUT are small and negligible.  
Then, the CA balance is almost equal to TB.

$$CA \approx TB$$

It implies that GNDI is almost equal to GDP, that is,  
a nation's income is equal to its final output.

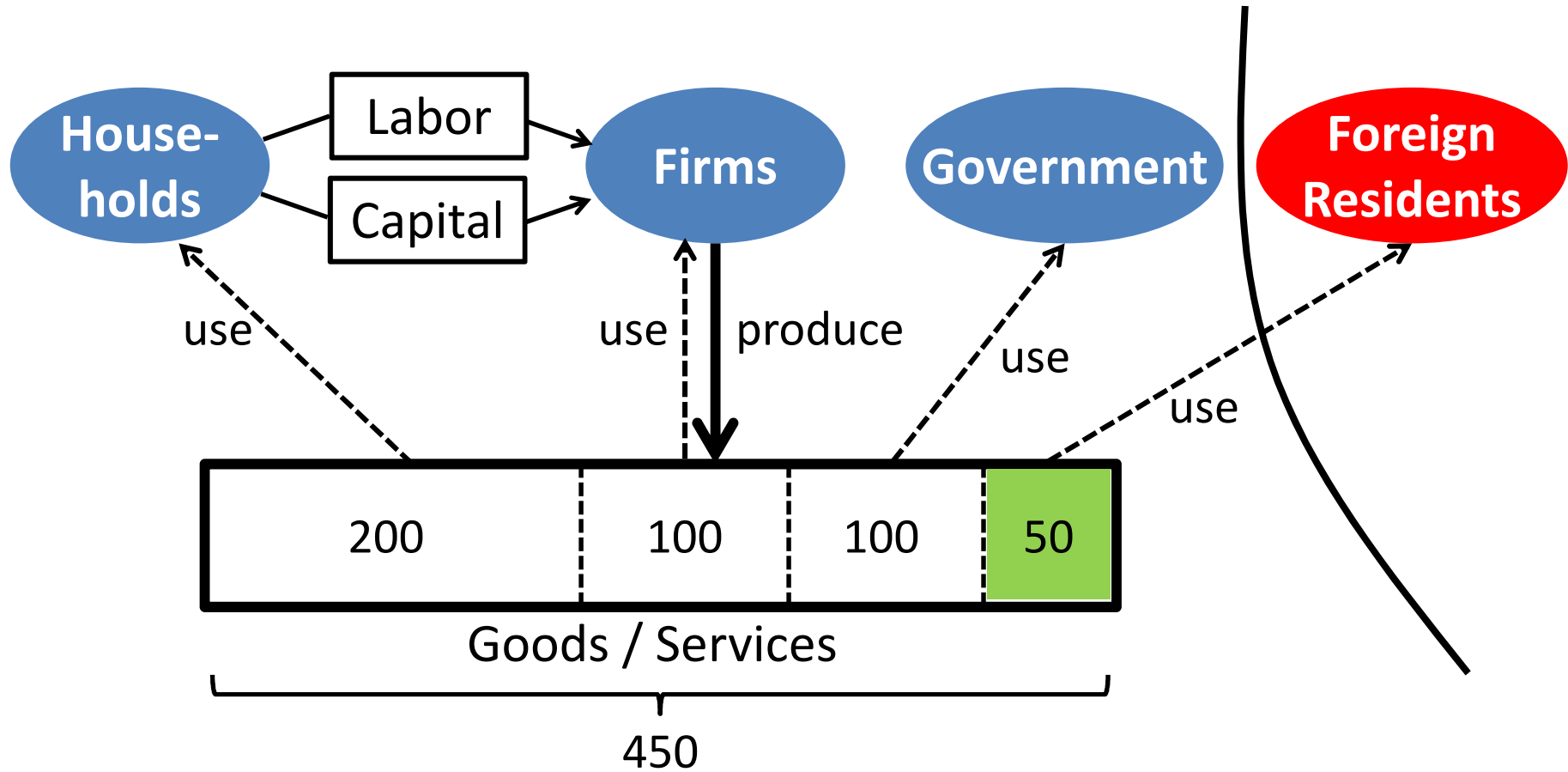
$$GNDI = C + I + G + CA \approx C + I + G + TB = GDP$$

Therefore, we will denote GDP by Y, which denote income,  
and we'll use "income" and "GDP" interchangeably.

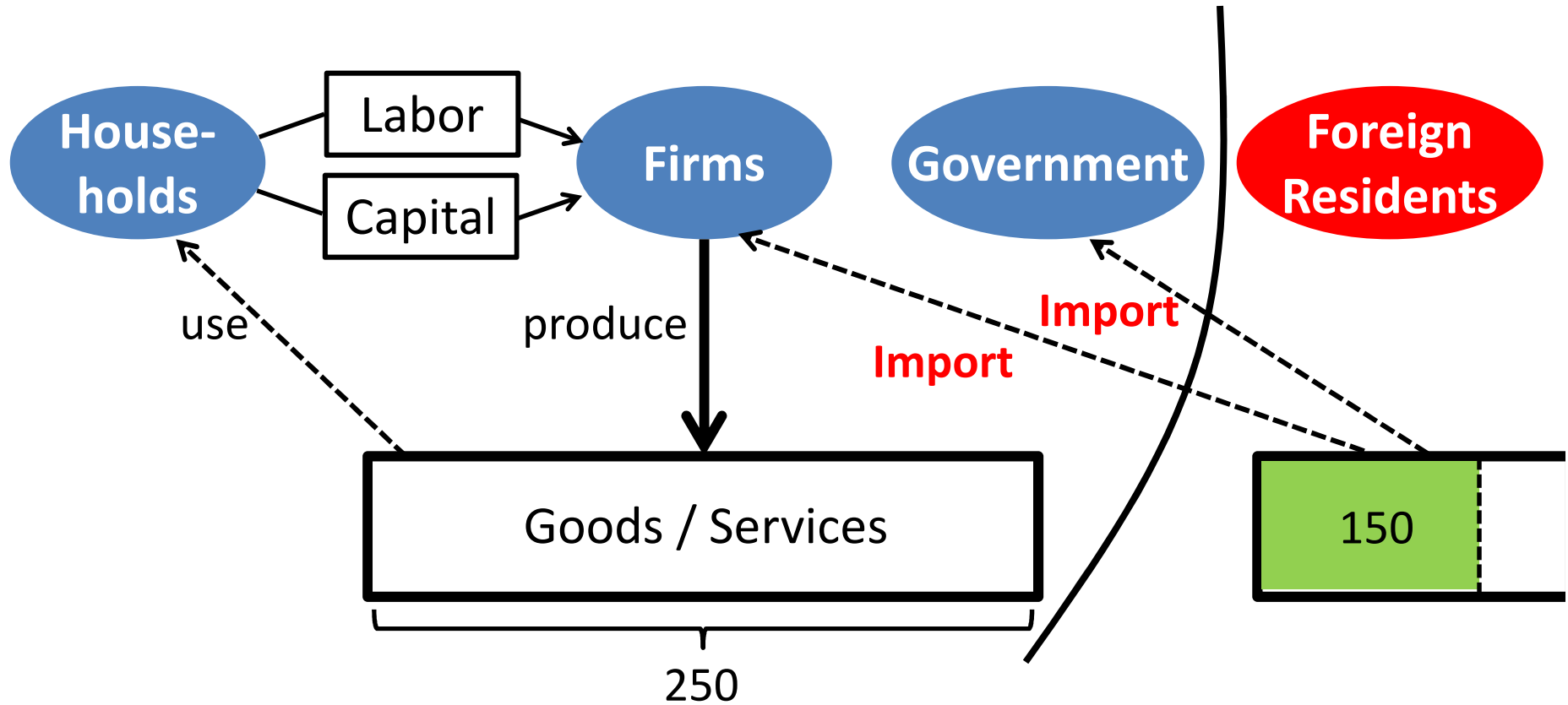
We have a new GDP identity, replacing TB with CA and  
GDP with Y.

$$C + I + G + TB = GDP \rightarrow C + I + G + CA = Y$$

# Current Account



# Current Account



How is a country's trade balance (current account) related with its production, and households', firms' and government's spending?

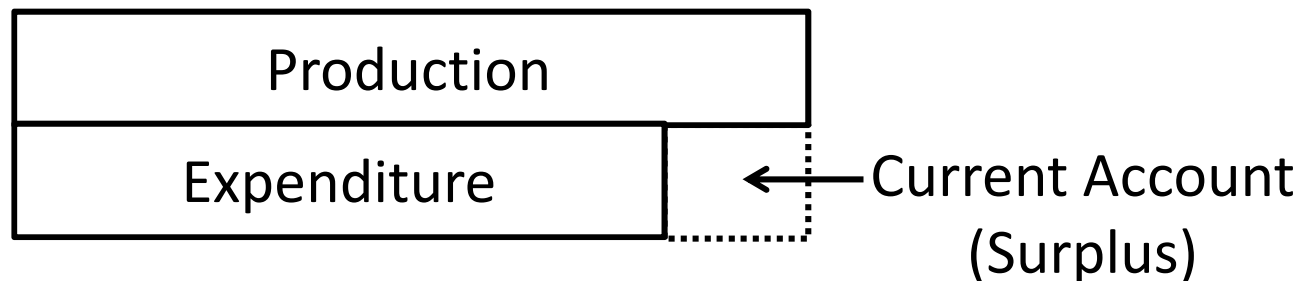
# Absorption Approach

$$\text{GDP Identity } C + I + G + CA = Y$$

$$C + I + G + CA - (C + I + G) = Y - (C + I + G)$$

$$CA = Y - \underbrace{(C + I + G)}_{\text{Domestic absorption}}$$

The current account is equal to the difference between national income and domestic residents' total spending or *domestic absorption*.

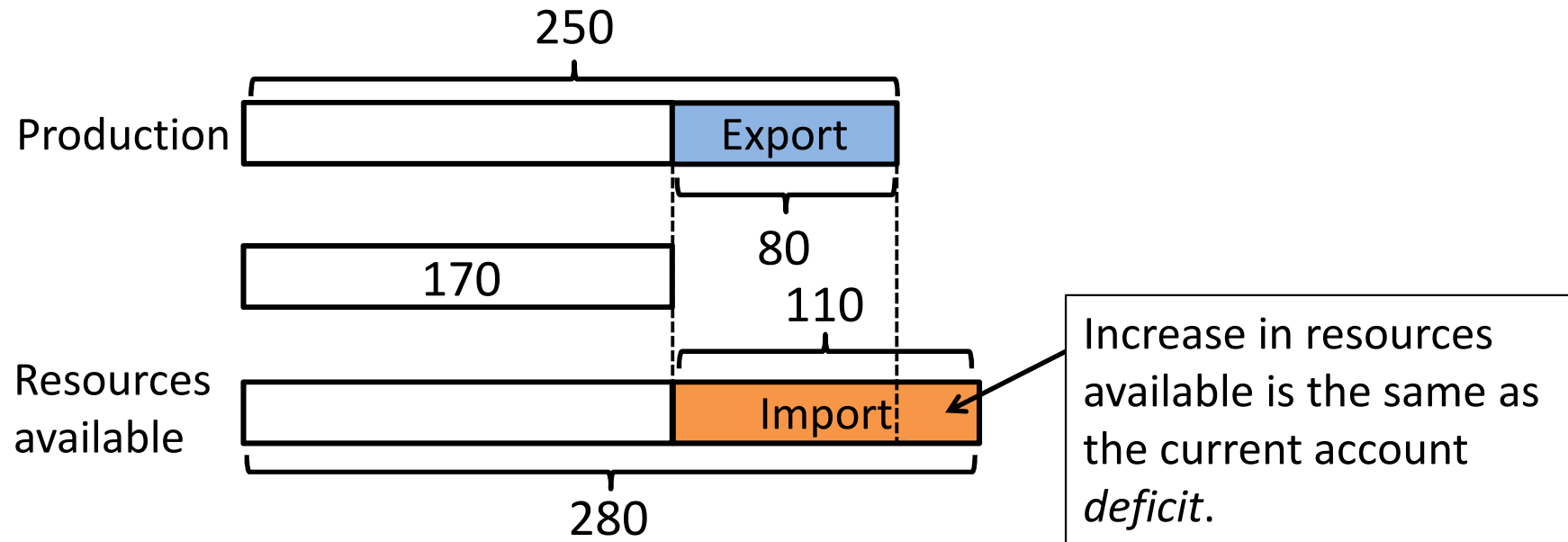


# Absorption Approach

$$CA = Y - ( C + I + G )$$

- $CA < 0 \Leftrightarrow Y < C + I + G$
- $CA > 0 \Leftrightarrow Y > C + I + G$
- It is only by importing more than exporting that a country can use more output than it's currently producing.
- It is only by exporting more than importing that a country can use less output than it's currently producing.

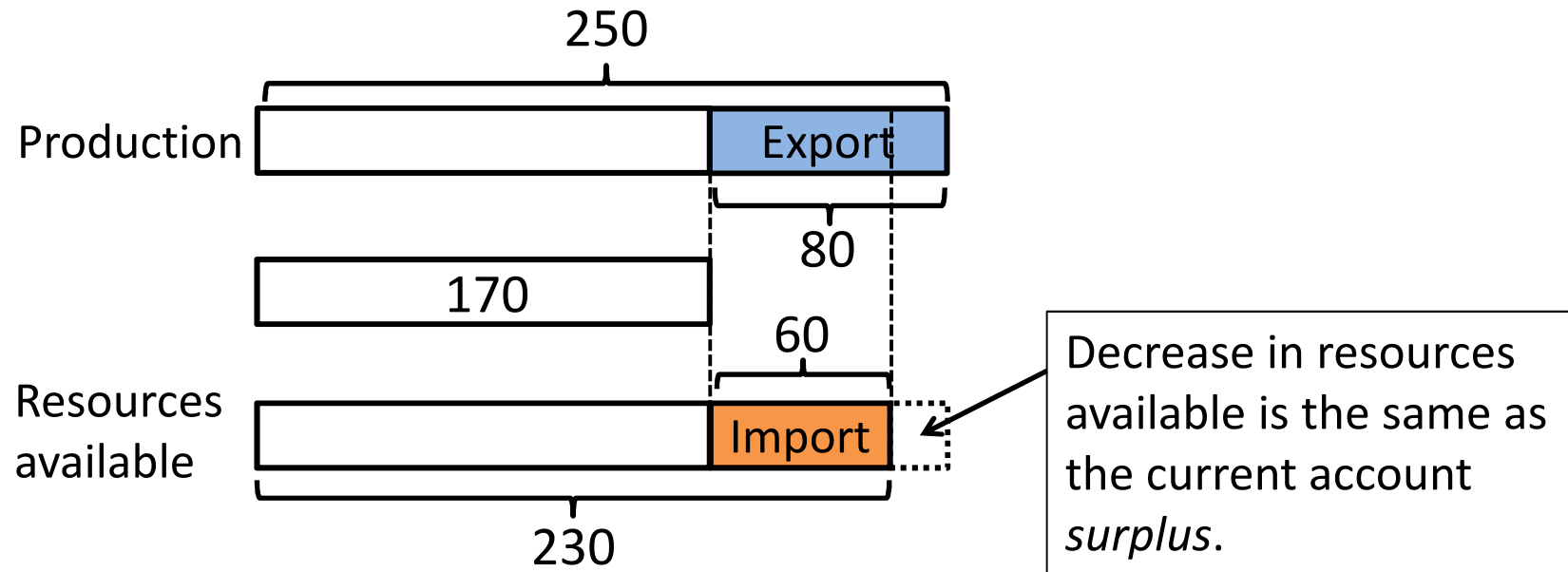
# Absorption Approach



By importing more than it exports, a country can increase the total resources available, exactly by a current account deficit.



# Absorption Approach



By exporting more than it imports, a country can decrease the total resources available, exactly by a current account surplus.

# Current Account Deficit/Surplus

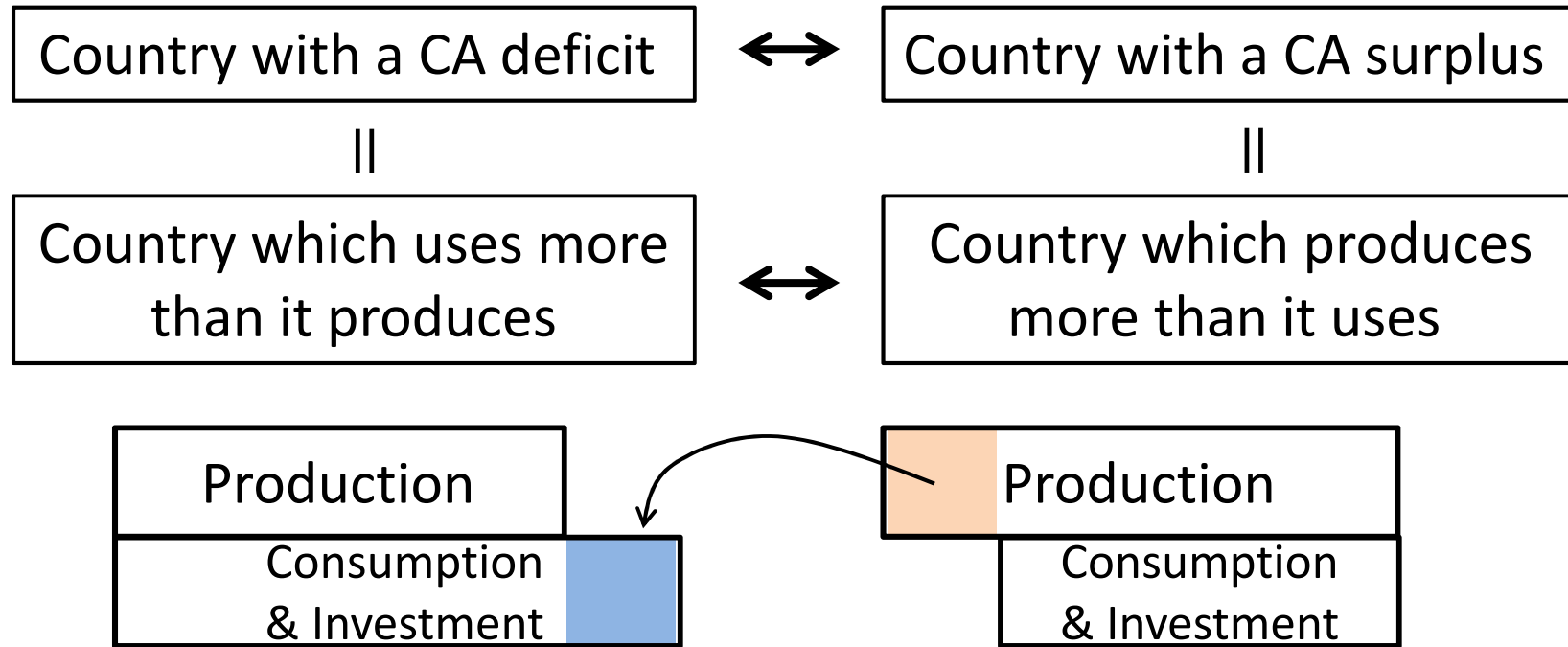
A country can use more output than it produces, only when it can import more than it exports.

→ That country can import more than it exports, only when another country exports more than it imports.

→ The country can export more than it imports, only when it uses less output than it produces.

→ A country can use more output than it produces, only when another country uses less output than it produces.

# Current Account Deficit/Surplus



A country's consumption and investment in excess of its production is financed by another country's production in excess of its consumption and investment.

# Global Imbalances

Imbalances – deficits in some countries and surpluses in other countries – imply who finances whom.

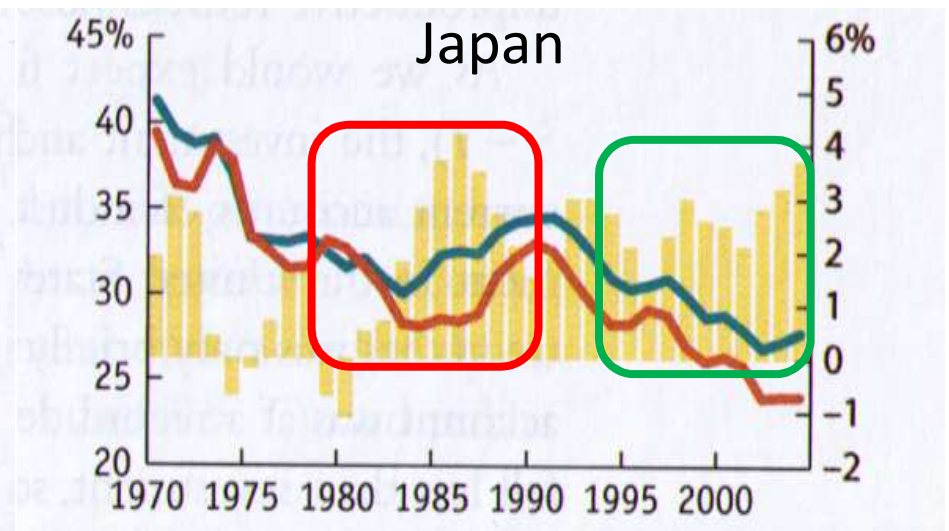
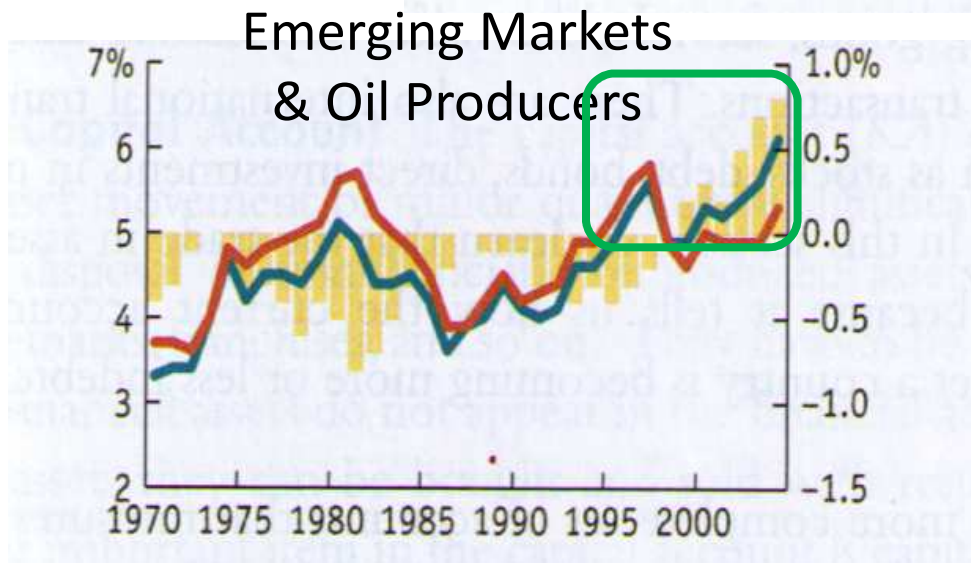
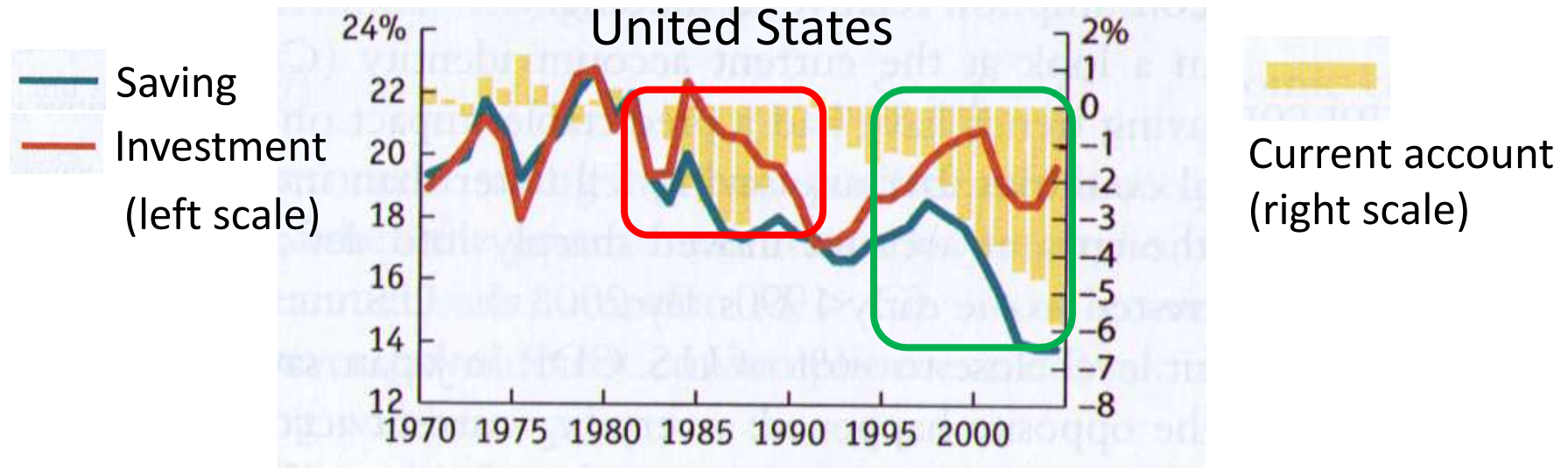
In 1980s, imbalances were “local.”

The large CA deficit in the US was financed by the corresponding large CA surplus in Japan.

Recently, imbalances have been “global.”

The large CA deficit in the US has been financed by the CA surpluses in many other countries(Japan, emerging economies, oil producers).

# Global Imbalances

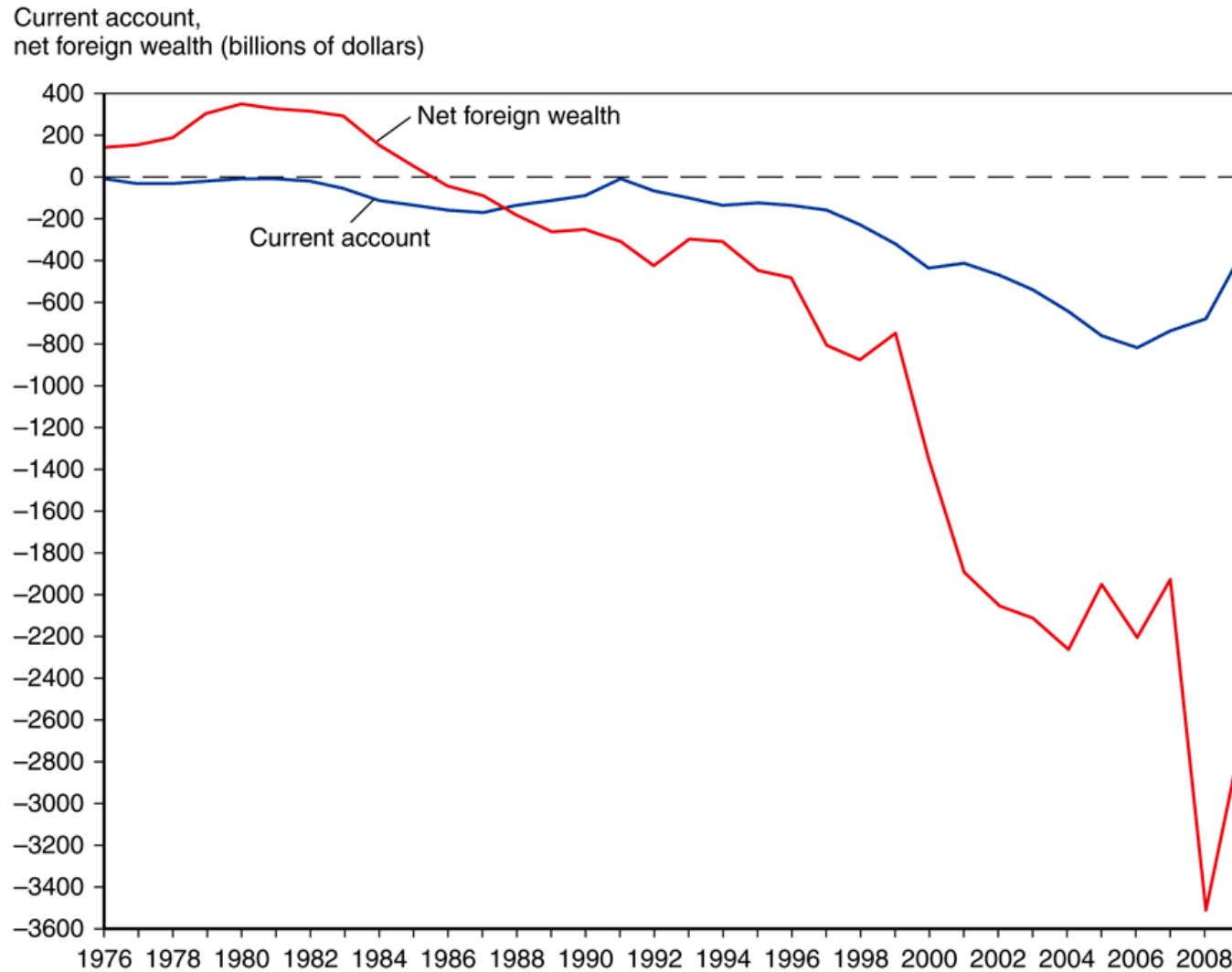


# Are current account deficits always bad?

A country can buy more from foreigners than it sells to them, only if it can *borrow* the difference from foreigners.

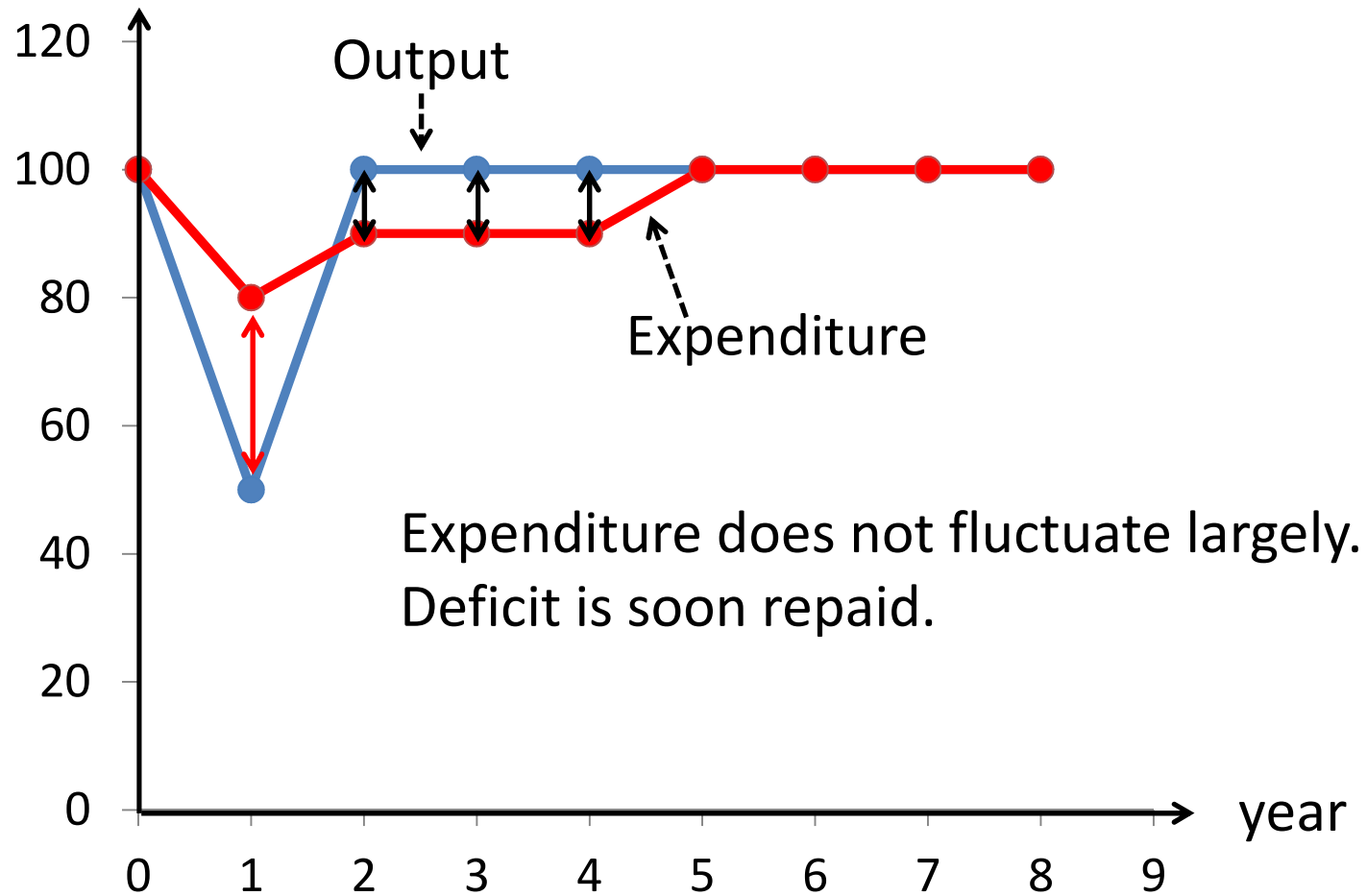
- A country can use more output than it produces, by *borrowing* goods from other countries.
- A country with a current account deficit is increasing its foreign *debts*.
- Are debts always bad for the country?
- Current account deficits cushion against a fall in output, and improve economic welfare as long as debt is repaid in the future.

# US Current Account and Net Foreign Wealth



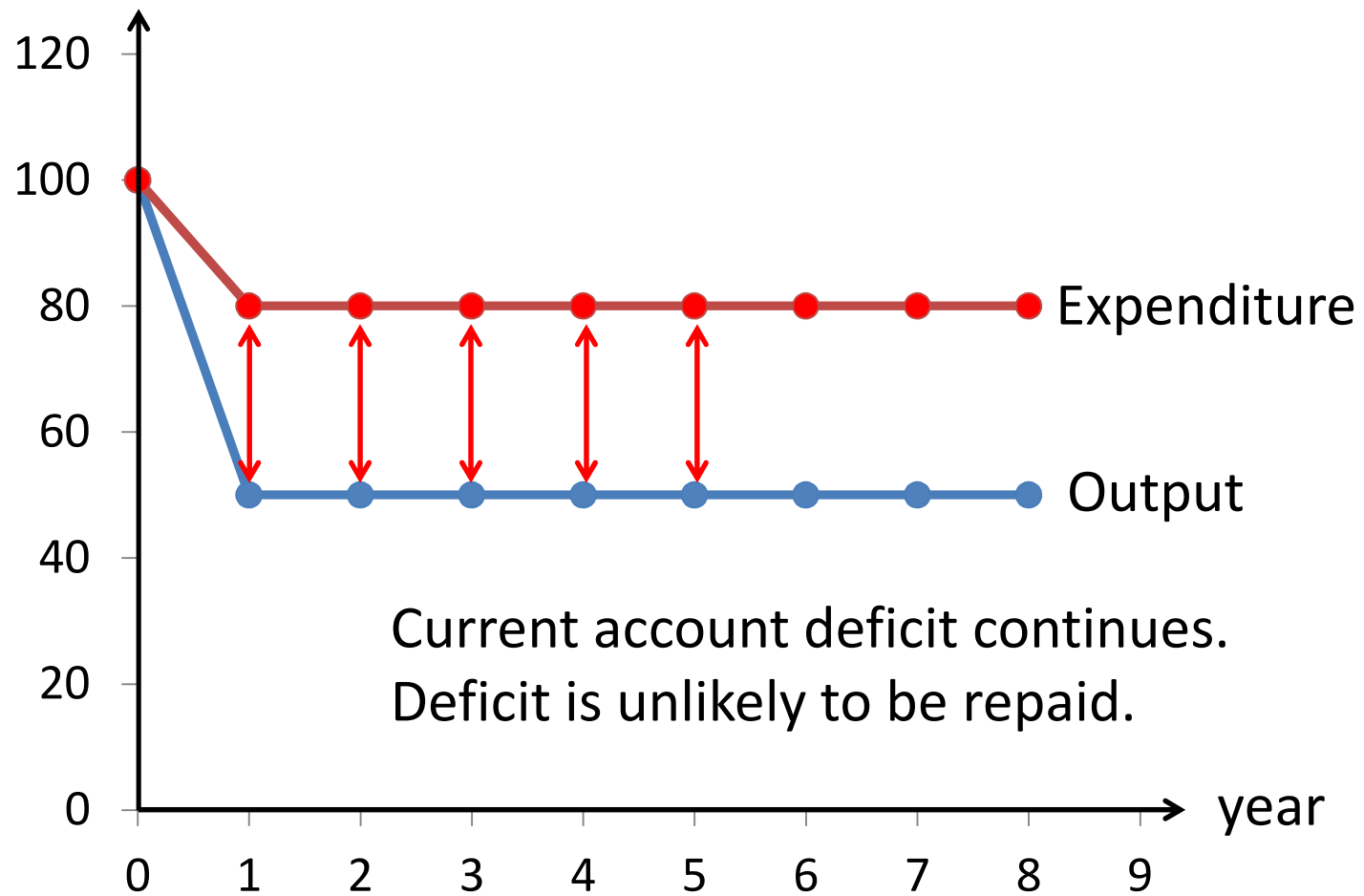
From Krugman, Obstfeld, and Melitz (2011), p.332.

# Temporary Fall in Output





# Permanent Fall in Output



# **GDP: EQUILIBRIUM IN GOODS MARKET**

# Demand-and-Supply Principle

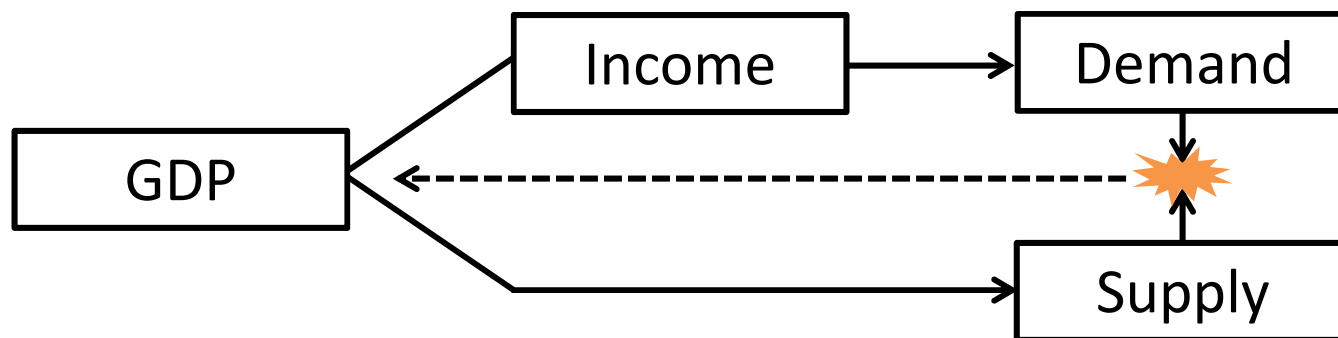
**The yen/dollar exchange rates** are determined so that people are willing to hold all the outstanding stock of yen assets and dollar assets.

→ No one has incentive to exchange dollar and yen assets, and there is no pressure on exchange rate to change.

**The interest rates** are determined so that people are willing to hold all the outstanding stock of money and bonds.

→ No one has incentive to exchange money and bonds, and there is no pressure on interest rate (or bond price) to change.

# Demand-and-Supply Principle: GDP



Once goods are produced and supplied, they generate income and affect demand for goods themselves.

The market interaction between demand and supply forces GDP to increase or decrease, as long as demand does not match supply.

The level of domestic output (GDP) are determined so that people are willing to purchase all final output produced and there is no pressure on GDP to change.

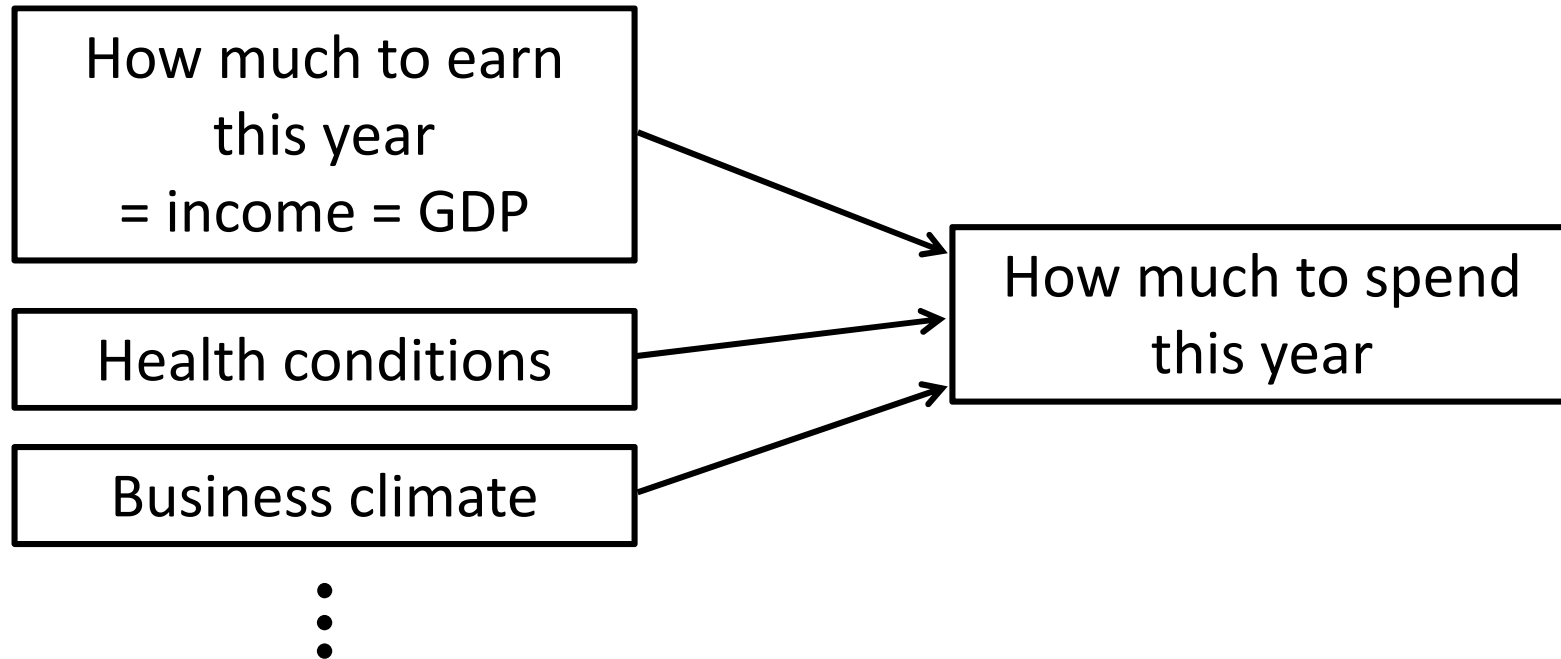
Let us explore how the market works and determines GDP.

# Aggregate Demand for Output

Aggregate demand for goods/services consists of the following types of demands:

1. **Consumption demand ( C )**  
**Households'** demand for goods and services
2. **Investment demand ( I )**  
**Firms'** demand for goods and services
3. **Government demand ( G )**  
**Government's** demand for goods and services
4. **Current Account ( CA )/ Trade Balance ( TB )**  
**Net foreign** demand for domestic goods and services

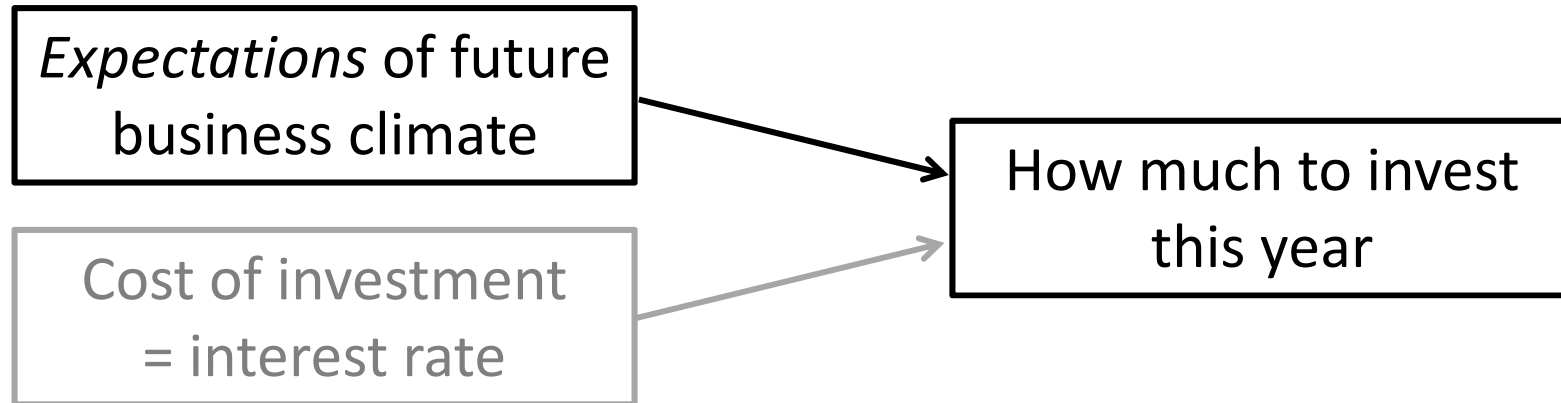
# Consumption Demand



Consumption demand is mainly affected by national income, GDP.

Consumption demand increases less than the income increases, because part of the income increase is saved.

# Investment demand



Firms purchase machine tools, factories, or inventories for *future* production or sales.

The investment demand is independent of the current GDP.

A more complex model might assume that investment demand depends also on the cost of borrowing for investment, the interest rate.