

# **Econ 2004:**

## **The Open Economy**

### **Lecture 8: External imbalances**

#### **Reading.**

##### **Core:**

Carlin & Soskice (2015) Chapter 11.

**Optional:** See Moodle page

## Last lecture

### Model-building:

#### The medium-run model:

1. Using the AD-BT-ERU model to model external supply shocks like oil shocks
2. Balance of payments;
3. Intertemporal approach to balance of payments

### Policy question

- Oil shocks
- Natural resource discovery → TODAY
- Imbalances may or may not be a problem for policy-makers → TODAY

# **This lecture**

## **Model-building:**

1. Sector financial balances
2. A 2-bloc model of the world economy - extending the AD-BT-ERU and 3-equation models
3. Global imbalances

## **Policy question**

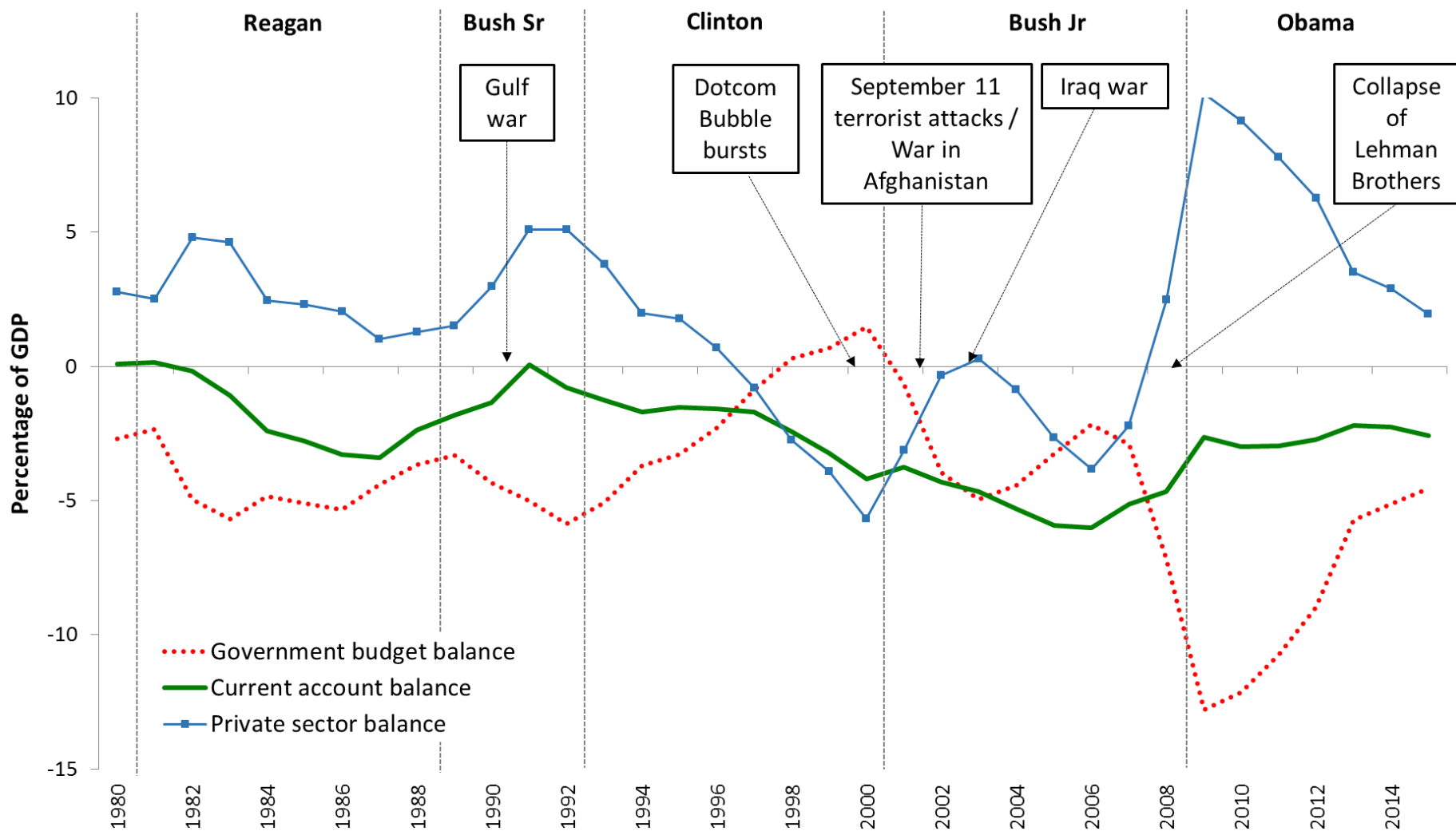
- Why do 'twin' or 'triple' deficits arise?
- Are national / global imbalances necessarily a problem for policy-makers?

# 1. Sector financial balances

How do we relate these three:

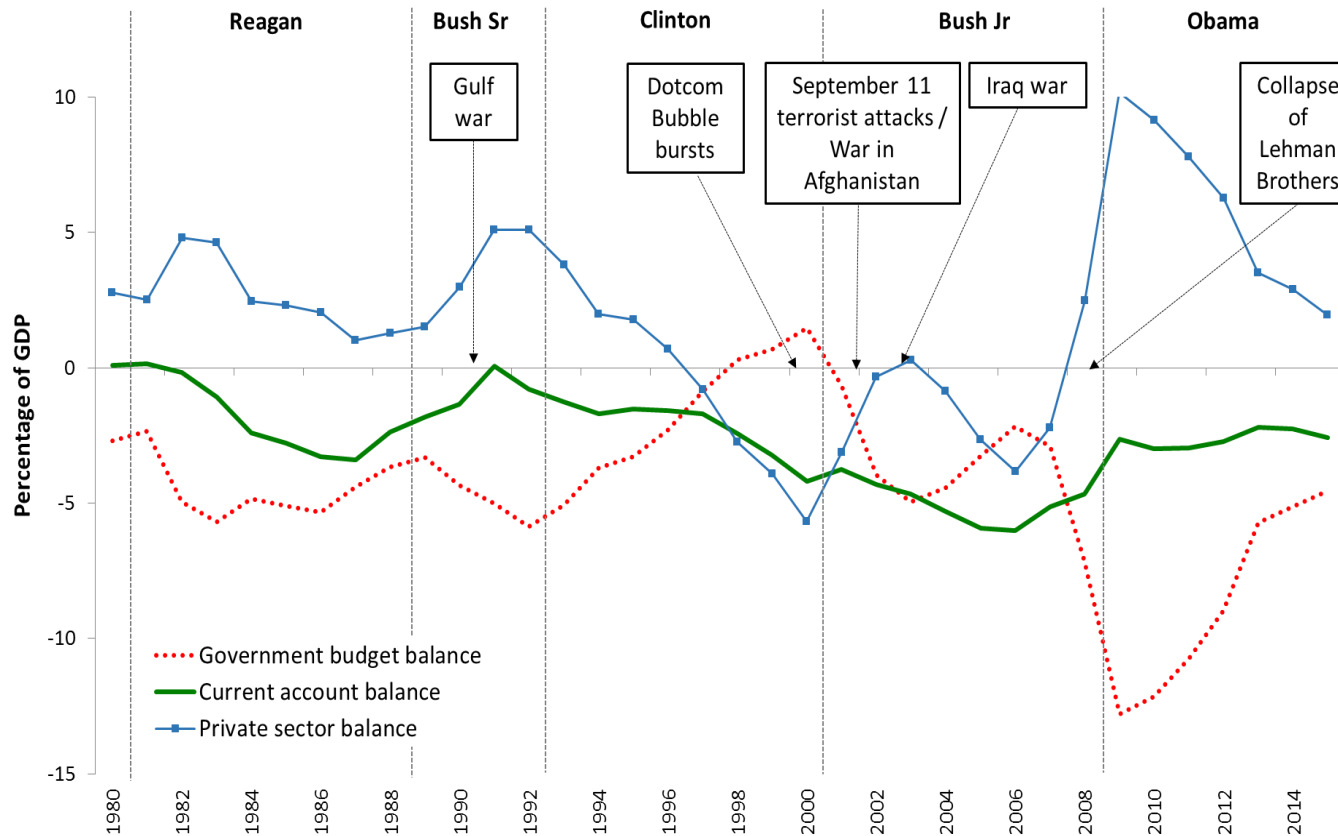
- government's fiscal balance
- trade balance and
- private sector's financial balance?

Use the goods market equilibrium condition & rearrange:



Source: OECD Economic Outlook Statistical Tables, OECD.Stat; private sector balance is the residual.

**Are charts like this useful? Do they show something of economic significance? We need to use a model.**



First,

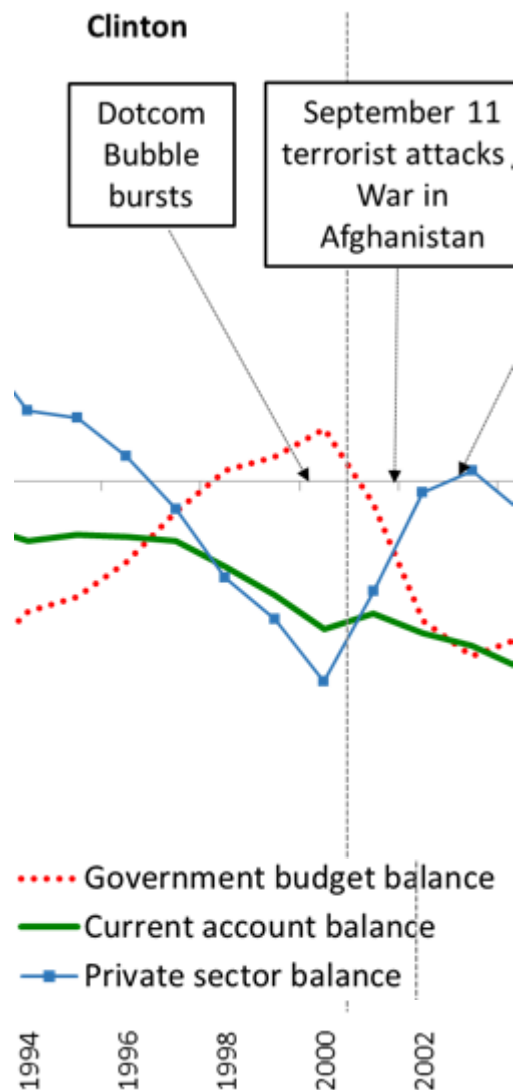
Focus on the usual analysis of GDP

Then,

Examine the sector financial balances

# How to interpret changes in financial balances (Example #1)

Use sector financial balances:



## Dotcom boom & bust in US from mid 1990s:

Boom (i.e. begin with y)

- High private sector I (why? ); implies private sector financial surplus
- Clinton uses private sector boom to consolidate public finances so public sector financial surplus
- Some of private sector boom is financed from abroad so external balance \_\_\_\_\_

Bust (i.e. begin with y)

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- 
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(Example #2)

Bush Jnr tax cuts, wars + housing boom ... then bust in 2000s:

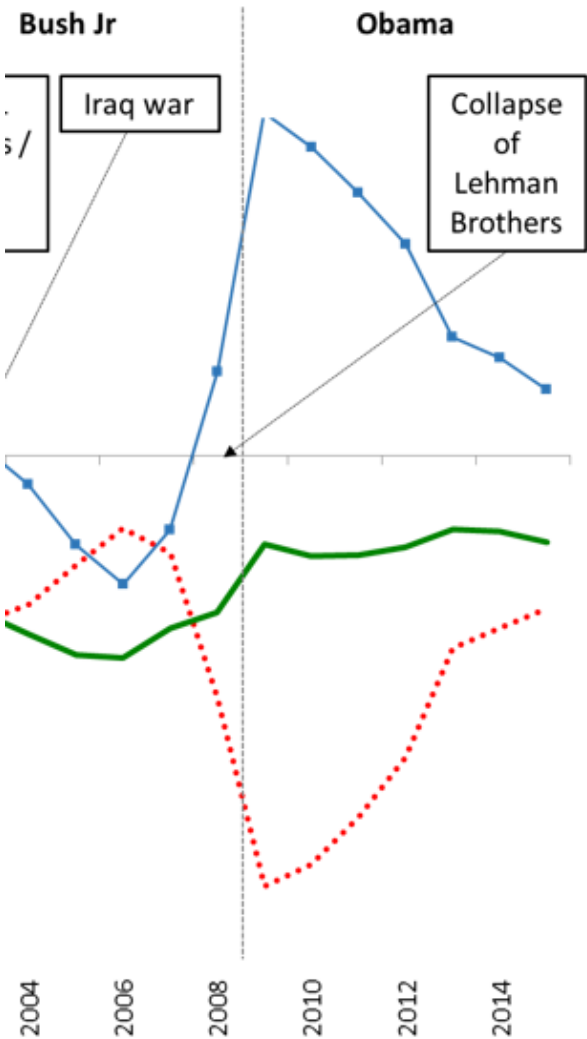
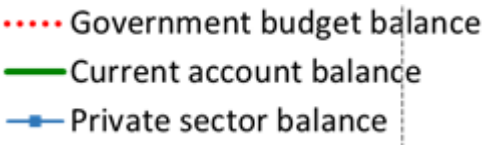
Boom

- Private sector boom (why? ) so private sector financial surplus
- Bush cuts taxes & increases military spending so public sector financial surplus
- Some of private & sector deficits are financed from abroad so external

NOTE:

Bust (Global Financial Crisis)

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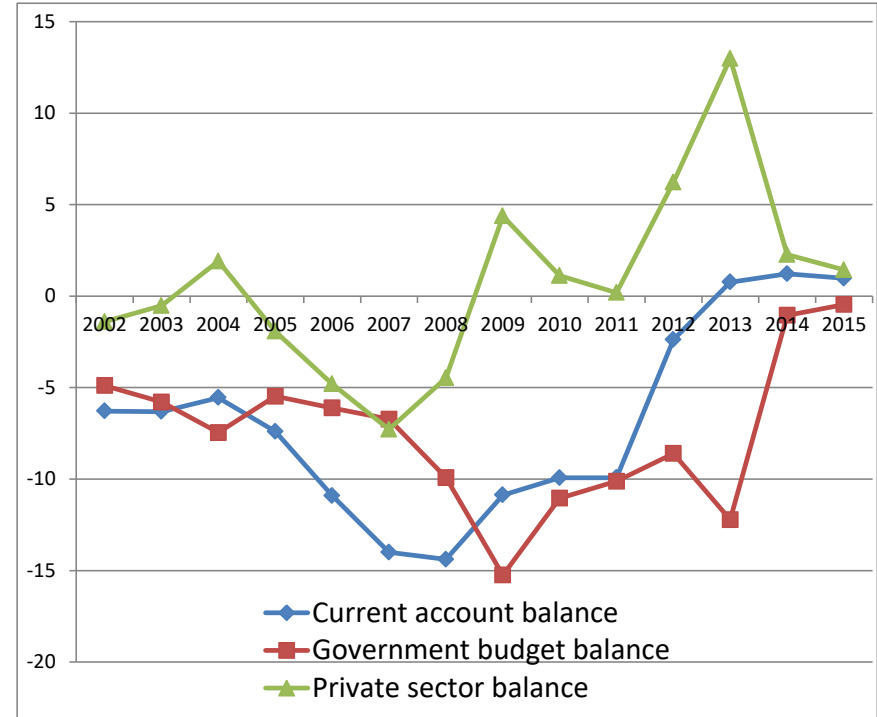
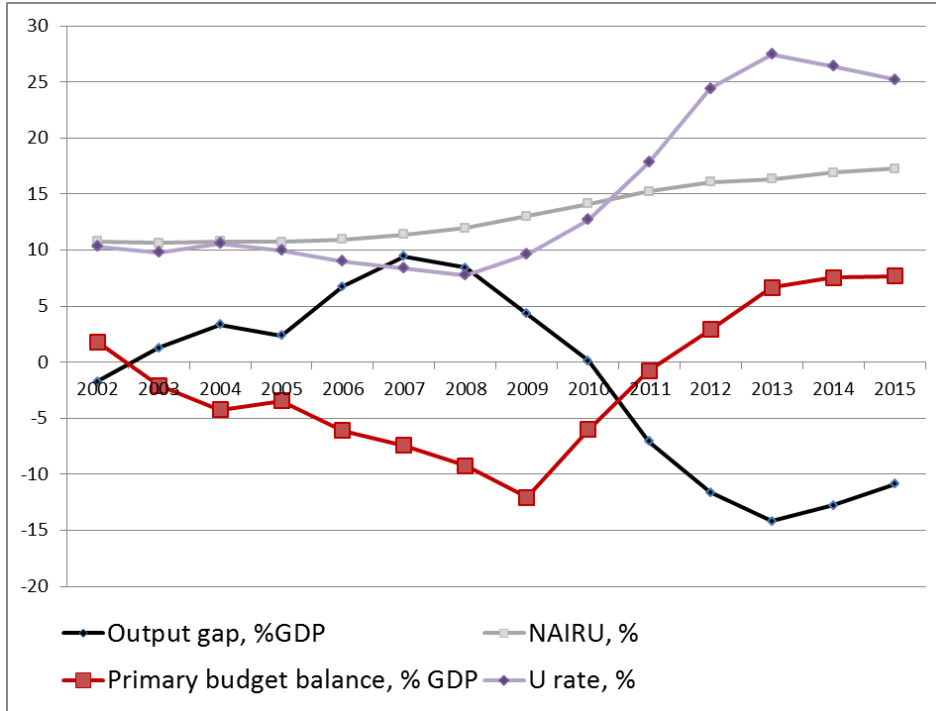




## Summary: sector financial balances

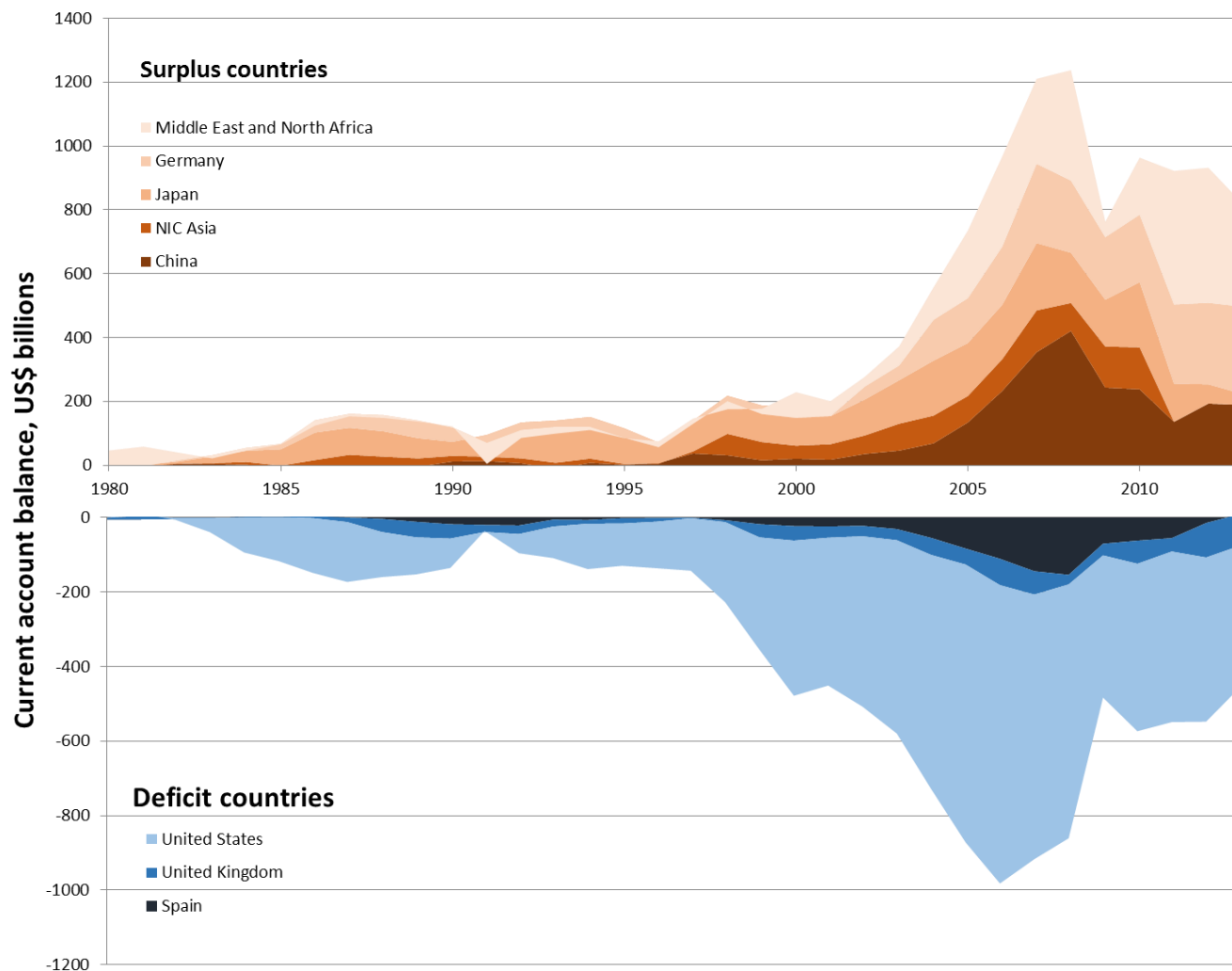
1. Use a model to explain what happens to  $y$
2. Use sector balances to provide another lens on what has happened
3. Using (1) and (2) together helps diagnose the source and consequences of phenomena such as twin or triple deficits
4. See Chapter 11 for an example using the intertemporal approach to show how triple deficits could accompany a natural resource windfall – in that case, deficits are

# Example #3 Greece

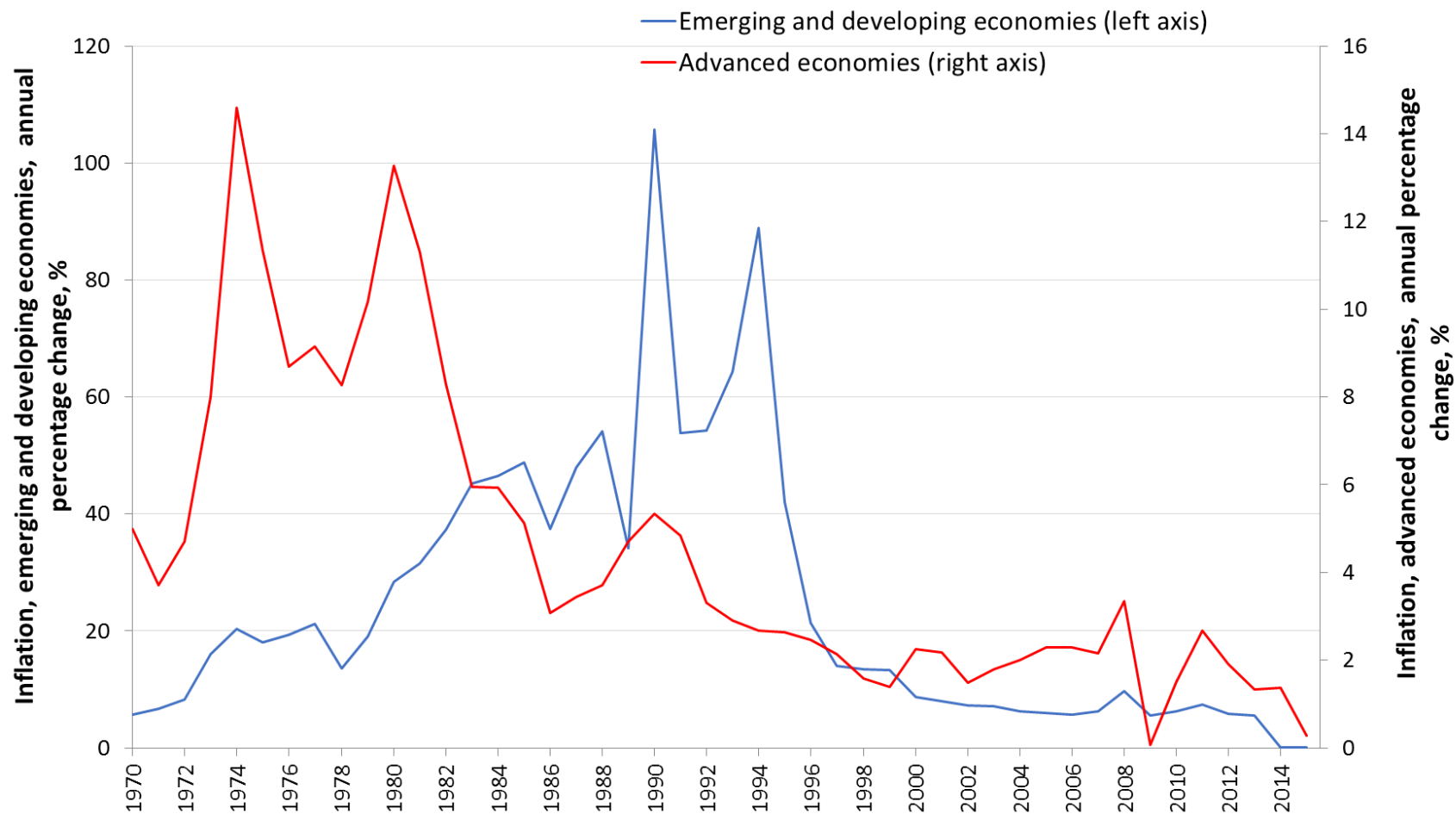


## 2. Model-building: a 2-bloc model of the world economy

Stylized fact #1: Dramatic emergence of huge global imbalances



## Stylized fact #2: Low & stable inflation



We need a model to show how global imbalances are consistent with stable inflation

## **2-bloc model with inflation-targeting central banks** (strip the model to the bone)

- Assume world = 2 blocs only
- Simplify by using vertical ERU curves;  $y_e$  identical in each bloc
- Simplify AD curves: by having coefficients  $a$  and  $b$  the same in each bloc and equal to 1
- Concentrate only on the MREs not on adjustment

Now, assume  $A^A > A^B$  and look for new MRE

### **First result:**

Global imbalances at the new MRE

Mechanism: Real exchange rates and BT (role of  $q$ )

## 2-bloc model (cont.)

Note: this is no longer a SOE model with  $r^*$  exogenous.

Role of  $r^*$  is to balance  $y^D = y_e$  at MRE for the world.

**Second result:** World real interest rate (role of  $r^*$ )

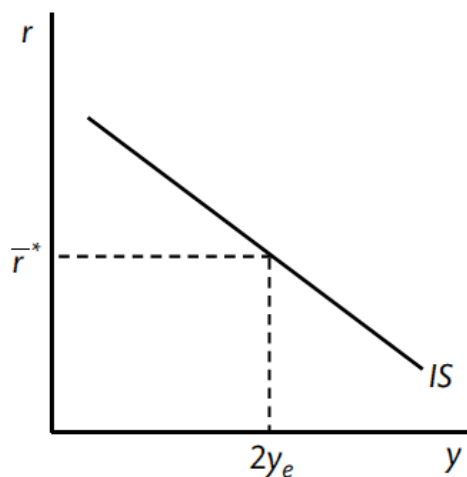
- For the 'world' = country A + country B,

Summary:

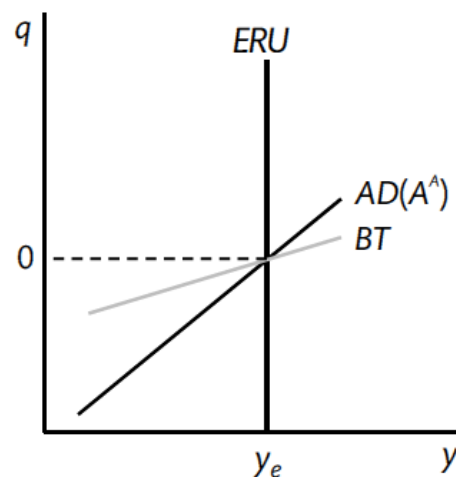
- Symmetric equilibrium, i.e. A and B are identical
- If Bloc A has higher aggregate demand (e.g. permanent positive domestic AD shock), then

## 2-bloc model (cont.)

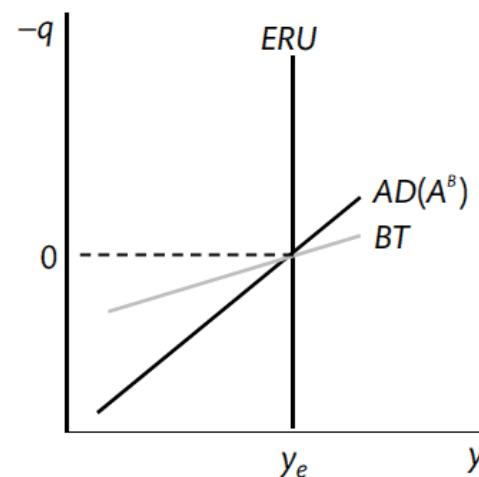
(a) Symmetric equilibrium ( $A^A = A^B$ )



World

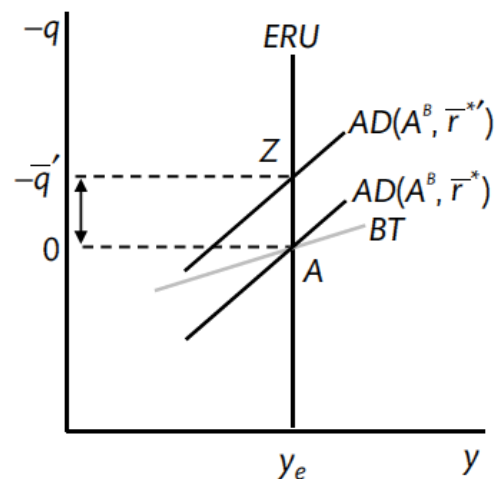
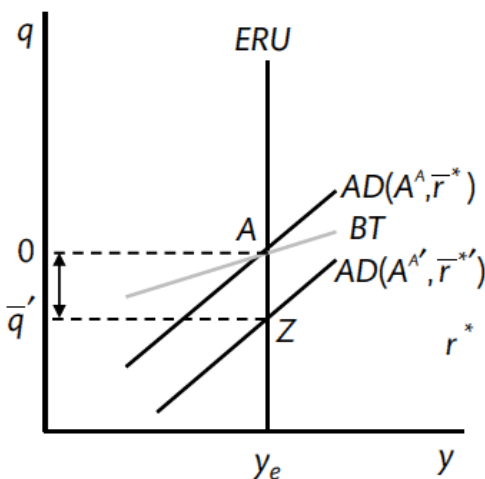
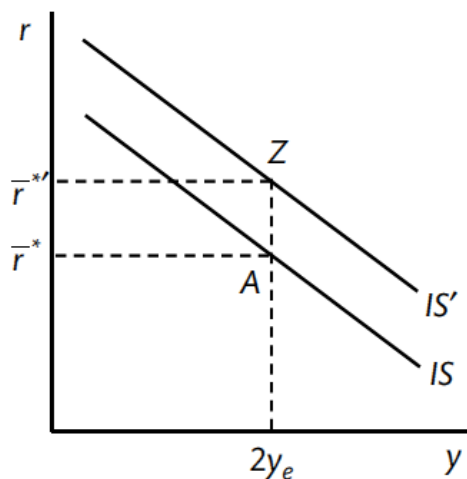


Bloc A



Bloc B

(b) Bloc A has higher aggregate demand ( $A^{A'} > A^B$ )



# Summary: global imbalances and stable inflation

## Simple model

- provides an answer to the question: How are growing global imbalances compatible with successful national inflation-targeting?
- consistent with the stylized facts of the 2000s

3 cases of global real interest rates and current account imbalances:

1. +ve domestic demand shock in bloc A only  
... world real interest rate is \_\_\_\_\_; A's BT \_\_\_\_\_; B's BT \_\_\_\_\_
2. +ve demand shock in bloc A; -ve demand shock in bloc B of equal size  
... world real interest rate is \_\_\_\_\_; A's BT \_\_\_\_\_; B's BT \_\_\_\_\_
3. + demand shock of equal size in both blocs  
... world real interest rate is \_\_\_\_\_; A's BT \_\_\_\_\_; B's BT \_\_\_\_\_

Model requires 3 rational actors solving the model ... inflation-targeting CB in each bloc; foreign exchange market



### 3. Global imbalances (see C&S 11.1.4)

Different national growth strategies – export-oriented vs. finance (domestic-demand)-oriented

Export-oriented ; predict

Finance (domestic-demand)-oriented ; predict

World real interest rate remained low, which suggests ...

Model predicted: countries with +ve domestic AD shocks have

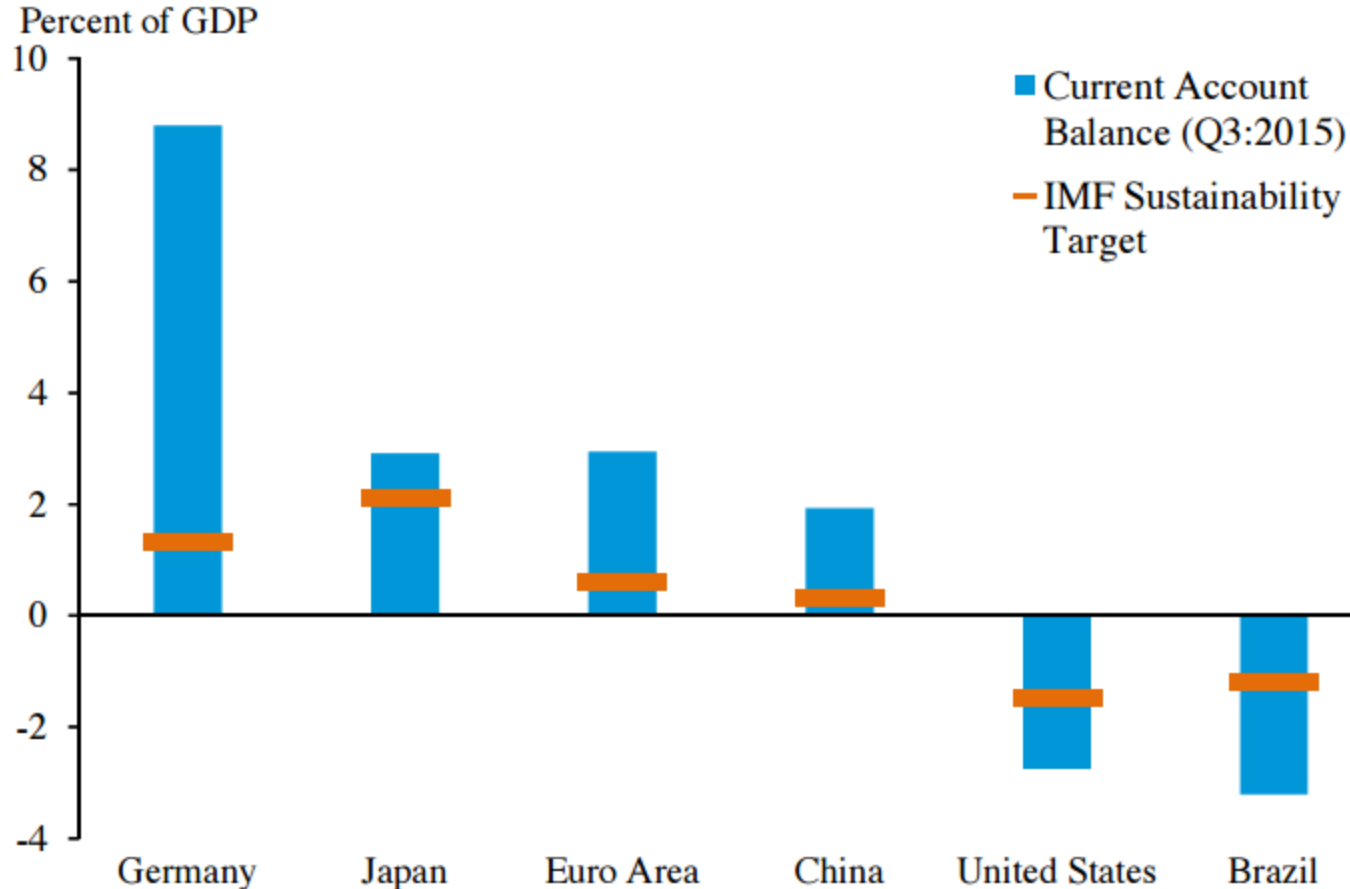
Check with facts:

US, UK, Spain ... growth in 2000s?

China, Germany, Japan ... growth in 2000s?

Figure 3-5

**Current Account Balance as a Share of GDP, 2015**



Note: The IMF Sustainability Target is the current account balance necessary to stabilize the nonfinancial account; targets as of 2015.

Source: International Monetary Fund (IMF); National Sources via Haver Analytics.

**Next week**

**The Economics of the Eurozone**

**Check-list questions**

Chapter 11 checklist questions 8, 10