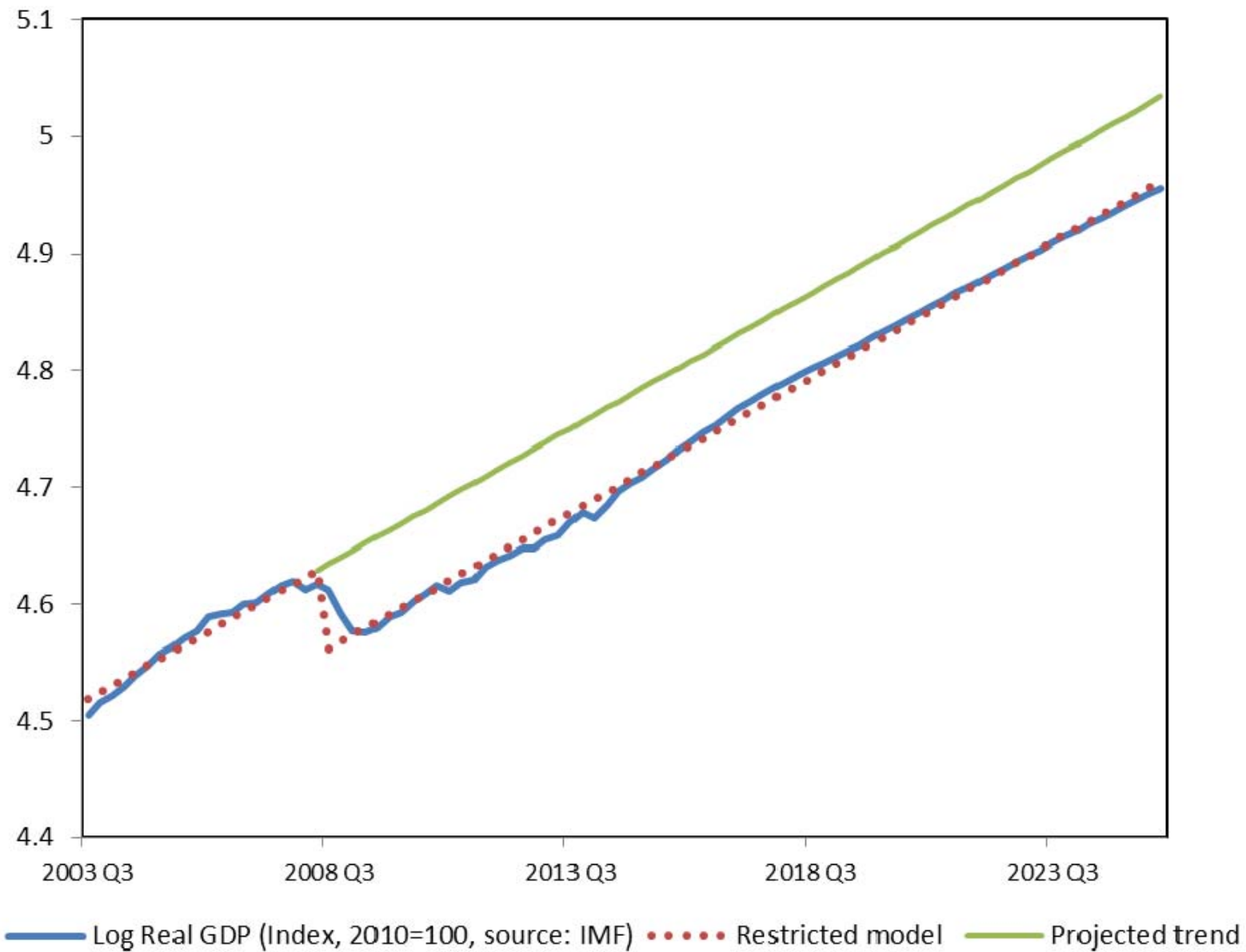


Economics 442  
Macroeconomic Policy (Spring 2016)  
3/2/2016

Instructor: Prof. Menzie Chinn  
UW Madison



Source: Papell, Prodan, *Econbrowser*, 17 Feb 2015

# What Is Secular Stagnation?

- A term first coined by Alvin Hansen
- Resurrected in 2013 by Lawrence Summers
- But means different things to different people
- Hence we have to be specific when we discuss the phenomenon in order to understand explanations, and policy responses

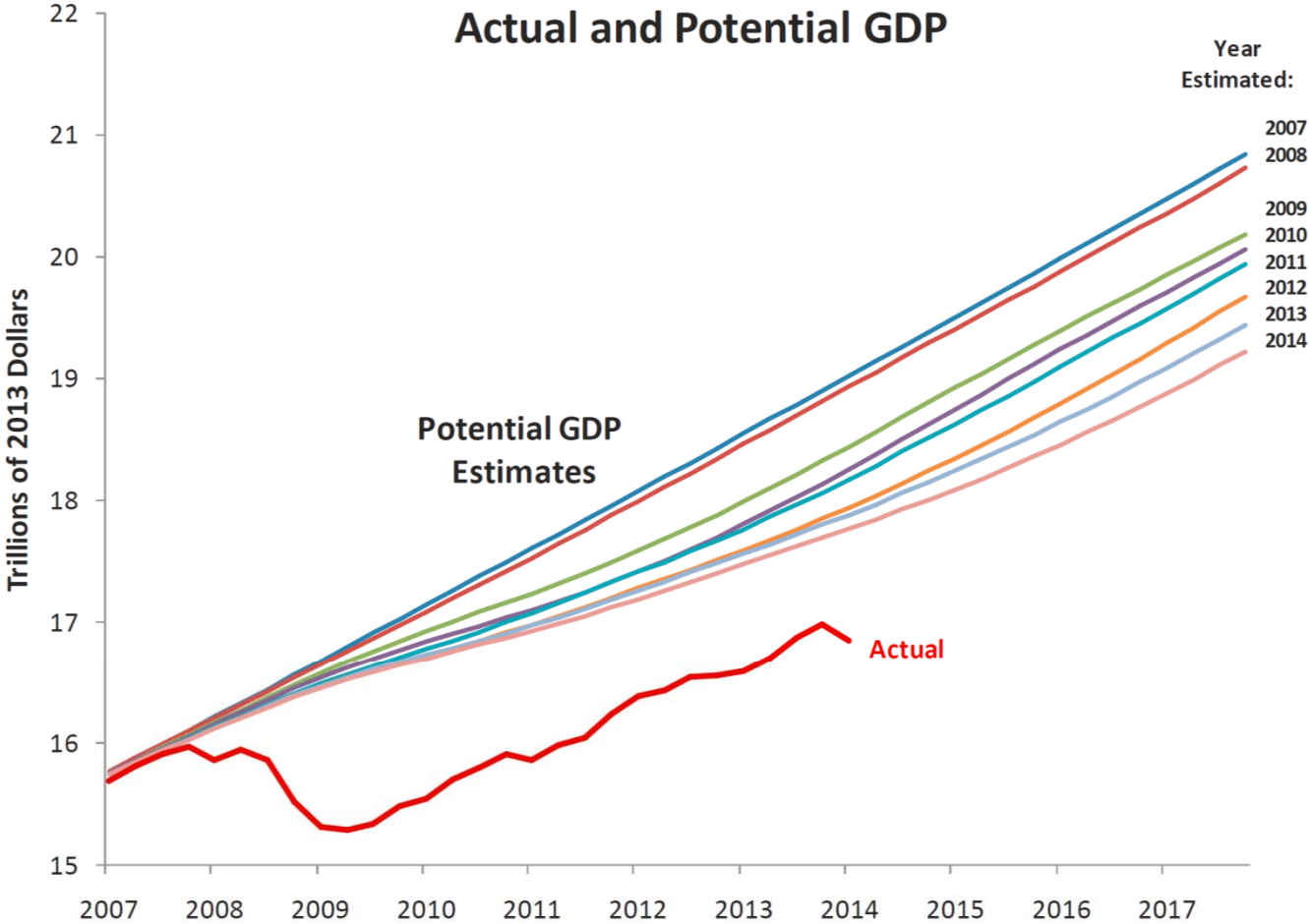
# Three Pillars

- First is the economy's long-run potential growth rate.
- Second is the deviation of actual growth from its potential.
- Third is one-off changes in the level of GDP without a change in the long-run growth rate.

# Long Run Growth

- This relates to the trend in potential GDP
- Gordon argues that there is a slowdown, due to
  - Technological growth
  - Demography
  - Inequality
  - Public debt

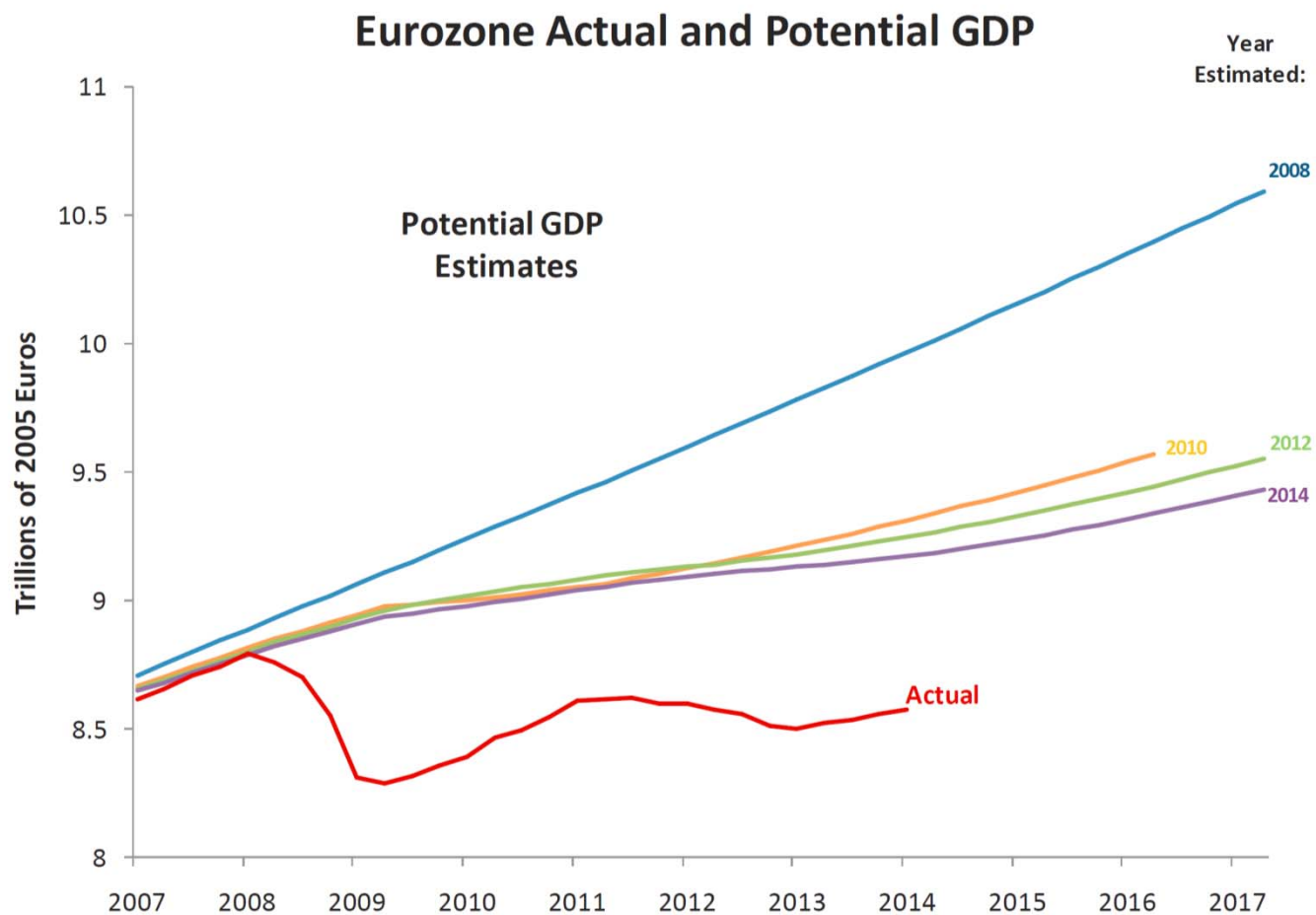
**Figure 1a** Actual and potential GDP in the US



Sources: Congressional Budget Office, Bureau of Economic Analysis.

Source: Summers (2014).

**Figure 1b** Actual and potential GDP in the Eurozone



Sources: IMF World Economic Outlook Databases, Bloomberg.

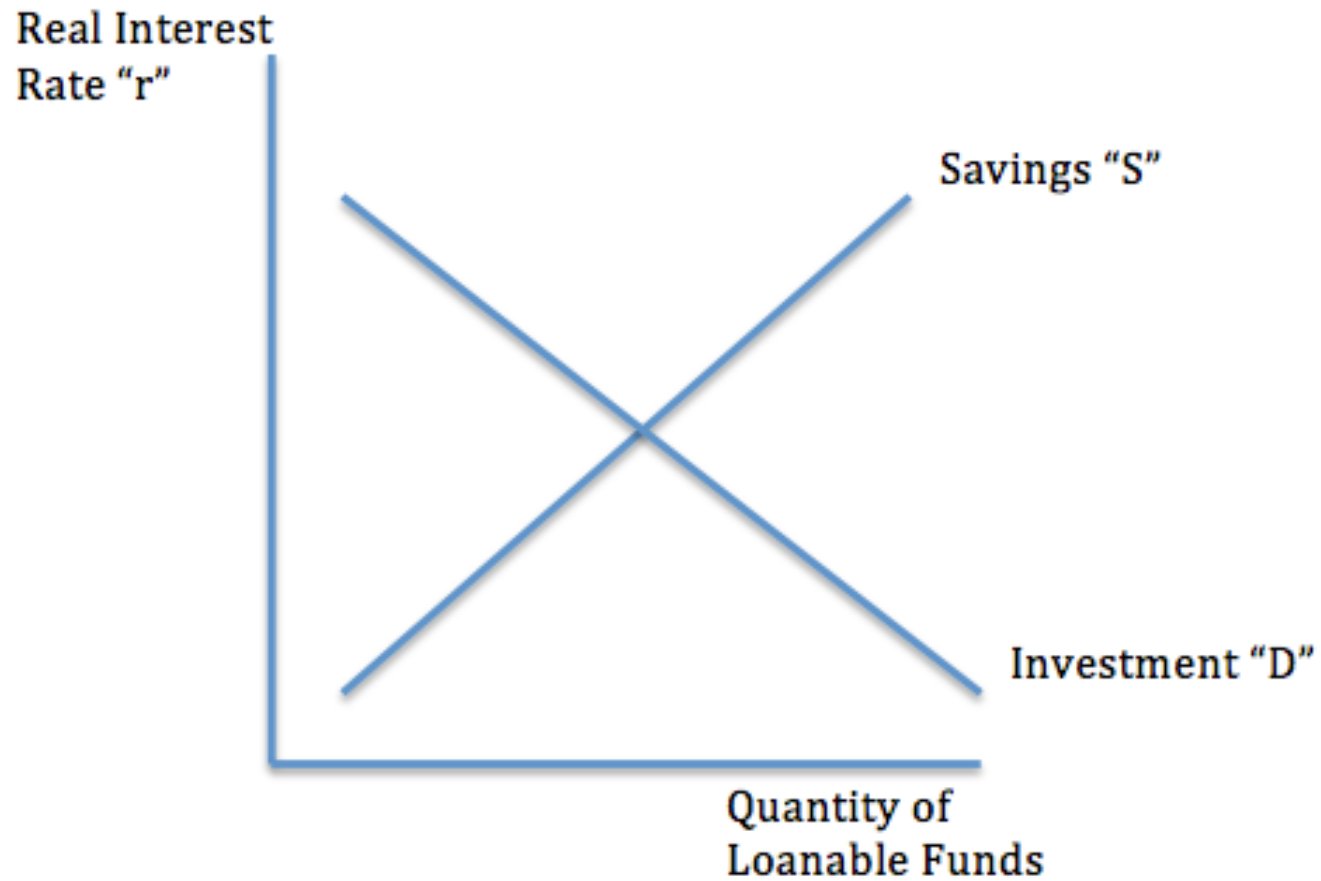
Source: Summers (2014).

# Persistent Output Gap

- This is easily interpretable in the framework we have right now.
- $AD = Y < Y_n$
- Why is AD so low?
- Real interest rate that equilibrates saving to investment at full employment (FERIR in Summers' lexicon) is lower than what is achieved, given ZLB; or...
- Saving is too high relative to desired investment

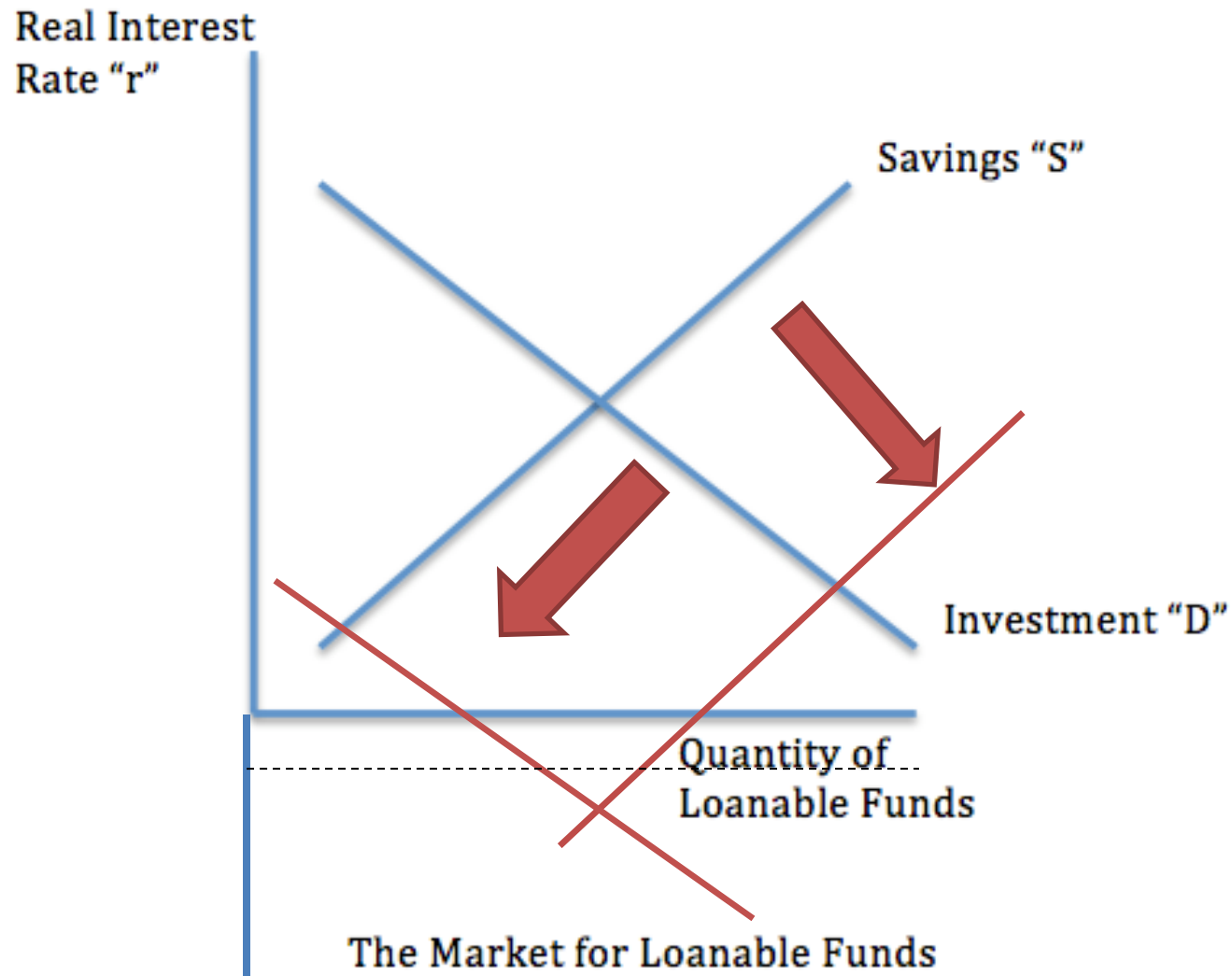


# Loanable Funds Framework

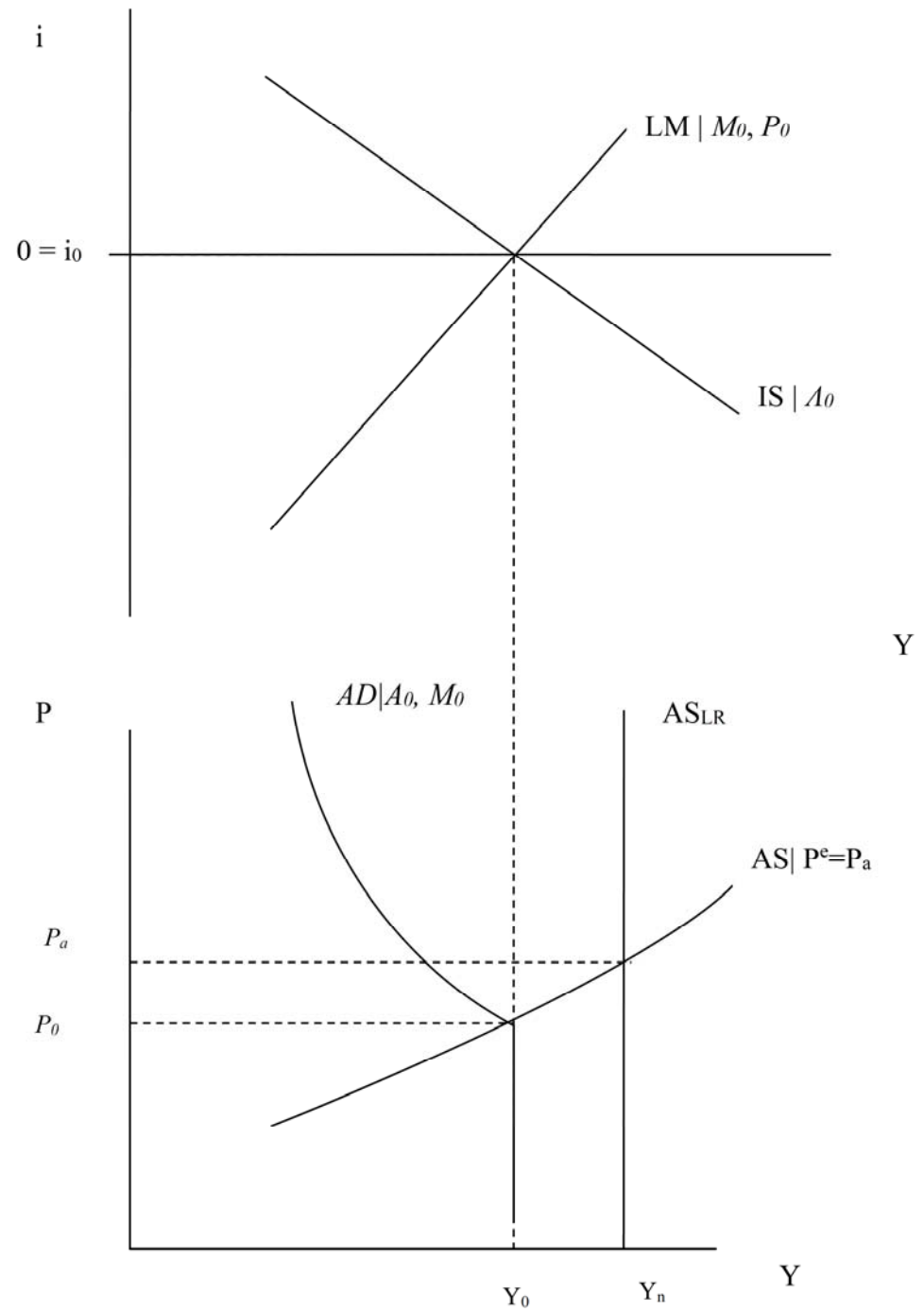


The Market for Loanable Funds

# Loanable Funds Framework



# Or, in AD-AS Framework



# Why Deficient Aggregate Demand?

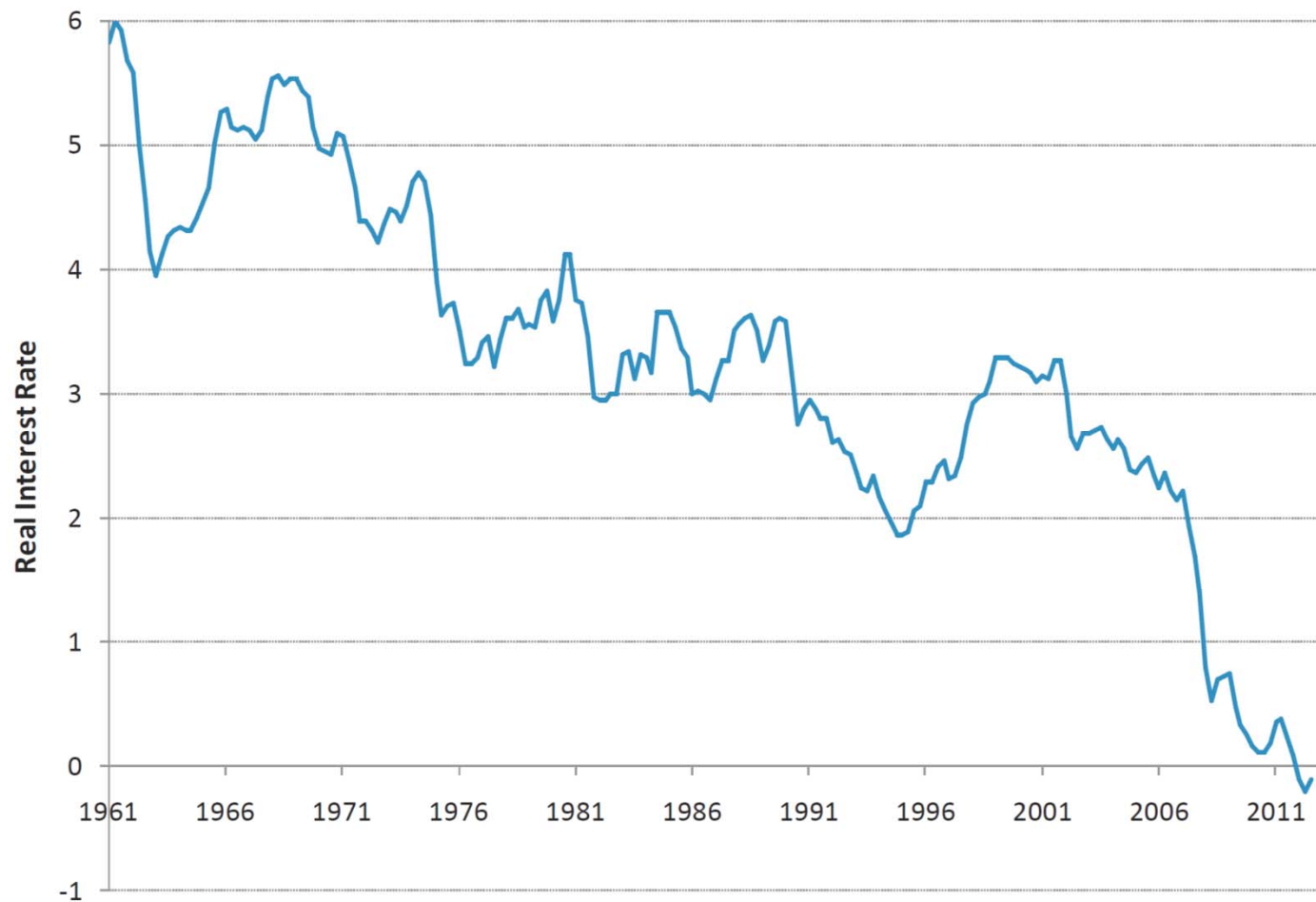
- We have a solution: Higher government spending
- This is not implemented, either because solvency concerns, or because of a lack of political will
- Hence, the question reduces to why deficient private aggregate demand

# Summers' Explanations

- Slower population growth and/or slower technological innovation results in less demand for investment
- Lower price of investment goods results in need for less savings
- Rising income inequality leads to lower overall MPC, as high income households have lower MPC
- Central bank demand for safe assets
- Disinflation means higher after tax real interest rates (for a given real interest rate).

# Estimates of the FERIR

## Natural Rate of Interest



Sources: Thomas Laubach and John Williams, "Measuring the Natural Rate of Interest".

# Additional Interpretation

- Demographics impact can be made explicit in an overlapping generations (OLG) model.
- Slowdown in population growth induces greater saving.
- A higher inflation target (if credible) can do away with the slump.
- These points are discussed, shown in Eggertsson and Mehrotra (in volume, article)
- Eggertsson & Mehrotra is Monday's topic

# On-Off Changes

- Hysteresis
  - Trans-Atlantic differences