

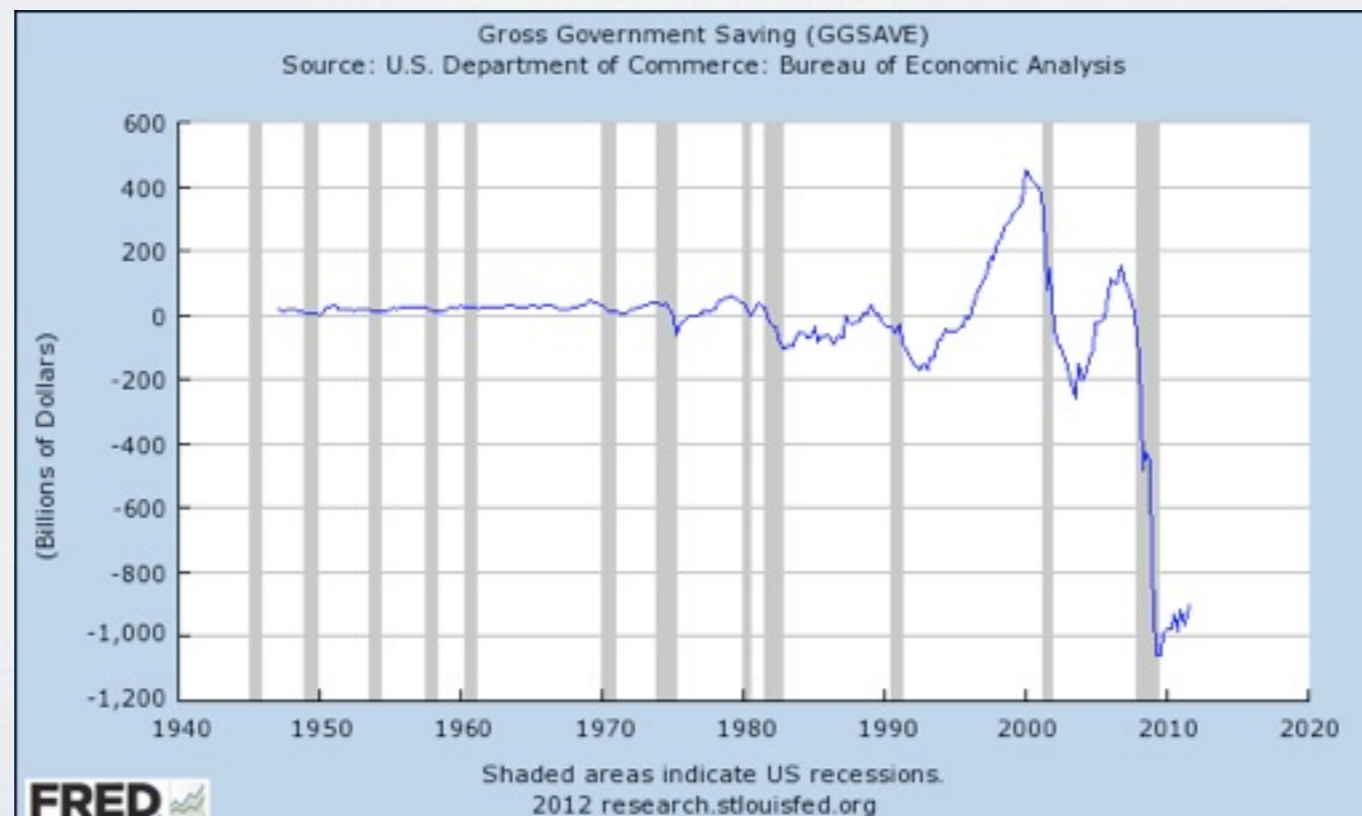
# LECTURE VII

28 February 2012

# TOPIC 7 (CONT.)

Interest Rates and the Economy

# SAVING, INVESTMENT IN NATIONAL ACCOUNTS





# NATIONAL SAVINGS

- Recall that consumer savings are simply income not consumed
- **National savings:** total income that remains in the economy after paying for consumption and government expenditures;  **$S=Y-C-G$**  (Y is national income now)
- For the consumer, savings can be directly used as a pool of money in financial markets available for investment
- So is this the same relationship at the national level?

# NATIONAL SAVINGS

- Consider a closed economy (so  $NX=0$ ), then  $Y=C+I+G$
- $I=Y-C-G=S$  so  $I=S$ , or total investment is equal to savings like in the consumer case. So the amount of money put into the financial market *must* equal that taken out
- Now consider an economy with taxes so the government has money
  - Private savings:  $Y-C-T$  (income minus consumption and taxes)
  - Public savings:  $T-G$  (taxes are government income minus expenditure)
- **National Savings:**  $S=(Y-C-T)+(T-G)$
- What other sources of savings could there be?



# LOANABLE FUNDS



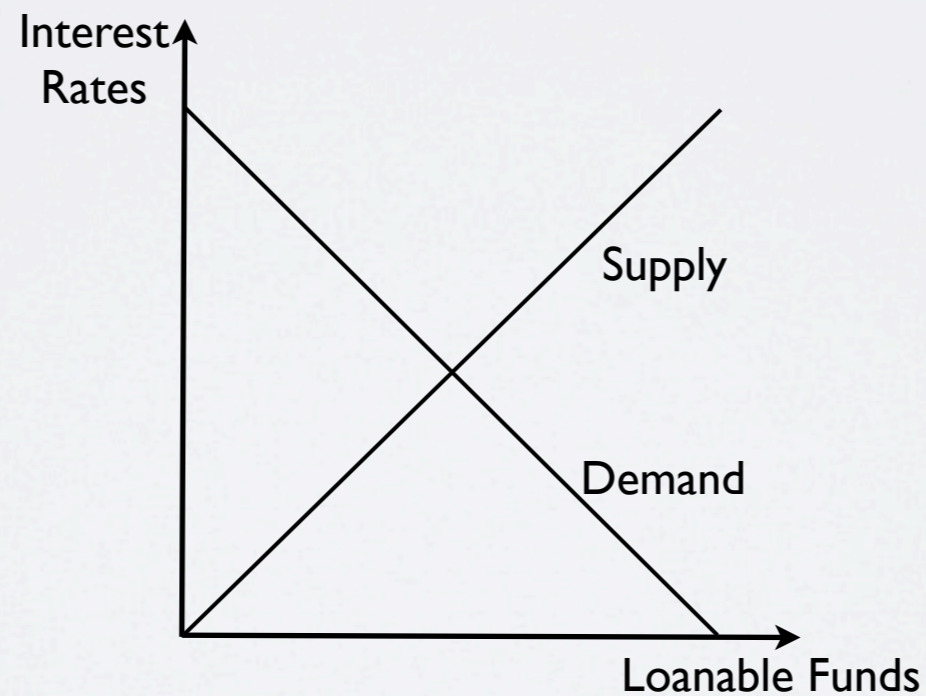
# MARKET FOR LOANABLE FUNDS

- **Market for loanable funds:** Market for those that want *save (supply) funds* and those who want to *borrow (demand) funds* for investment
- Recall that savings are the pool of money for investments and hence are supply
- Standard supply and demand model, but what is the price of a loan?



# MODELING INVESTMENT

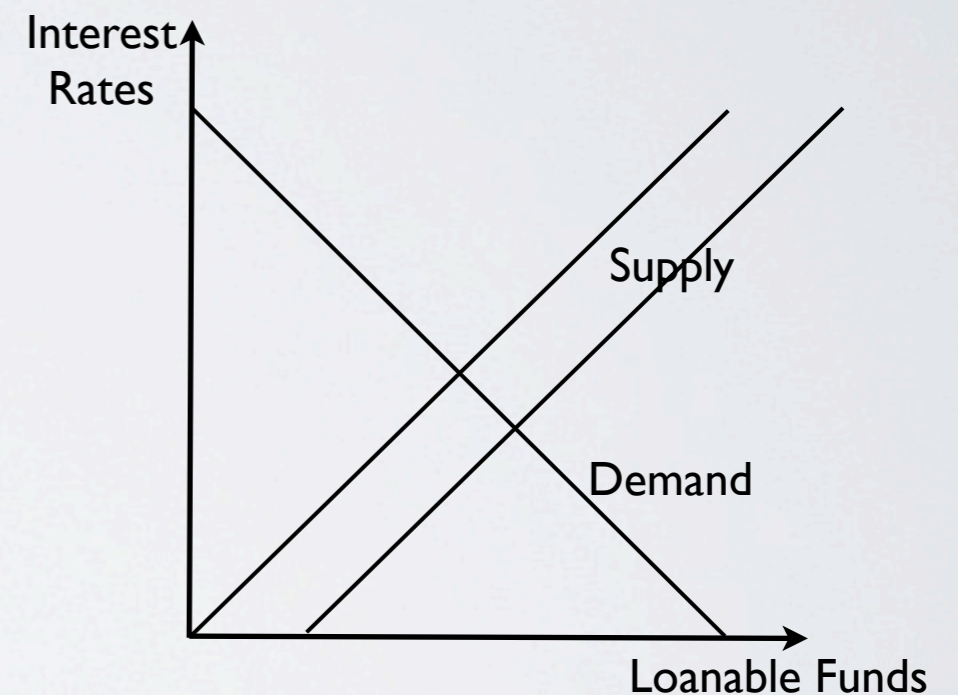
- The price is interest rate. Consider, the higher the interest rate the more expensive is the loan or the more lucrative is the borrowing





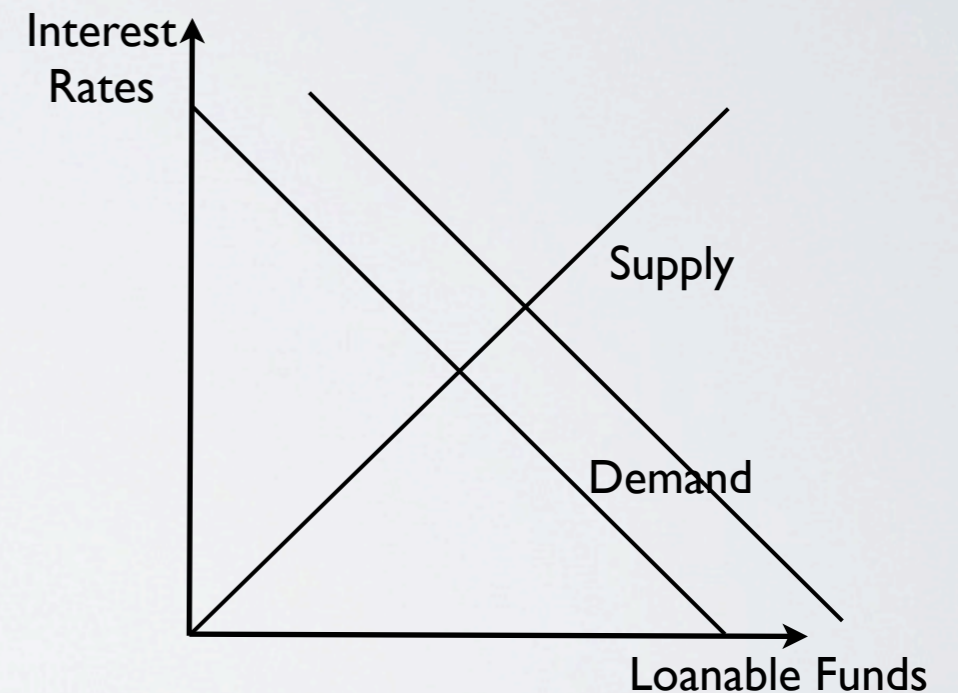
# MODELING INVESTMENT

- What if there is a policy that increase the incentive to save? For example?
- As supply increases, prices (interest rates) decrease, so more people take out loans
- What if supply decreases?



# MODELING INVESTMENT

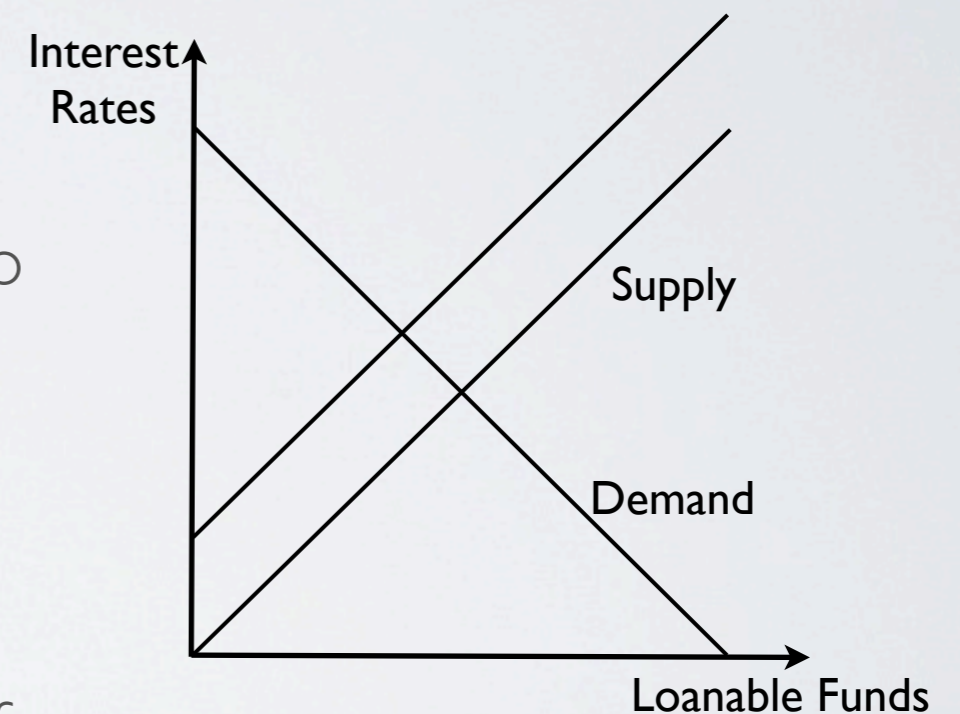
- What if there is a policy that increase the incentive to investment? For example?
- As demand increases, prices (interest rates) increase, but the credit outweighs the higher cost
- What if demand decreases?





# CROWDING OUT

- Suppose the government increases spending without more taxes. What happens to savings
- $S$  decreases because  $T-G$  decreases
- As supply shifts, prices increase and loans decrease so investment decreases.
- How might this play out during a recession when the government increases spending?
- **Crowding out:** A decrease in investment resulting from a decrease in public savings
- Let's think about the impact on the larger economy



# REVIEW

- Financial markets move money from those that save to those that want to borrow
- Financial assets are priced based on timing and expected risk
- Savings are key to making money available for economic investment
- In the aggregate economy, we can divide savings into public and private savings