CHAPTER 26

Saving, Investment, and the Financial System

PRINCIPLES OF Economics

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Premium PowerPoint Slides
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In this chapter, look for the answers to these questions:

- What are the main types of financial institutions in the U.S. economy, and what is their function?
- What are the three kinds of saving?
- What’s the difference between saving and investment?
- How does the financial system coordinate saving and investment?
- How do govt policies affect saving, investment, and the interest rate?

Financial Institutions

- The ______________________________: the group of institutions that helps match the saving of one person with the investment of another.
- ________________________: institutions through which savers can directly provide funds to borrowers.
- Examples:
  - The Bond Market. 10-year Treasury note
    - A bond is a certificate of indebtedness.
  - The Stock Market: Dow, S&P 500
    - A stock is a claim to partial ownership in a firm.

Financial Institutions

- Financial intermediaries: institutions through which savers can ____.
- Examples:
  - Banks
  - ______________________________ – institutions that sell shares to the public and use the proceeds to buy portfolios of stocks and bonds

Different Kinds of Saving

Private saving

= The portion of households' income that is not used for consumption or paying taxes

= ______________________

Public saving

= Tax revenue less government spending

= ______________________

National Saving

National saving

= private saving + public saving

= (Y – T – C) + (T – G)

= ____________________

= the portion of national income that is not used for

____

Saving and Investment

Recall the national income accounting identity:

$$Y = C + I + G + NX$$

For the rest of this chapter, focus on the closed economy case:

$$Y = C + I + G$$

Solve for I:

$$\mathbf{I} = \mathbf{Y} - \mathbf{C} - \mathbf{G} = \underbrace{(\mathbf{Y} - \mathbf{T} - \mathbf{C}) + (\mathbf{T} - \mathbf{G})}_{\text{national saving}}$$

______________________________in a closed economy-no trade

Budget Deficits and Surpluses

Budget surplus

= an excess of tax revenue over govt spending

= T > G

= ________________________

Budget deficit

= a __________________________of tax revenue from govt spending

= G > T

= – (public saving)

ACTIVE LEARNING *1*

A. Calculations

- Suppose GDP equals $10 trillion, consumption equals $6.5 trillion, the government spends $2 trillion and has a budget deficit of $300 billion.
- Find public saving, taxes, private saving, national saving, and investment.

ACTIVE LEARNING **1**

Answers, part A

Given:

Y = 10.0, **C** = 6.5, **G** = 2.0, **G** – **T** = 0.3

Public saving = ______________________________

Taxes: ______________________________

Private saving = ______________________________

National saving = ______________________________

Investment = national saving = ______________

The Meaning of Saving and Investment

- **Private saving** is the income remaining after households pay their taxes and pay for consumption.
- Examples of what households do with saving:
  - Buy corporate bonds or equities
  - Purchase a certificate of deposit at the bank
  - Buy shares of a mutual fund
  - Let accumulate in saving or checking accounts

The Meaning of Saving and Investment

- **Investment** is the purchase of

  ____

- Examples of investment:
  - General Motors spends $250 million to build a new factory in Flint, Michigan.
  - You buy $5000 worth of computer equipment for your business.
  - Your parents spend $300,000 to have a new house built

*Remember: In economics, investment is **NOT** the purchase of stocks and bonds!*

The Market for Loanable Funds

- A supply-demand model of the financial system
- Helps us understand
  - how the financial system coordinates saving & investment
  - how govt policies and other factors affect saving, investment, the interest rate

The Market for Loanable Funds

Assume: only one financial market

- All savers deposit their saving in this market.
- All borrowers take out loans from this market.
- There is one interest rate, which is both the return to saving and the cost of borrowing.

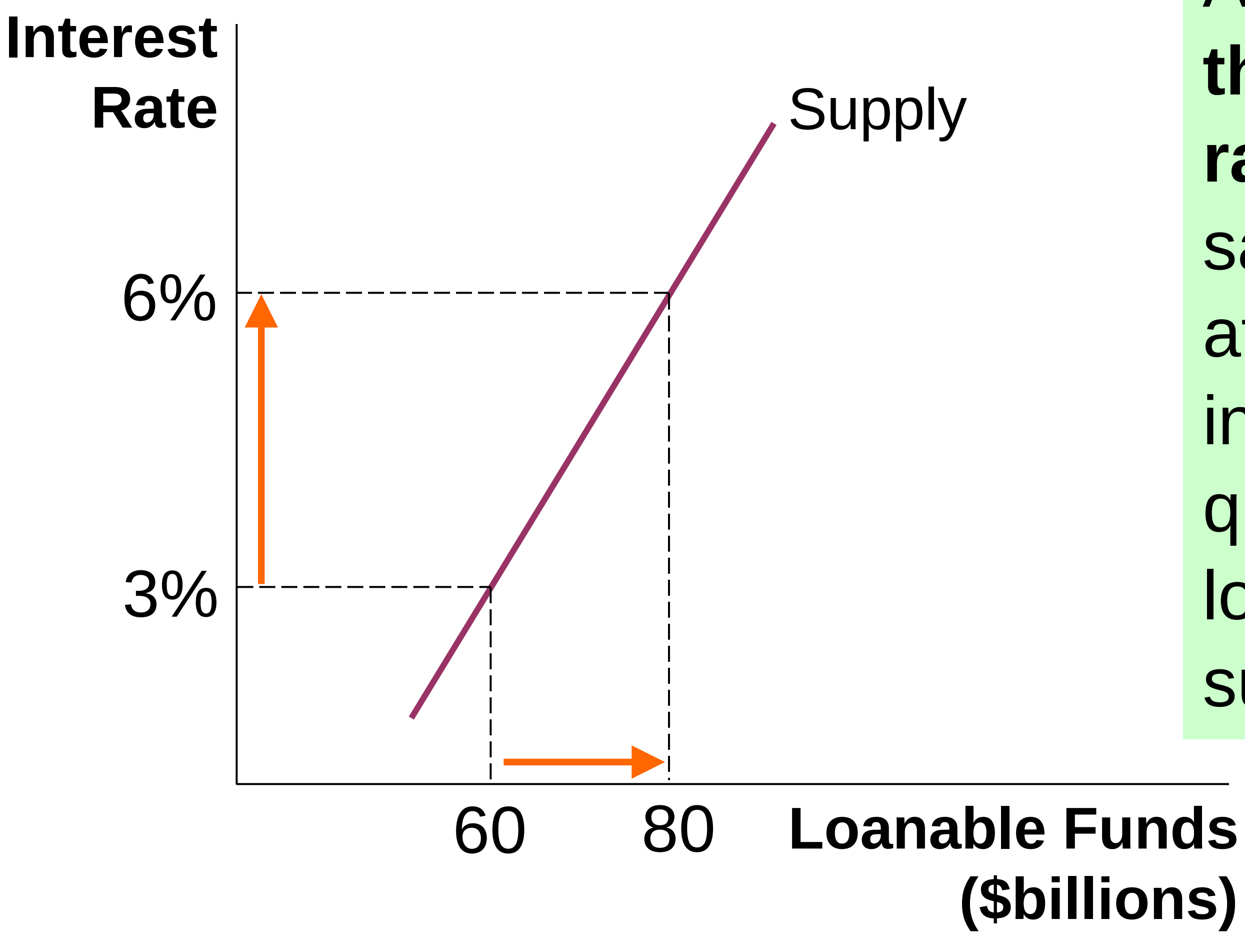
The Market for Loanable Funds

The supply of loanable funds comes ________________:

- Households with extra income can loan it out and earn interest.
- Public saving, if positive, adds to national saving and the supply of loanable funds.

  If negative, it reduces national saving and the supply of loanable funds.

The Slope of the Supply Curve



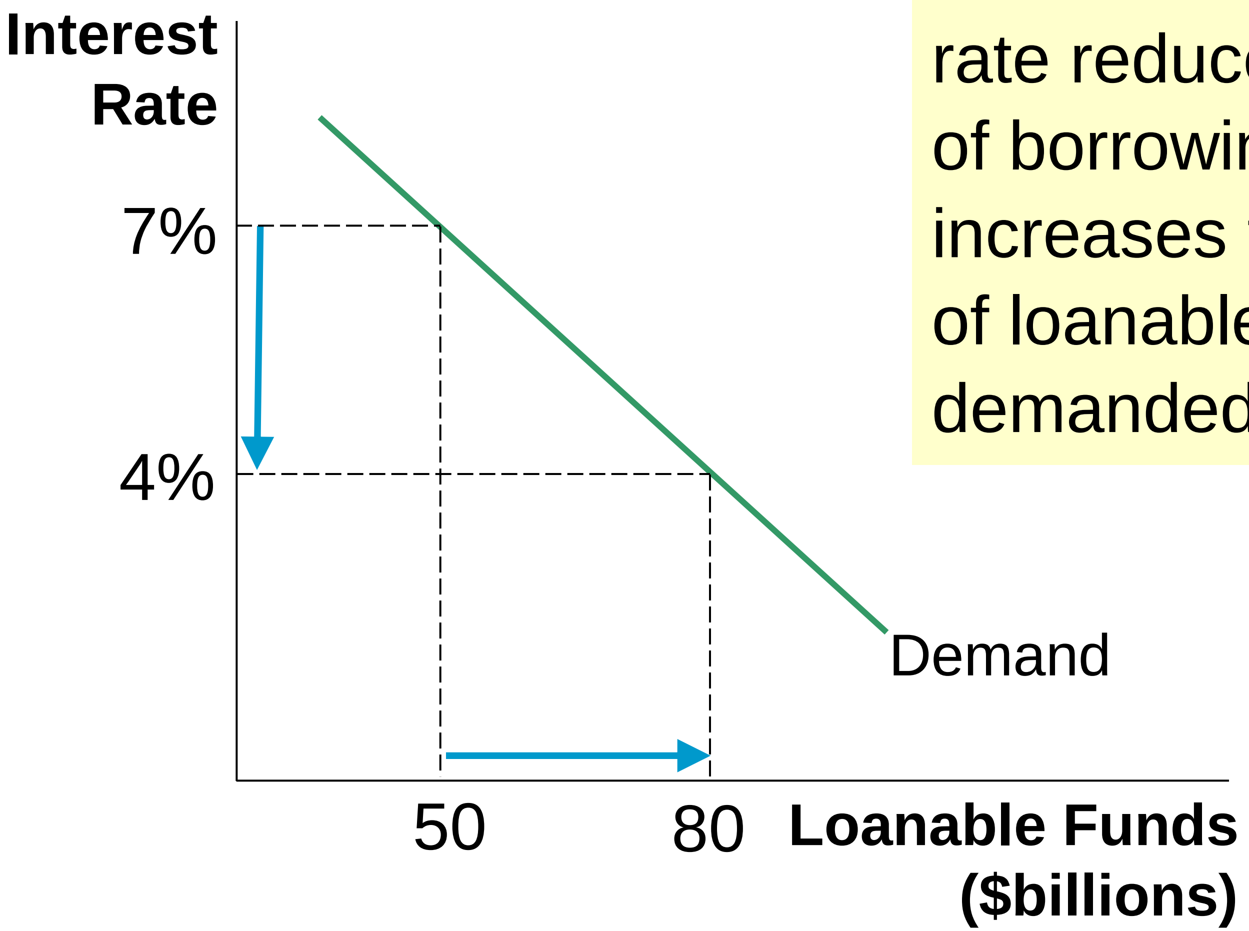
An increase in **the interest rate** makes saving more attractive, which increases the quantity of loanable funds supplied.

The Market for Loanable Funds

The demand for loanable funds comes from ____________________________:

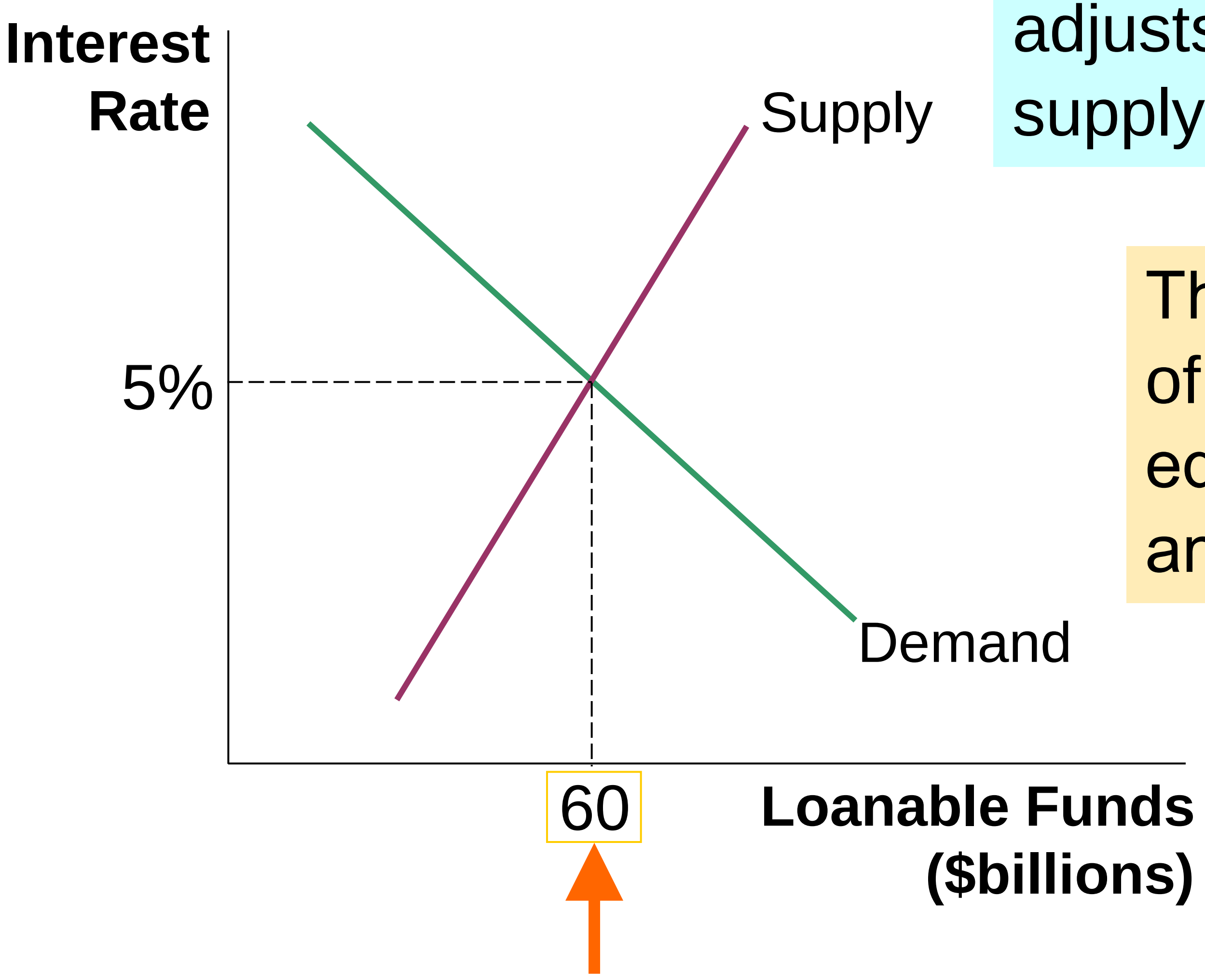
- Firms borrow the funds they need to pay for new equipment, factories, etc.
- Households borrow the funds they need to purchase new houses.

The Slope of the Demand Curve



A fall in the interest rate reduces the cost of borrowing, which increases the quantity of loanable funds demanded.

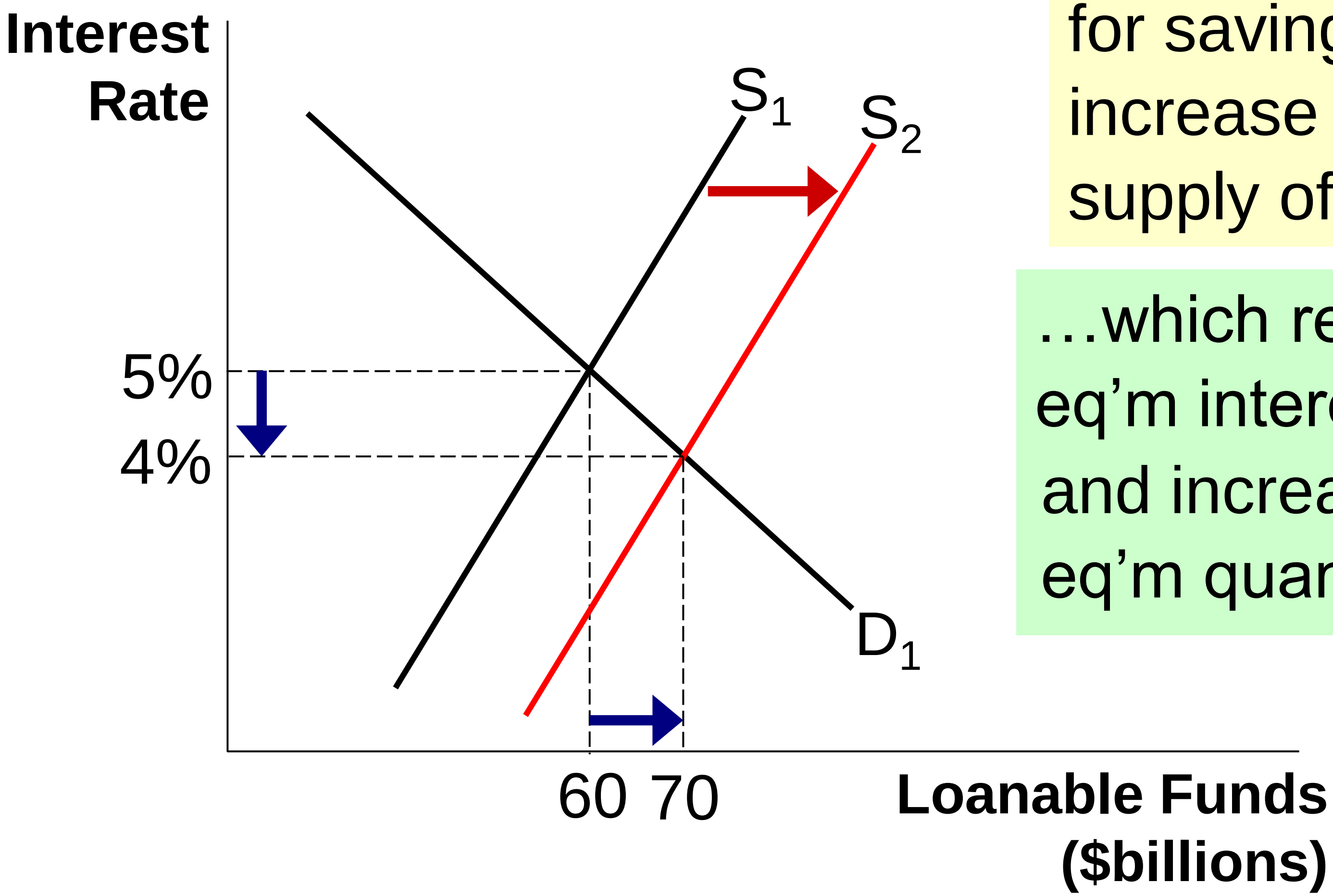
Equilibrium



The interest rate adjusts to equate supply and demand.

The eq'm quantity of L.F. equals eq'm investment and eq'm saving.

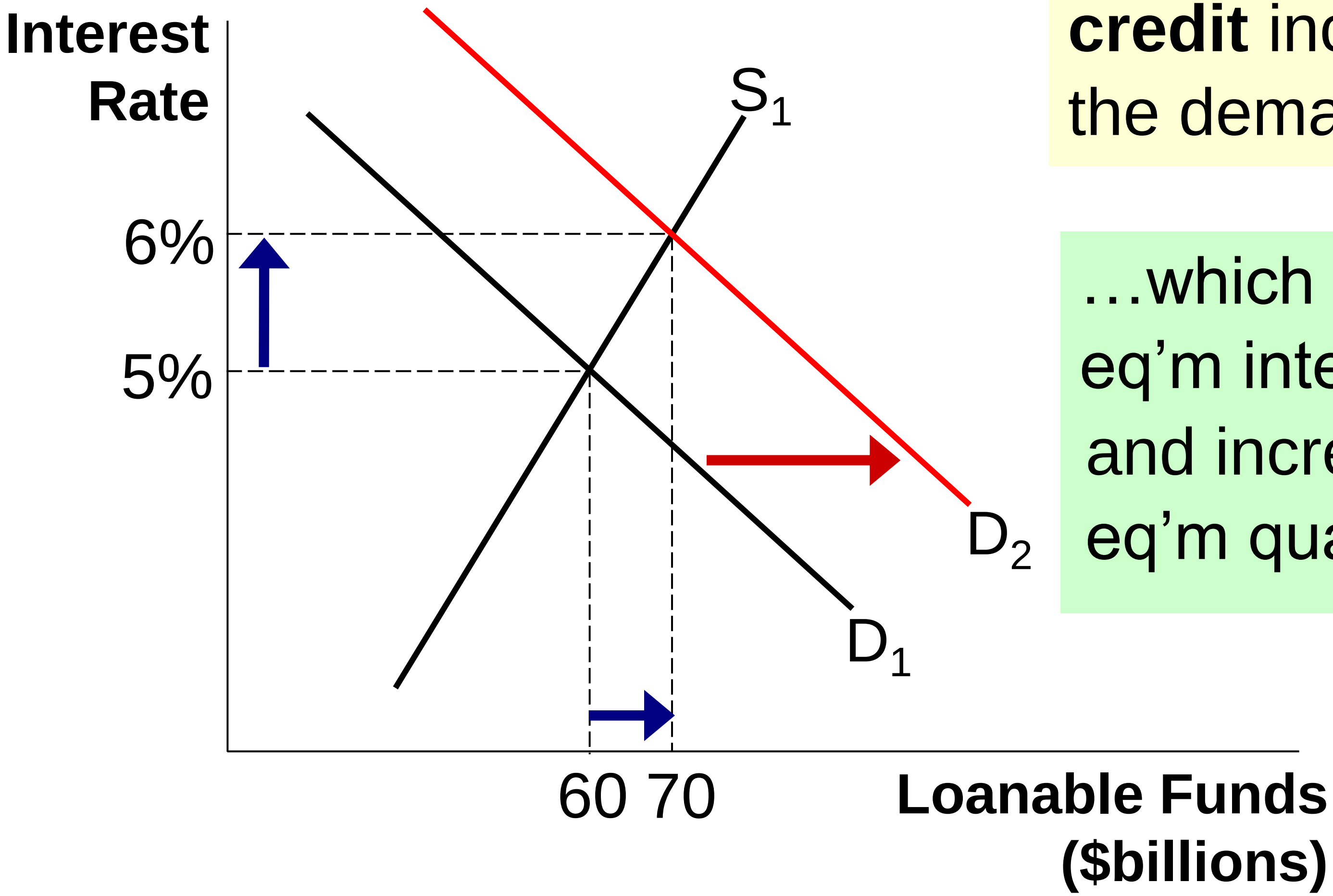
Policy 1: ______________________



Tax incentives for saving increase the supply of L.F.

…which reduces the eq'm interest rate and increases the eq'm quantity of L.F.

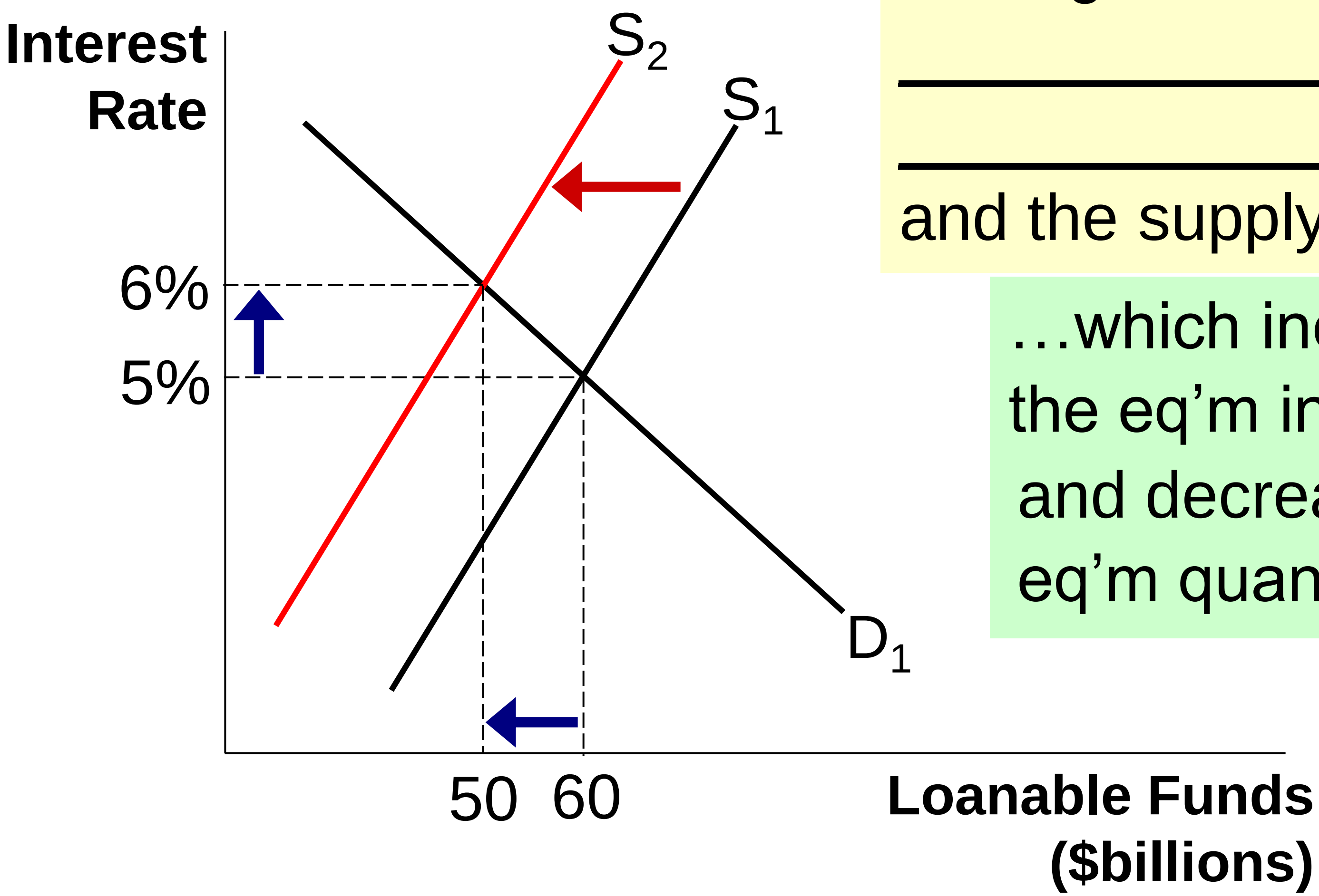
Policy 2: Investment Incentives



An investment **tax credit** increases the demand for L.F.

…which raises the eq'm interest rate and increases the eq'm quantity of L.F.

Policy 3: Govt Budget Deficits



A budget deficit

____

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and the supply of L.F.

…which increases the eq'm interest rate and decreases the eq'm quantity of L.F.

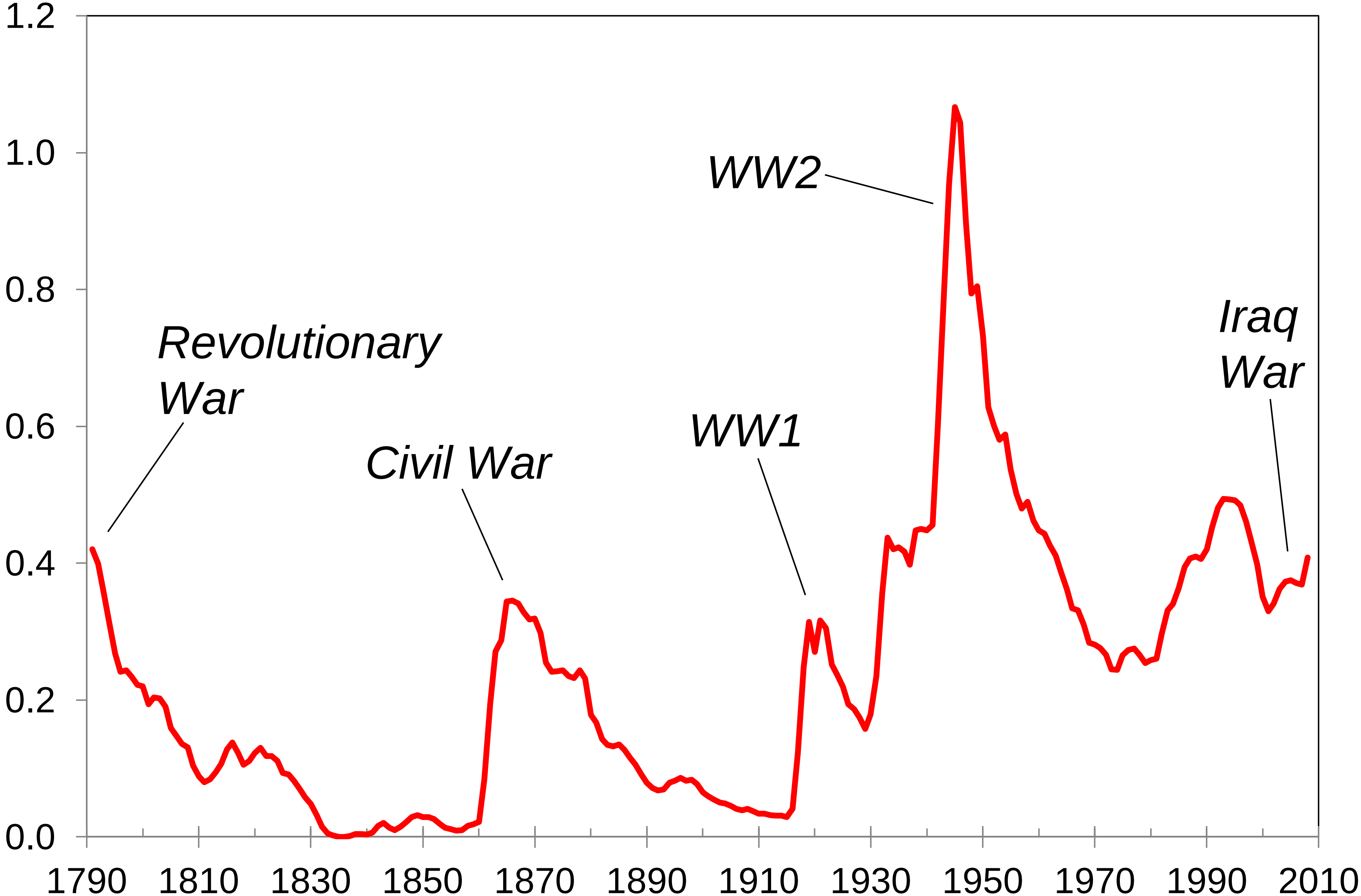
Budget Deficits, Crowding Out, and Long-Run Growth

- What are the dangers of too much debt? (video)
- Our analysis: 1. Increase in budget deficit causes fall in investment due to higher interest rates. 2. The govt borrows to finance its deficit, leaving less funds available for investment.
- This is called ______________________________.
- Investment is important for long-run economic growth. Hence, budget deficits reduce the economy’s growth rate and future standard of living.

The U.S. Government Debt

- The government finances deficits by borrowing (selling government bonds).
- Persistent deficits lead to __________________________.
- The ratio of govt debt to GDP is a useful measure of the government's indebtedness relative to its ability to raise tax revenue.
- Historically, the debt-GDP ratio usually rises during wartime and falls during peacetime – until the early 1980s.
- Why Politicians don't cut government spending (video)

Ratio of U.S. govt debt to GDP



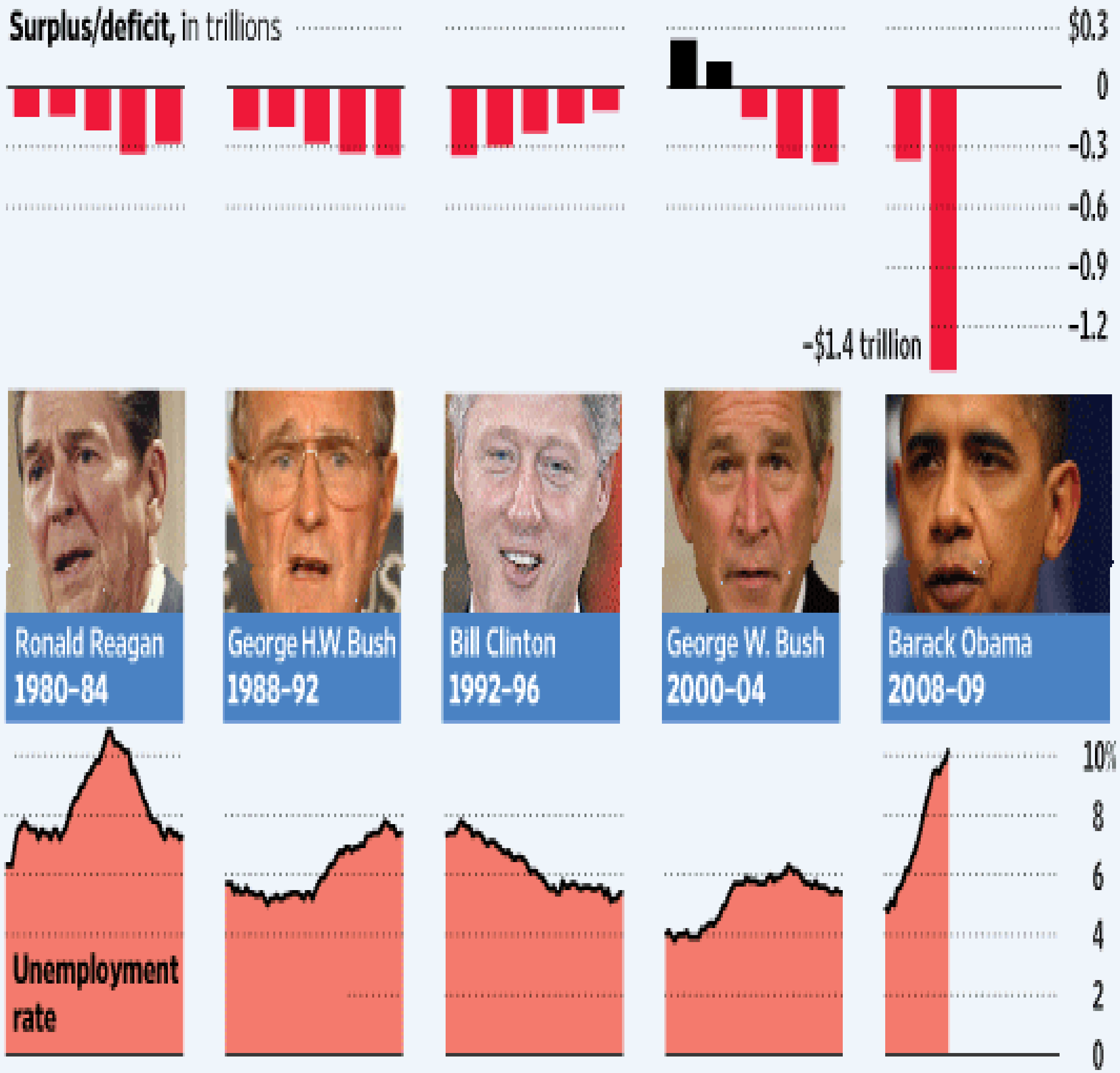
Government Debt Across the Globe

Indebtedness of the world's governments is best viewed as a percentage of GDP

Country	Gov Debt (% of GDP)	Country	Gov Debt (% of GDP)
Japan	208	U.K.	87
Italy	121	Netherlands	63
Greece	165	Norway	49
Belgium	99	Sweden	38
U.S.A.	105	Spain	69
France	87	Finland	48
Portugal	109	Ireland	108
Germany	82	Mexico	38
Canada	84	Denmark	43
China	434	Australia	30

Handicapping the Economy

The unemployment rate and the budget deficit or surplus during the first term of recent U.S. presidents. Data start one year before the term begins.



Notes: Budget figures are for fiscal years; 2009 deficit is an estimate and 2009 unemployment rate is through October

Sources: Labor Department; Office of Management and Budget Photos: Associated Press

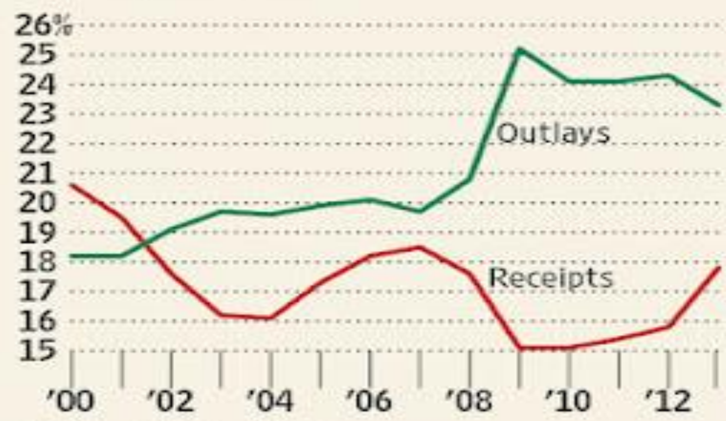
There's a hole in my budget

Budget balance as % of GDP, 2009 estimate

Source: Economist Intelligence Unit

The Spending Boom

Federal receipts and outlays, as a share of GDP, 2000-2013*



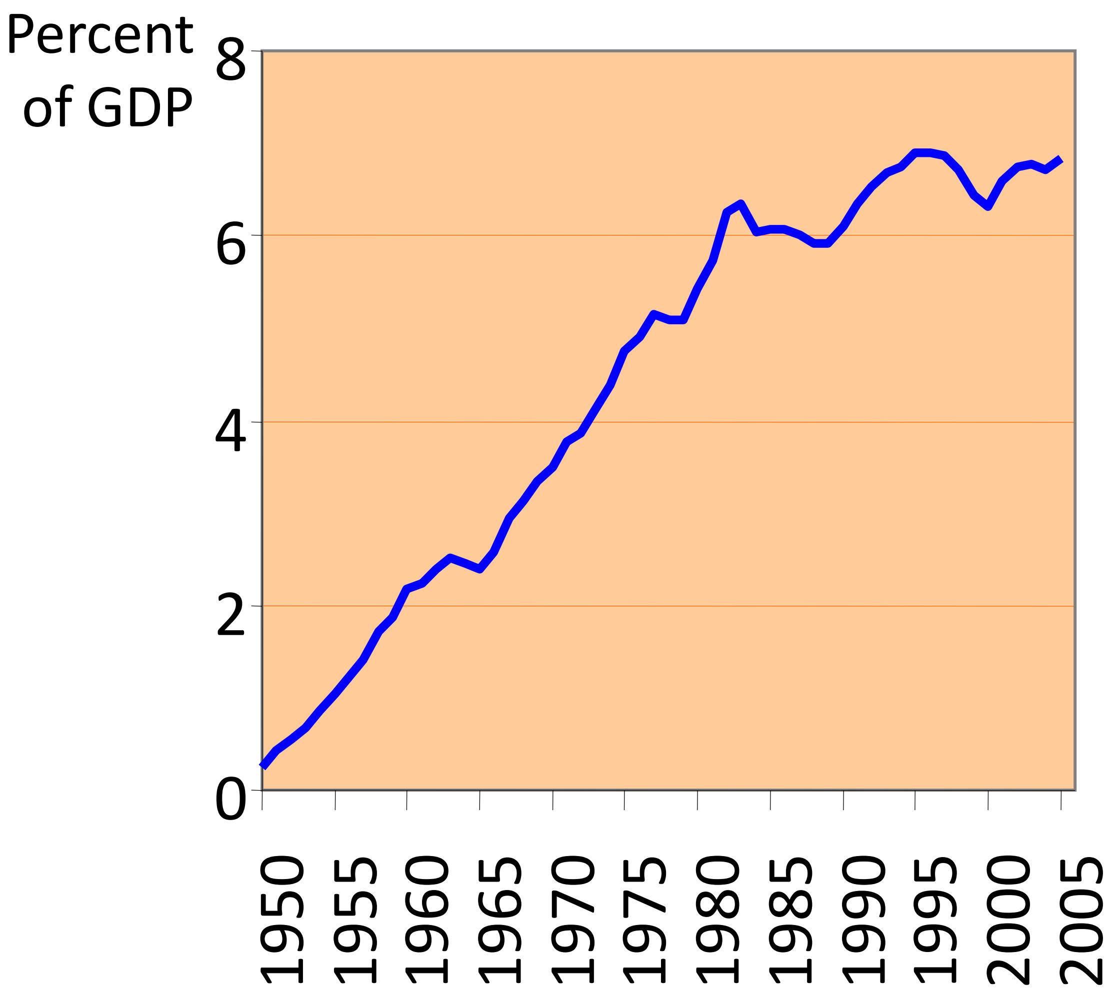
*2012 and 2013 estimates

Source: Office of Management and Budget

The troubling long-term fiscal outlook

- How Big is the U.S. Debt? (video)
- The U.S. population is aging.
- Health care costs are rising.
- Spending on entitlements like Social Security and Medicare is growing.
- Deficits and the debt are projected to significantly increase…the current generational accounting gap is close to $100 trillion! U.S. Debt Clock

U.S. government spending on Medicare and Social Security- <u>Coming Generational Storm</u>

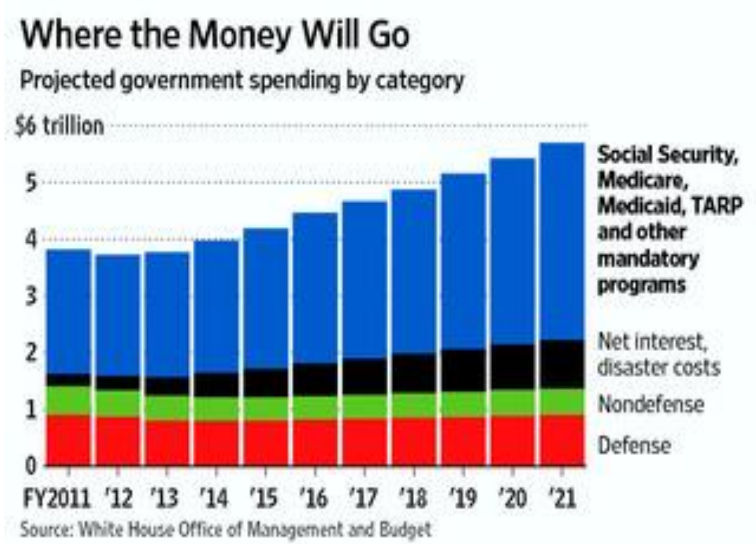


Not So Secure

CBO forecasts for annual Social Security surplus/deficit

Fiscal year	March 2008 forecast	March 2009 forecast
2009	$80 bil	$16 bil
2010	86	3
2011	95	9
2012	95	16
2013	88	26
2014	80	27
2015	68	20
2016	54	6
2017	38	-11
2018	19	-29
2009-18	**703**	**83**

Source: Congressional Budget Office



CONCLUSION

- Are Low Interest Rates Good? (video)
- Like many other markets, financial markets are governed by the forces of supply and demand.
- One of the Ten Principles from Chapter 1:

  Markets are usually a good way to organize economic activity.

  Financial markets help allocate the economy's scarce resources to their most efficient uses.
- Financial markets also link the present to the future: They enable savers to convert current income into future purchasing power, and borrowers to acquire capital to produce goods and services in the future.

CHAPTER SUMMARY

- The U.S. financial system is made up of many types of financial institutions, like the stock and bond markets, banks, and mutual funds.
- National saving equals private saving plus public saving.
- In a closed economy, national saving equals investment. The financial system makes this happen.

CHAPTER SUMMARY

- The supply of loanable funds comes from saving. The demand for funds comes from investment. The interest rate adjusts to balance supply and demand in the loanable funds market.
- A government budget deficit is negative public saving, so it reduces national saving, the supply of funds available to finance investment.
- When a budget deficit crowds out investment, it reduces the growth of productivity and GDP.