# EXPLAINING SHORT-RUN ECONOMIC FLUCTUATIONS

Rush
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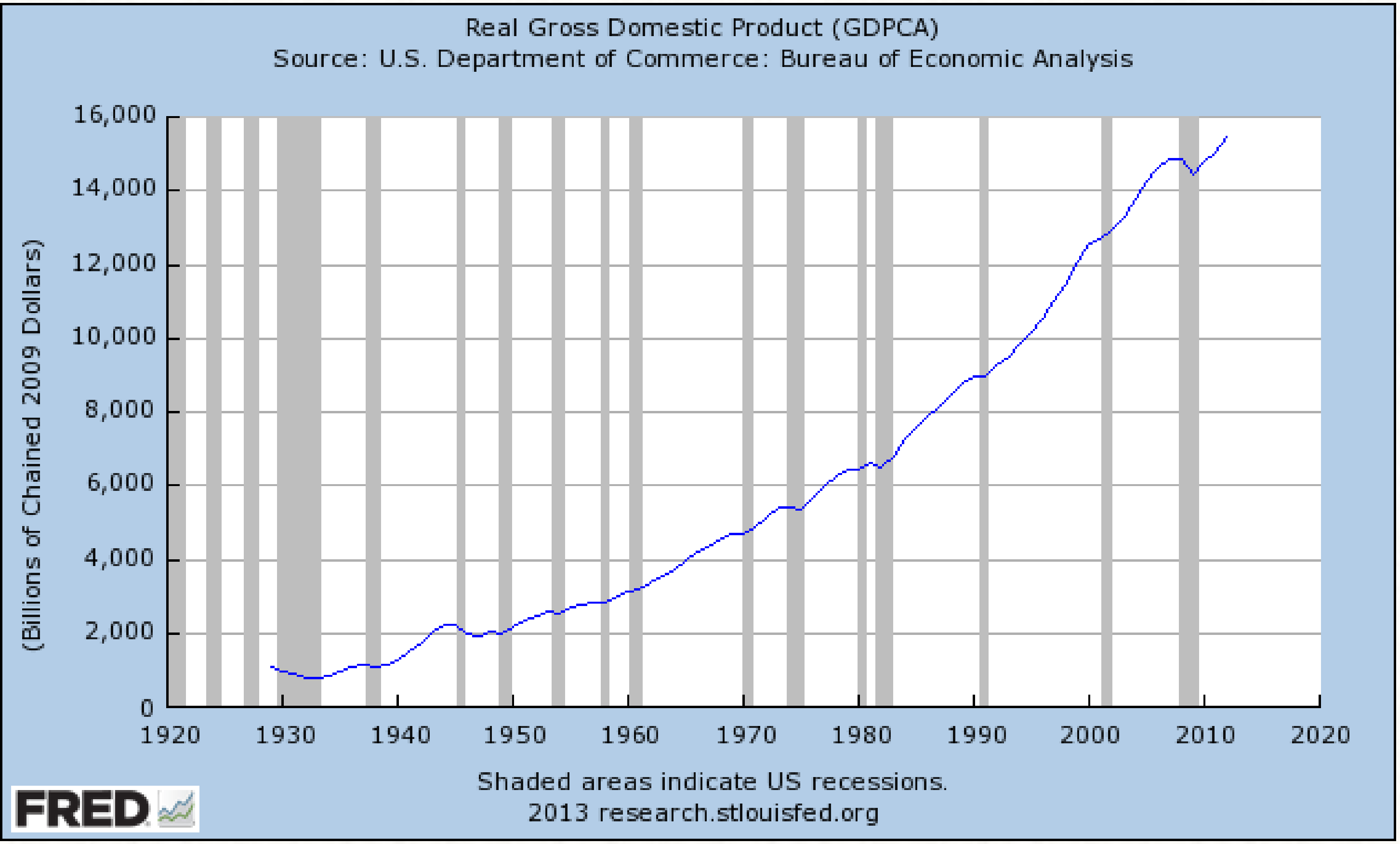
# TODAY'S GOALS

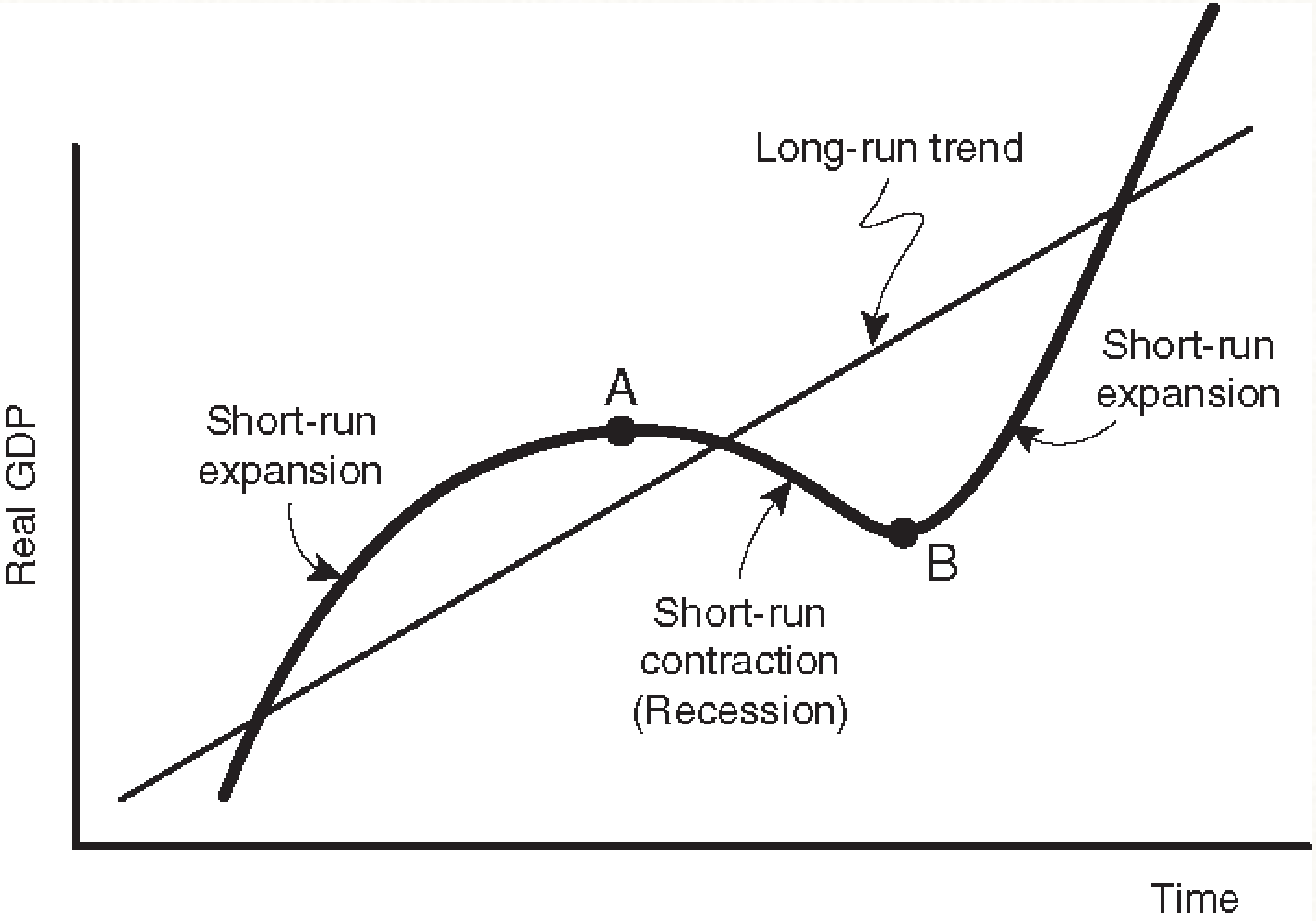
- Interpret, analyze macroeconomic data.
- Describe an economy's incentive to produce and the factors likely to influence incentive in the short run.
- Explain how a change in a factor that affects either total spending or the incentive to produce is likely to affect short-run total output, employment and price level.

# U.S. Real GDP Since 1929




What causes growth over the long run?

# The Business Cycle




Reality of growth: It's uneven, looks like a roller coaster

# ACTIVITY 20.1

- This shows the real gross domestic product or real GDP.
- Divide the class into four groups.
- Each group gets one of the four columns of dates and real GDP activity.
- Find and circle quarters in which real GDP was less than the quarter before it.
- Report back.

# ACTIVITY 20.1

- We have five main periods when the U.S. economy's output contracted: 1980, 1981-82, 1990-91, 2001 and 2008-09.
- These are RECESSIONS – periods when real GDP fell. The last one became known as the Great Recession because of its severity.
- Economists sometimes define a recession as at least two consecutive (or reasonably close) quarters of declining real GDP.

# ACTIVITY 20.1

- If the output or production of goods and services fell during these periods, what do you think happened to the unemployment rate?
- It is likely to have risen. When businesses produce less, they need fewer workers.

# ACTIVITY 20.2

- Find the five periods bracketed earlier:
  1980, 1981-82, 1990-91, 2001 and 2008-09.
- What happened to the growth of output or percentage change in real GDP in each of these periods?
- What happened to the unemployment rate during each of these periods relative to the year before?
- What happened to prices?

# REMINDER

- Who spends money in our economy?

# Components of Total Spending

Total Spending = C + I + G + (X – M) where:

- C = Consumption spending by households on consumer goods and services
- I = Investment spending by businesses on capital goods and services
- G = Government spending by all levels of government for government-provided goods and services
- X – M = Net export spending, which is spending by individuals and organizations outside the country on goods and services exported from it minus spending by individuals and organizations within the country on imports of goods and services from other countries

# QUESTION

- What factors influence the amount that each of these groups spend?
- Spending is generally based on buyers' willingness and ability to pay.

# Factors That Affect Total Spending in the Short Run

**C = Consumption**

- Desired rate of saving
- Level of tax rates
- Amount of wealth (value of assets owned such as houses, stocks, etc.)
- Level of consumer confidence in the economy

**I = Investment**

- Borrowing costs, including the level of interest rates
- Expectations about future consumer spending
- Tax incentives or disincentives to invest

**G = Government**

- National security concerns (defense)
- Need for infrastructure improvements (highways, sewers, communications, etc.)
- Demand for public services (education, police and fire protection, courts, etc.)

**X – M = Net Exports**

- Growth of income and wealth of foreign buyers
- Prices in foreign nations relative to domestic prices
- Exchange rates

# BUT NOW I WANT TO FOCUS ON PRODUCTION SIDE OF ECONOMY

- Who produces goods and services in economy?
- What factors influence how much they produce?
- The main reason businesses produce output (goods and services) is to earn profits. Producing goods and services requires resources; therefore, the amount of output depends on the quantity and productivity of resources available (which affect costs) and expected profitability.

# Factors That Affect the Incentive to Produce in Short Run

- Availability/quantity of resources
(human, capital, and natural)
- Productivity of resources
(output per unit of resource)
- Level of direct taxes on business
(e.g., corporate income tax and sales taxes on inputs purchased)
- Level of government regulations on production
(e.g., health, safety, environmental requirements)
- Prices of imported resources
- Level of minimum wage
- Amount of new innovations and inventions

# SO LET'S DO SOME ANALYSIS

- If total spending in an economy starts increasing, how is this likely to affect total output and prices?
- Because more goods and services would be purchased, inventories would be drawn down, leading to shortages that would put upward pressure on prices and encourage businesses to produce more in the short run.
- TS up implies Q up and P up

# MORE ANALYSIS

- If the incentive to produce starts improving, how does this affect total output and prices?
- Businesses would start producing more and inventories would increase, putting downward pressure on prices in the short run, so total output would increase and prices would decrease.
- IP up implies Q up and P down

# AND MORE ANALYSIS

- You will use your knowledge about total spending and incentive to produce to explain the short-run contractions you discovered earlier, as well as past expansionary periods.
- Get into pairs and get an event card from me.
- In writing, answer the questions on the following slide. After you have finished, team up with another pair and check your answers.
- Confer and present: (1-4), (5-8), (9-12), (13-16).

# QUESTIONS

- Which does this event affect most – TS or IP?
- Would the factor you circled increase or decrease?
- What is the expected short-run impact of this event on real GDP in the economy – rises or falls?
- What is the expected short-run impact of this event on the unemployment rate – rises or falls?
- What is the expected short-run impact of this event on the price level in the economy – rises or falls?

# Answers to Activity 20.7

For Events 1–4: **Total spending increases, real GDP rises, unemployment rate falls, price level rises**

1. The federal government lowers income tax rates on households.
2. A positive outlook on future consumer spending leads businesses to build new factories.
3. Both the prices of stocks and houses rise.
4. Prices in Europe rise relatively faster than those in the United States.

For Events 5–8: **Total spending decreases, real GDP falls, unemployment rate rises, price level falls**

5. Consumer confidence falls as households become more pessimistic about their jobs.
6. The federal government decreases expenditures on defense.
7. Interest rates are raised through actions by the Federal Reserve.
8. Slowdowns in the growth rates of China and India lead to lower U.S. exports.

# Answers to Activity 20.7

For Events 9–12: **Incentive to produce increases, real GDP rises, unemployment rate falls, price level falls**

9. The use of new technologies leads to increases in labor productivity.
10. The federal government lowers the corporate income tax rate.
11. Large reserves of oil are found in North Dakota.
12. A new invention creates numerous profitable opportunities to produce new products.

For Events 13–16: **Incentive to produce decreases, real GDP falls, unemployment rate rises, price level rises**

13. The government increases the federal minimum wage.
14. The government imposes more stringent workplace regulations to better protect workers from injury.
15. The prices of imported rare earth minerals rise.
16. A hurricane destroys several large oil refineries in the Gulf Coast.

# Analysis of Real-World Events

1. (1979) The Organization of Petroleum Exporting Countries (OPEC) cuts its production, which raises the price of oil imported into the United States.

**Incentive to produce decreases, real GDP falls, unemployment rises, price level rises**

2. (1981–1982) The Federal Reserve slows the growth of the money supply to fight inflation, which dramatically raises interest rates dramatically.

**Total spending decreases, real GDP falls, unemployment rate rises, price level falls**

3. (1990–1991) The Gulf War leads to disruptions in oil supplies, which raise the price of oil imported into the United States.

**Incentive to produce decreases, real GDP falls, unemployment rate rises, price level rises**

4. (1996–1999) The application of computer technologies to production processes greatly increases the productivity of labor.

**Incentive to produce increases, real GDP rises, unemployment rate falls, price level falls**

# Analysis of Real-World Events

5. (2000–2001) Businesses dramatically cut back on expenditures for new computer systems after the threat passes of Y2K (fear that computers would not recognize Year 2000).

**Total spending decreases, real GDP falls, unemployment rate rises, price level falls**

6. (2003–2005) The federal government sends military forces into Iraq in March 2003, beginning a multiyear peace-keeping effort. It lowers income tax rates retroactive to January 2003.

**Total spending increases, real GDP rises, unemployment rate falls, price level rises**

7. (2008–2009) Households lose trillions in wealth after home prices and stock prices fall significantly.

**Total spending decreases, real GDP falls, unemployment rate rises, price level falls**