Topic 6
Business Cycles

Agenda

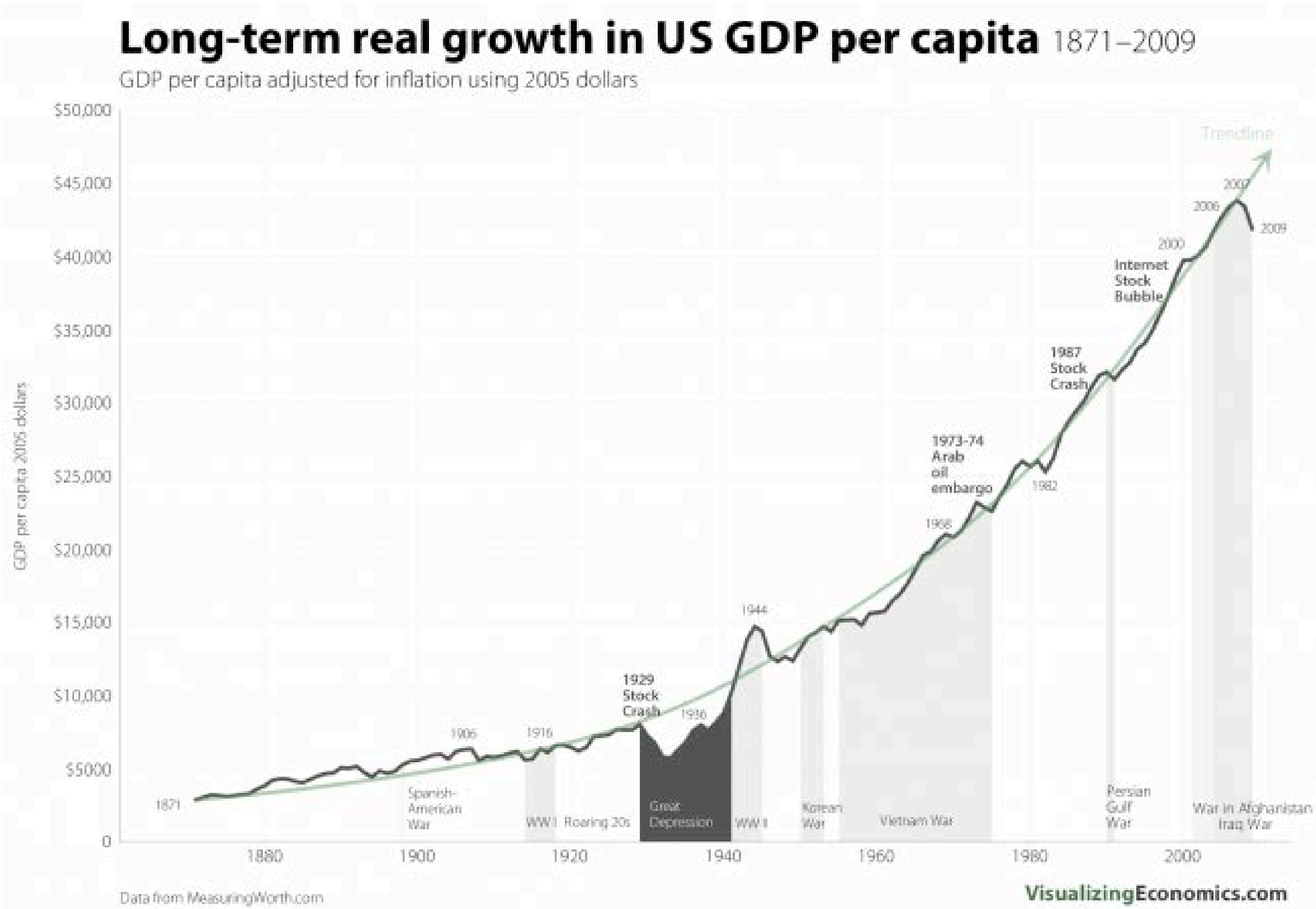
- Recap and motivating questions
- Business Cycles
  - What are they?
- The late 2000's recession
- What causes business cycles?
  - 4 broad theories
- Should policy makers try to stabilize the economy?

Recap from last 2 lectures

- Topic 4: Ingredients of economic growth
- Topic 5: Policies that increase growth
- In both topics, we mostly talked about *long-run growth* (i.e. shifting the LR-AS curve to the right)
- USA RGDP per capita growing at 2% on average per year. But growth hasn't been smooth… why not?

In other words...

- In general, our technology, human capital, and physical capital improve a little bit each year
- So why doesn't RGDP, income, and employment smoothly increase each year?

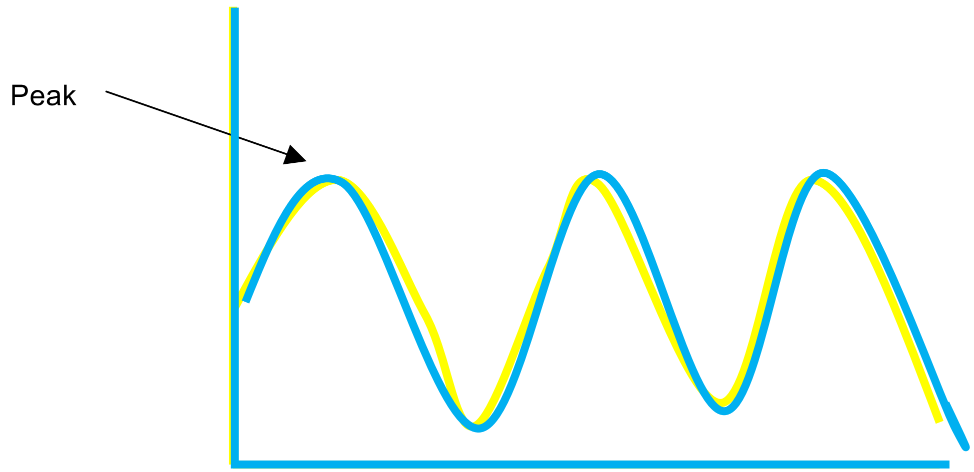


- Other cool graphs [here]

What are Business Cycles?

And what do they look like in the data?

What are business cycles?



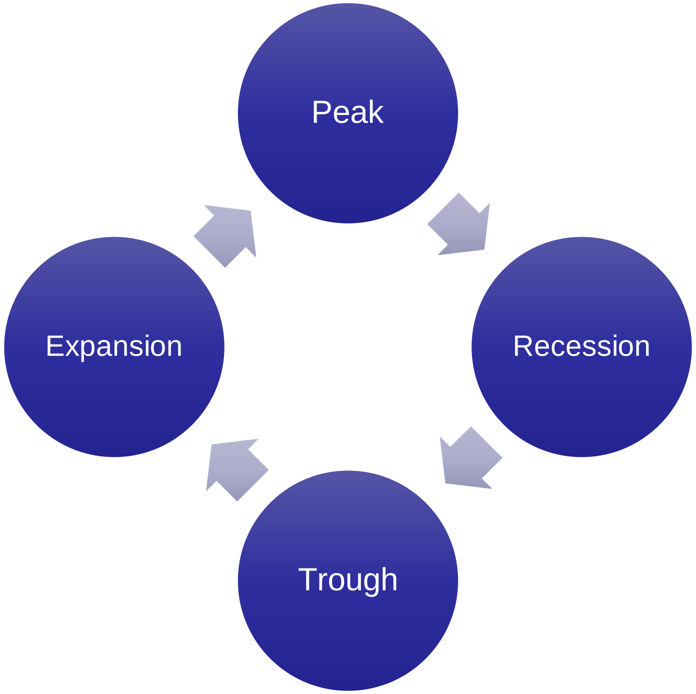
- **Business cycle:** The recurring increase and decreases in the level of economic activity over periods of years.

These cycles have different phases

- **Expansion:** Phase in the business cycle in which real GDP, income, and employment increase
- **Recession:** Phase of the business cycle in which real GDP, Income and employment decrease
- **Depression:** A severe recession

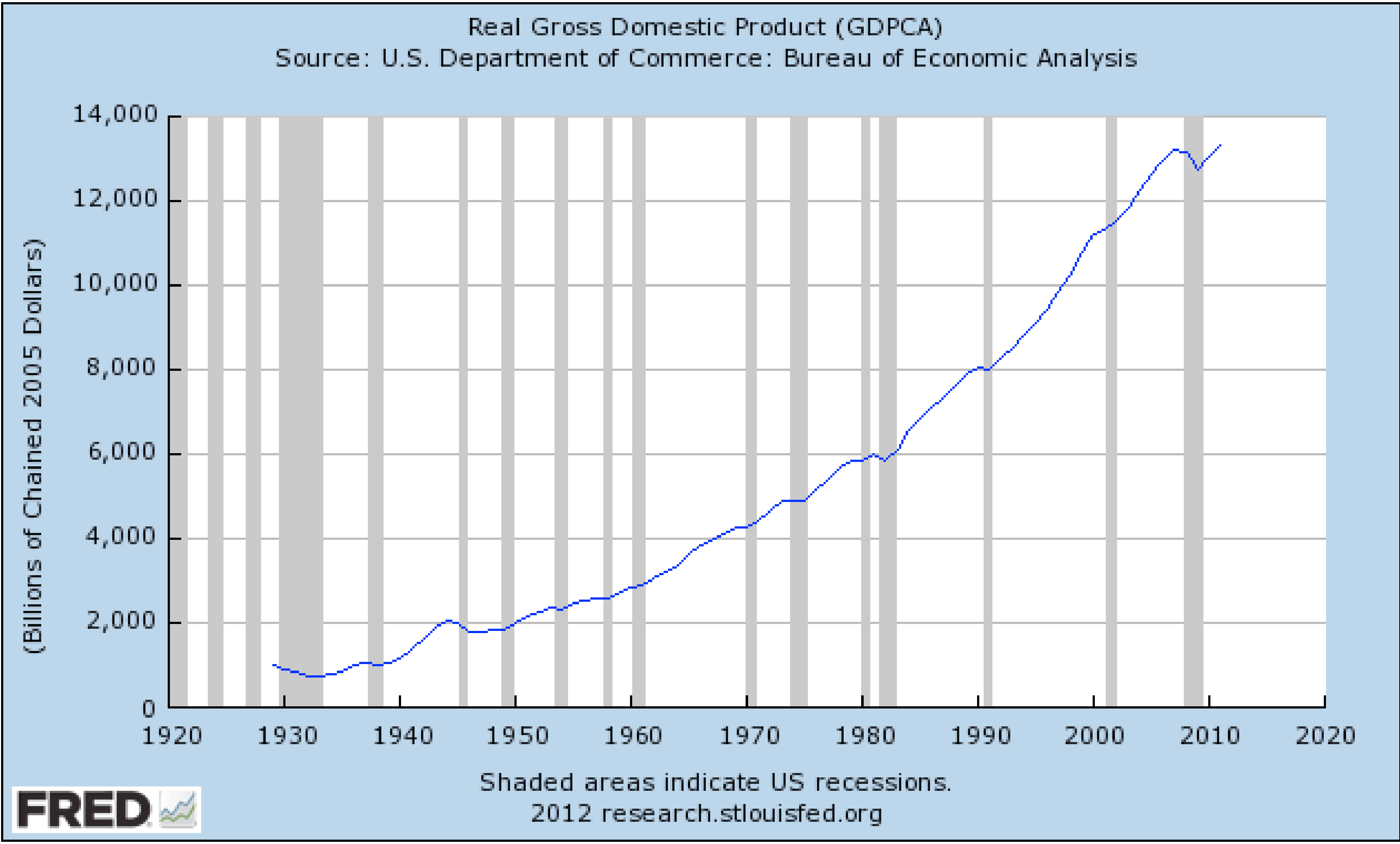
So what is one cycle?

- One cycle consists of one time around:



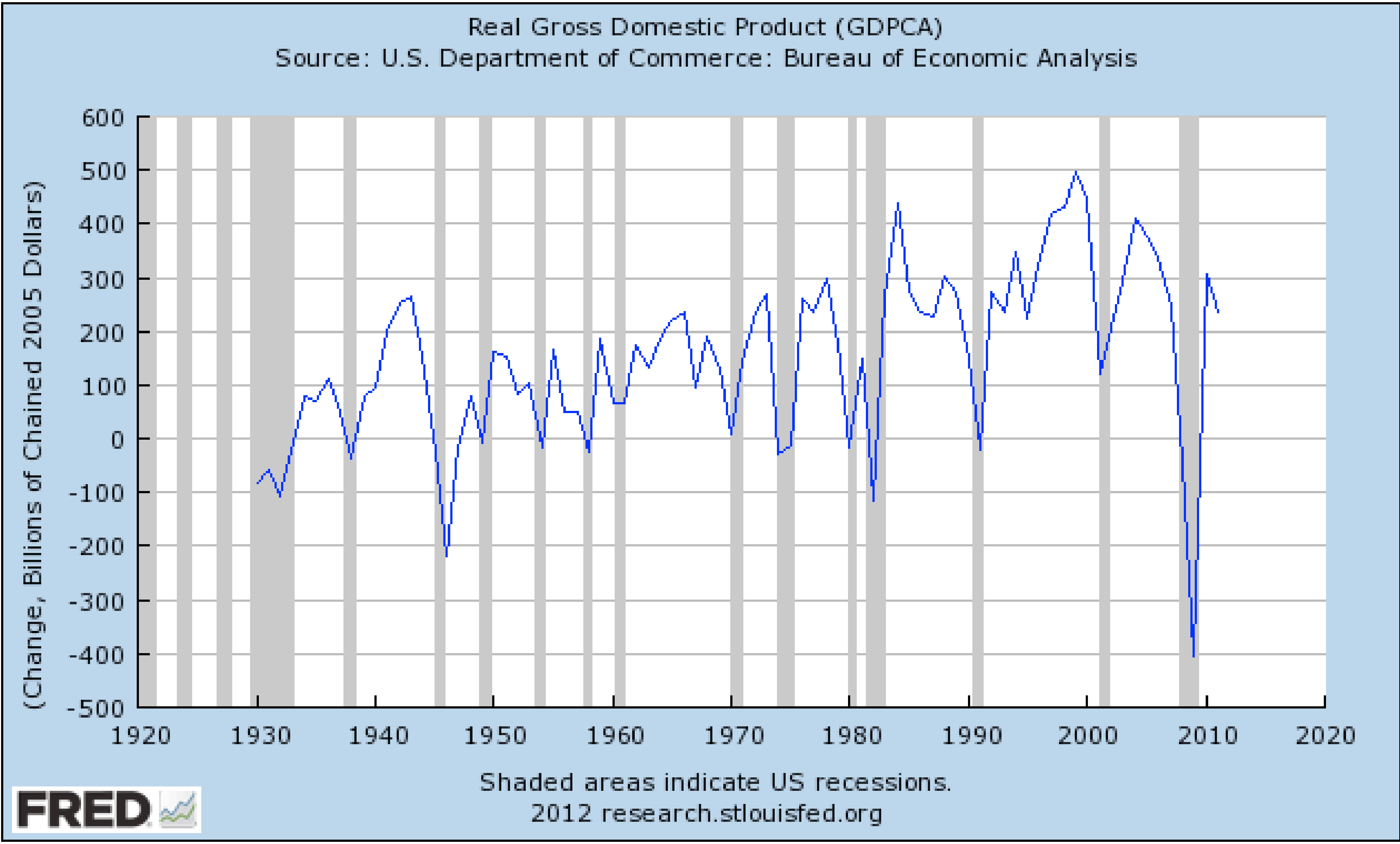
Let’s look at the data

- How can we spot these cycles?
- One idea: simply graph RGDP. Let’s try that.


Real Gross Domestic Product (GDPCA)
Source: U.S. Department of Commerce: Bureau of Economic Analysis
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
(Billions of Chained 2005 Dollars)
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
Shaded areas indicate US recessions.
2012 research.stlouisfed.org
FRED

Let's look at the data

- You can kind of see them there, but how can we see it better?
- Answer: Look at the **change** in RGDP


Real Gross Domestic Product (GDPCA)
Source: U.S. Department of Commerce: Bureau of Economic Analysis
600
500
400
300
200
100
0
-100
-200
-300
-400
-500
(Change, Billions of Chained 2005 Dollars)
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
Shaded areas indicate US recessions.
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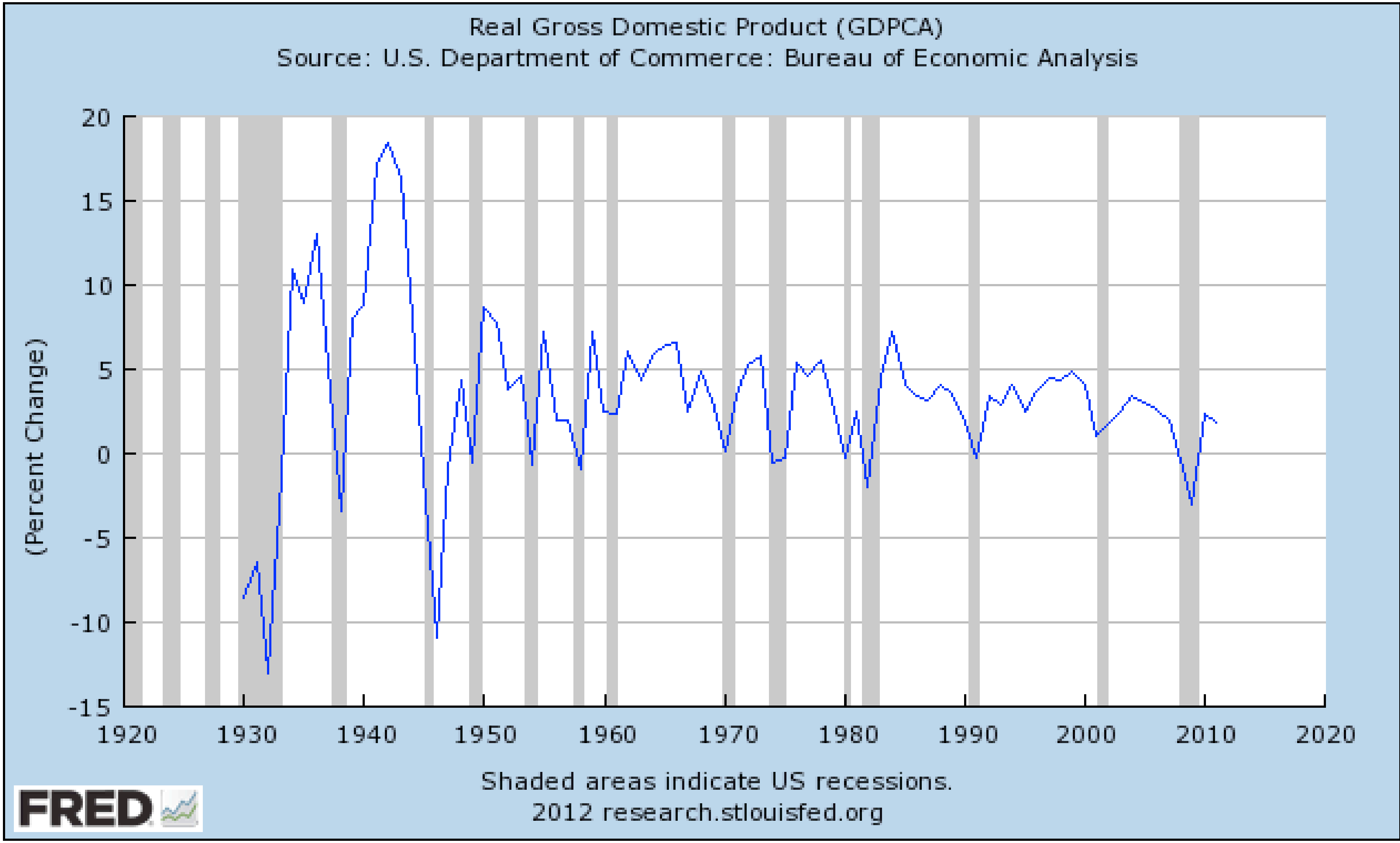

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General Business Cycle Data Observations

- Cycles are irregular and unpredictable
- Most macroeconomic variables move together during the business cycle (i.e. GDP, unemployment, inventories all change; they depend on each other).
- As output falls, unemployment rises.
- For more graphs, check out Federal Reserve Economic Data (FRED)

The Late 2000's Recession

a.k.a. "the most recent recession,"
"The Great Recession," etc.

How bad was the recent recession?

Period	Duration, Months	Depth (Decline in Real Output)
1929-1933	43	-26.7% (Great Depression)
1937-1938	13	-18.2% (post-New Deal)
	A few more in between…	
1953-1954	10	-2.6% (post-Korean-War-bubble)
1957-1958	8	-3.7% (budget-balancing)
1960-1961	10	-1.6% (tight monetary policy)
1969-1970	11	-0.6% (fiscal, monetary policy post Vietnam)
1973-1975	16	-3.2% (oil crisis, stock market crash))
1980	6	-2.2% (really tight monetary policy, energy crisis)
1981-1982	16	-2.7% (see previous. “double-dip” recession)
1990-1991	8	-1.4% (oil crisis, 80s debt accumulation)
2001	8	-0.3% (dot-com bust, fall in investment, Sept. 11)
Dec. 2007-Mar 2009	18	-5.1% (subprime mortgage crisis leading to global financial crisis; oil prices)

How bad was the recent recession? (continued)

- Answer: Bad, but not nearly as bad as the Great Depression.
- If we looked at unemployment this would be even more clear

- Another way to look at these recessions
- Complete list of recessions

Additional observations from the table of recessions

Average of cycles	Peak to trough	Trough to peak	Trough to trough	Peak to Peak
1854-1919 (16 cycles)	21.6	26.6	48.2	48.9
1919-1945 (6 cycles)	18.2	35.0	53.2	53
1945-2009 (11 cycles)	11.1	58.4	69.5	68.5

Additional observations from the table of recessions

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1854-1919 (16 cycles)	21.6	26.6	48.2	48.9
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- Recessions becoming less frequent

Additional observations from the table of recessions

Average of cycles	Peak to trough	Trough to peak	Trough to trough	Peak to Peak
1854-1919 (16 cycles)	21.6	26.6	48.2	48.9
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- Recessions shorter in duration

Additional observations from the table of recessions

Average of cycles	Peak to trough	Trough to peak	Trough to trough	Peak to Peak
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- Expansions lasting longer

What causes business cycles?

Or, why can't we just drive the car in a straight line?

What caused the recent recession?

- Subprime lending
- Cheap credit b/c of low interest rates
- Over-leveraging, Collateralized Debt Obligations (CDOs), Credit Default Swaps (CDSs)
- Lack of Government Legislation
- Let’s watch this video

What causes recessions in general?

- Depends on who you ask
- Four main groups: beliefs determine the policies they recommend for smoothing out business cycles

Group 1: New Keynesians

- Cause: sticky wages/prices
- Example: If C, I, NX, or G unexpectedly falls, AD shifts left and GDP falls. New Keynesians see Investment swings as the largest source of instability
- Note: We have basically been taking the New Keynesian view in this class, by focusing so much on sticky wages/prices

Group 2: Monetarists

- Cause: Inappropriate government policy prevents us from staying at the NRO
- Example: Oil price increase. Without minimum wage laws, wages would naturally fall, so firms could keep same amount of labor and buy same amount of oil. Output would remain constant.
  - Instead firms must hire fewer workers, decrease output

Group 3: Real Business Cycles

- Cause: Shocks to real factors
- Fluctuations occur because of changes to “real things” – factors of production.
- Example: unexpected oil spill in the Gulf means a shortage of that natural resource. Not all the machines that need oil can run now. Output (RGDP) falls.
- Note: Groups 2 and 3 don’t think wages/prices are that sticky

Group 4: Coordination Failure

- Cause: Self-fulfilling expectations
- Example: oil price increases. Consumers and firms expect price will stay high. Suppose it doesn't? Doesn't matter…
  - Firms expect consumers and other firms to decrease C and I, so they decrease output.
  - They lay off workers, who now spend less
  - Firm now needs to produce even fewer goods, so lays off more workers, etc.

Implications

- Just like Democrats and Republicans, economists fall into different groups too (not along exactly the same lines).
- Just like Democrats and Republicans, economists disagree on the cause, so they disagree on the solution. So news networks can always find some economist who says Plan X is bad.

Should policymakers try to stabilize the economy?

Yes they should

1. **Economies fluctuate:** Households and firms get pessimistic. Households reduce spending; firms reduce production, lay off workers, unemployment rises, RGDP falls, confirming pessimism – wastes resources!
   - Note: Which group would make this argument?
2. **Why suffer through booms and busts?** Fiscal and monetary policy can counteract and reduce the severity.

No they shouldn't

1. **Policy works with a long lag:**
   - Monetary Policy: Takes a while for interest rate changes to alter investment and thus AD (firms make spending plans far in advance)
   - Fiscal Policy: Long political process governs changes in gov't spending and taxes
2. **Hard to predict economic changes:**
   - If they are wrong, they are likely to make things worse (i.e. raise the peak or lower the trough!)

Key Ideas and Things To Think About

Note: This is NOT a study guide – i.e. do not limit yourself to these items when studying

Key Ideas

- Business cycles are irregular and unpredictable
- Economists disagree about the exact causes. Not clear how much sticky prices/wages are to blame
- Stabilizing is a great idea, as long as it works the way you want it to

Things To Think About

- You heard my general explanation of how the recent recession happened. How would the 4 different groups of economists explain the recession?
- When we come out of recessions, the rich get richer *faster* than the poor get richer. This increases inequality. Why might this be?