Econ 1115: Principles of Macroeconomics

Lecture 21: Finance, Risk, Recessions and Financial crises

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Outline

1. Review
2. Recessions
3. The Great Recession

Other things to note from last class:

- Fiscal policy and supply side

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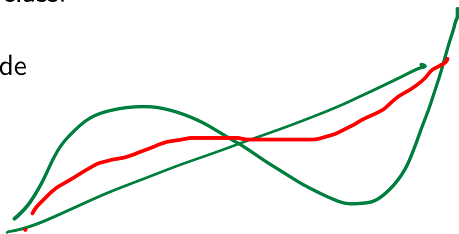
- Automatic stabilizers

– progressive tax system

– unemployment benefits



$G = T$
budget balanced

Other things to note from last class:

$G > T$

- Fiscal policy and supply side
- Automatic stabilizers
- Budget surplus vs budget deficits

Taxes → G → spends
govt. spending

Other things the same, automatic stabilizers tend to

a. raise expenditures during expansions and recessions.
b. lower expenditures during expansions and recessions.
c. raise expenditures during recessions and lower expenditures during expansions.
d. raise expenditures during expansions and lower expenditures during recessions.

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Answer: c

- Financial markets and financial institutions facilitate the movement of funds from savings (households) to borrowers (consumers or businesses)

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- Savers can directly provide funds to borrowers, buy bonds, or buy stocks

loan
(IOU)

Savings: The portion of income left after households pay taxes and consumption

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Investment: Purchase of new capital by businesses (not the purchase of stocks and bonds)

The role of arbitrage

- What should be the value of an asset?

Year 1 → $1000
2 → $1000
3 → $1000

$3000

- What should be the value of an asset?
- PV of all future income from that assets

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- The amount of money you would be willing to trade today for a specific amount in the future

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- PV of all future income from that assets
- The amount of money you would be willing to trade today for a specific amount in the future
- How do you calculate that?

\$1000

A 20%

\$1000 + x

$$PV = \frac{\text{Future payment}}{(1+r)}$$

discount rate

$$= \frac{\$1000}{(1+.20)}$$

= \$870

~~I pay to~~

You pay $

Would you prefer a 50-50 chance of $200 or a guaranteed $100

option 2

H → 190
T → 10

$100

Would you prefer a 50-50 chance of $200 or a guaranteed $100

Risk - Most people are risk averse - we prefer certainty. We can manage risk with insurance or through diversification

Efficient Market Hypothesis: The price of an asset reflects all publicly available information about the value of the asset.

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Stock prices change are **random** and cannot be predicted.

Cannot systematically beat the market.

Derivatives: A financial instrument whose value is derived from other underlying assets.
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- Swaps

- Credit cards

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- Credit scores - Vantage or Fico (range from 300 - 850)

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- Good credit history is vital - when you buy a car this can mean savings of over several thousand dollars in lower interest payments.

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A brief history of US recessions

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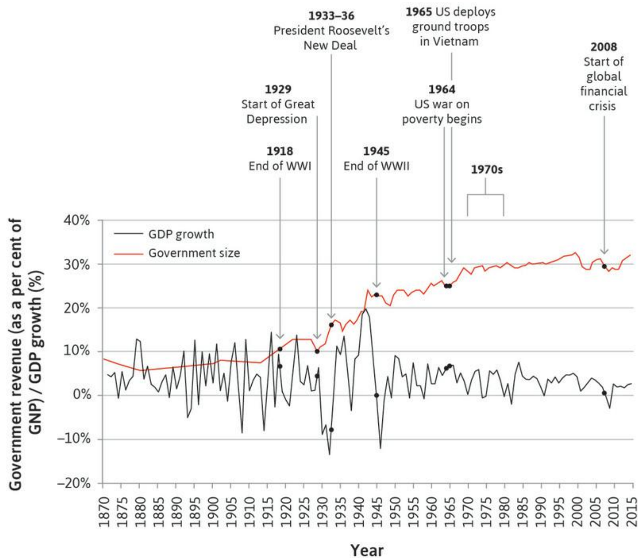
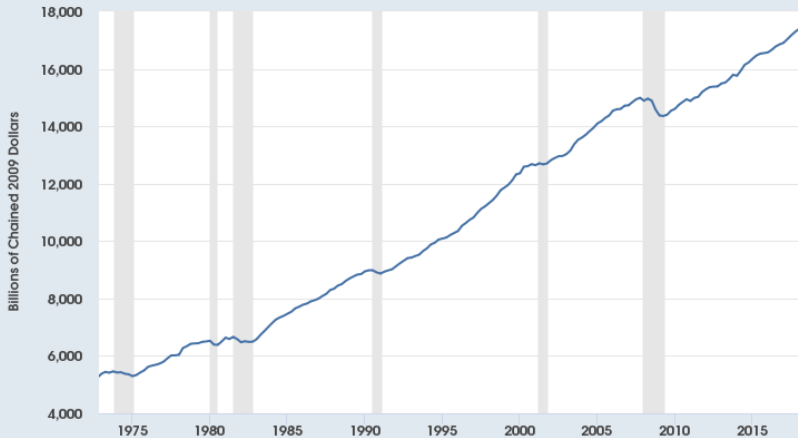
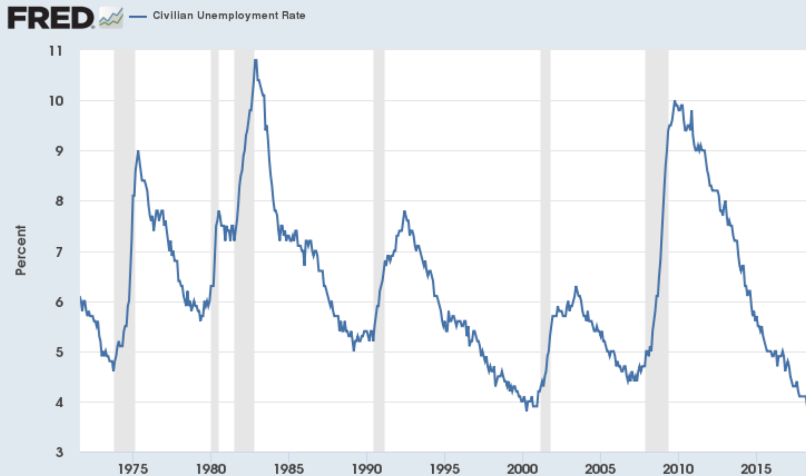
- However, the Keynesian view revolutionized government's role in stabilizing the economy and reducing the frequency and the effects of a recession.


1933–36
President Roosevelt's
New Deal
1965 US deploys
ground troops
in Vietnam
2008
Start of
global
financial
crisis
1929
Start of Great
Depression
1964
US war on
poverty begins
1918
End of WWI
1945
End of WWII
1970s
GDP growth
Government size
40%
30%
20%
10%
0%
−10%
−20%
Government revenue (as a per cent of GNP) / GDP growth (%)
1870
1875
1880
1885
1890
1895
1900
1905
1910
1915
1920
1925
1930
1935
1940
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
Year

Recent recessions in the US after the Great Depression of 1929

- May 1937(II) - June 1938 (II)
- February 1945(I) - October 1945 (IV)
- November 1948(IV) - October 1949 (IV)
- July 1953(II) - May 1954 (II)
- August 1957(III) - April 1958 (II)
- April 1960(II) - February 1961 (I)
- December 1969(IV) - November 1970 (IV)
- November 1973(IV) - March 1975 (I)
- January 1980(I) - July 1980 (III)
- July 1981(III) - November 1982 (IV)
- July 1990(III) - March 1991(I)
- March 2001(I) - November 2001 (IV)
- December 2007 - June 2009 (II)


FRED
Real Gross Domestic Product
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
Billions of Chained 2009 Dollars
1975
1980
1985
1990
1995
2000
2005
2010
2015
Source: U.S. Bureau of Economic Analysis


FRED
Civilian Unemployment Rate
Percent
11
10
9
8
7
6
5
4
3
1975
1980
1985
1990
1995
2000
2005
2010
2015
Source: U.S. Bureau of Labor Statistics

Costs of an economic downturn

- Lost output and Okun's Law
- High unemployment and lost wages
- On a lower growth path?
- Psychological and social costs, including crime, depression and suicides.

Why do recessions happen?

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- But what causes these shifts?
- Keynes called it "animal spirits", but that just means it is due to a loss in confidence - pessimism among households and firms
- Occasionally, they are the result of shifts in SRAS (the oil shocks of the 70s and 80s)

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Comparing it to other recessions

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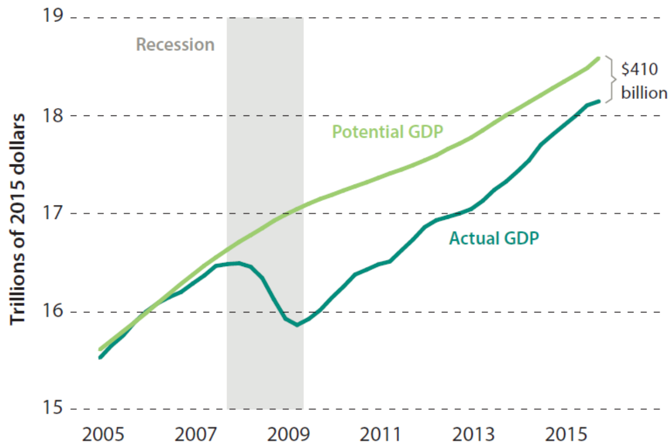
Conditions were far worse during the Great Depression.

Employment fell 27 percent from 1929 to 1933 (compared with 6.7 percent), output fell 36 percent (7.2 percent) and consumption fell 23 percent (5.4 percent).



source:

Brookings Institute

What started it?

Three reasons

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- Lax financial regulations resulted in banks holding very risky mortgage-backed securities
- Investment banks, shadow banking, off-balance sheet activities, and the mortgage-backed assets

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- The ratio of household debt to disposable personal income rose from 77% in 1990 to 134% by the end of 2008
- US home ownership increased from 64% to 69%

Sub-prime mortgage, mortgage backed securities and CDOs

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- This meant households with low incomes and high risk received mortgage when they shouldn't have
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- This resulted in even more defaults
- Commercial and investment banks who owned mortgage-backed securities were left holding assets which were significantly risker than they had estimated

What happened next

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- Household wealth collapsed, consumption and investment fell significantly

The Government, ARRA and Fiscal policy

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- Fiscal stimulus of around $800 billion
- CBO estimates that it helped increase output

The Fed's actions and the new monetary tools

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- Having reached the zero lower bound, the Fed used more creative tools.
- Banks went from holding very little excess reserves to

Could anything have prevented it?

The benefits of hindsight

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- Better oversight and regulation of shadow banking and other financial institutions might have stopped the housing bubble affecting the financial sector.
- Better calculation of risk and better lending practices
- Govt. policies that supported risky low-income households from buying houses when the economy was strong also fueled the boom in house prices

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- Mid 2008: JPMorgan Chase buy out Bear Sterns, BoA purchases CFC, both Freddie Mac and Fannie Mae receive lending from the Fed, before the government takes over soon.

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- FDIC increases depositor insurance to $250,000. PNC buys out National City and forms 5th largest bank in the US.
- Nov 2008: AMEX becomes a bank. Government converts loan to equity in AIG.

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- Early 2010: Banks start buying back equity from the Treasury department signaling the end of TARP. Government makes profits.

Financial regulations and Dodd-Frank Act

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- Volcker rule: The separation of commercial and investment banking a return to old Glass-Steagall norms
- Other regulations on derivatives, credit swaps, off balance sheet items; whistleblower protection; annual stress tests

Review

1. Housing bubble bursts
2. Investment banks collapse
3. Pessimism about financial institutions
4. Borrowers become stingy with credit, consumers also pessimistic
5. Sharp decline in aggregate spending and recession