

Lecture 10

Short-run GDP Fluctuations

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Economics & Society

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Previously in E&S…

- Definition of money
  - functions and properties of money
- Intrinsic value vs. fiat money
- The banking system
  - CB – commercial banks
- The money supply
- The money demand
  - for transactions – precaution – speculation
- Equilibrium interest rate and monetary policy
- Inflation

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Short-run GDP Fluctuations
PARTICIPANTS OF THE COMMODITY MARKET
EQUILIBRIUM AT THE COMMODITY MARKET
LINKS BETWEEN MARKETS
FISCAL POLICY
MONETARY POLICY
JOBLESS MEN KEEP GOING
WE CAN'T TAKE CARE OF OUR OWN
ECONOMIC CRISIS
Lecture 10

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LINKS
BETWEEN MARKETS

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Market interdependence

- So far, we have explored the markets of the macroeconomy as if they were ***independent*** and ***isolated*** from each-other
- Yet, there exist ***channels*** through which macro markets can ***affect*** each-other:
  - The interest rate may ***affect*** the _____ market
  - The _____ market may ***affect*** the _____ of companies
  - _____ may ***affect*** _____.
- Here, we will see how the commodity market and the money market are ***linked***

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Investment & the real interest rate

- Imagine that there exist 14 ***investment projects*** for $100 each, expected to yield the following ***per year returns***:

  13%, 10%, 8%, 6%, 5%, 5%, 4%, 4%, 3%, 2%, 2%, 1%, 1%, 1%

- If you had $1,400, and the ***interest rate*** was 4.5%, how much would you invest?

  projects for a total investment of
- If you had $1,400, and the ***interest rate*** was 3.5%?

  projects for a total investment of
- If the ***interest rate*** was 2.5%?

  projects for a total investment of
- Investment is ***inversely related*** to the real interest rate ***[Link 2]***

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Links between markets

* The commodity market and the money market are ***connected*** through ***2 links***:

LINK 1: COMMODITY MARKET: Increase in Y^* → MONEY MARKET: Increase in M_D

LINK 2: MONEY MARKET: Increase in r^* → COMMODITY MARKET: Decrease in I

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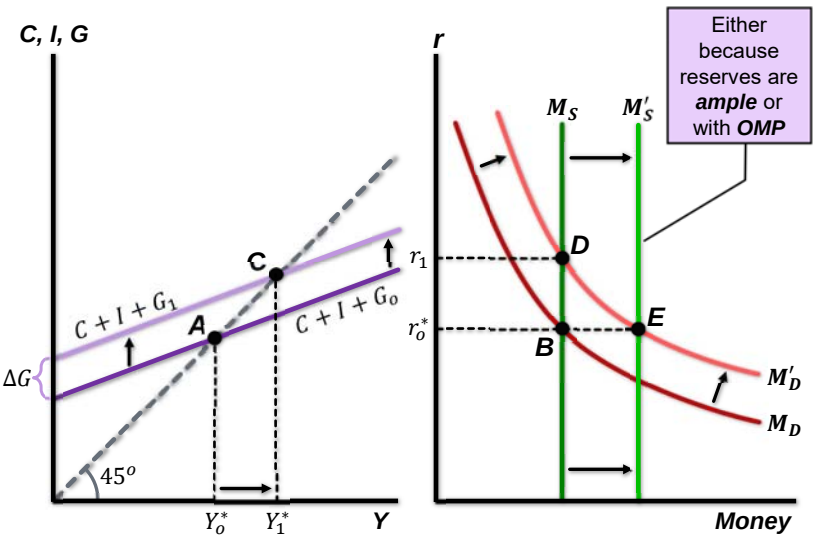
Fiscal policy

- The government can ***boost Y*** by either expanding G or contracting t
  - these practices are known as ***Expansionary Fiscal Policy***
- Both alternatives may cause ***budget deficits***
  - that is, $G > T$
- Deficits are ***funded*** by issuing ***government securities***
  - effectively ***borrowing*** from households and firms at an ***interest***
- Past years' deficits ***pile up*** forming the ***government debt***
- If the ***"debt / GDP" ratio*** becomes too high, lenders will ***stop buying*** securities
  - this may lead to a ***fiscal crisis***
- Decrease in G or increase in t are referred to as ***Contractionary Fiscal Policy***
  - can ***help*** lower government debt or ease inflation

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Link 1 with fiscal policy

- Commodity market ***equilibrates*** at Y_o^* and money market at r_o^*
- Fiscal policy **(G↑)** shifts the equilibrium in the commodity market to Y_1^*
- M_D ***shifts*** to M_D' **[L1]**
- r_o^* will tend to ***rise*** to r_1
- ***Unless*** M_S shifts to M_S'
  - to ***keep*** the rate at r_o^*



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Monetary policy

- The CB can ***intentionally trigger*** Link 2 to affect the economy
- Expansionary Monetary Policy:

  CB cuts r^* $\xrightarrow{\text{LINK 2}}$ Increase in I $\longrightarrow$ Increase in Y^*

  to stimulate the economic activity when a ***recession*** is feared
- Contractionary Monetary Policy:

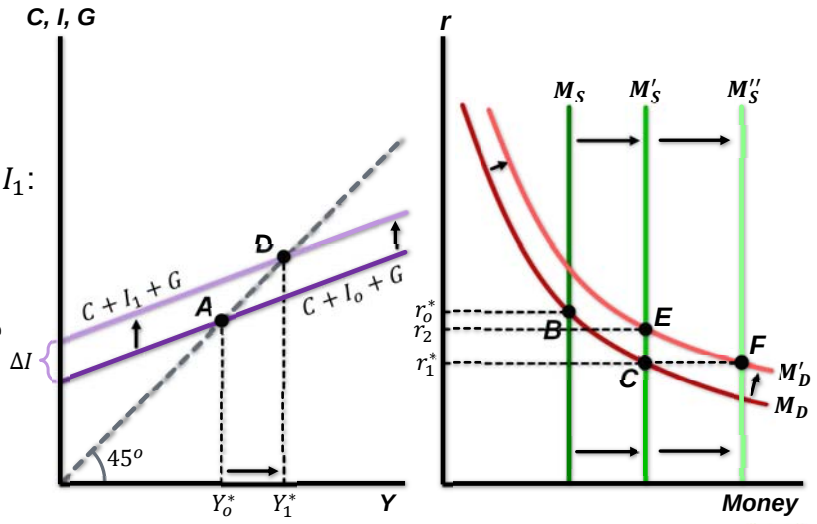
  CB raises r^* $\xrightarrow{\text{LINK 2}}$ Decrease in I $\longrightarrow$ Decrease in Y^*

  to ***ease inflation*** by decreasing the money supply

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Link 2 with monetary policy

- Markets initially ***equilibrate*** at Y_o^* and r_o^*
- CB ***cuts*** to r_1^* **[L2]**
- Investment ***increases*** to I_1:
  - ***Output*** rises to Y_1^* **[L1]**
  - M_D ***shifts*** to M_D'.
- ***Money supply*** must ***rise*** further to ***prevent*** the rate from rebounding to r_2

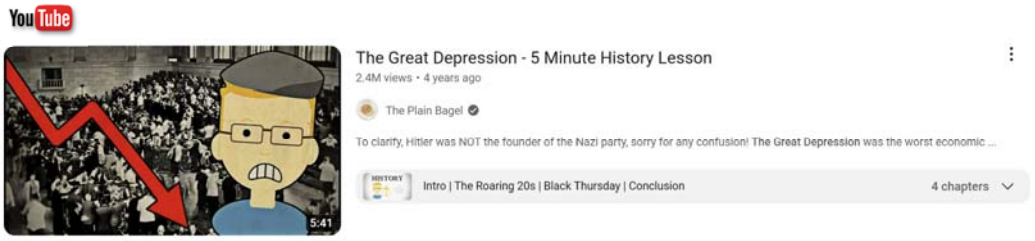


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External video

Let's watch a 5 min lesson for the Great Depression.



The 2007-09 Financial Crisis

- In the years before 2007 several new unregulated ***shadow banks*** had appeared
  those institutions started offering some new ***"innovative" financial products***
- One of those was to ***package together*** high-risk mortgage loans:
  - When you lend $1,000 at 5% to a ***single debtor*** with 2% risk of default, you face 98% probability to earn $50 and 2% probability of losing $1,000
  - When you lend $1 at 5% to ***1,000 debtors*** with each 2% risk of default, it is almost certain that you will earn around $29.
- This ***works great*** but it has ***3 important limitations***:
  1. The law of averages applies ***only in normal times***
  2. The "feeling of ***false safety***" made banks to neglect proper due diligence
  3. The over-supply of loans led the housing market to a ***speculative bubble***

History repeats itself

- In the first sight of ***recession, mortgage defaults*** snowballed
  - many banks had ***invested heavily*** in such MBS and could ***not survive the losses***
- Government and the Fed came to an ***ethical dilemma***:
  - have ***taxpayers cover*** the losses or let the economy ***sink***?
- The 2007-09 crisis was basically a ***repetition*** of the Great Depression:
  - In the Great Depression the bubble was the
  - In the 2007-09 Crisis the bubble was the
- Both happened because of ***regulation gaps*** in the financial markets
- The 2007-09 Crisis, however, ***lasted way less*** because it was extinguished successfully with ***expansionary policy***

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The Greek Debt Crisis 2008 – today

- The Greek crisis was a ***national debt*** crisis
- During the 80s and 90s Greece was running on deficits
  - mainly ***financed with seignorage***
- In 2002 the country entered the ***Eurozone*** as a founding member:
  - Greece could ***no more*** fund its deficits by printing money
  - But it could finance its spending with ***cheap loans*** in its new currency.
- While the country was living lavishly on loans, ***debt kept piling up***
- By 2008 Greece had an official ***debt / GDP ratio at***
- At the same time, global financial crisis, made investors overly ***averse to risk***

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The weak link

- Within months ***interest rates*** for Greek bonds exploded to 30%!
  - all outstanding Greek securities were ***rated as "trash"***
- Greece was in the ***middle of a deep recession*** with ***nothing*** to fight it:
  - Monetary policy was in the hands of the ECB
  - The government had no money to conduct fiscal policy.
- The IMF, the ECB and the European Commission ***bailed out*** urgent loans
  - under 2 ***conditions***: severe austerity and drastic reforms
- Within ***10 years***: GDP fell by 30%, unemployment exceeded 25%, infrastructure deteriorated, 6 governments were changed
  - the nation's ***morale*** collapsed
- Today, Greece has turned back to a ***catch-up economy***

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Thank you!

(you may stay for *consultation*)

WARNING!

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