

## Chapter 17: Aggregate Supply and Aggregate Demand

ECO 301: Money and Banking

# Goals

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- Specific Goals
  - Be able to explain GDP fluctuations when the price level is also flexible.
  - Explain how real GDP and the price level are related in the short run.
- Learning Objectives
  - LO7: Identify and analyze macroeconomic problems using graphical and computational models and prescribe appropriate monetary policy solutions.

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# Aggregate Demand

- **Aggregate demand:** schedule or curve that shows the quantities of real GDP that buyers collectively desire to purchase at each price level.
- Aggregate demand is downward sloping - *but not for the same reason the demand curve for a single product is downward sloping.*
- Recall demand curves for single goods slope downward because of the substitution effect and the income effect.

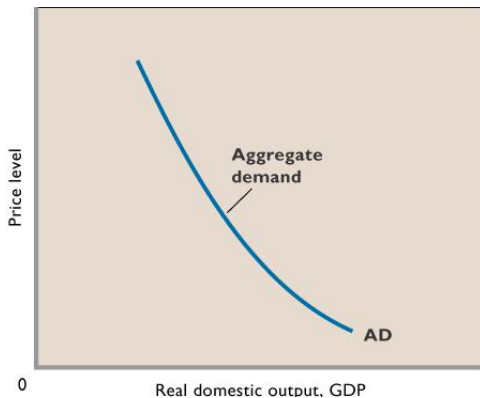
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# Aggregate Demand



# Downward sloping AD

- **Real balances effect:** when the price level increases, the purchasing power of the consumers' accumulated savings balances decreases.
  - With a lower real savings balance, consumers decrease consumption.
- **Foreign purchases effect:** When the price level rises relative to the price level in foreign countries, the foreign demand for U.S. products decreases. Similarly, the demand for imports increases.
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# Determinants of AD

- When something *the price level* affects the AD, this causes the AD curve to shift.
- The following affect *consumption* and therefore shift AD.
  - Consumer wealth: financial assets such as savings accounts, stocks, and bonds, and physical assets that consumers can borrow against like houses and land.
    - An increase in wealth increases consumption, which shifts AD to the right.
    - A decrease in wealth decreases consumption, which shifts AD to the left.
  - Household indebtedness: if household debt increases, AD shifts to the left.
  - Taxes: Increase in taxes decreases consumption, AD shifts to the left.
  - Consumer expectations: expectations about future income or future taxes can shift AD.
  - Real interest rate: an increase in the real interest rate decreases consumption which shifts AD to the left.

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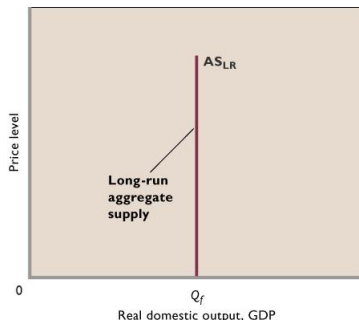
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# Long run aggregate supply

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**Long run aggregate supply:**  
in the long run the economy  
uses all factors of production  
efficiently, therefore long run  
aggregate supply is a vertical  
line at **potential GDP**



# Short run aggregate supply

- In the short run, factor markets are slow to adjust. Wages are slow to adjust and there may be unemployment or even excess employment.
- Therefore in the short run, the aggregate supply curve is upward sloping.
  - Increases in the price level without increasing wages create larger profits for firms, creating an incentive to produce more.

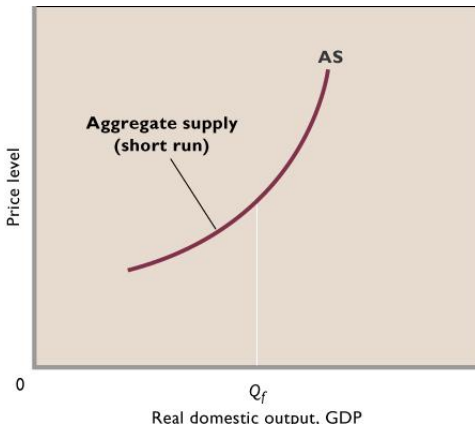
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- When something *besides the price level* affects AS, this shifts AS.
- Prices of factors of production: when the price of labor, capital, or land increase, this shifts AS to the left.
- Exchange rate: if the value of the U.S. currency decreases, this increases the cost of importing foreign factors of production.
- Technology: an increase in technology shifts AS to the right.
- Business taxes can affect output decisions of firms and shift AS.
- Other government regulation.



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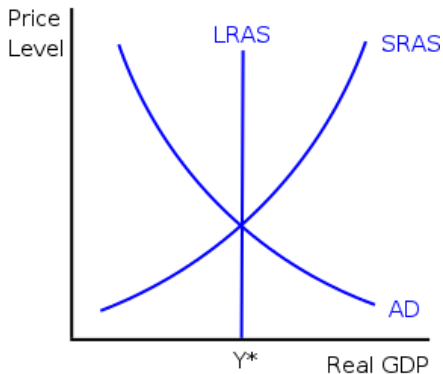
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# Equilibrium

In equilibrium, real GDP and the price level are determined by the intersection of AS and AD



# Inflation

- Inflation can come from two sources, excess demand or increases in production costs.
- **Demand pull inflation:** when increases in demand cause inflation.
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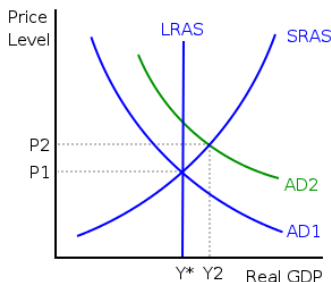
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# Demand pull inflation

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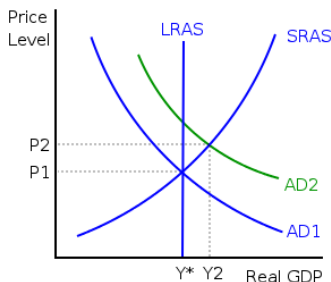
- Demand pull inflation begins when AD increases.
- Causes real GDP to increase and the price level to rise.
- Recall: **inflationary gap**: when aggregate expenditures is equal to real GDP above potential GDP.



# Demand pull inflation

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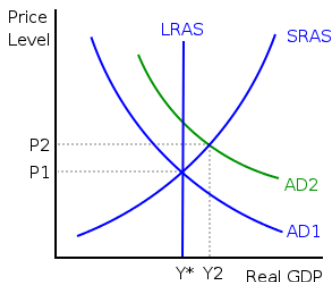
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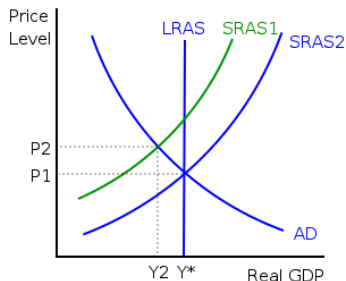
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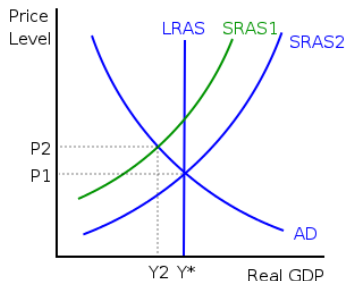
# Cost push inflation

- Cost-push inflation begins when an increase in production cost shifts SRAS to the left.
- Causes real GDP to fall and price level to rise.
- **Stagflation**: when there is unemployment and high inflation at the same time.



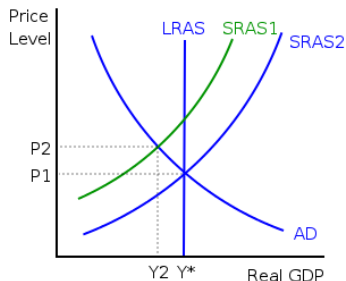
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# Long-run equilibrium

- Recall why the short run aggregate supply curve is upward sloping.
- Suppose AD shifts to the right.
- Firms will be able to sell more goods. Firms hire more labor and produce more goods.
- Firm's per-unit labor costs do not increase because wages are fixed in the short run.
- In the long run, there is an excess demand for labor, wages will increase.
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