Aggregate Supply and Aggregate Demand

Econ 120: Global Macroeconomics

Goals

- 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
  - LO5: Use the model of aggregate demand and supply to evaluate the short-run and long-run impacts of fiscal and monetary policy on production, employment, and the price level.
  - GELO1: Students will be able to use mathematical and logical methods to solve problems.
  - GELO2: Students will be able to construct and use models to analyze, explain, or predict phenomena.

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Reading and Exercises

- Modules 30, 31, and 32
- **Canvas Quiz due Wednesday 11:59 PM**. Multiple-choice, 10 questions, unlimited attempts allowed, only best score counts
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- Aggregate demand is downward sloping - *but not for the same reason the demand curve for a single product is downward sloping*.
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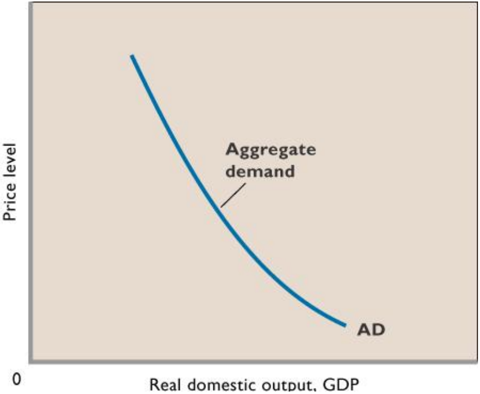

Downward sloping AD

- **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.
  - This causes exports to fall and imports to rise.

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Determinants of AD

- When something *besides 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.
    - When consumer wealth increases, aggregate demand increases, causing it to shift to the right.
  - 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.
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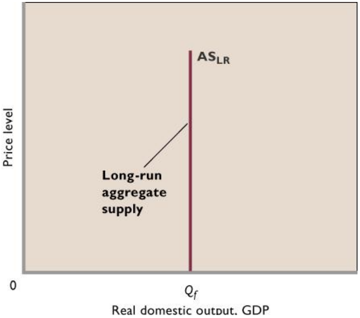
Long run aggregate supply

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 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, creates incentive to produce more.

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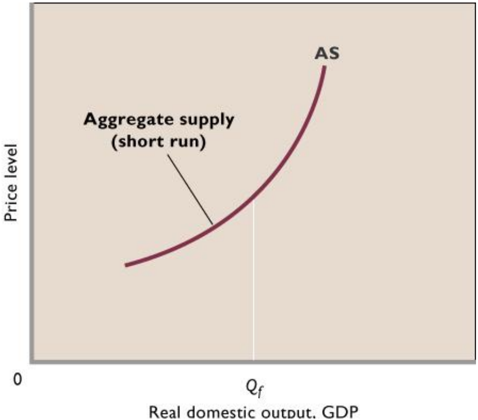

Determinants of AS

- 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.
- 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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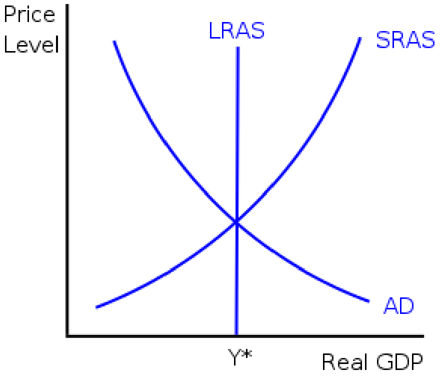
Equilibrium

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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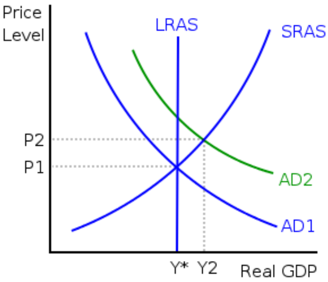
Demand pull inflation

- 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.



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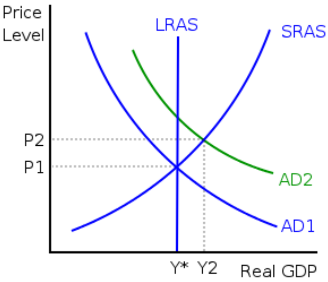

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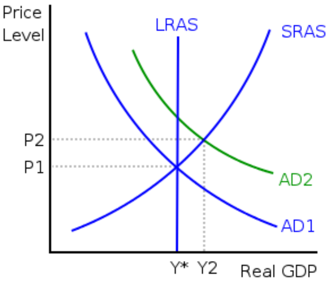
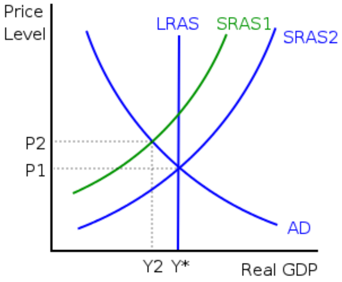


Cost push inflation

- 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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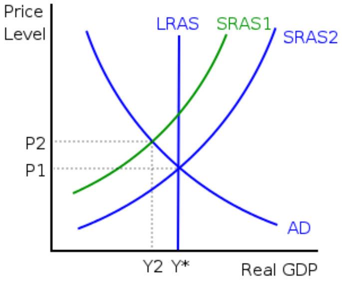

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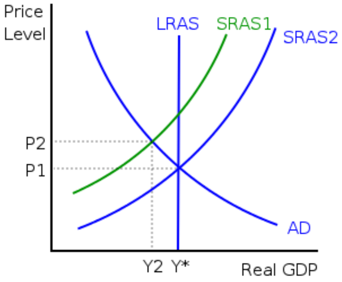

Long-run equilibrium

- 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.
- This shifts the SRAS curve to the left.

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Examples

For each of the following, show (a) the short-run outcome for price level and real GDP, (b) the short-run and long-run outcomes in the market for labor, and (c) the long-run outcome for price level and real GDP.

1. Suppose businesses expect high profitability in the future.
2. Suppose consumer confidence drops, leading to an decrease in borrowing and a decrease in spending.
3. Suppose an increase in energy prices leads to an increase in the costs of production.
4. Suppose the U.S. dollar appreciates, leading to a(n) ______ in exports and a(n) ______ in imports.
5. Suppose the government increases spending.
6. Suppose the government cuts income taxes.
7. Suppose the government cuts business taxes.