Short Run Aggregate Supply

Road Map

- Short Run Aggregate Supply
- Practice

Short Run Aggregate Supply—Economics of Global Business, Revised: May 7, 2019

Overview: Short Run Aggregate Supply

- Long Run: real GDP $= \bar{Y} = F(\bar{K}, \bar{L})$ and is unrelated to nominal forces.
- Short Run: Real GDP depends on nominal forces.
  - Key rationale for this is that prices are "sticky" in the short run.
  - This then yields a upward sloping (or horizontal) relationship between real GDP/unemployment and the price level.
  - Provides a rationale for monetary policy to stimulate/dampen output, i.e. there will be short run deviations from long-run real GDP.

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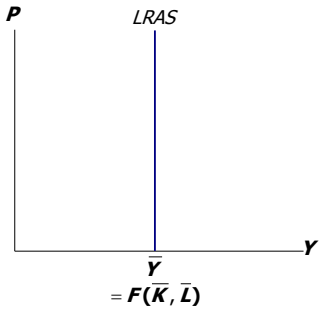
Short Run Effects on an Increase in Aggregate Demand

The long-run aggregate supply curve

$\bar{Y}$ does not depend on P, so *LRAS* is vertical.



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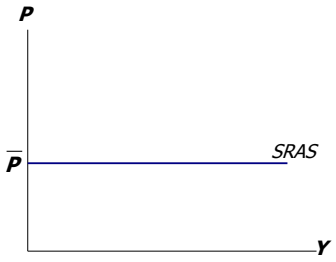
Short Run Aggregate Supply

The short-run aggregate supply curve

The *SRAS* curve is horizontal:

The price level is fixed at a predetermined level, and firms sell as much as buyers demand.



Why Price "Stickyness"

- Reasons for sticky prices
  - Long-term contracts between firms and customers
  - Menu costs
  - Firms not wanting to annoy customers with frequent price changes

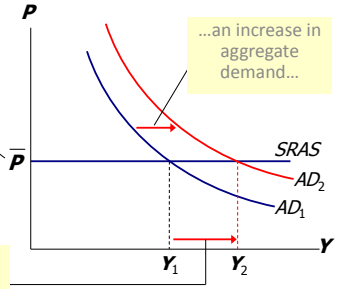
Short Run Effects on an Increase in Aggregate Demand

Short-run effects of an increase in *M*

In the short run when prices are sticky,…

…an increase in aggregate demand…

…causes output to rise.



Adjustment to the Long Run

From the short run to the long run

Over time, prices gradually become "unstuck."
When they do, will they rise or fall?

In the short-run equilibrium, if	then over time, P will…
$Y > \overline{Y}$	*rise*
$Y < \overline{Y}$	*fall*
$Y = \overline{Y}$	*remain constant*

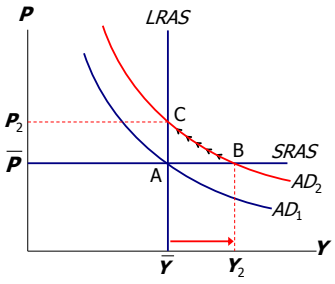
The adjustment of prices is what moves the economy to its long-run equilibrium.

Adjustment to the Long Run

A = initial equilibrium

B = new short-run eq'm after Fed increases ***M***

C = long-run equilibrium



What Just Happened?

- Point A is a long-run equilibrium...
  - Aggregate demand equals long-run AND short-run aggregate supply
- Aggregate demand unexpectedly shifted out
  - Why? Say because of a increase in M...
  - This generates a movement along SRAS curve from A to B.
  - This is a boom, high output/ low unemployment
- Firms reset their expectations that the price level will be at new long-run level consistent the new aggregate demand curve.
  - As firms reset their expectations, the SRAS curve moves along the AD curve from B to C.

Supply shocks

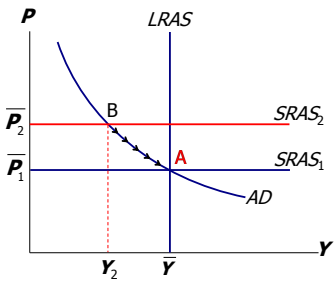
- A supply shock alters production costs, affects the prices that firms charge.
- Examples of adverse supply shocks:
  - Bad weather reduces crop yields, pushing up food prices.
  - Workers unionize, negotiate wage increases.
  - New environmental regulations require firms to reduce emissions. Firms charge higher prices to help cover the costs of compliance.
- Favorable supply shocks lower costs and prices.

An Oil Price Shock in the 1970's

CASE STUDY:
The 1970s oil shocks

The oil price shock shifts *SRAS* up, causing output and employment to fall.

In absence of further price shocks, prices will fall over time and economy moves back toward full employment.



What Just Happened?

- Point A is a long-run equilibrium...
  - Aggregate demand equals long-run AND short-run aggregate supply
- SRAS shifts up due to the Oil price shock.
  - This generates a movement along AD curve from A to B.
  - This is a special kind of bust...low output/ high unemployment and high prices/inflation ... "stagflation."
- Firms reset their expectations that the price level will be at long-run level consistent the aggregate demand curve.
  - If nothing else happens, as firms reset their expectations, the SRAS curve moves along the AD curve from B to back to A.

Final Points

- How would this work if there was a negative shift in Aggregate Demand curve?
- Positive shocks to the Short-Run Aggregate Supply curve? Shocks to Long-Run Aggregate Supply?
- Next class...
  - "Shocks" and work through some examples.
  - How monetary policy might want to respond to shocks

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