

Aggregate Supply
and

Aggregate Demand

Aggregate Demand

The **quantity of real GDP demanded** is the total amount of final goods and services produced in Canada that people, businesses, governments, and foreigners plan to buy.

$$Y = C + I + G + X - M$$

Aggregate Demand

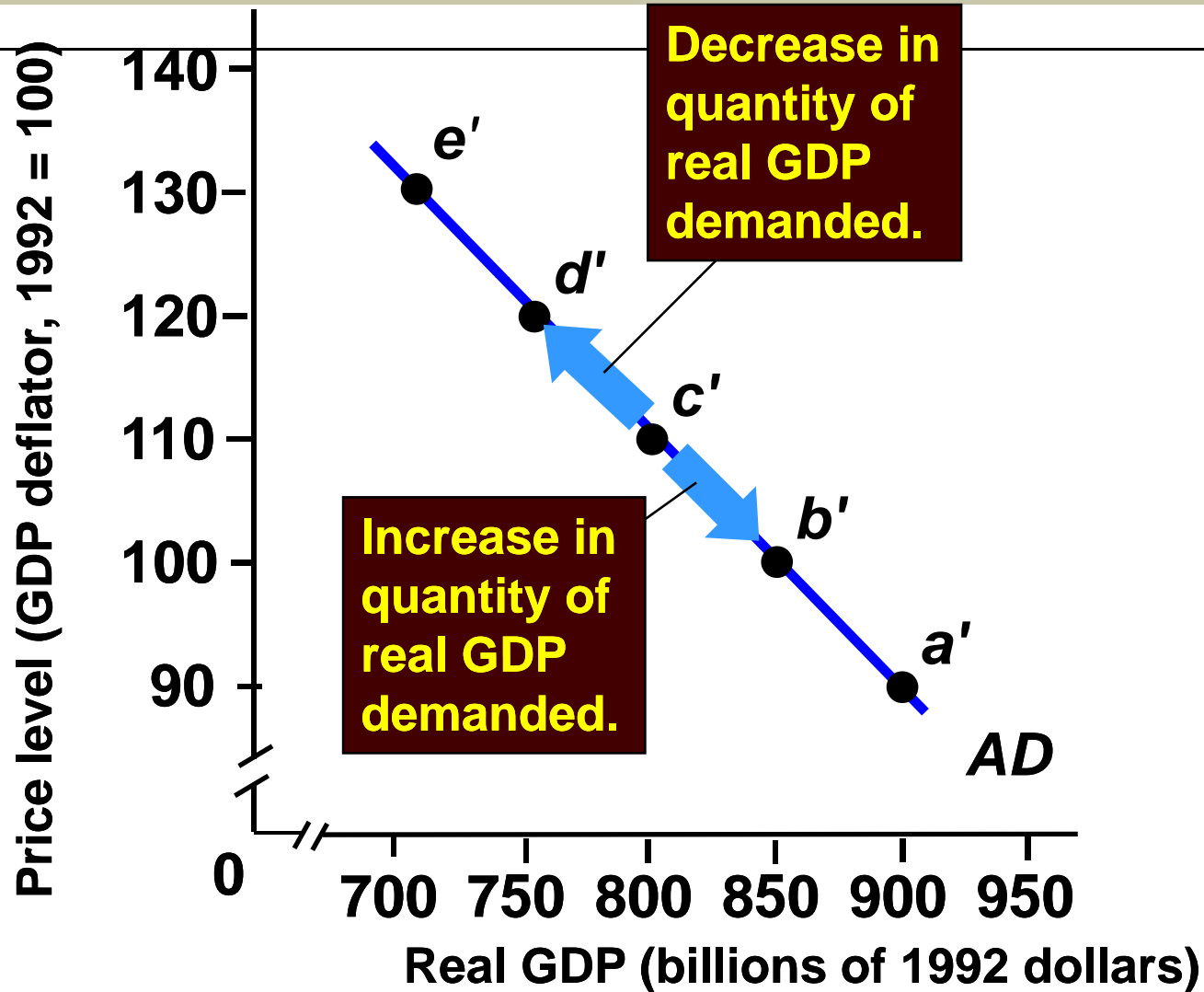
➤ **Buying plans depend on:**

- The price level
- Expectations
- Fiscal policy
- Monetary policy
- The world economy

Aggregate Demand

	Price level (GDP deflator)	Real GDP (billions of 1997 dollars)
<i>a'</i>	90	900
<i>b'</i>	100	850
<i>c'</i>	110	800
<i>d'</i>	120	750
<i>e'</i>	130	700

Aggregate Demand



Aggregate Demand

- **Aggregate demand curve is a negative relationship due to:**
 - **Wealth effect**
 - Increase in prices decreases real wealth, spending is cut back to save more so real wealth can be restored
 - **Substitution effect**
 - **Substitute future goods** - increase in prices causes interest rates to rise, postponing purchases of cars, houses etc.
 - **Substitute foreign goods** - Increase in our prices decreases exports and increases imports.

Shifts in Aggregate Demand

➤ **Expectations about:**

- Future incomes
- Inflation
- Profits.

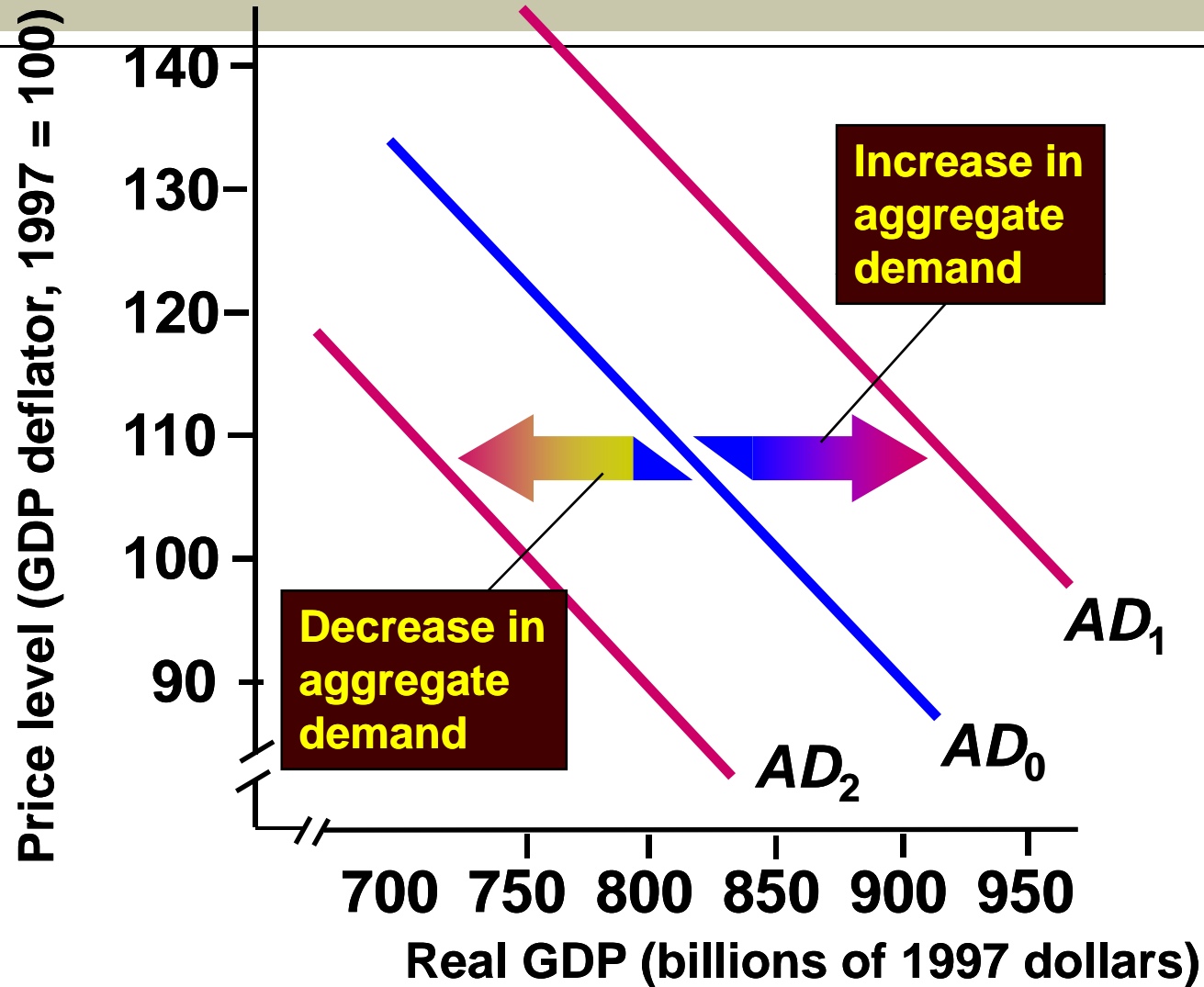
➤ **Fiscal policy**

- Govt. spending
- Taxes
- Transfer payments

Shifts in Aggregate Demand

- **Monetary policy**
 - Interest rates
 - Quantity of money
- **World economy**
 - Foreign exchange rate
 - Foreign incomes

Shifts in Aggregate Demand



Shifts in Aggregate Demand Exercise

- 1. Stats Canada announces that the CPI increased for the 6th month on a row and leading economists predict that this trend will continue for another year.**
- 2. The federal government's budget includes increases in personal and corporate income taxes.**
- 3. With increased hostilities in Afghanistan, the government pledges to increase its presence by replacing outdated helicopters and sending them overseas.**
- 4. The Bank of Canada increases the overnight lending rate by 1/2%, which is immediately followed by a similar increase in the chartered banks' prime lending rates.**
- 5. The exchange rate depreciates.**

Aggregate Supply Fundamentals

The quantity of real GDP supplied (Y) depends on:

1. The quantity of labour (L)
2. The quantity of capital (K)
3. The state of technology (T)

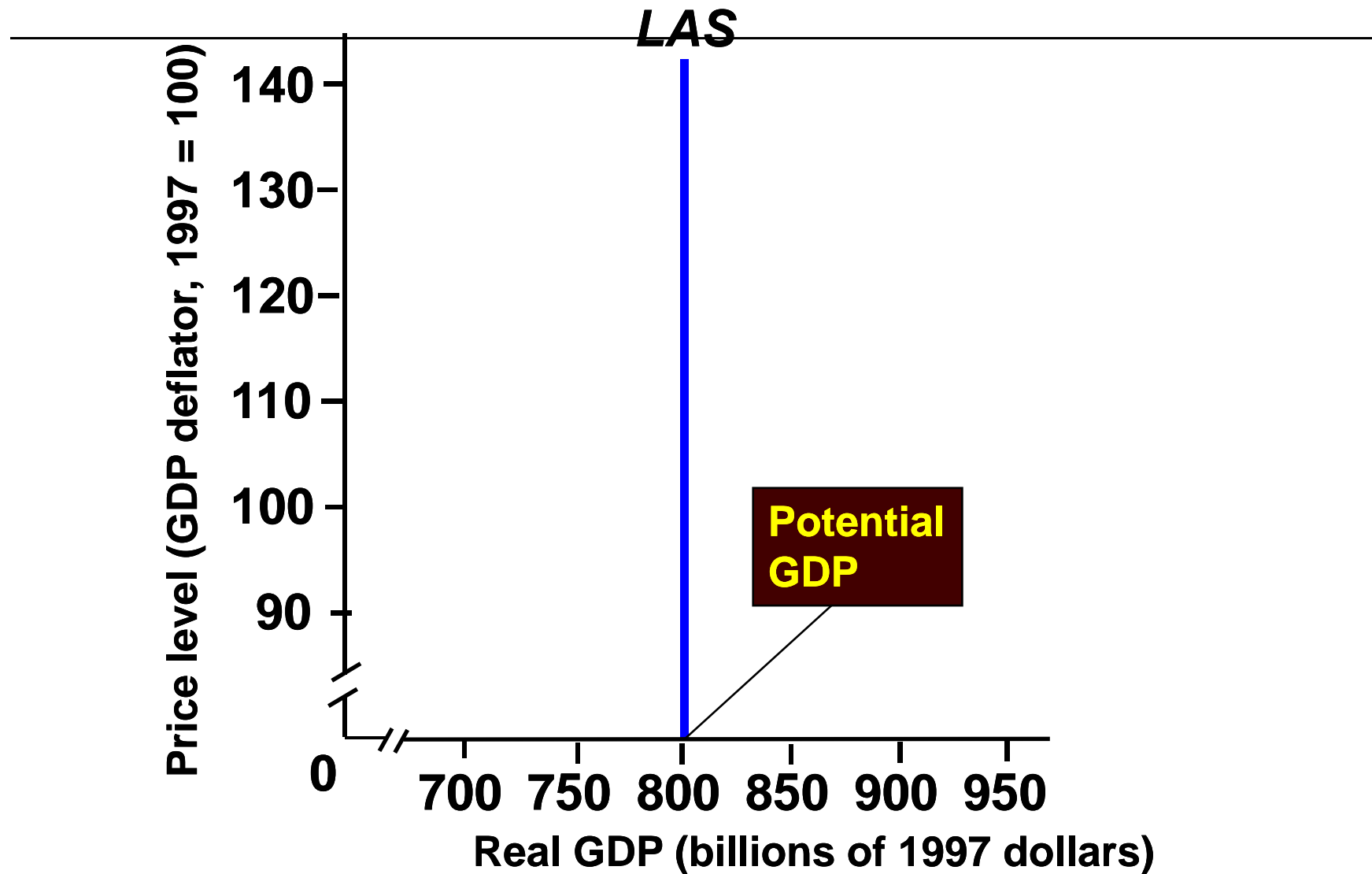
The **aggregate production function** describes how these factors influence real GDP:

$$Y = F(L, K, T)$$

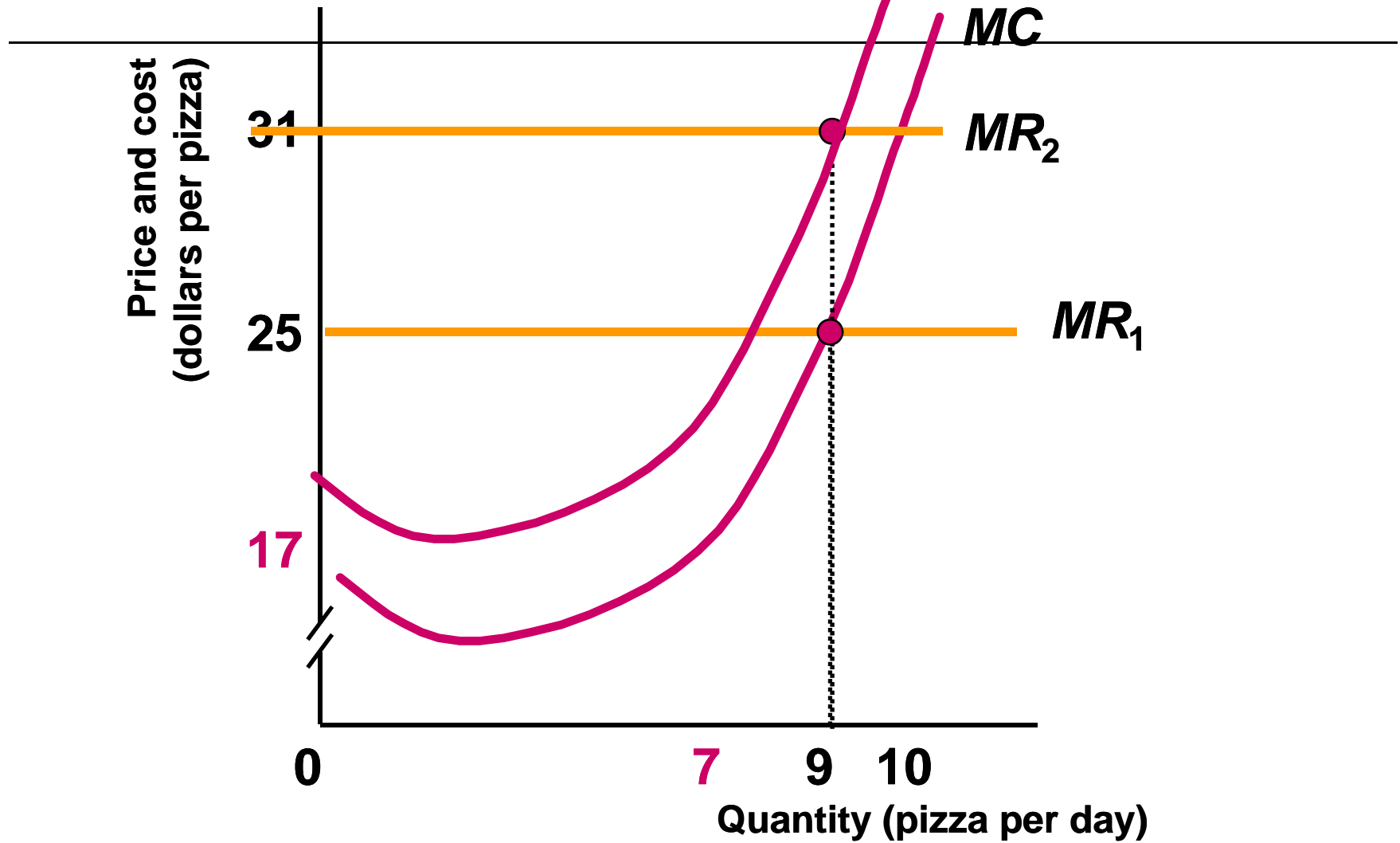
Long – Run Aggregate Supply

- **Potential GDP**
 - Full employment (unemployment rate at the natural rate)
- **Long-run aggregate supply**
 - Price – quantity relationship when Real GDP = Potential GDP

Long-Run Aggregate Supply



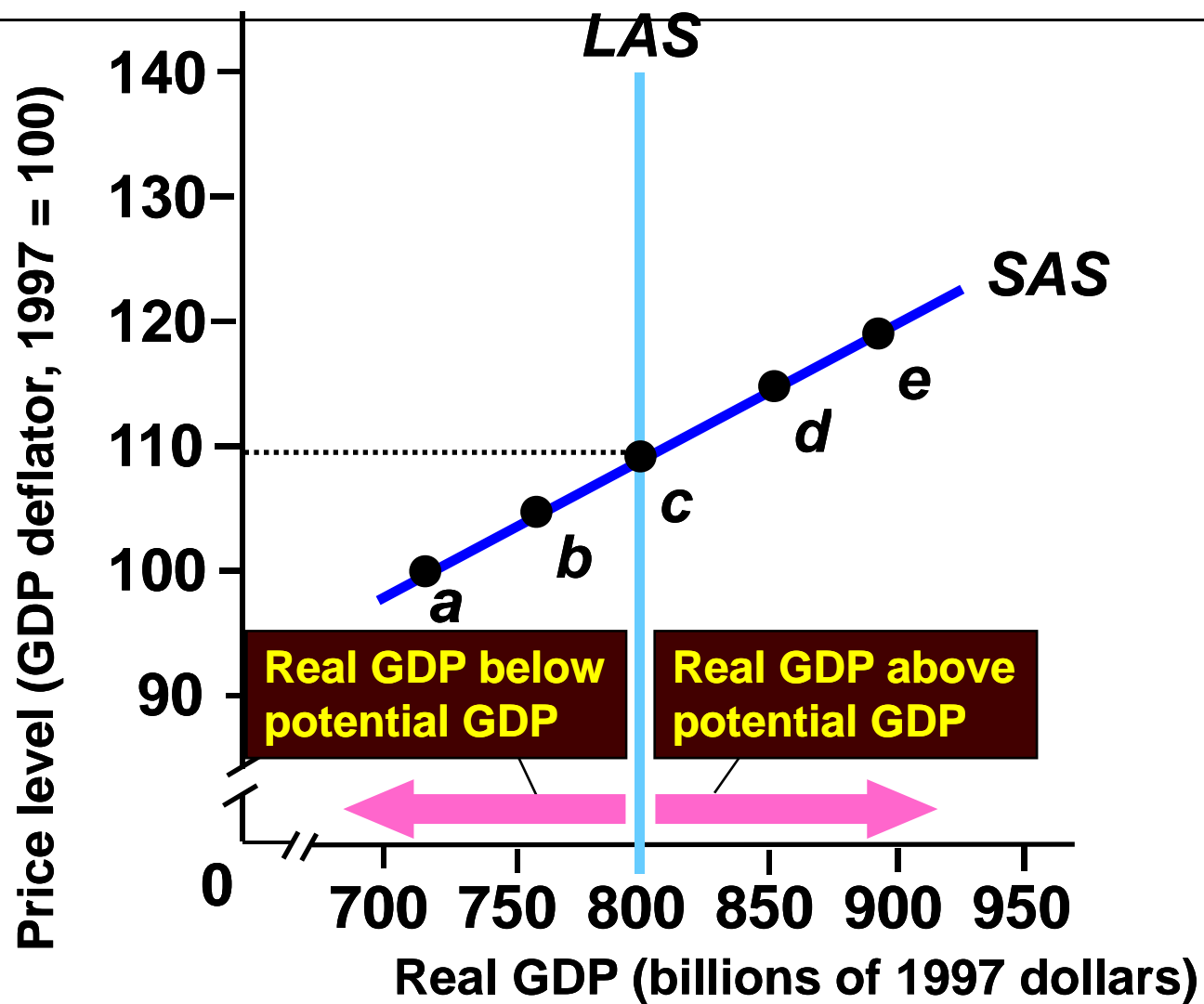
Short-Run Aggregate Supply



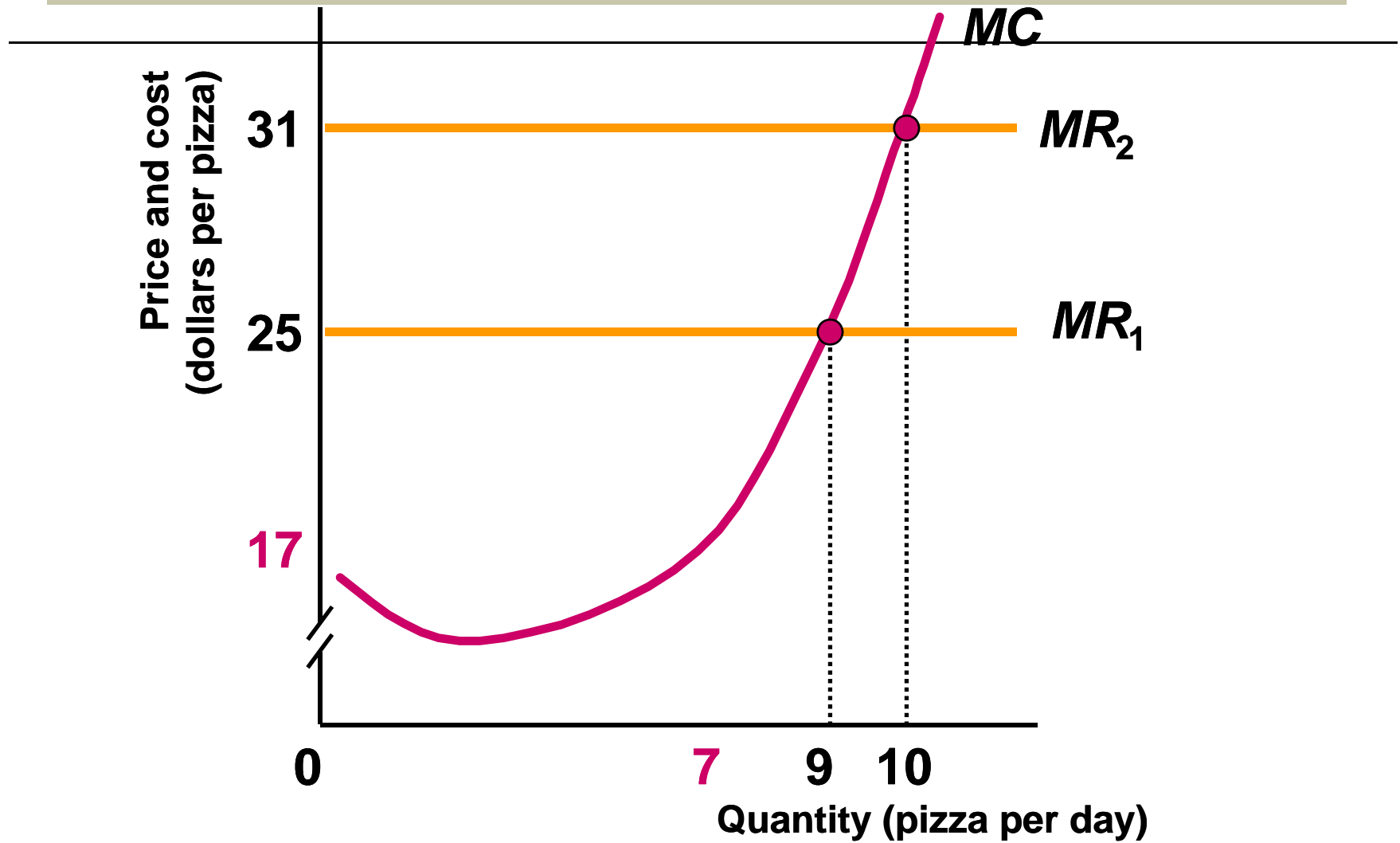
Short – Run Aggregate Supply

- **Macroeconomic short – run**
 - Period when Real GDP differs from Potential GDP
- **Short – run aggregate supply**
 - Price – quantity relationship when the money wage rate, (\$ an hour of labour earns) other resource prices, and potential GDP remain constant

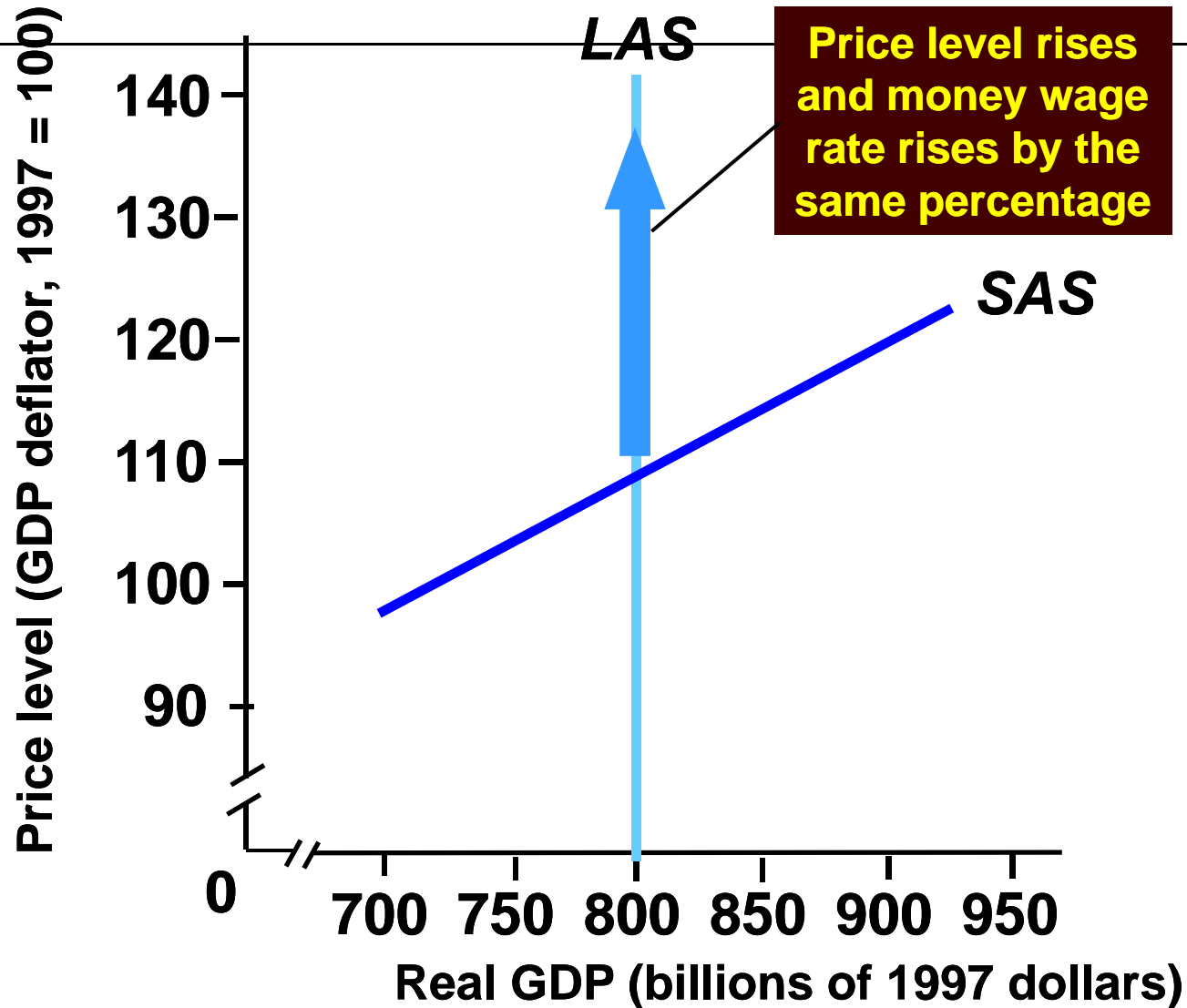
Short-Run Aggregate Supply



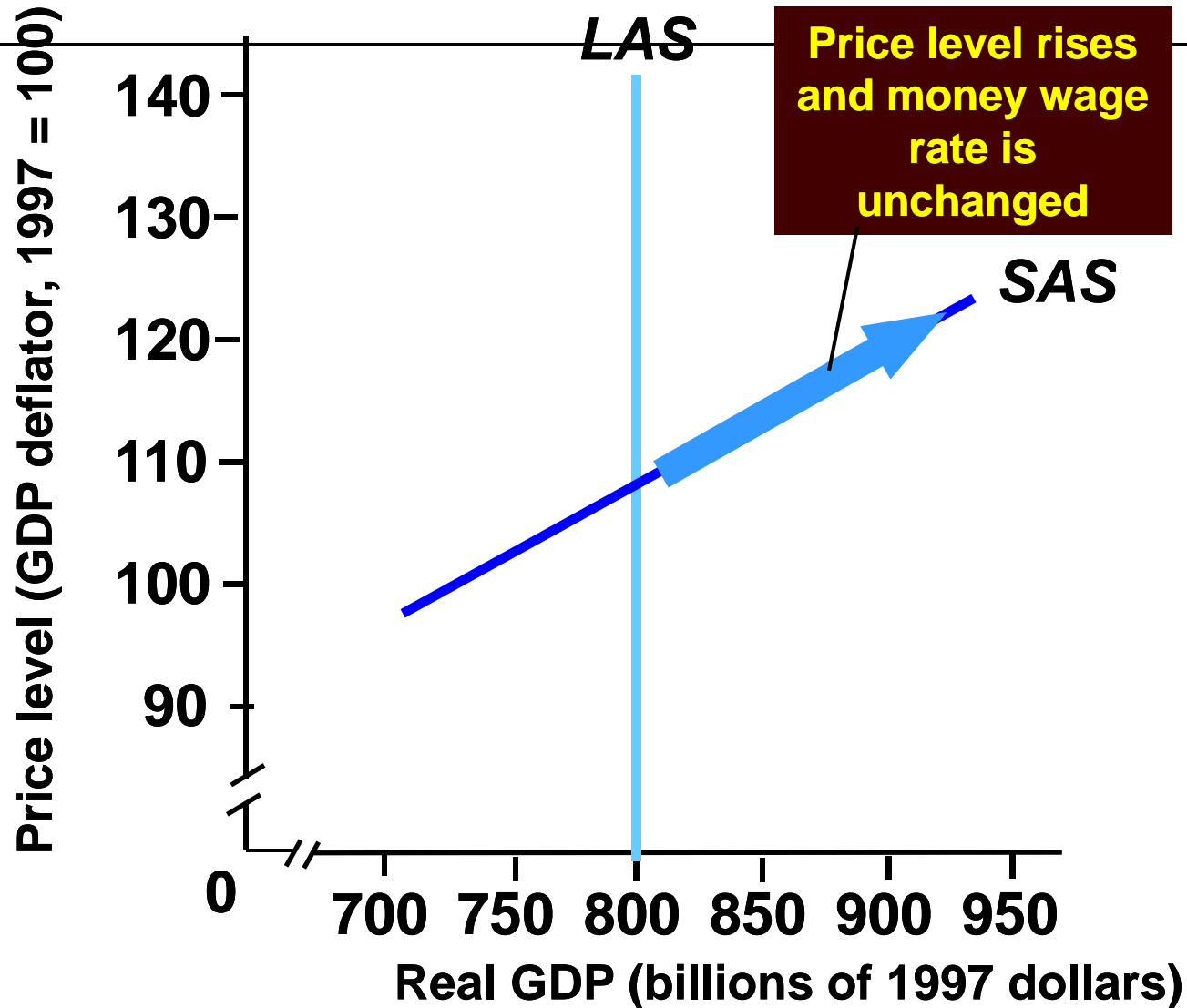
Short-Run Aggregate Supply



Movements Along the Aggregate Supply Curves



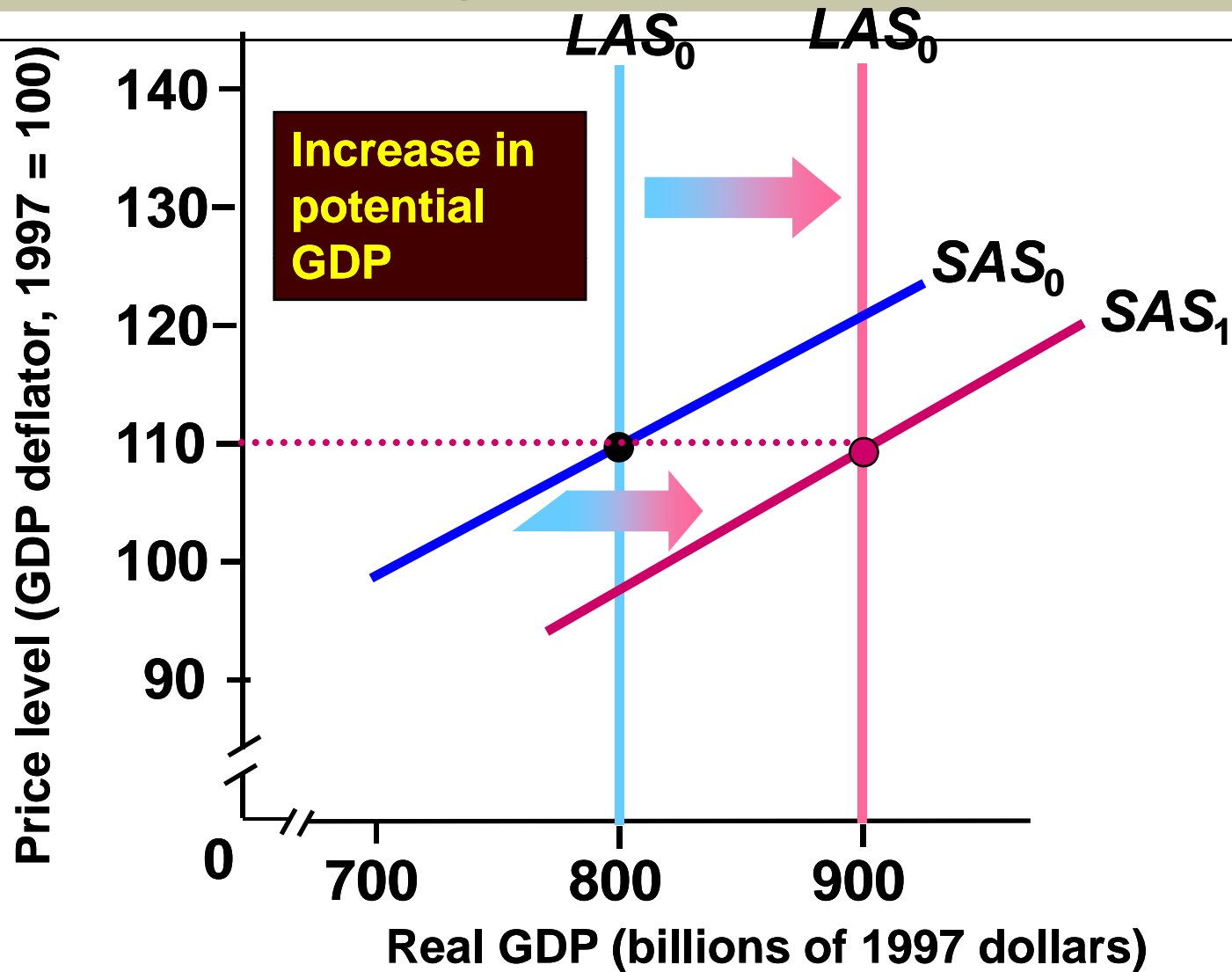
Movements Along the Aggregate Supply Curves



Changes in Short-Run and Long-Run Aggregate Supply

- **Changes in the short-run and the long-run (a change in potential GDP) due to:**
 - Change in “full-employment” quantity of labour
 - Change in quantity of capital
 - Change in technology

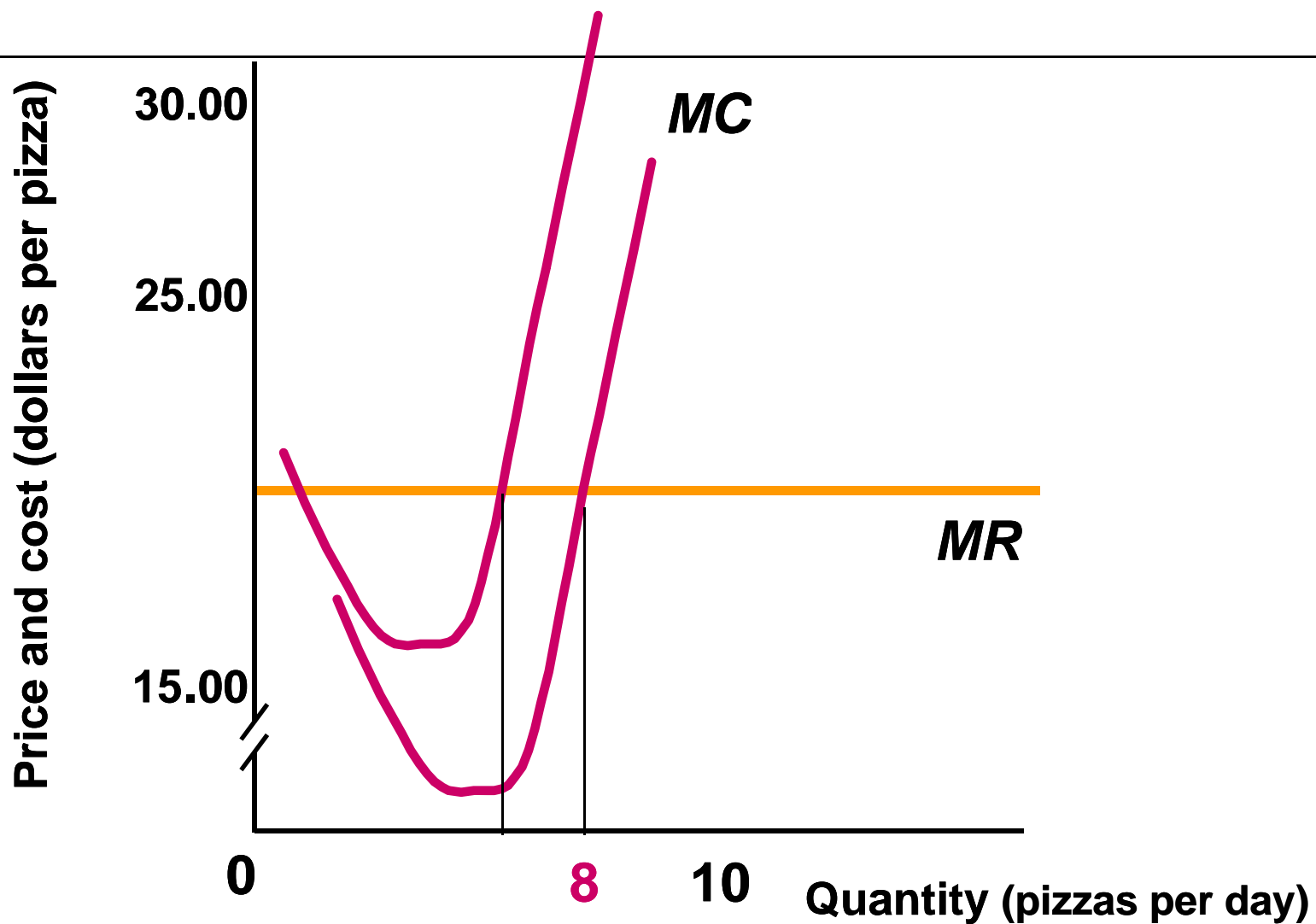
A Change in Potential GDP



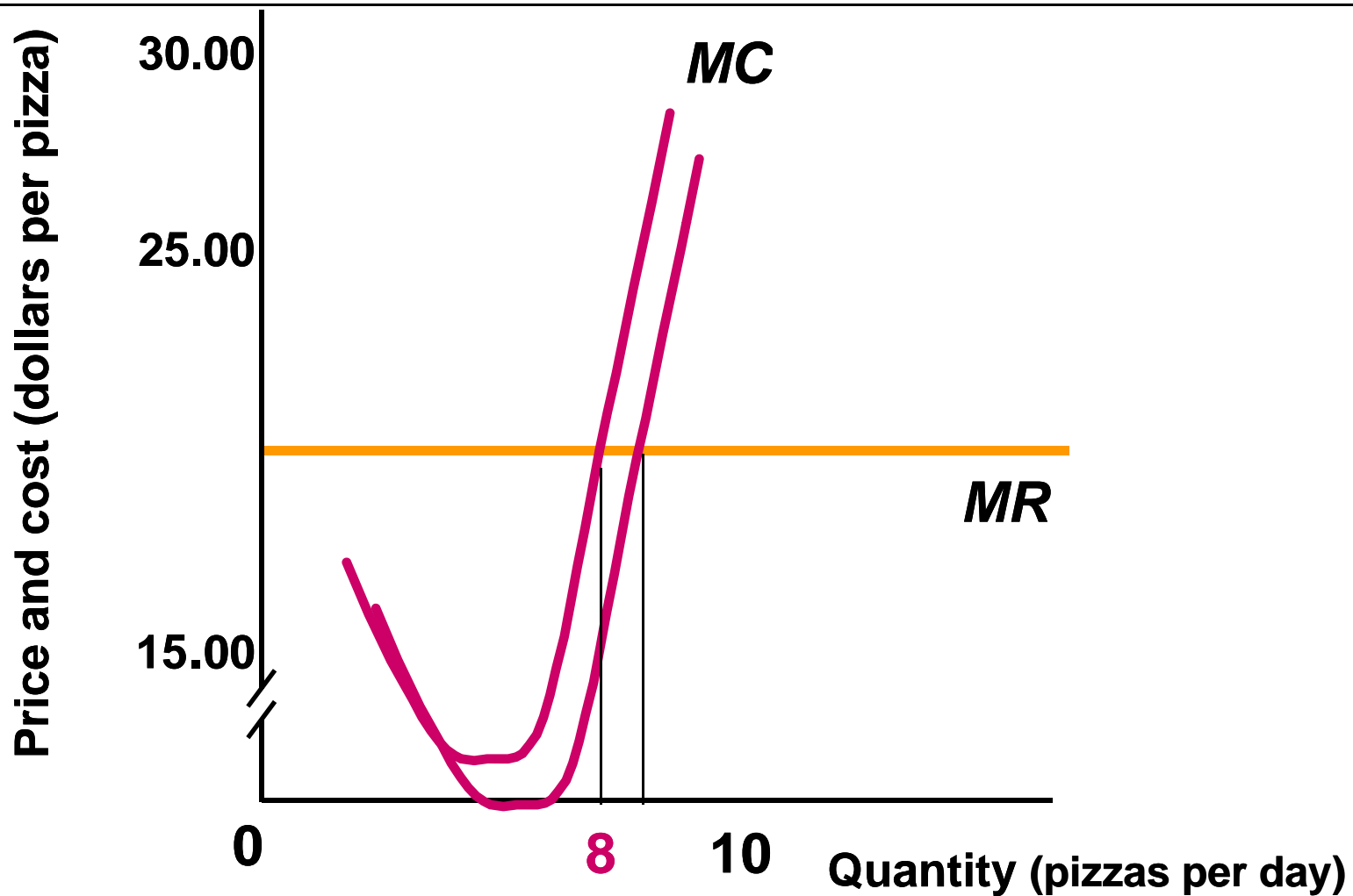
Changes in Short-Run Aggregate Supply

- **Changes in**
 - Money wage rate
 - Other resource prices

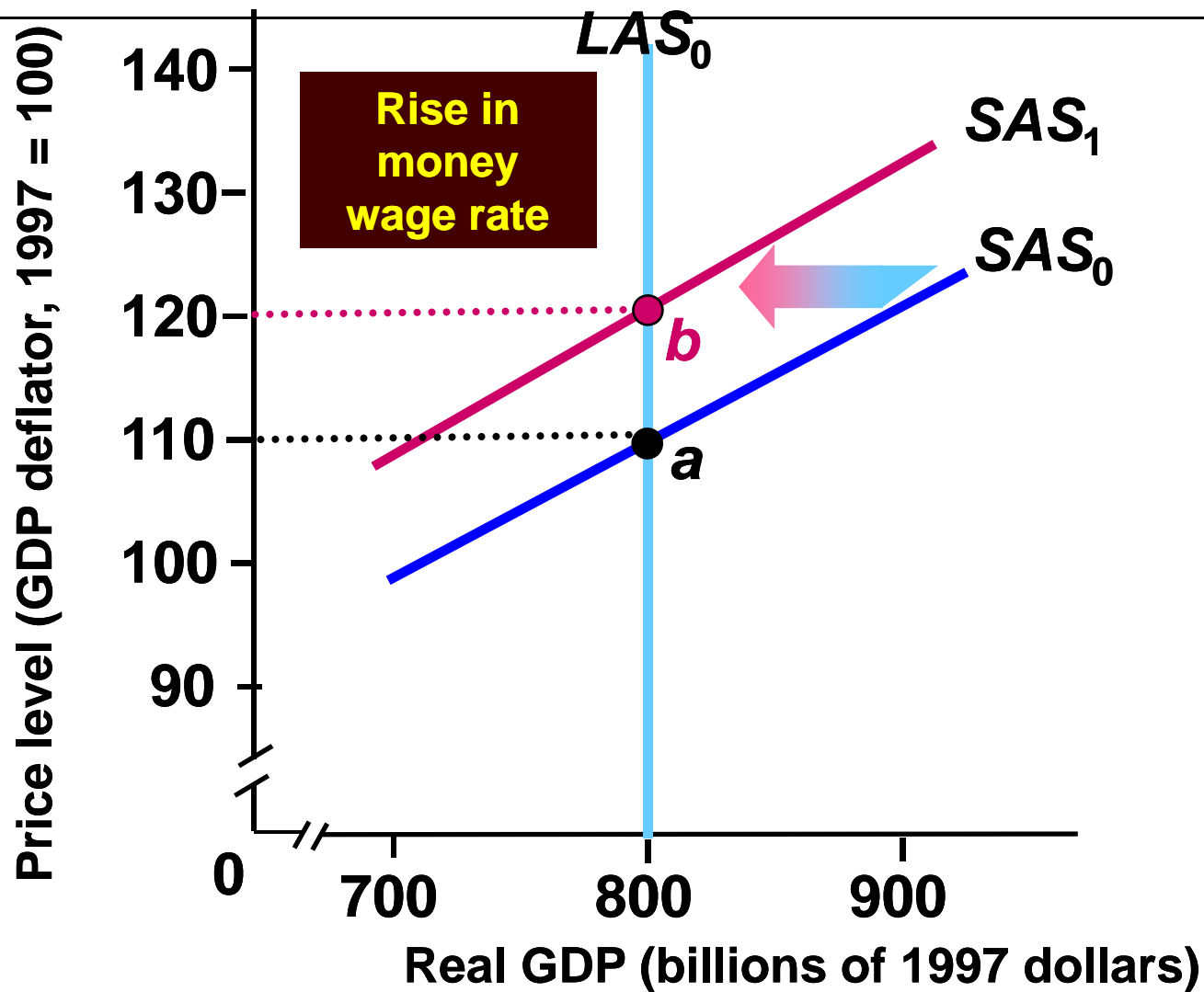
Changes in Short-Run Aggregate Supply



Changes in Short-Run Aggregate Supply



Changes in Short-Run Aggregate Supply



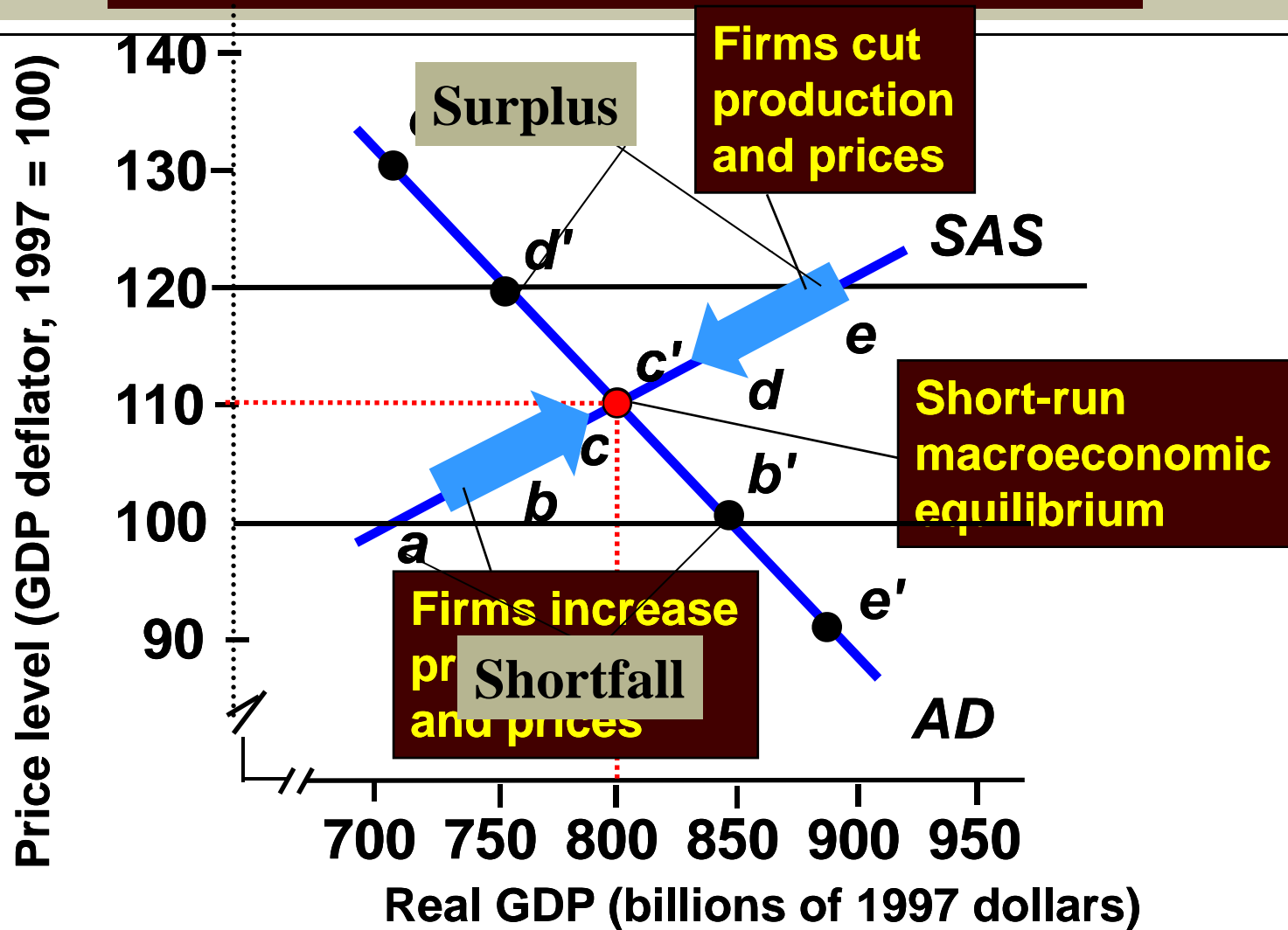
Changes in Aggregate Supply

- **What effect will the following have on SAS and LAS**
 - An increase in the price of crude oil
 - An increase in the number of immigrants to Canada
 - A substantial increase in wage settlements
 - The development of a microchip that reduces computer processing time by 80%
 - A decrease in government spending

Short-Run Macroeconomic Equilibrium

- **The normal state of the economy as it fluctuates around potential GDP**
- **Occurs when the quantity of real GDP demanded = the quantity of real GDP supplied**

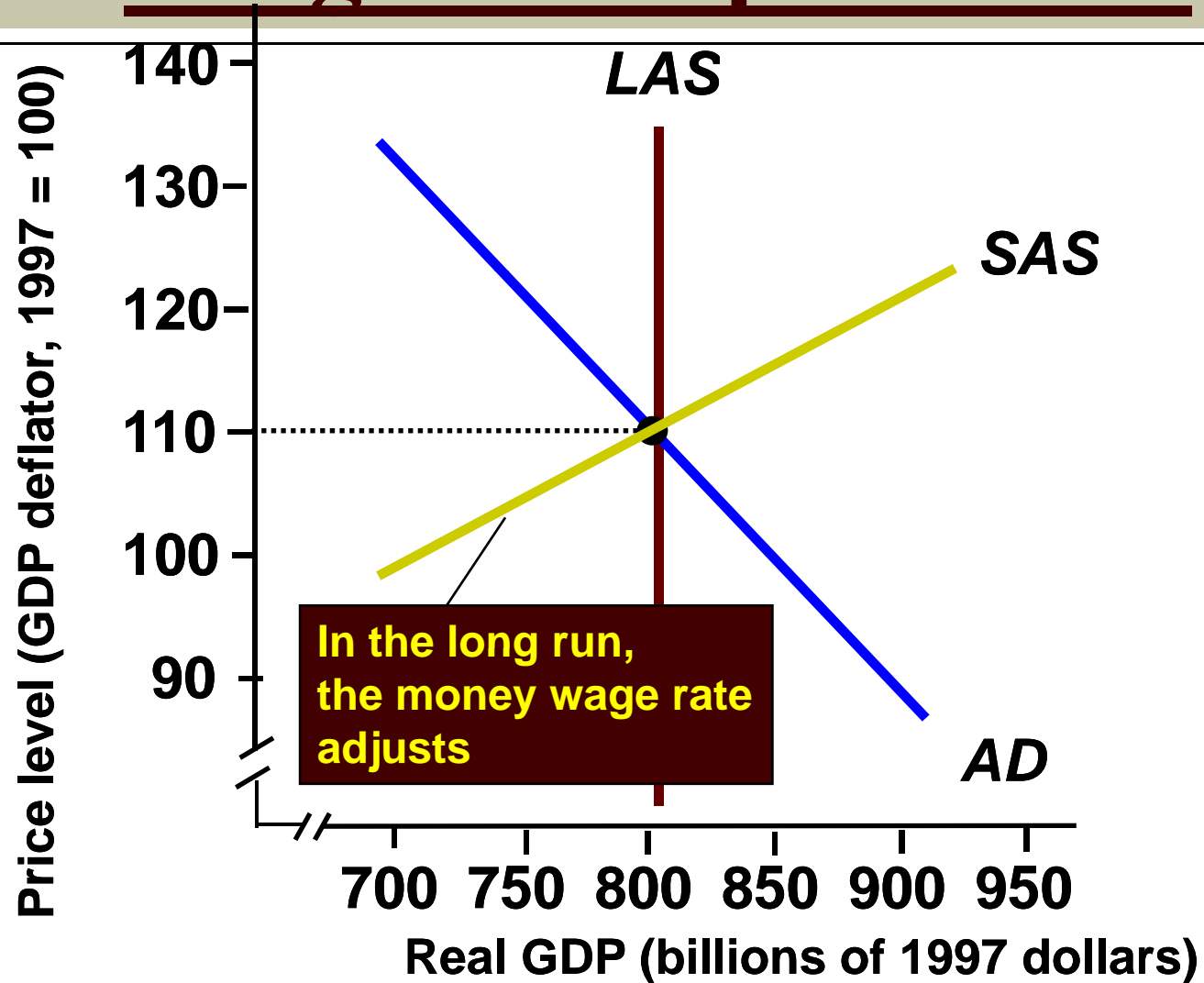
Short-Run Equilibrium



Long – Run Macroeconomic Equilibrium

- **The state towards which the economy is heading**
- **Occurs when real GDP = potential GDP**

Long-Run Equilibrium



Economic Growth and Inflation

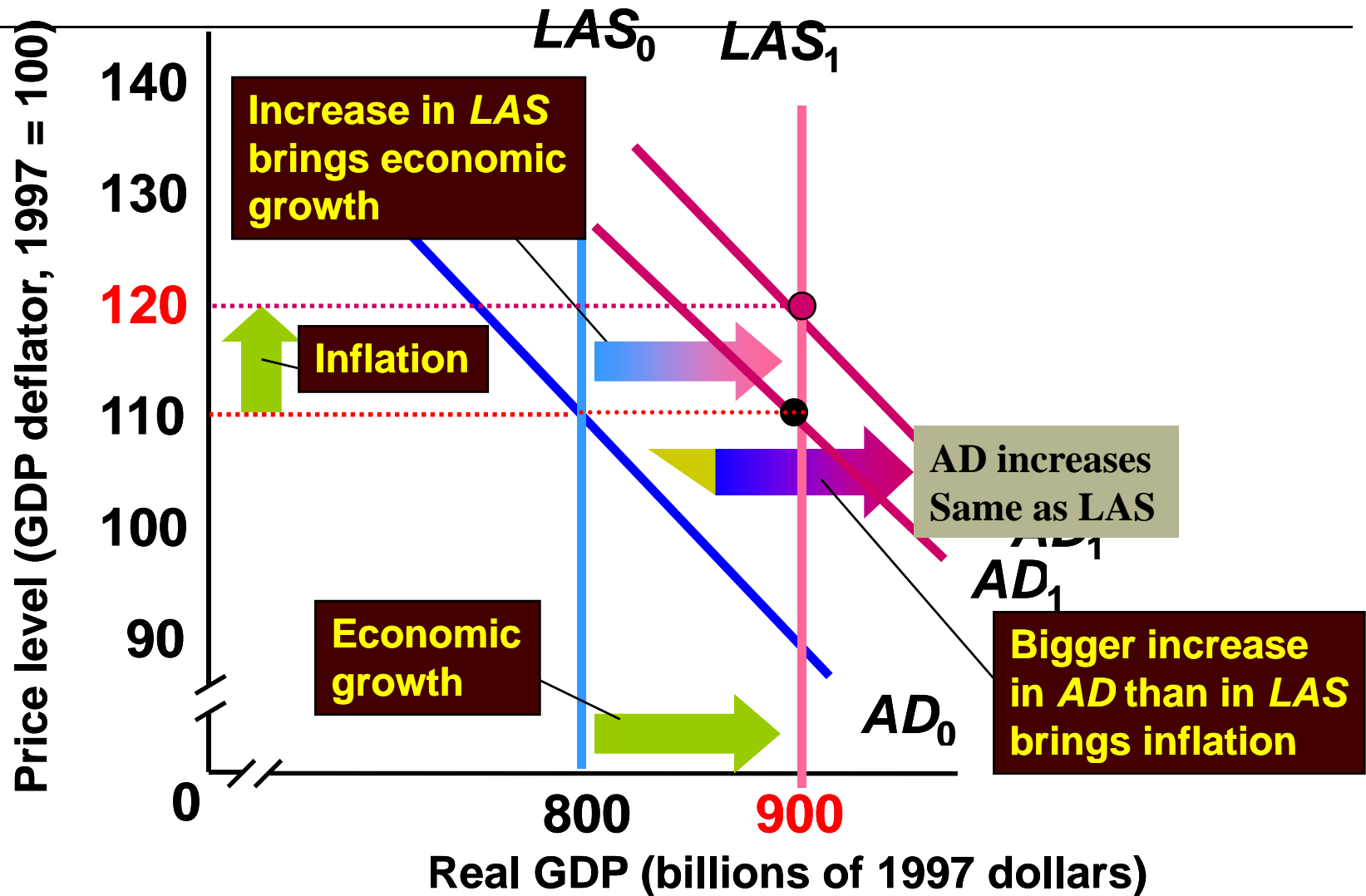
➤ **Economic growth**

- Labour and capital increase, technology advances
- Potential GDP increases, LAS shifts to right

➤ **Inflation with economic growth**

- Occurs because AD increases more than LAS

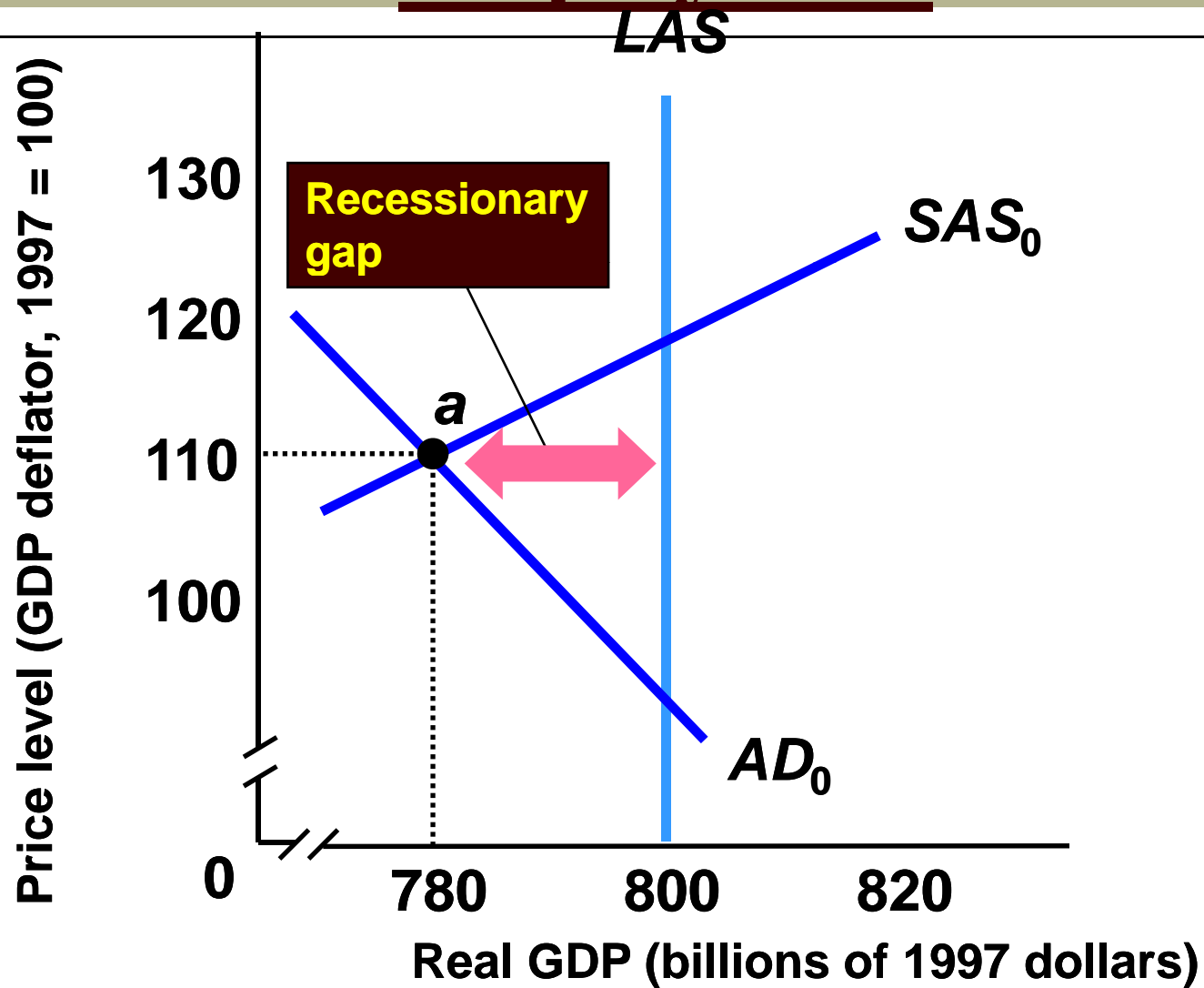
Economic Growth and Inflation



Businesses Cycles

- **Equilibrium is below full employment**
 - Real GDP < potential GDP
 - Recessionary gap

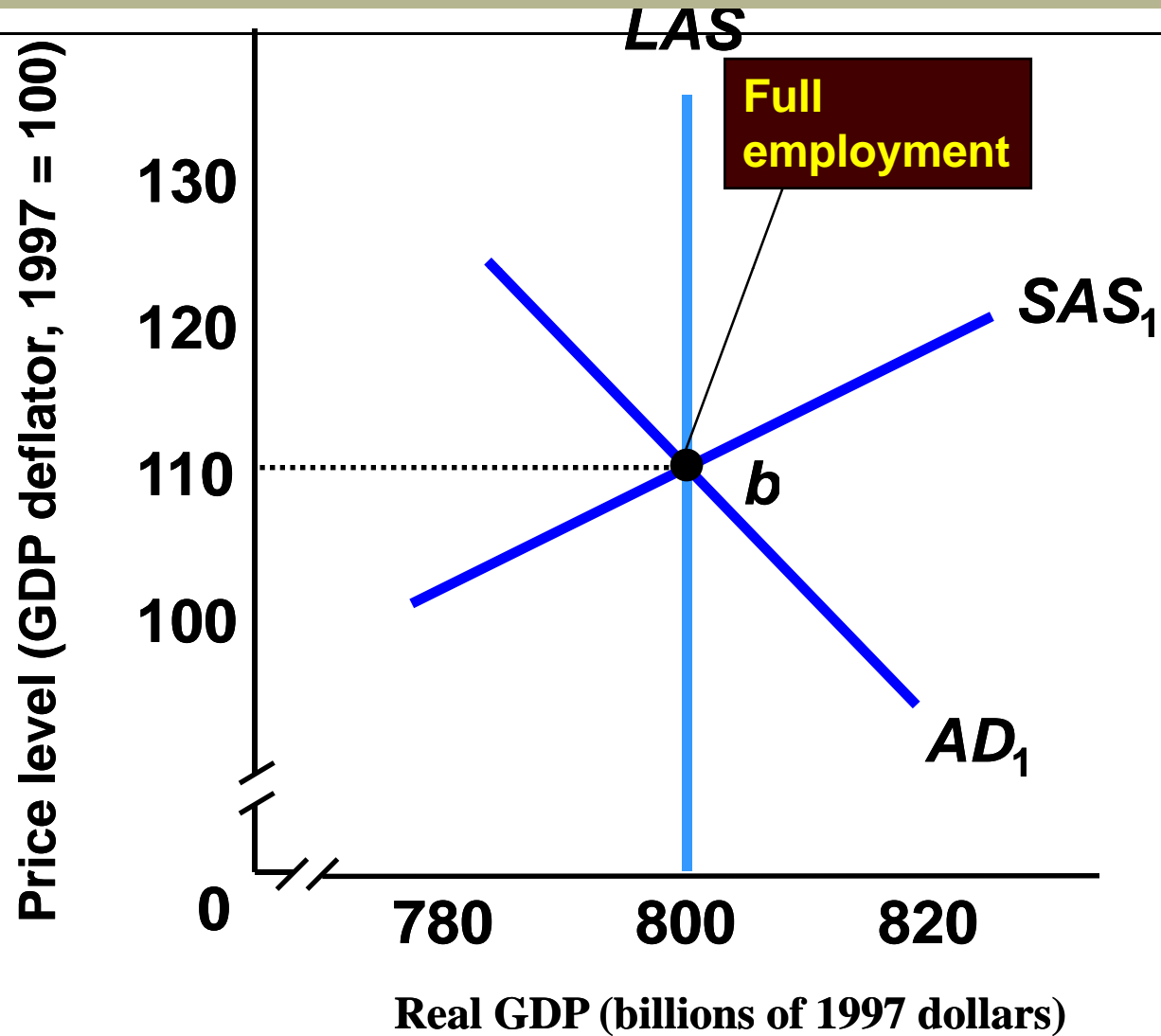
Equilibrium Below Full- Employment



Businesses Cycles

- **Equilibrium is at full employment**
 - Real GDP = potential GDP

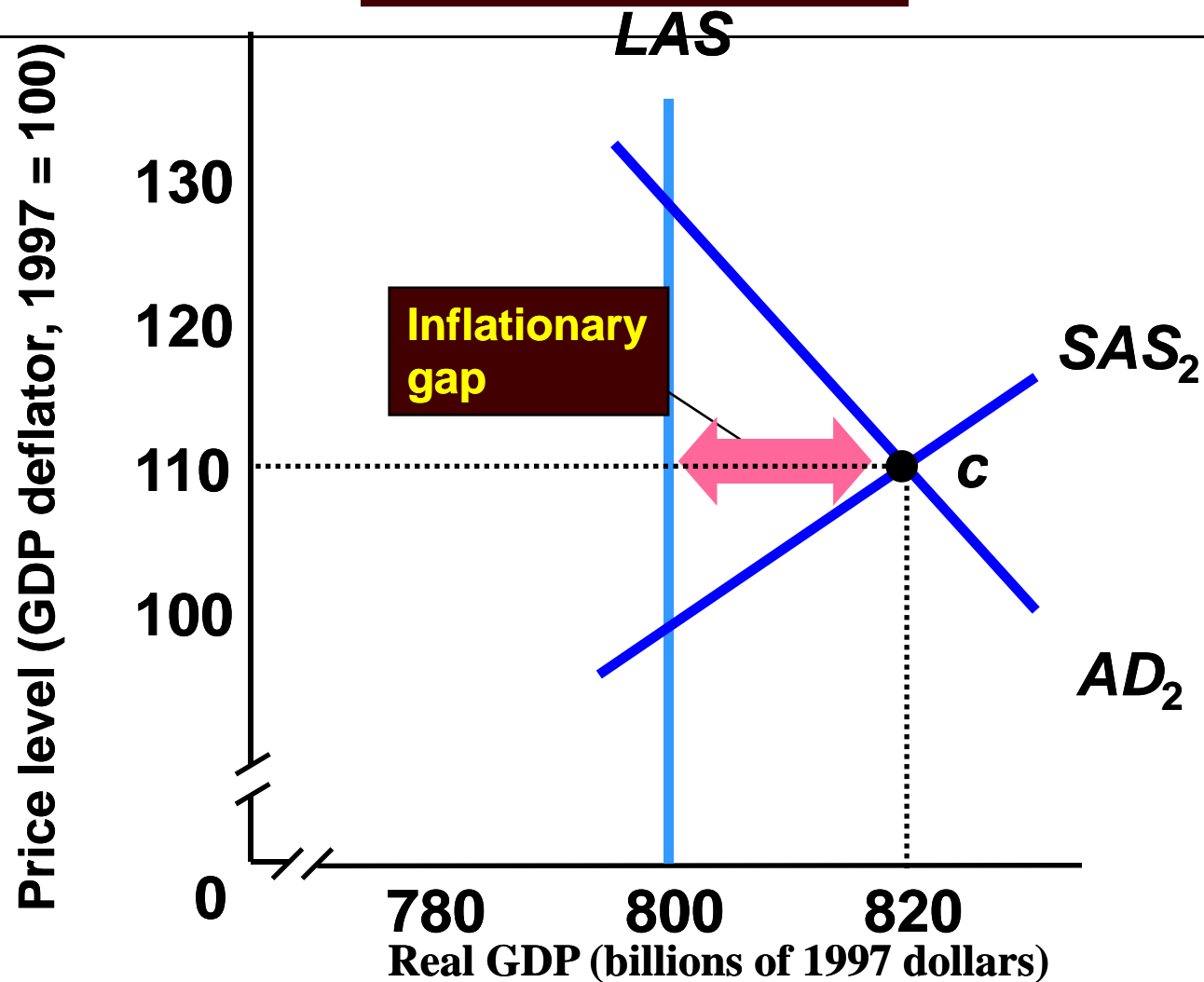
Long-Run Equilibrium



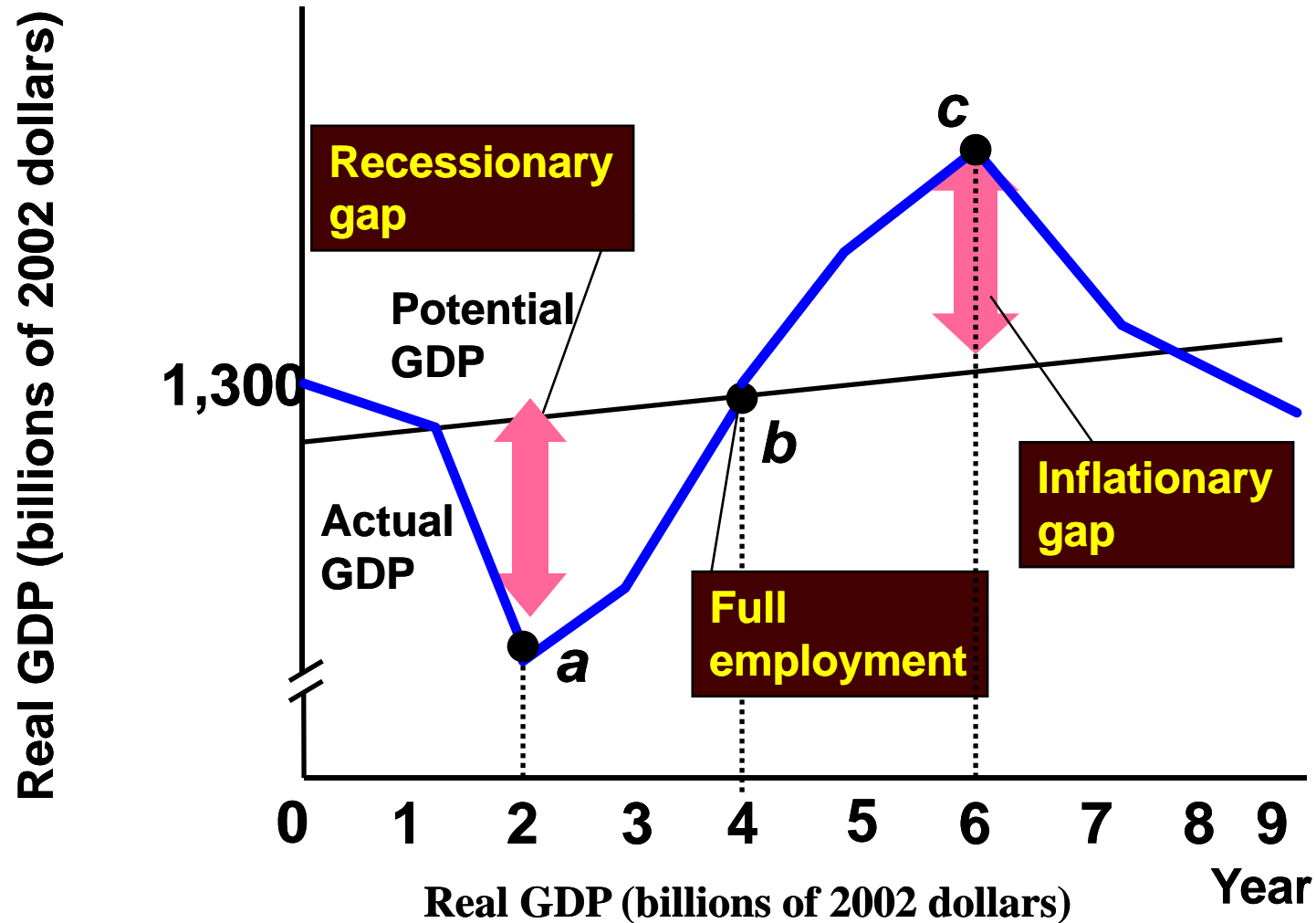
Businesses Cycles

- **Equilibrium is above full employment**
 - Real GDP > potential GDP
 - Inflationary gap

Equilibrium Above Full- Employment



Fluctuations in Real GDP



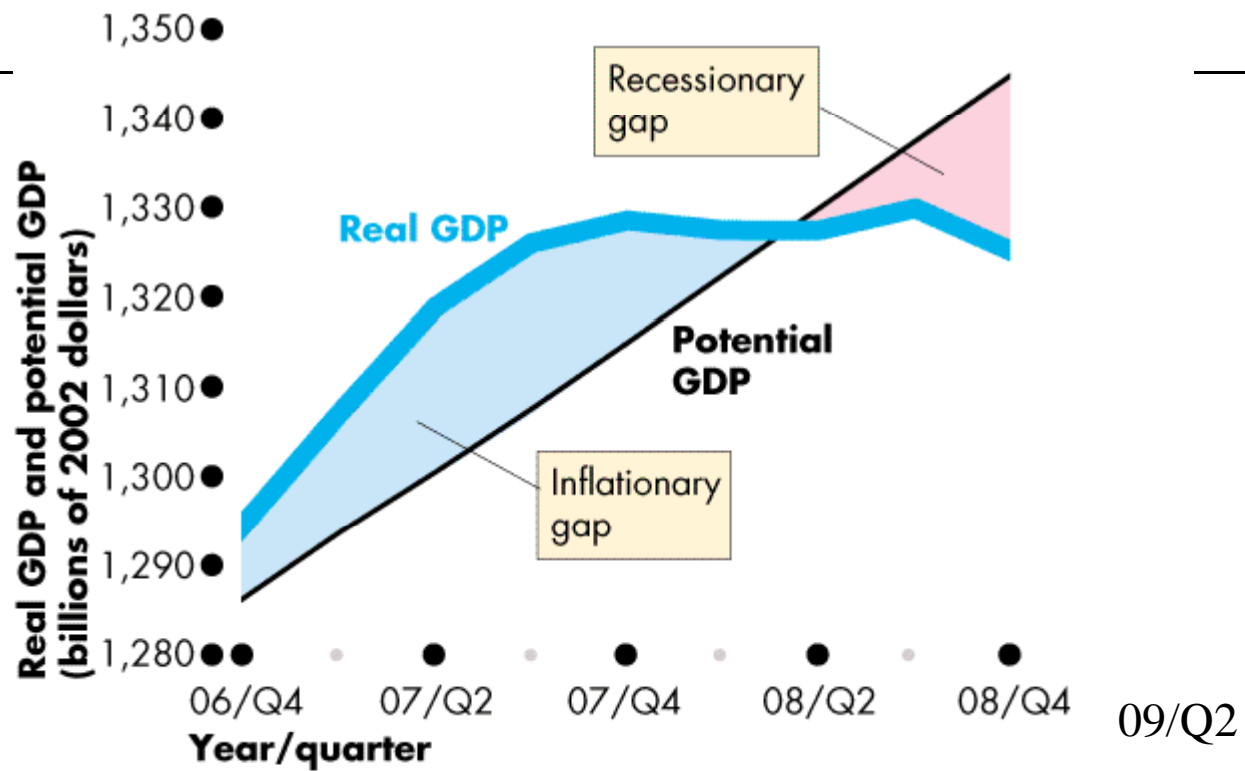
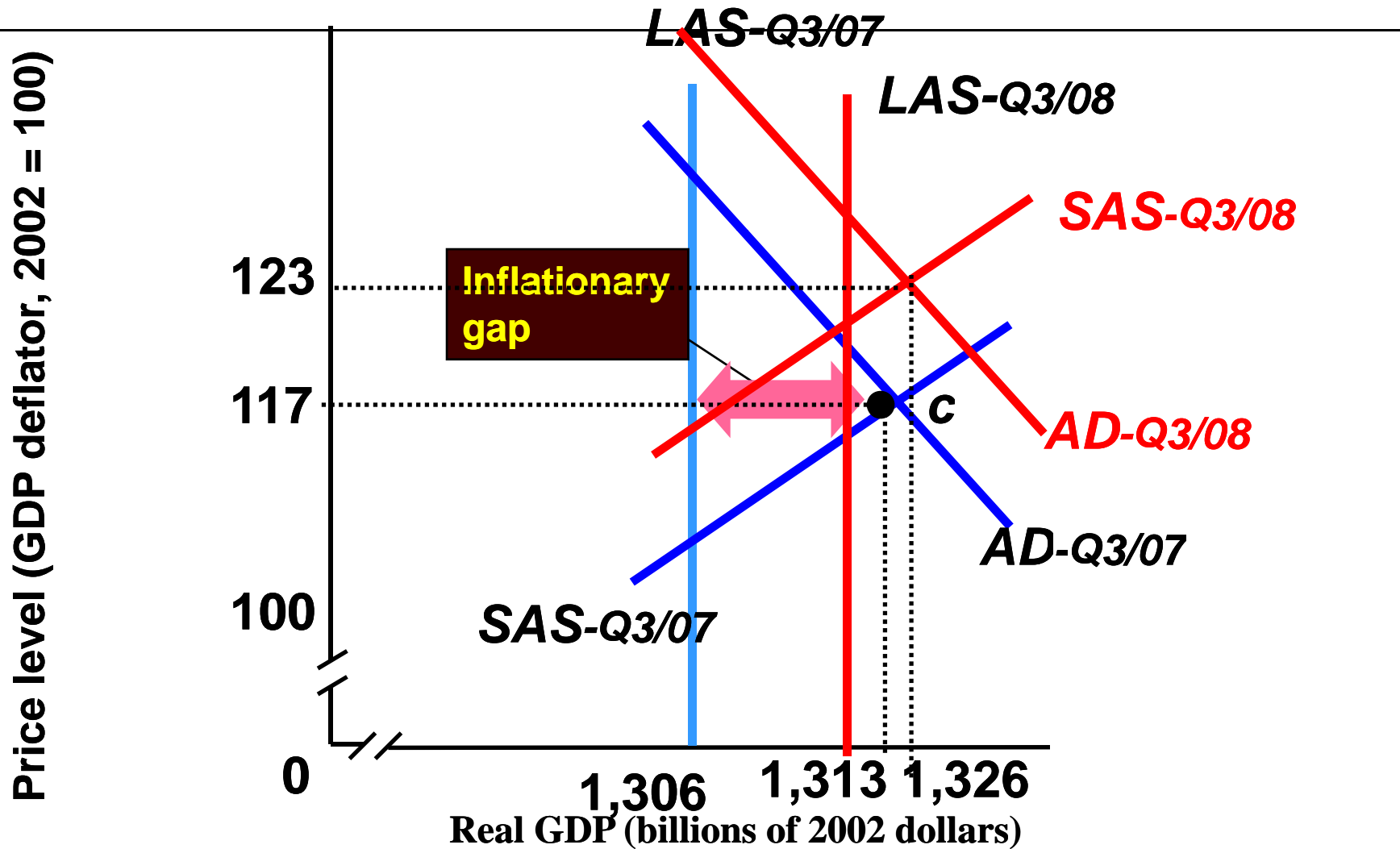
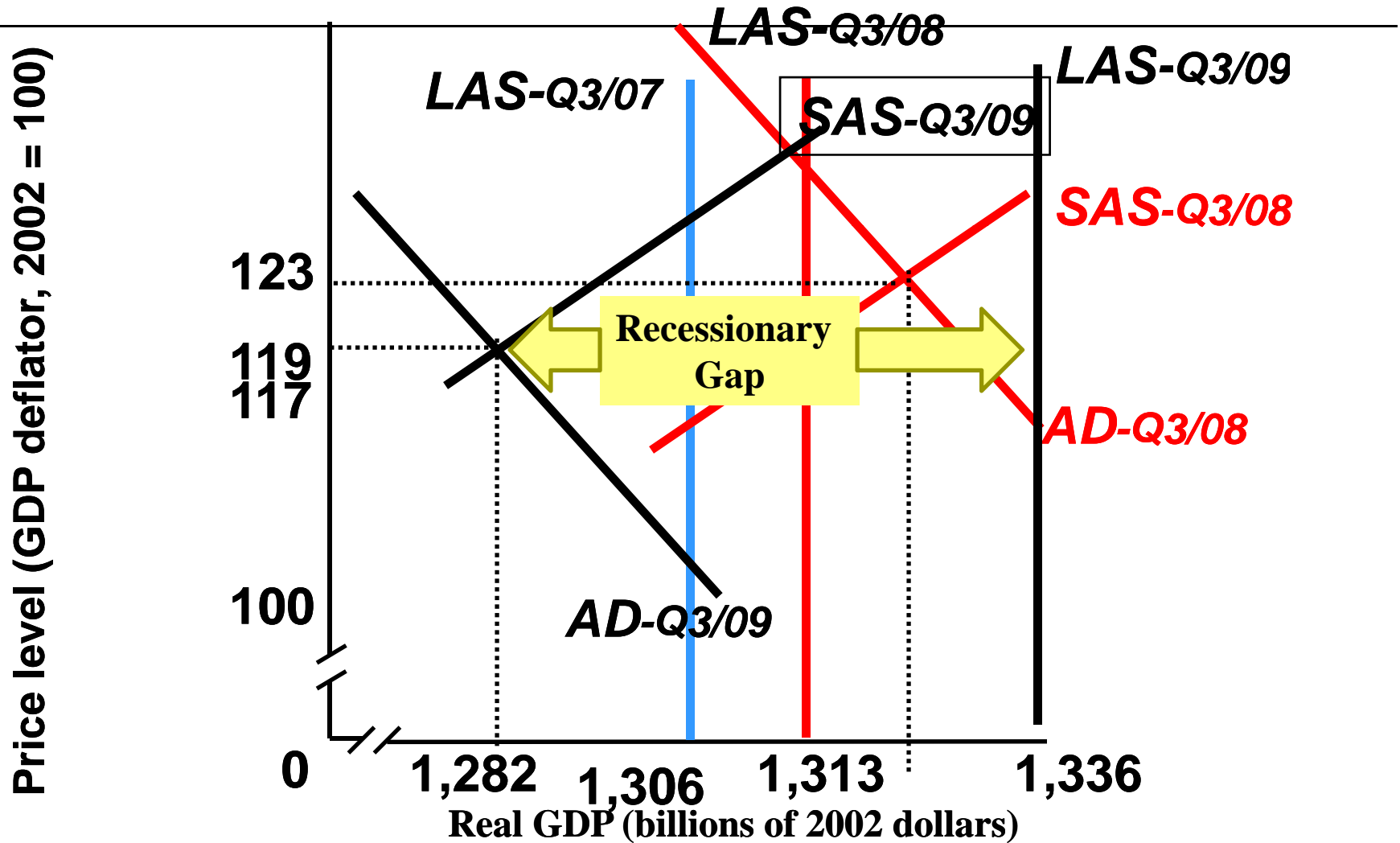


Figure 1 Actual and potential real GDP

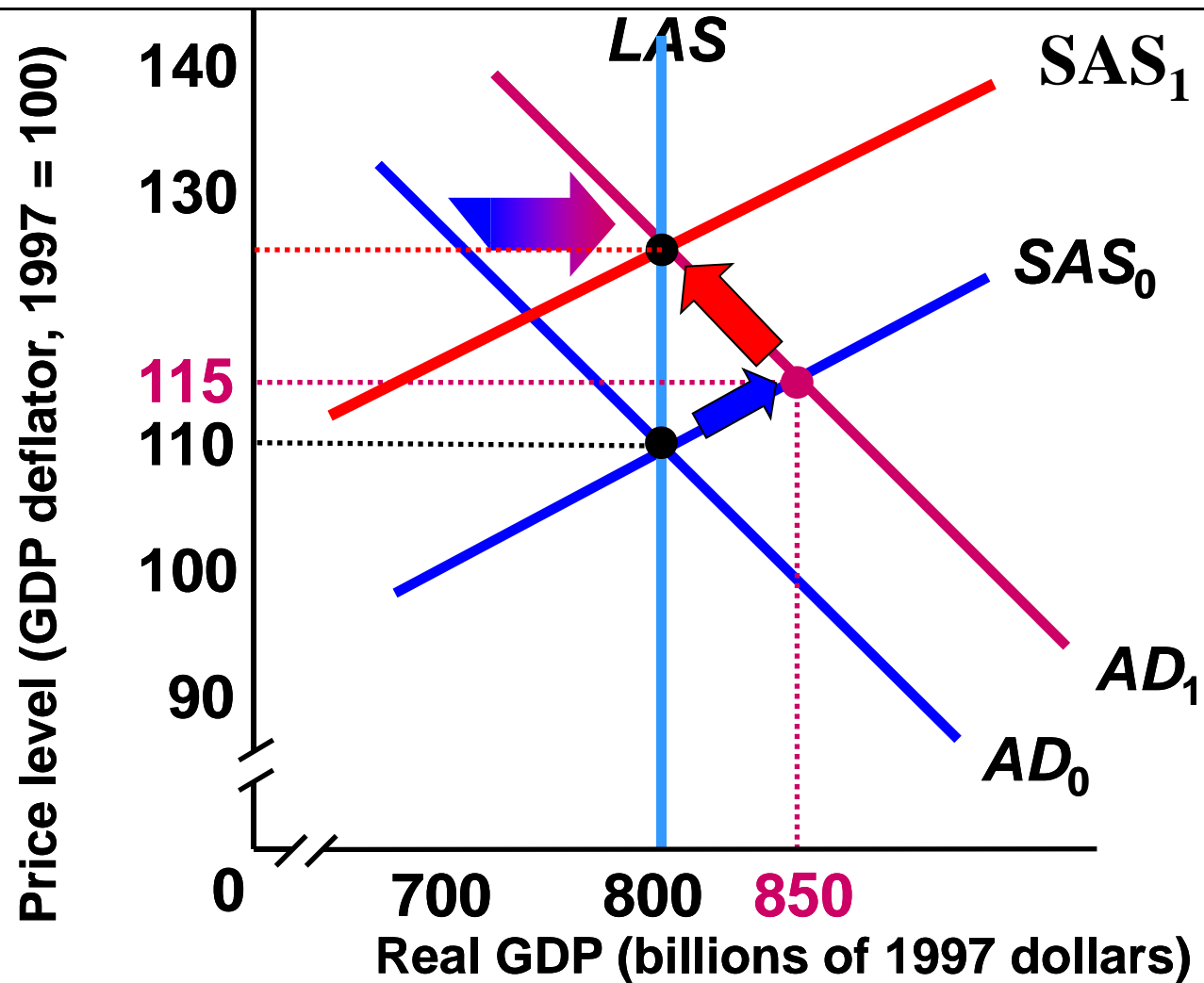
Fluctuations in Real GDP 2007-2008



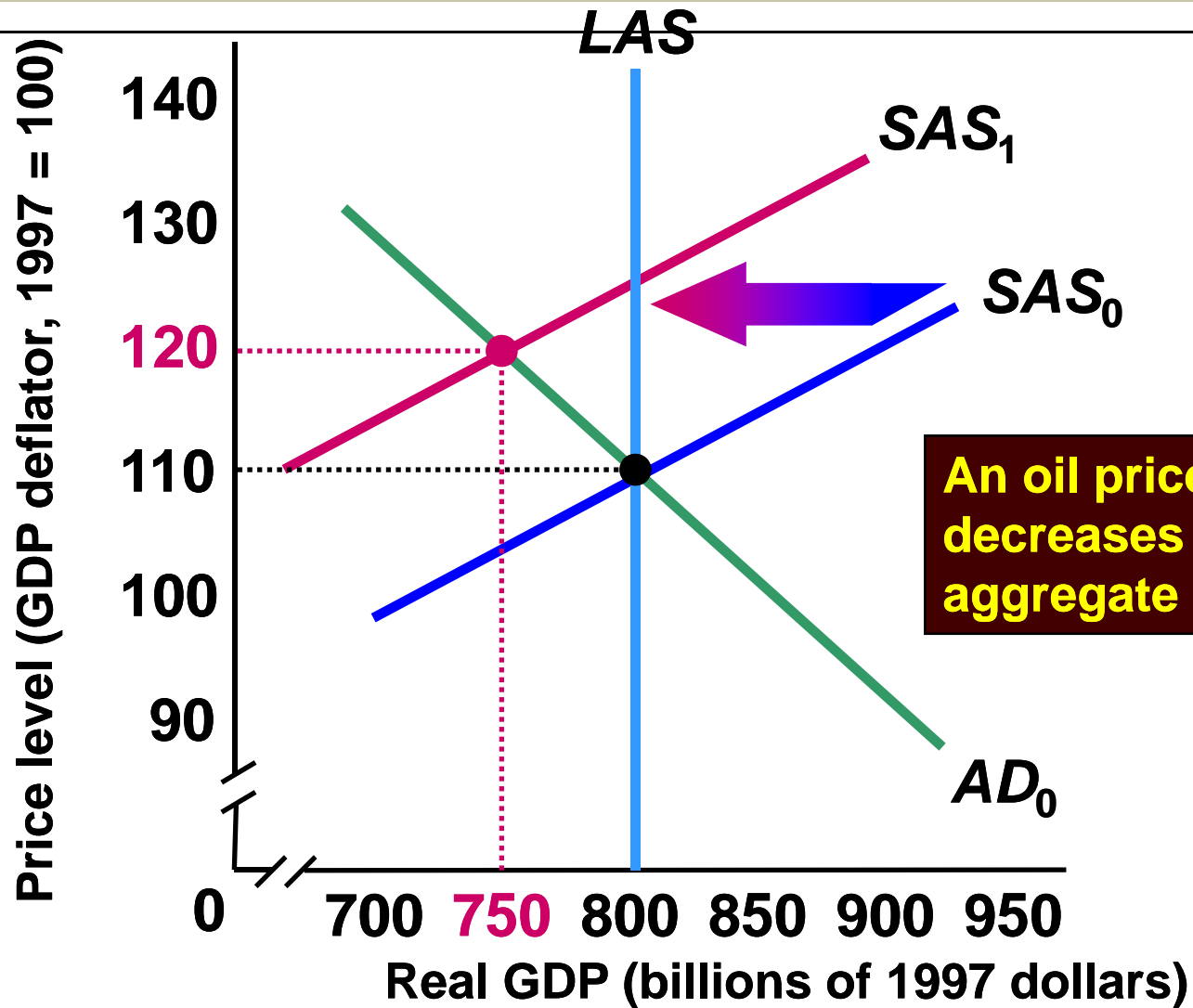
Fluctuations in Real GDP 2008-2009



An Increase in Aggregate Demand:



A Decrease in Aggregate Supply



Aggregate Supply and Aggregate Demand: 1971–1998

