

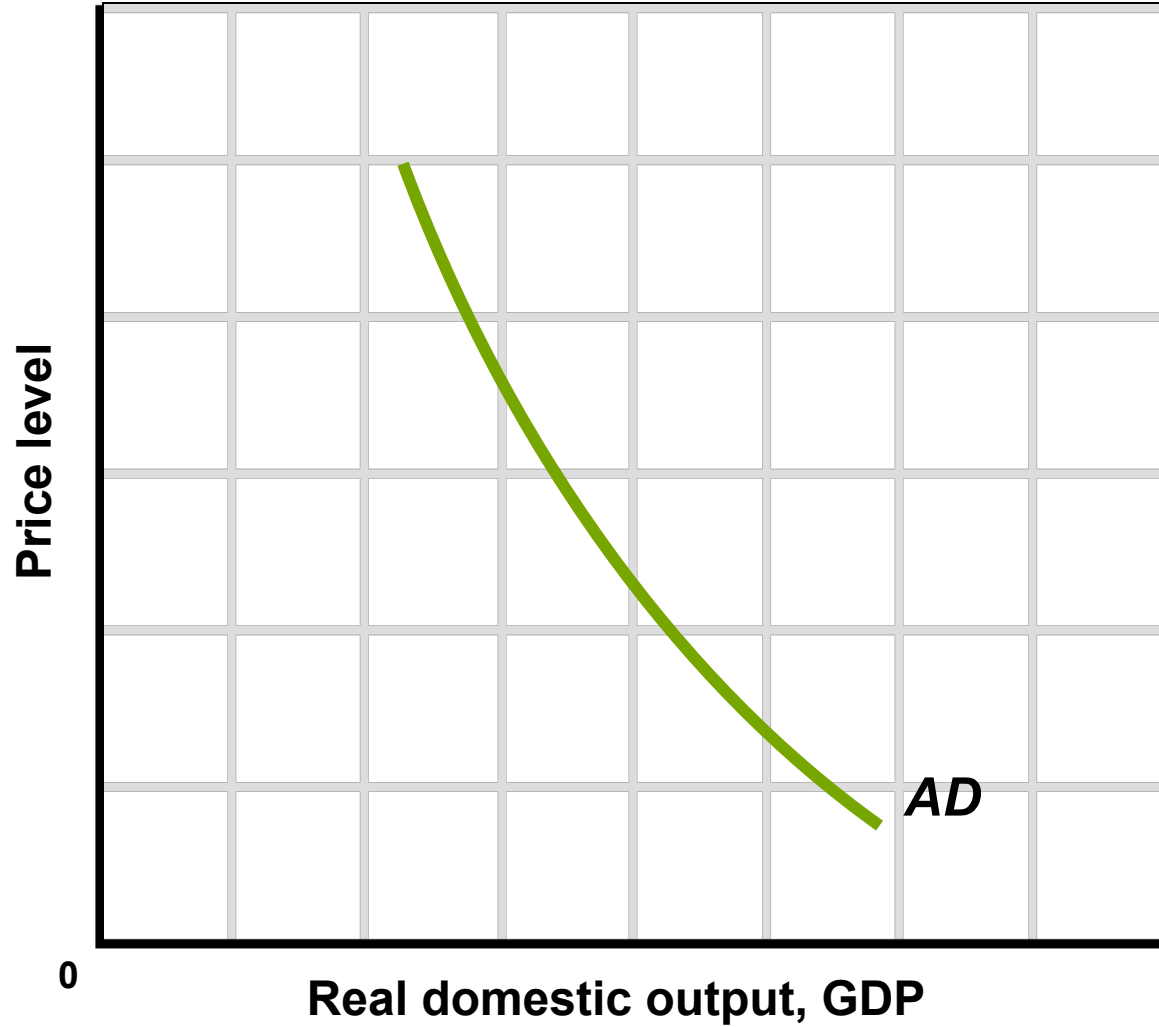
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Aggregate Demand and Aggregate Supply

Aggregate Demand

- Real GDP desired at each price level
- Inverse relationship
 - Real balances effect
 - Interest effect
 - Foreign purchases effect

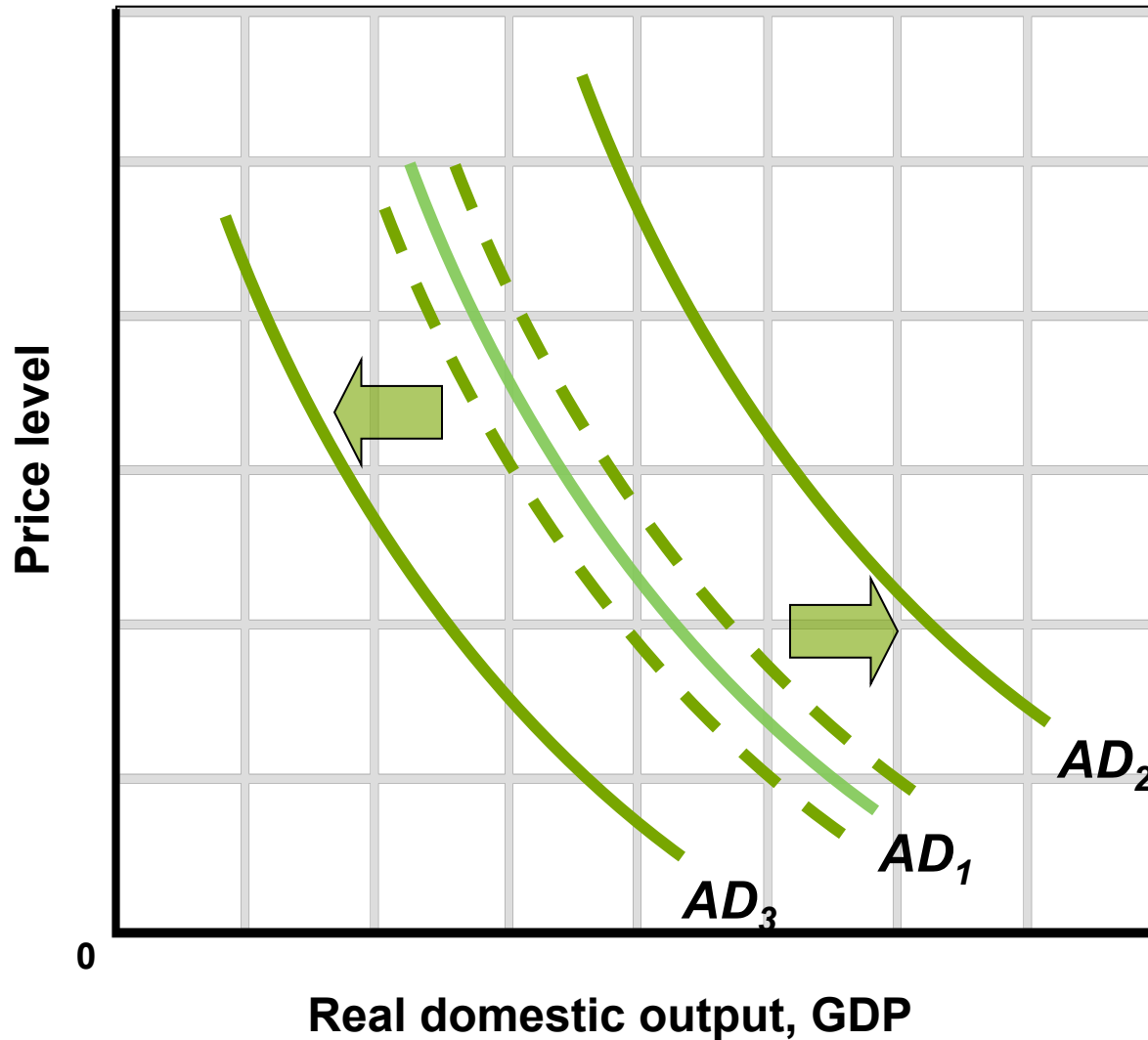
Aggregate Demand



Changes in Aggregate Demand

- Determinants of aggregate demand
 - Shift factors affecting C, I, G, X_n
- 2 components involved
 - Change in one of the determinants
 - Multiplier effect

Changes in Aggregate Demand



Consumer Spending

- Consumer wealth
- Household borrowing
- Consumer expectations
- Personal taxes

Investment Spending

- Real interest rates
- Expected returns
 - Expectations about future business conditions
 - Technology
 - Degree of excess capacity
 - Business taxes

Government Spending

- Government spending increases
 - Aggregate demand increases (as long as interest rates and tax rates do not change)
 - More transportation projects
- Government spending decreases
 - Aggregate demand decreases
 - Less military spending

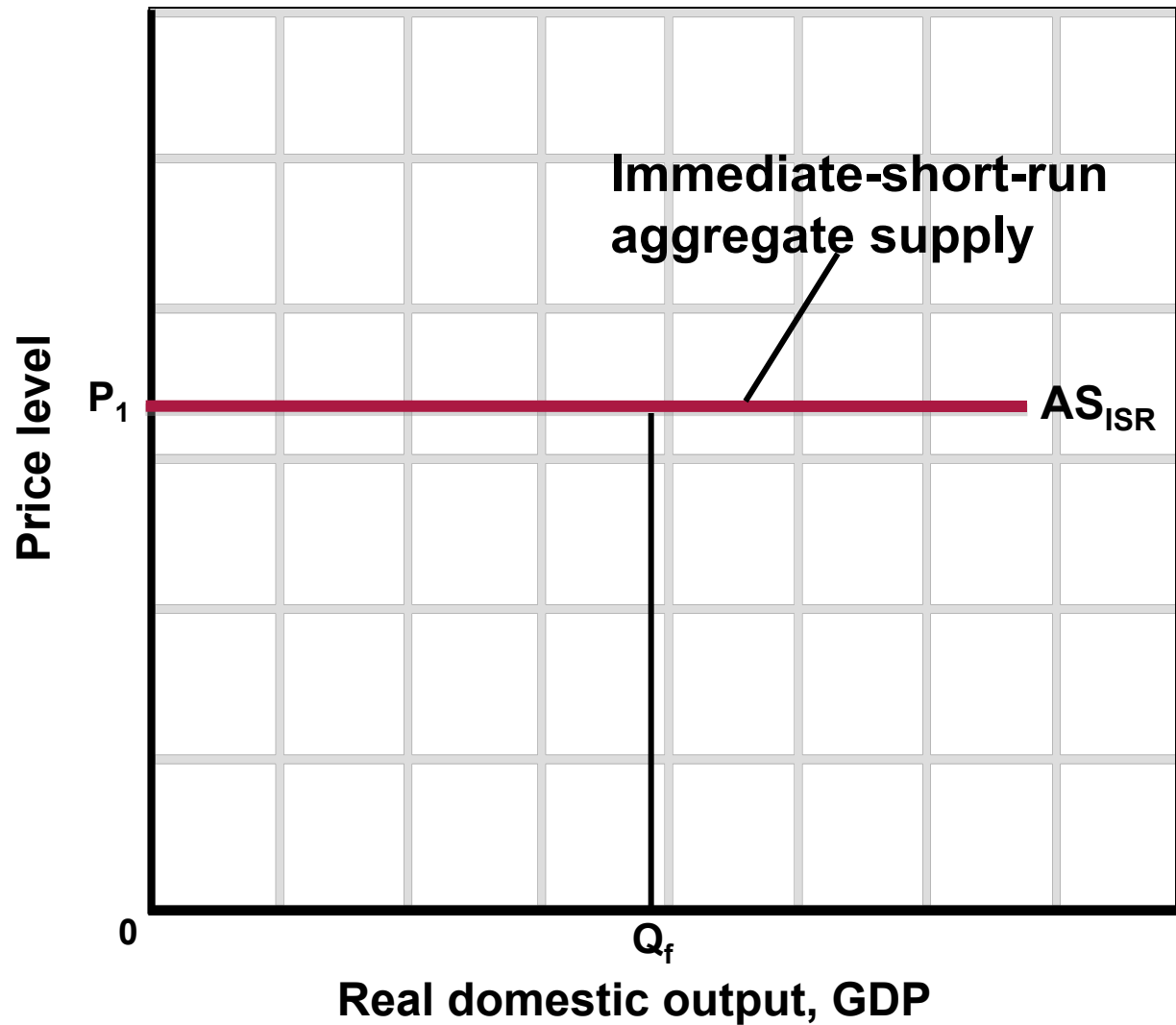
Net Export Spending

- National income abroad
- Exchange rates
 - Dollar depreciation
 - Dollar appreciation

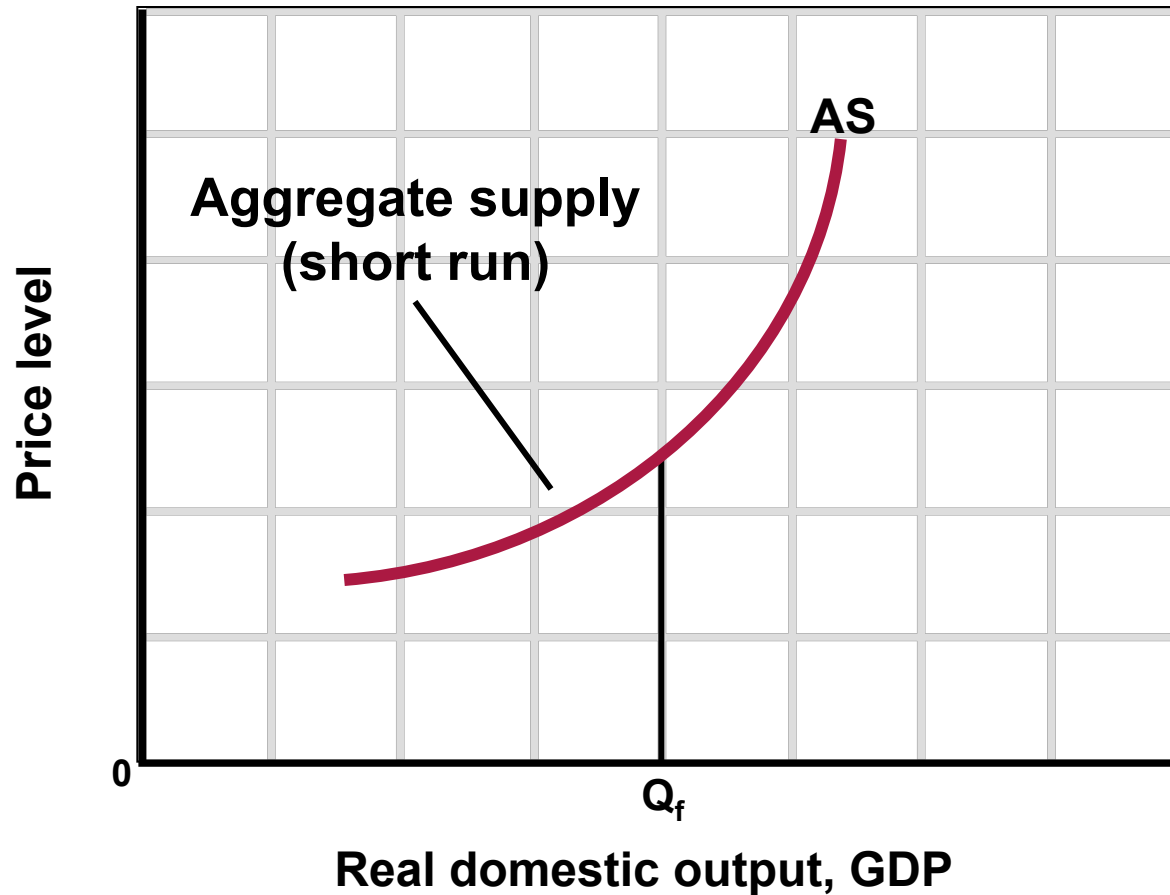
Aggregate Supply

- Total real output produced at each price level
- Relationship depends on time horizon
 - Immediate short run
 - Short run
 - Long run

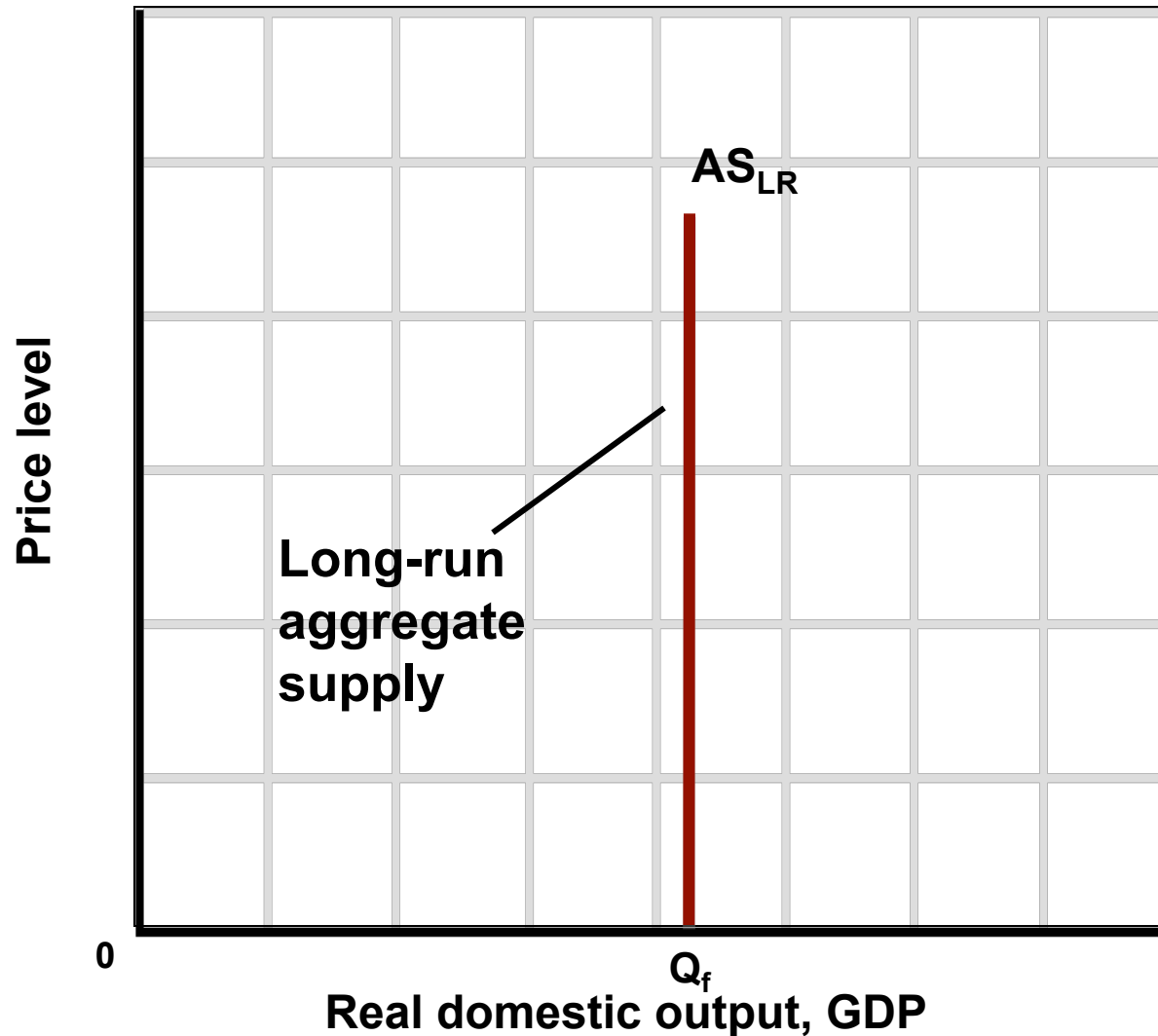
AS: Immediate Short Run



Aggregate Supply: Short Run



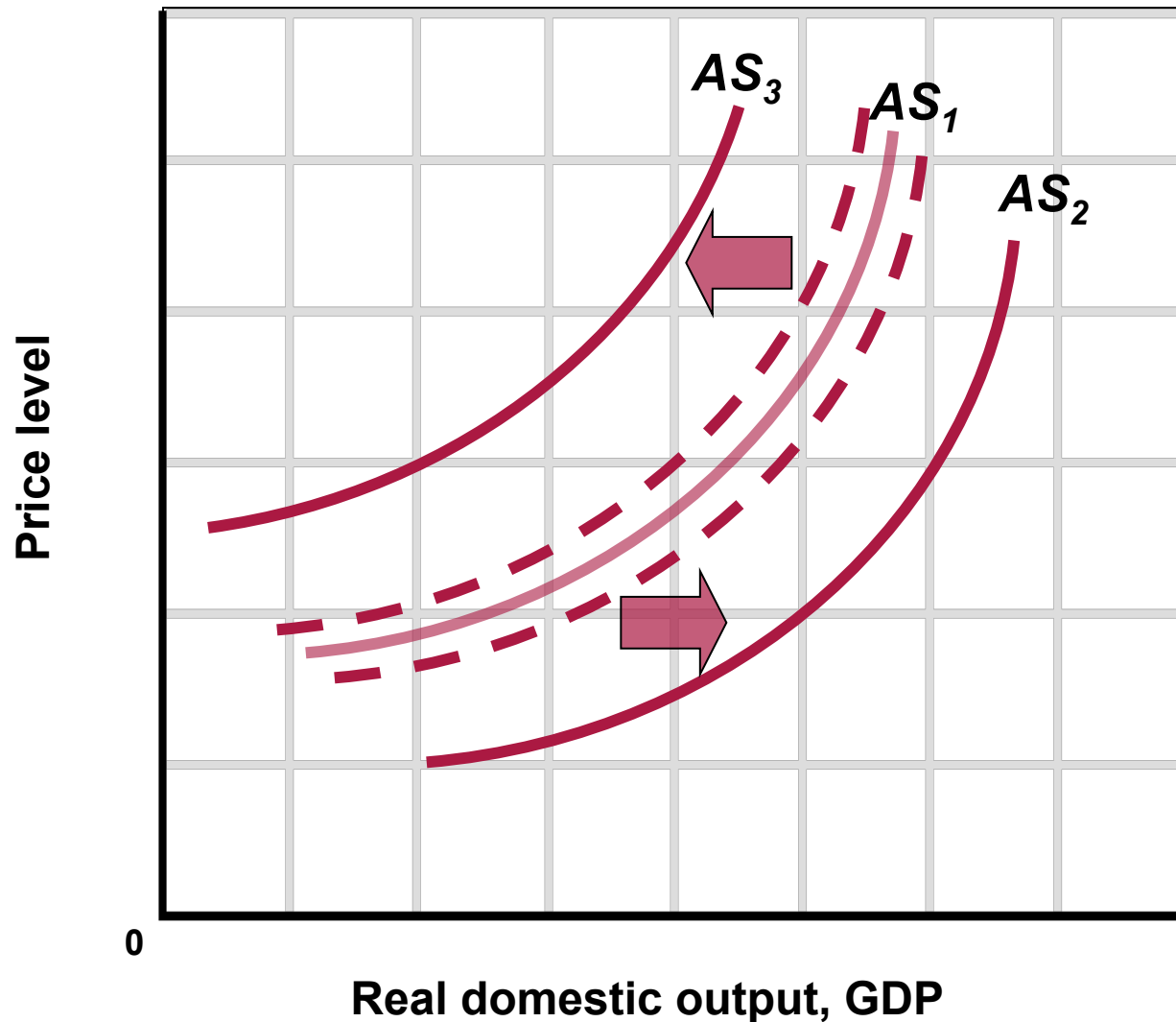
Aggregate Supply: Long Run



Changes in Aggregate Supply

- Determinants of aggregate supply
 - Shift factors
- Collectively position the AS curve
- Changes raise or lower per-unit production costs

Changes in Aggregate Supply



Input Prices

- Domestic resource prices
 - Labor
 - Capital
 - Land
- Prices of imported resources
 - Imported oil
 - Exchange rates

Productivity

- Real output per unit of input
 - Increases in productivity reduce costs
 - Decreases in productivity increase costs

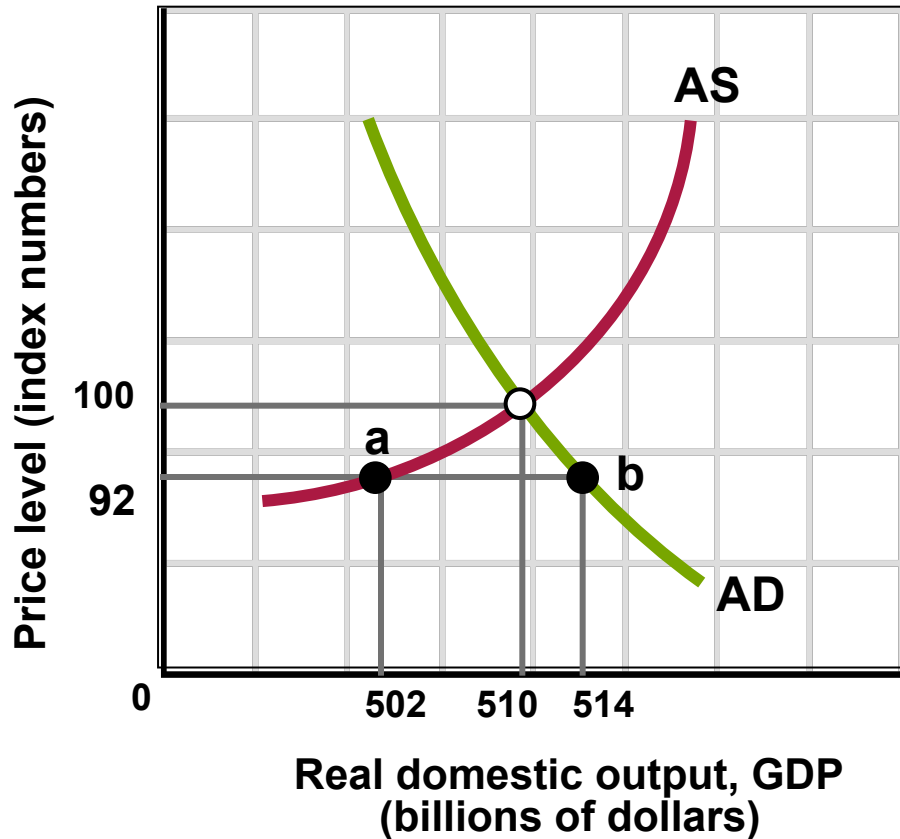
$$\text{Productivity} = \frac{\text{total output}}{\text{total inputs}}$$

$$\text{Per-unit production cost} = \frac{\text{total input cost}}{\text{total output}}$$

Legal-Institutional Environment

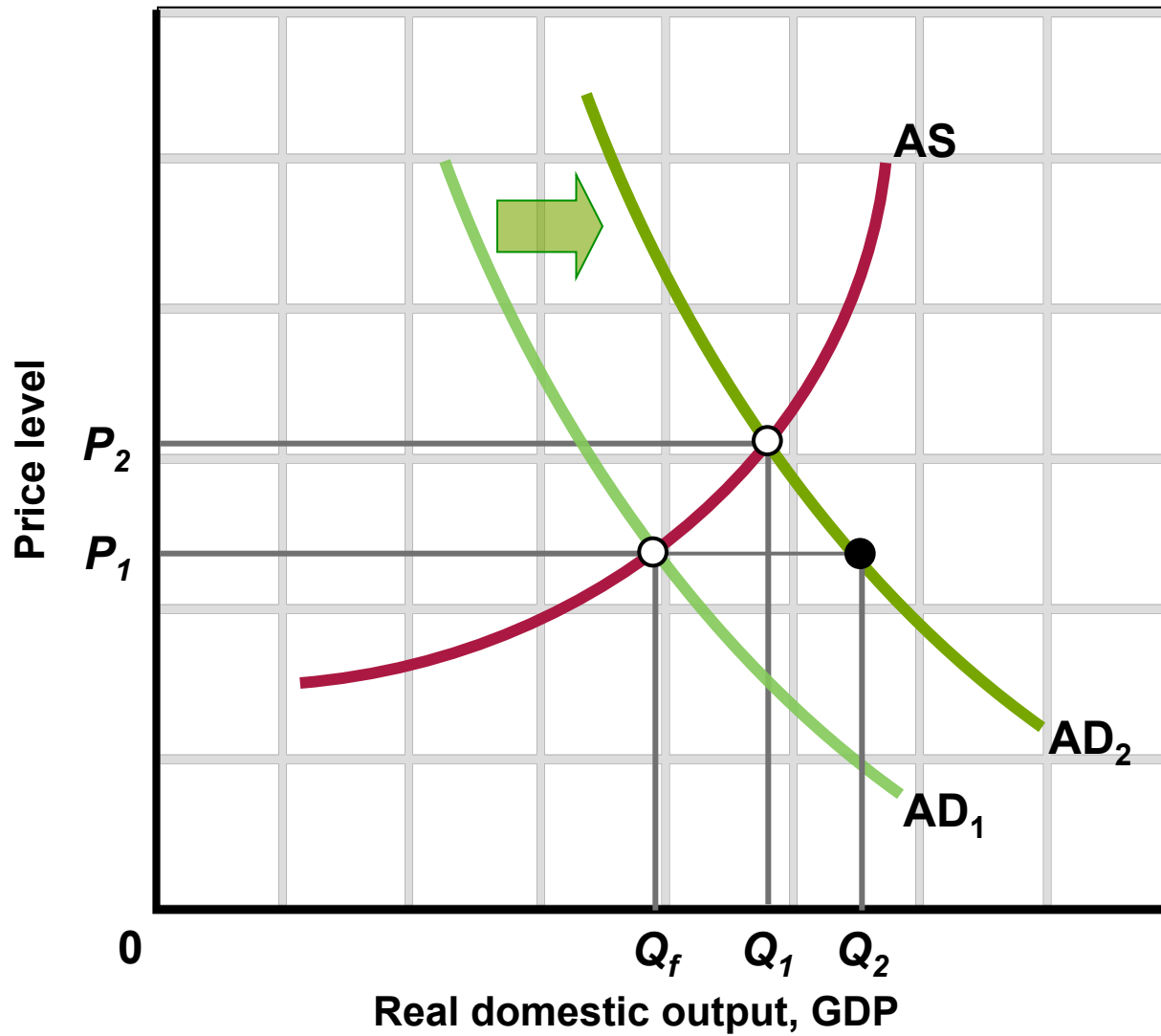
- Legal changes alter per-unit costs of output
 - Taxes and subsidies
 - Extent of government regulation

Equilibrium

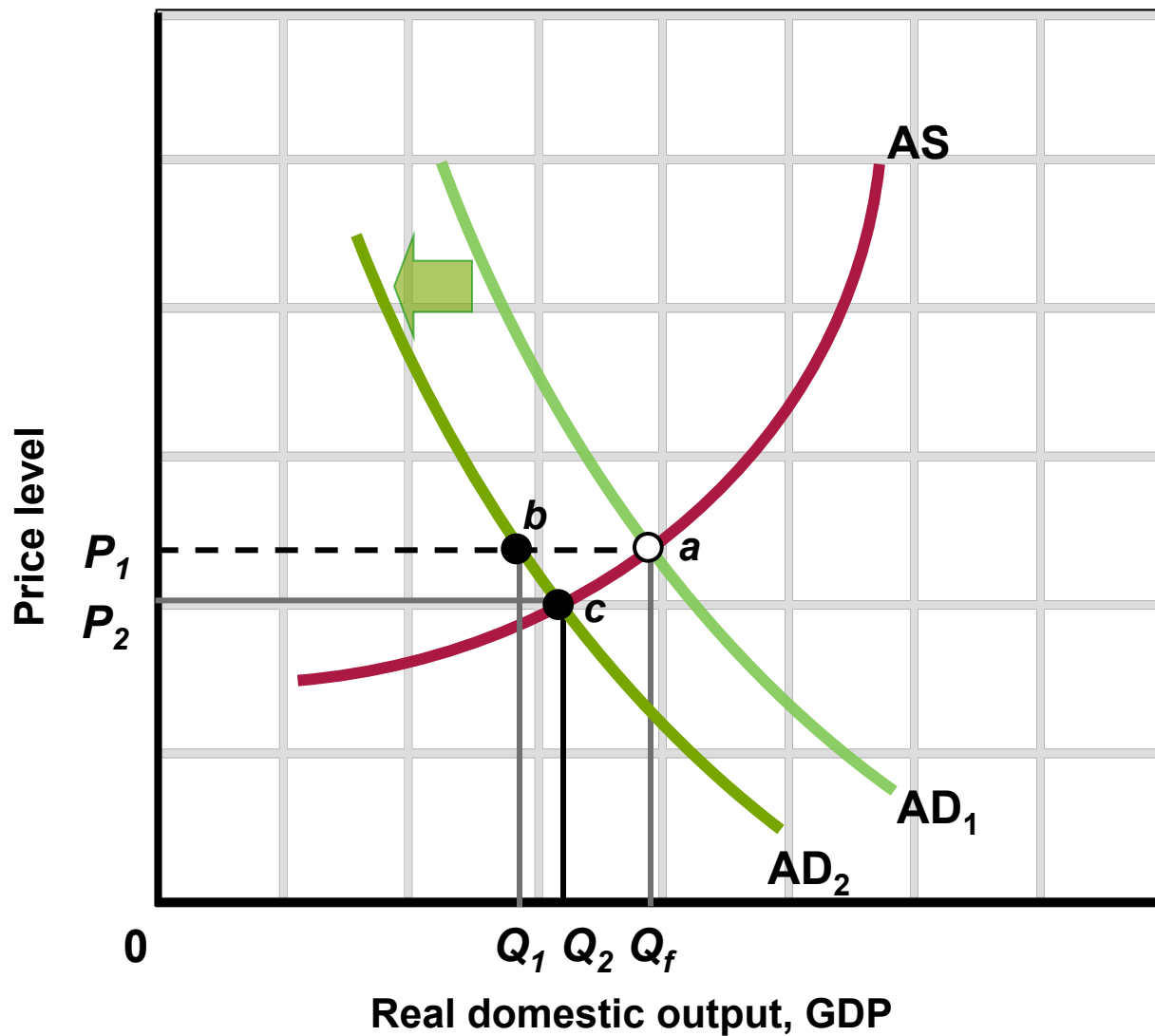


Real Output Demanded (Billions)	Price Level (Index Number)	Real Output Supplied (Billions)
\$506	108	\$513
508	104	512
510	100	510
512	96	507
514	92	502

AD Increases: Demand-Pull Inflation



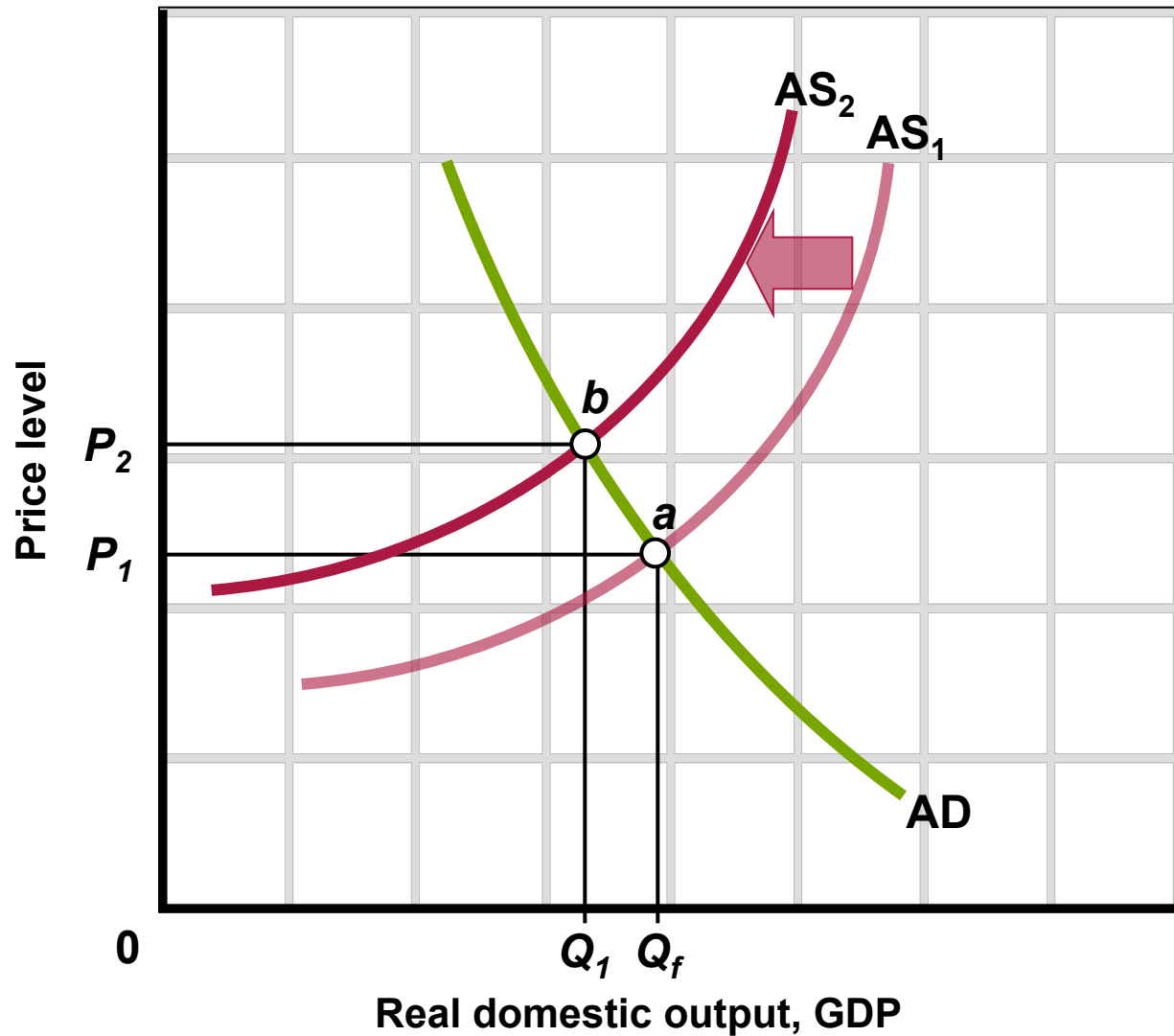
Decreases in AD: Recession



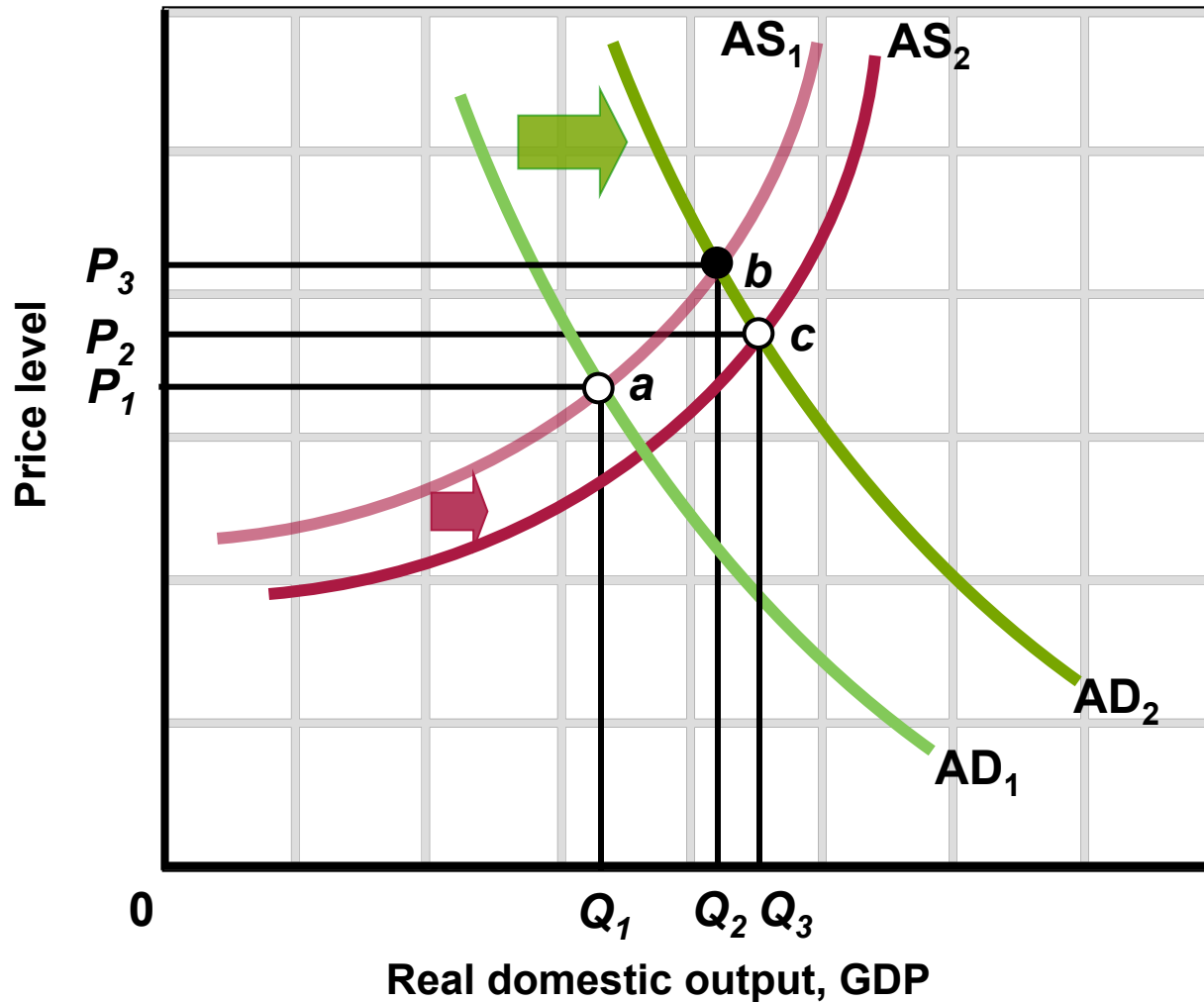
Decreases in AD: Recession

- Prices are downwardly inflexible
 - Fear of price wars
 - Menu costs
 - Wage contracts
 - Efficiency wages
 - Minimum wage law

Decreases in AS: Cost-Push Inflation



Increases in AS: Full-Employment



Impact of Oil Prices Diminished?

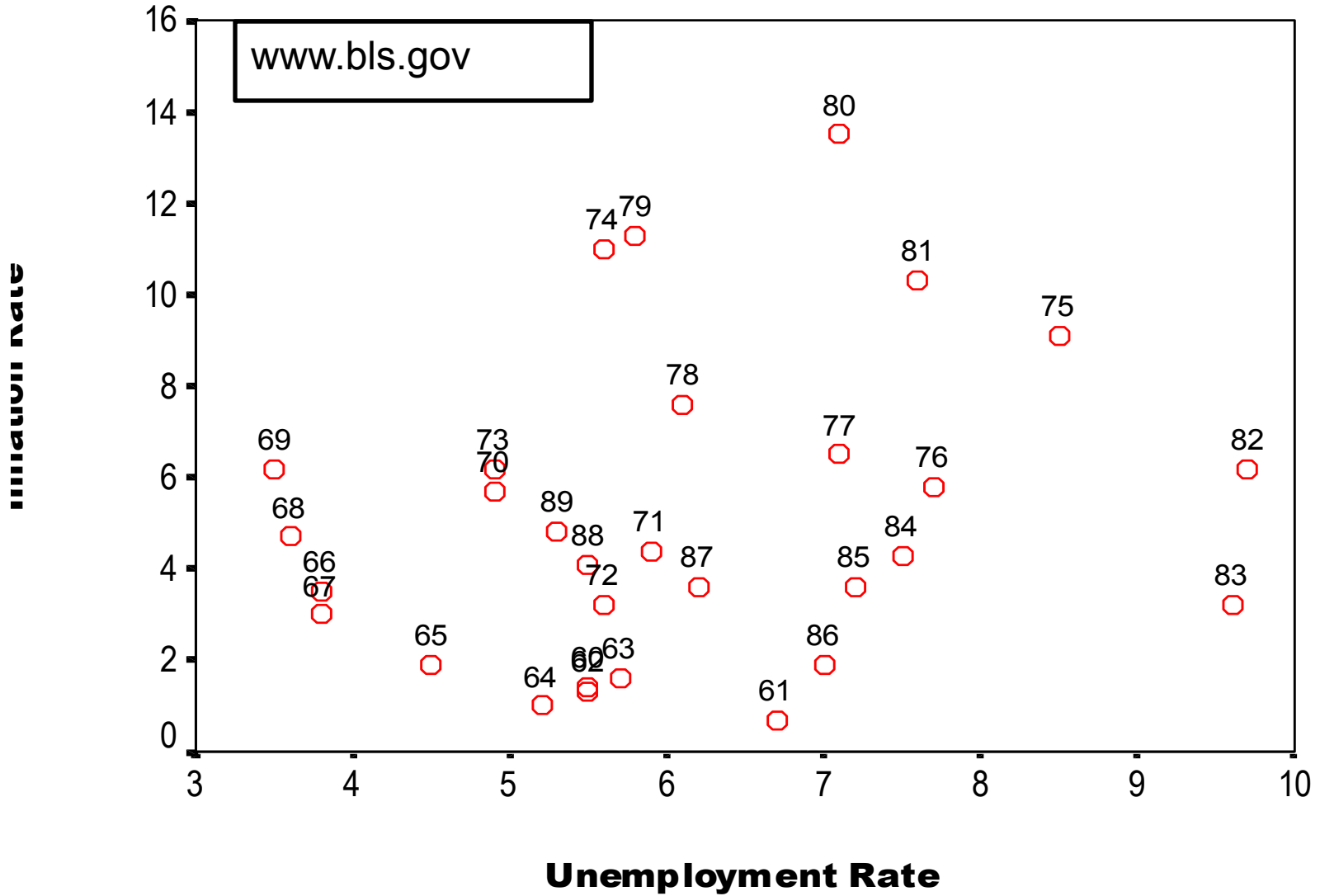
- 1970's
 - Reduced AS and negative GDP gap
 - Cost-push inflation
 - Rising unemployment
- 2000's
 - Core inflation steady
 - Use 50% less oil and gas today
 - Federal Reserve more vigilant

Stagflation

Stagflation is a combination of recession (falling real GDP) *and* inflation. Now we will show how stagflation could be produced by a supply shock



Inflation-Unemployment pairs for the U.S., 1960-89



Price per barrel of 32⁰ crude oil

Date	Price (\$)
Jan. 1972	1.79
Dec. 1973	4.68
Jan. 1974	10.84
April 1979	14.55
June 1979	18.00
Nov 1979	24.00
Aug. 1980	30.00
Oct. 1981	34.00

- Anchovies
- Grain failures



Source: *Petroleum Economist*

Stagflation due to oil price shock

