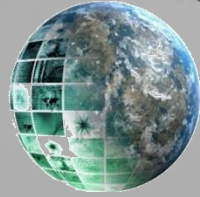
Aggregate Demand and Aggregate Supply Part II

In recessions the aggregate demand of economies falls.

John Maynard Keynes

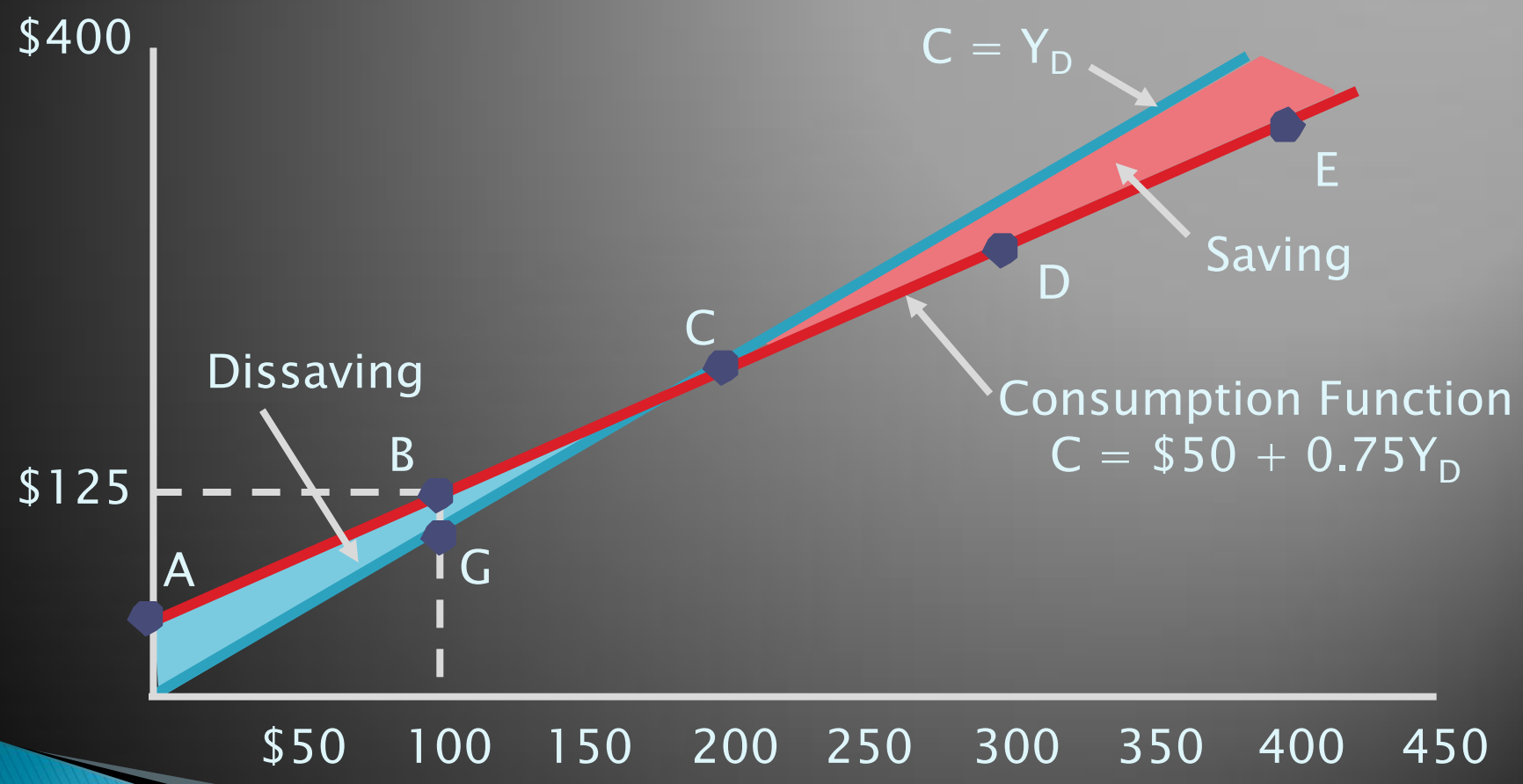
Table: John Doe's Consumption Function



Consumption = \$50 + 0.75Y_D

	Disposable Income (Y_D)	Autonomous Consumption	+	Income-Dependent Consumption	=	Total Consumption
A	\$ 0	50		\$ 0		\$ 50
B	100	50		75		125
C	200	50		150		200
D	300	50		225		275
E	400	50		300		350
F	500	50		375		425

Chart: John Doe's Consumption Function



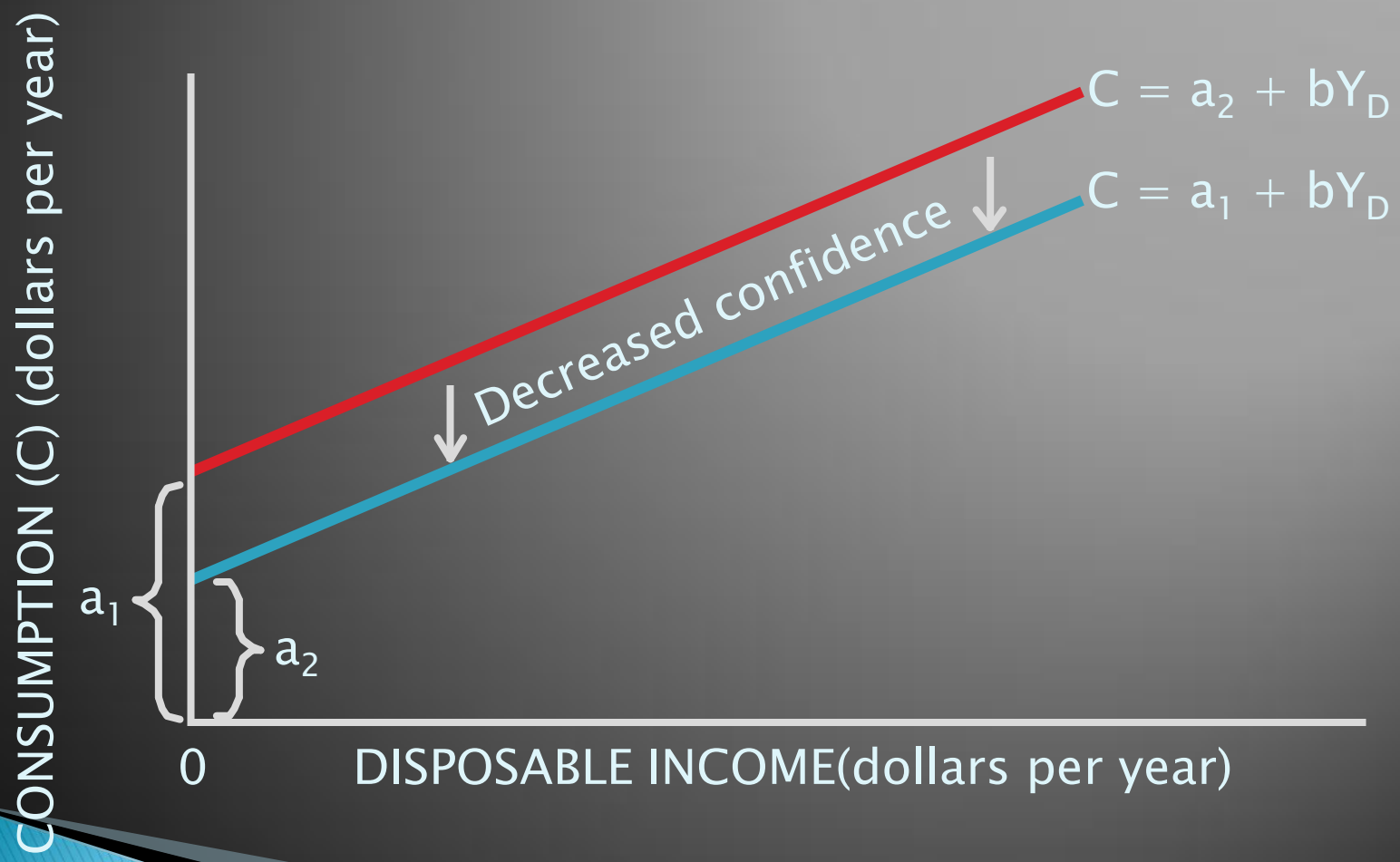
The Aggregate Consumption Function

Repeated studies suggest that consumers increase their consumption as their incomes increase.

Shifts of the Consumption Function

- Changing the *a* or *b* values in the consumption function ($C = a + bY_D$) will shift the function to a new position.
- A change in the *a* variable will cause a parallel shift of the function.

Chart: Shift in the Consumption Function



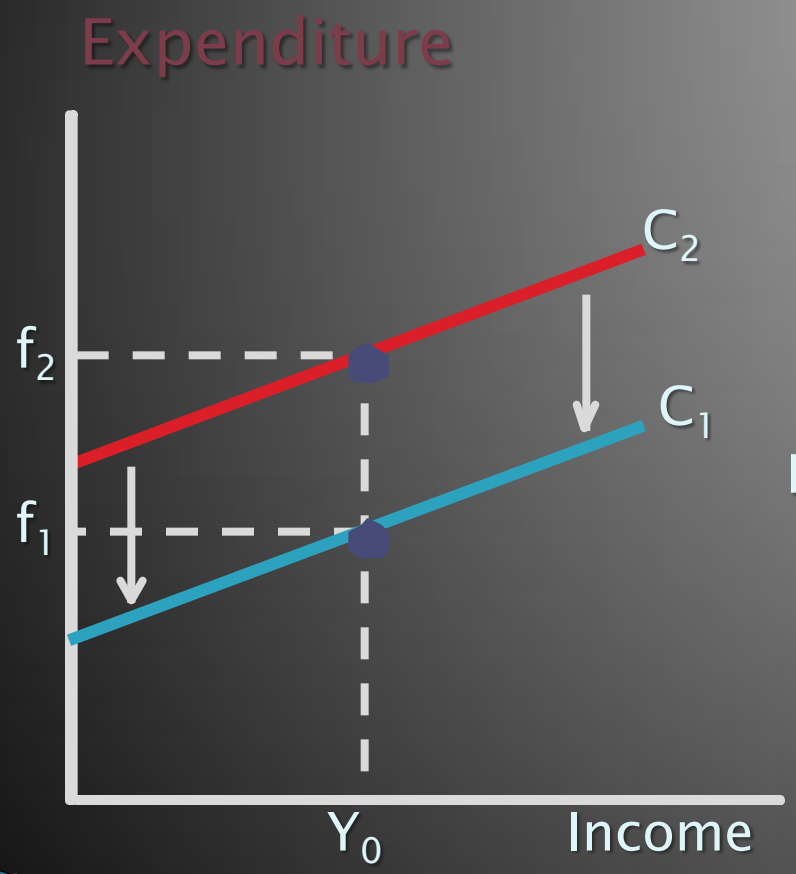
Shifts of Aggregate Demand

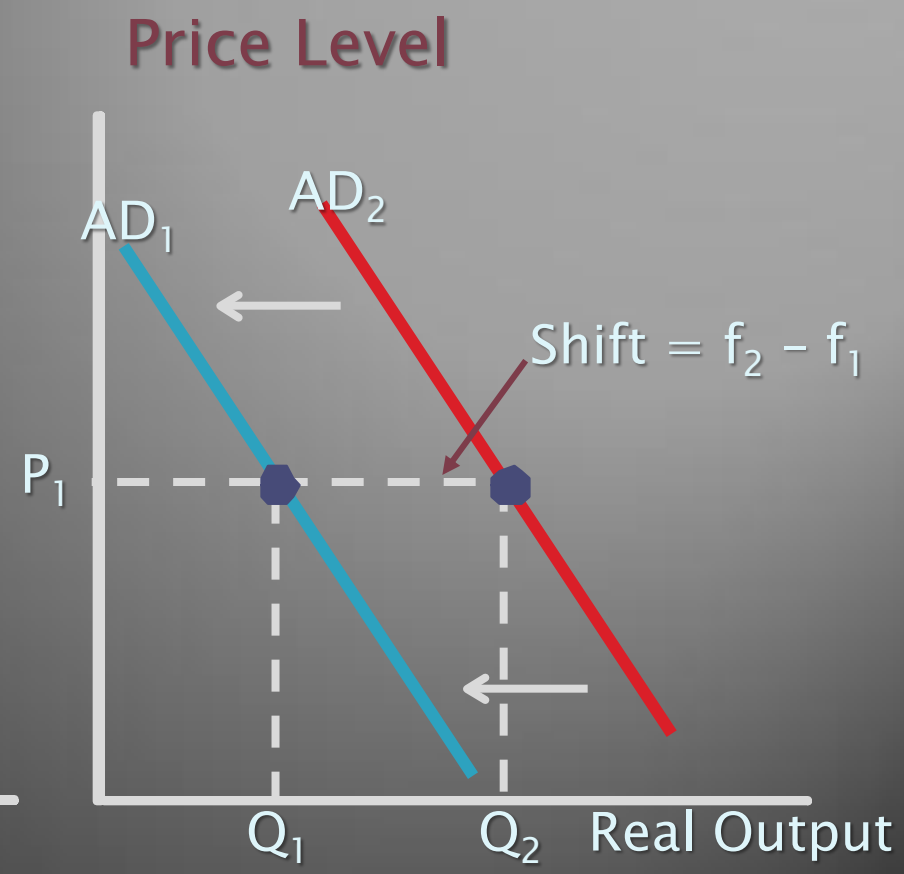
Shifts in the consumption function are reflected in shifts of the aggregate demand curve.

Shifts of Aggregate Demand

- A downward shift of the consumption function implies a reduction (a leftward shift) in aggregate demand.
- An upward shift of the consumption function implies an increase (a rightward shift) of the aggregate demand.

Charts: AD Effects of Consumption Shifts





Shift Factors

- Shift factors include all of the non-income determinants of consumption.
  - changes in consumer confidence (expectations)
  - changes in wealth
  - changes in credit conditions
  - changes in tax policy

Shifts and Cycles

- Shifts in aggregate demand can cause macro instability.
- Aggregate demand shifts may originate from consumer behavior.

Investment

Investment are expenditures on (the production of) new plants, equipment and structures (capital) in a given time period, plus changes in business inventories.

Determinants of Investment

- The following factors determine the amount of investment that occurs in an economy:
  - expectations
  - interest rates
  - technology and innovation

Expectations

- Expectations play a critical role in investment decisions.
- Favorable expectations for future sales are a necessary condition for investment spending.

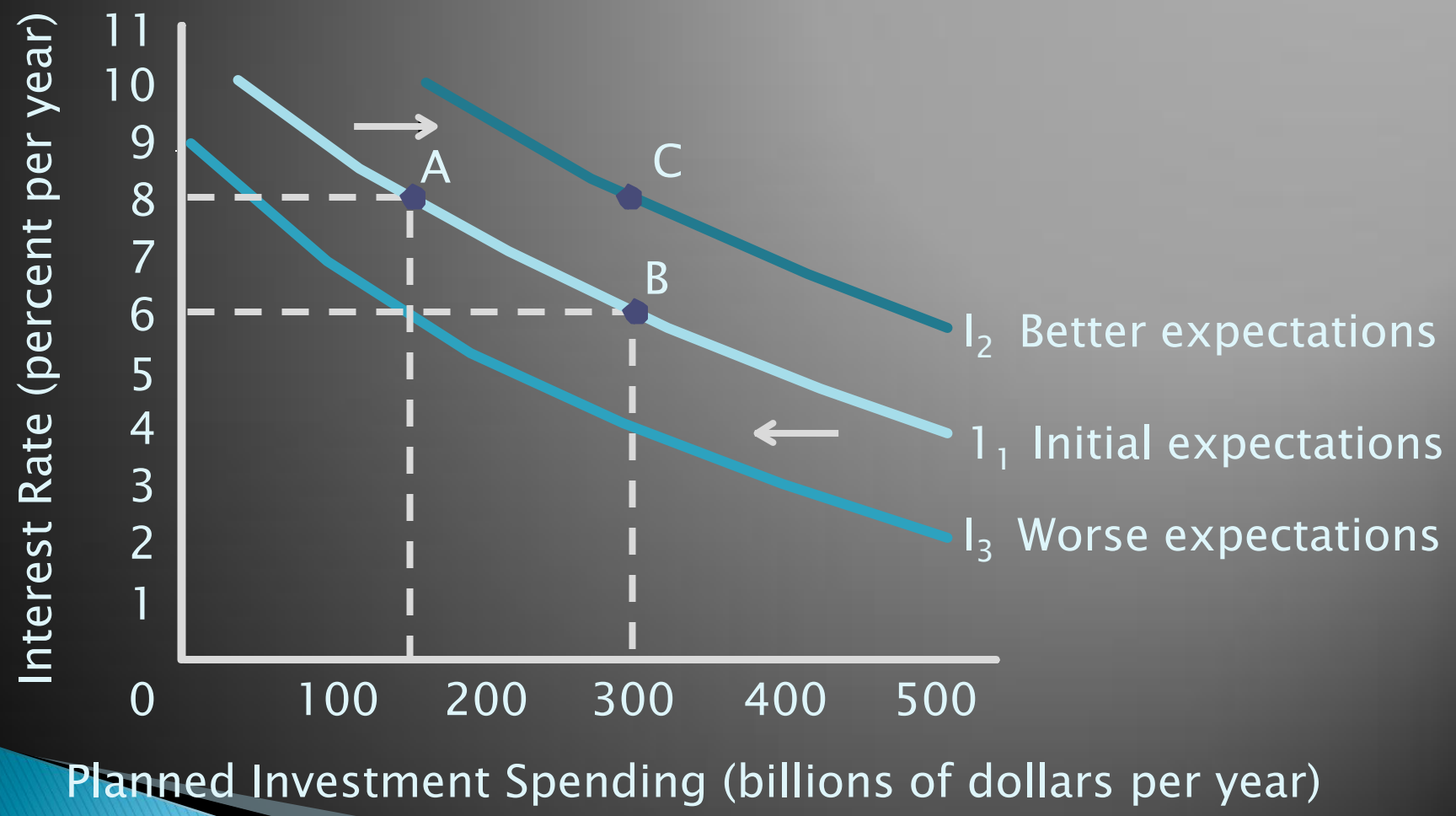
Interest Rates

- Businesses typically borrow money to invest in new plants or equipment.
- The higher the interest rate, the costlier it is to invest and the lower the investment spending.
- More investment occurs at lower rates.

Technology and Innovation

New technology changes the demand for investment goods.

Chart: Investment Demand



Shifts of Investment

Investor expectations are often volatile.

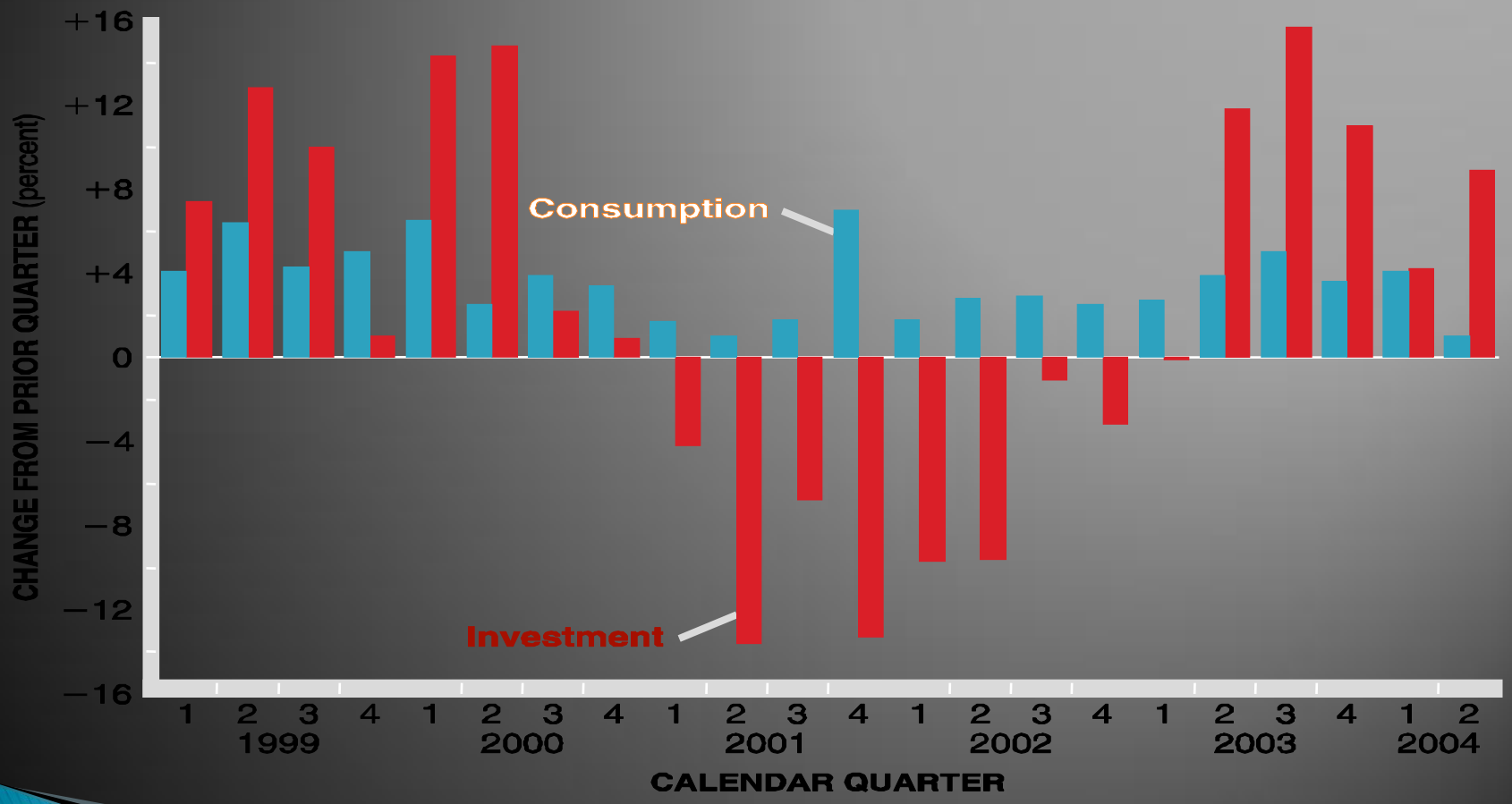
Altered Expectations

- Business expectations are determined by business confidence in future sales.
- An upsurge in confidence shifts the aggregate demand curve to the right.
- When investment spending declines, aggregate demand shifts to the left.

Empirical Instability

- Investment spending fluctuates more than consumption.
- Abrupt changes in investment were the cause of the 2001 recession.

Chart: Volatile Investment Spending



Government Spending

- State and local government spending has a mild pro-cyclical component.
- If consumption and investment spending decline, the subsequent decline in state and local government spending aggravates the leftward shift of the AD curve.

Government Spending

- The federal government has unique *counter*-cyclical power.
- Federal spending decisions are made independently of current income.

Net Exports

Net exports can be both uncertain and unstable, creating further shifts of aggregate demand.

Macro Failure

- Keynes had two chief concerns about macro equilibrium:
  - The market's macro-equilibrium might not give us full employment or price stability.
  - Even if the market's macro-equilibrium were at full employment and price stability, it might not last.

Undesired Equilibrium

- Market participants make independent spending decisions.
- There's no reason to expect that the sum of their expenditures will generate exactly the right amount of aggregate demand.

Recessionary GDP Gap

- Keynes worried that equilibrium GDP might not occur at full-employment GDP.
  - Equilibrium GDP is the value of total output (real GDP) produced at macro equilibrium (AS=AD).
  - Full-employment GDP is the value of total output (real GDP) produced at full employment.

Recessionary GDP Gap

- A **recessionary GDP gap** is the amount by which equilibrium GDP falls short of full-employment GDP.
- The gap represents unused productive capacity, lost GDP and unemployed workers.

Recessionary GDP Gap

- Recessionary GDP gaps lead to cyclical unemployment.
- Cyclical unemployment is the unemployment attributable to a lack of job vacancies; that is, to inadequate aggregate demand.

Chart: Macro Failures

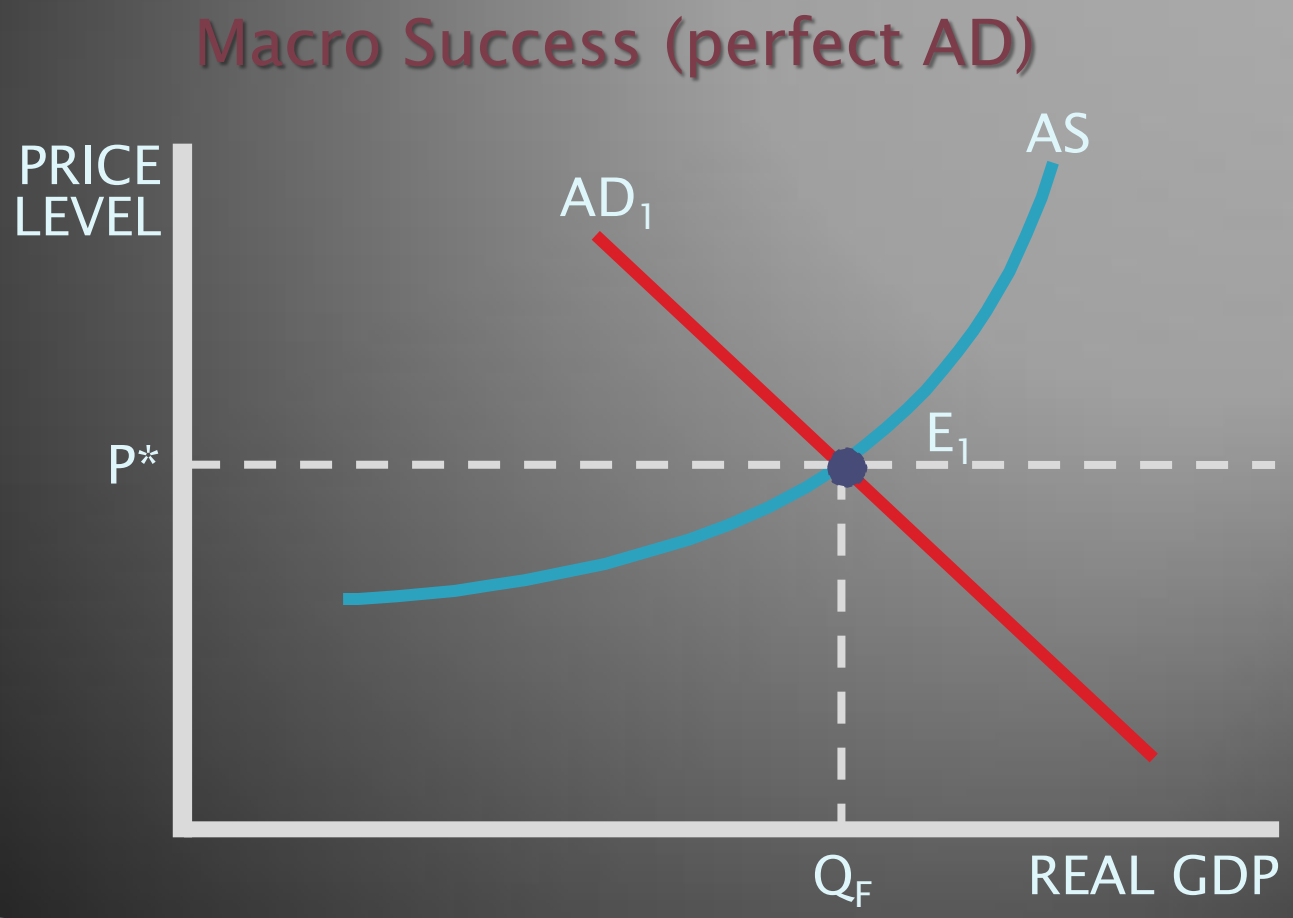
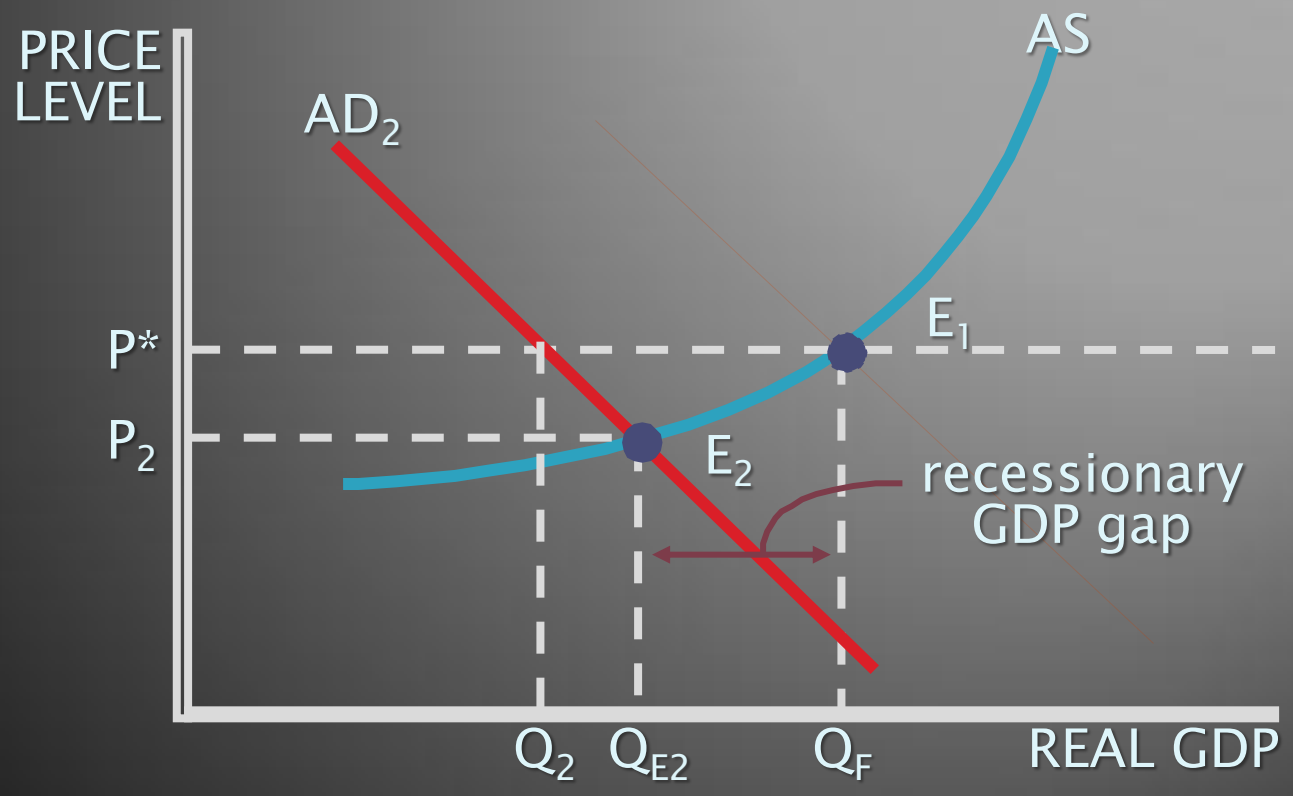


Chart: Macro Failures

Cyclical Unemployment (too little AD)



Inflationary GDP Gap

- The economy might *exceed* its full-employment/price stability capacity causing an inflationary GDP gap.
- An **inflationary GDP gap** is the amount by which equilibrium GDP exceeds full-employment GDP.

Inflationary GDP Gap

- Inflationary GDP gaps lead to demand-pull inflation.
- Demand-pull inflation is an increase in the price level initiated by excessive aggregate demand.

Chart: Macro Failures

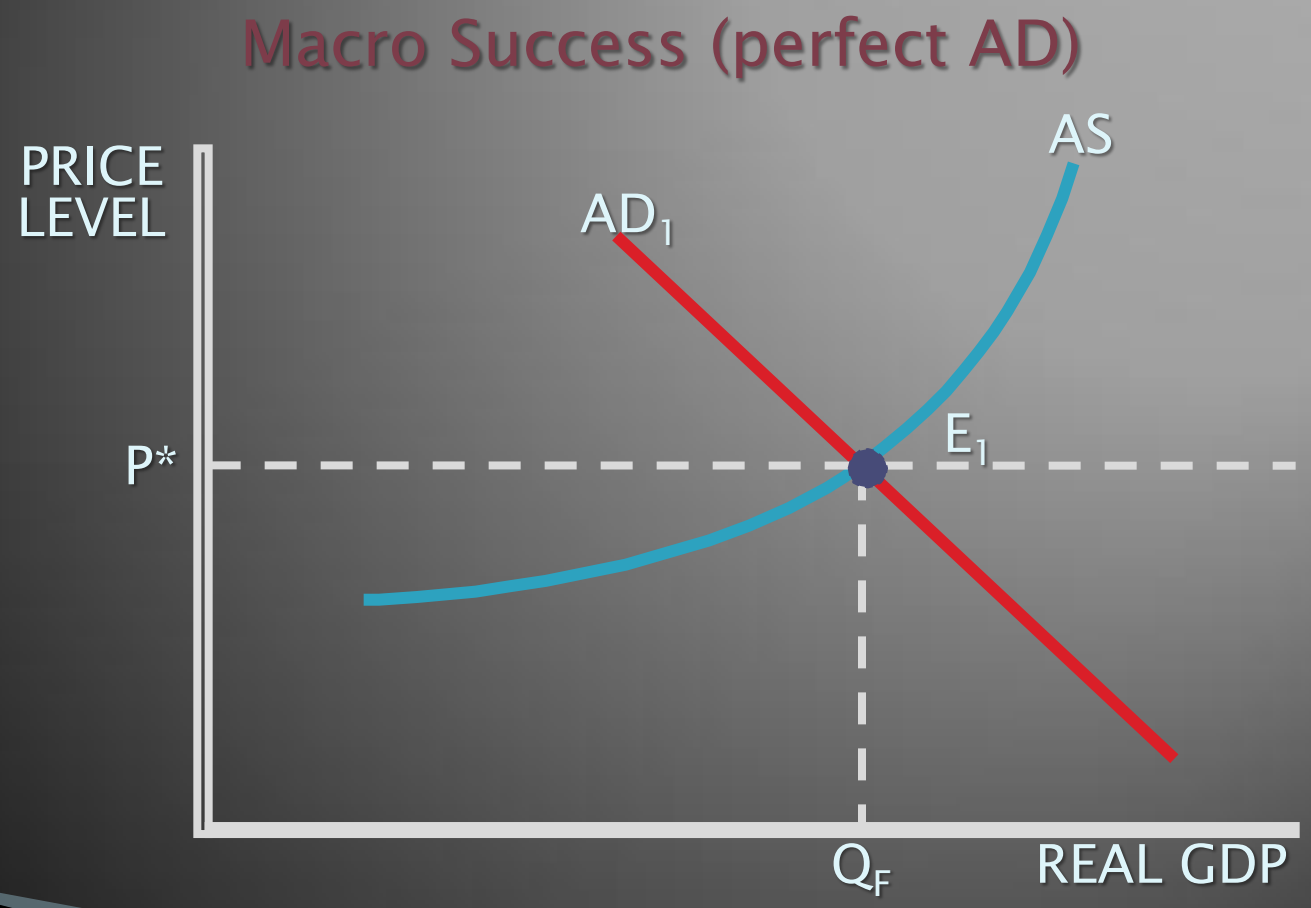
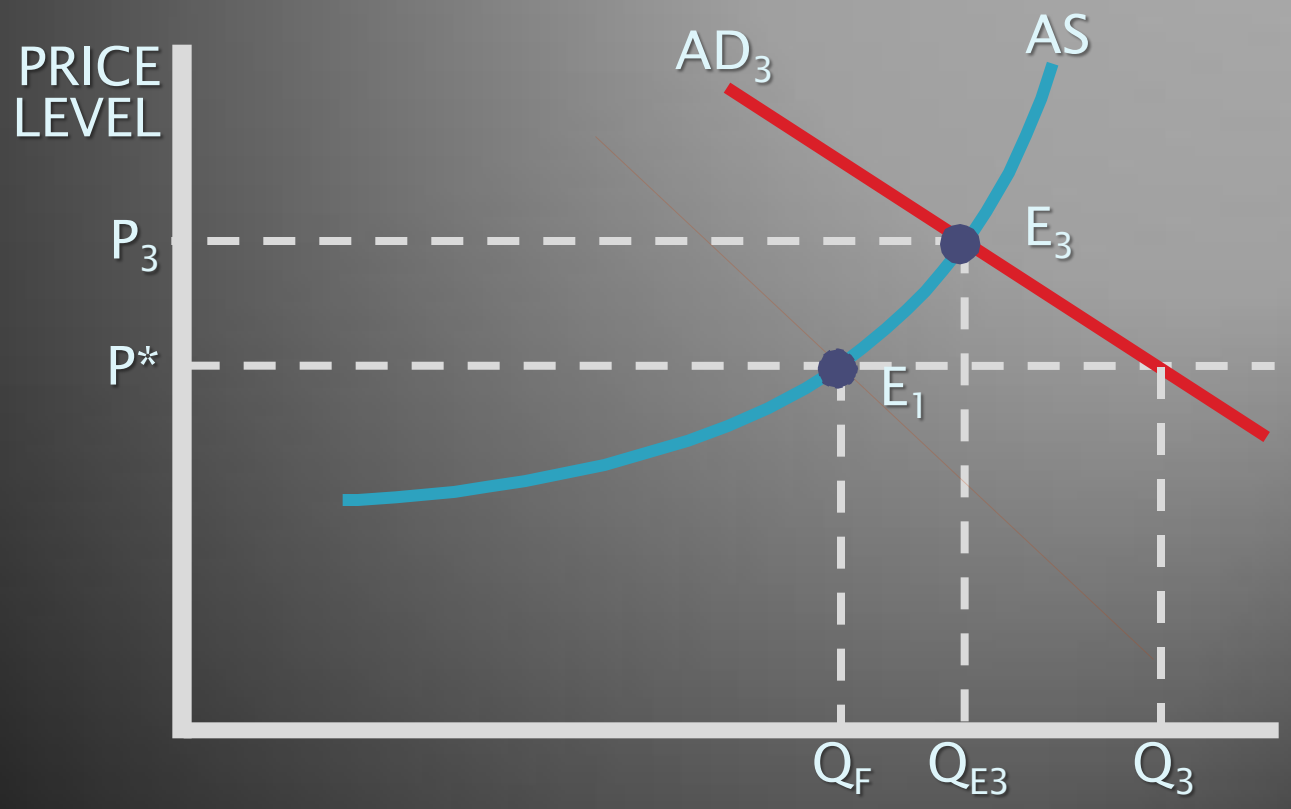


Chart: Macro Failures

Demand-pull inflation (too much AD)



Unstable Equilibrium

- Recurrent shifts of aggregate demand could cause a business cycle.
- The business cycle is alternating periods of economic growth and contraction.

Macro Failures

If aggregate demand is too little, too great or too unstable, the economy will not reach and maintain the goals of full employment and price stability.

Self-Adjustment?

- The critical question is whether undesirable outcomes will persist.
  - Classical economists asserted that markets self-adjust so that macro failures would be temporary.
  - Keynes didn't think that was likely to happen.

Looking for AD Shifts

Policymakers use the Index of Leading Indicators to forecast changes in GDP.

The index of leading economic indicators is intended to predict future economic activity. Typically, three consecutive monthly changes in the same direction suggest a turning point in the economy. For example, consecutive negative readings would indicate a possible recession.

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Continued in Aggregate Demand and Aggregate Supply Part III