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**总需求与总供给**

**Aggregate Demand and Aggregate Supply**

# 短期经济波动

## Short-Run Economic Fluctuations

- **经济活动年复一年地波动**  
**Economic activity fluctuates from year to year.**
  - 在大多数年份里，物品与服务的生产是上升的  
In most years production of goods and services rises.
  - 在过去 50 年，平均来说，美国经济的生产每年增长约 3 个百分点。  
On average over the past 50 years, production in the U.S. economy has grown by about 3 percent per year.
  - 在一些年份，正常的增长没能出现，导致了衰退。  
In some years normal growth does not

# 短期经济波动

## Short-Run Economic Fluctuations

- **衰退**是实际 GDP 下降、收入减少、失业上升的时期

A **recession** is a period of declining real GDP, falling incomes, and rising unemployment.

- **萧条**是严重的衰退

A **depression** is a severe recession.



# 关于经济波动的三个关键事实

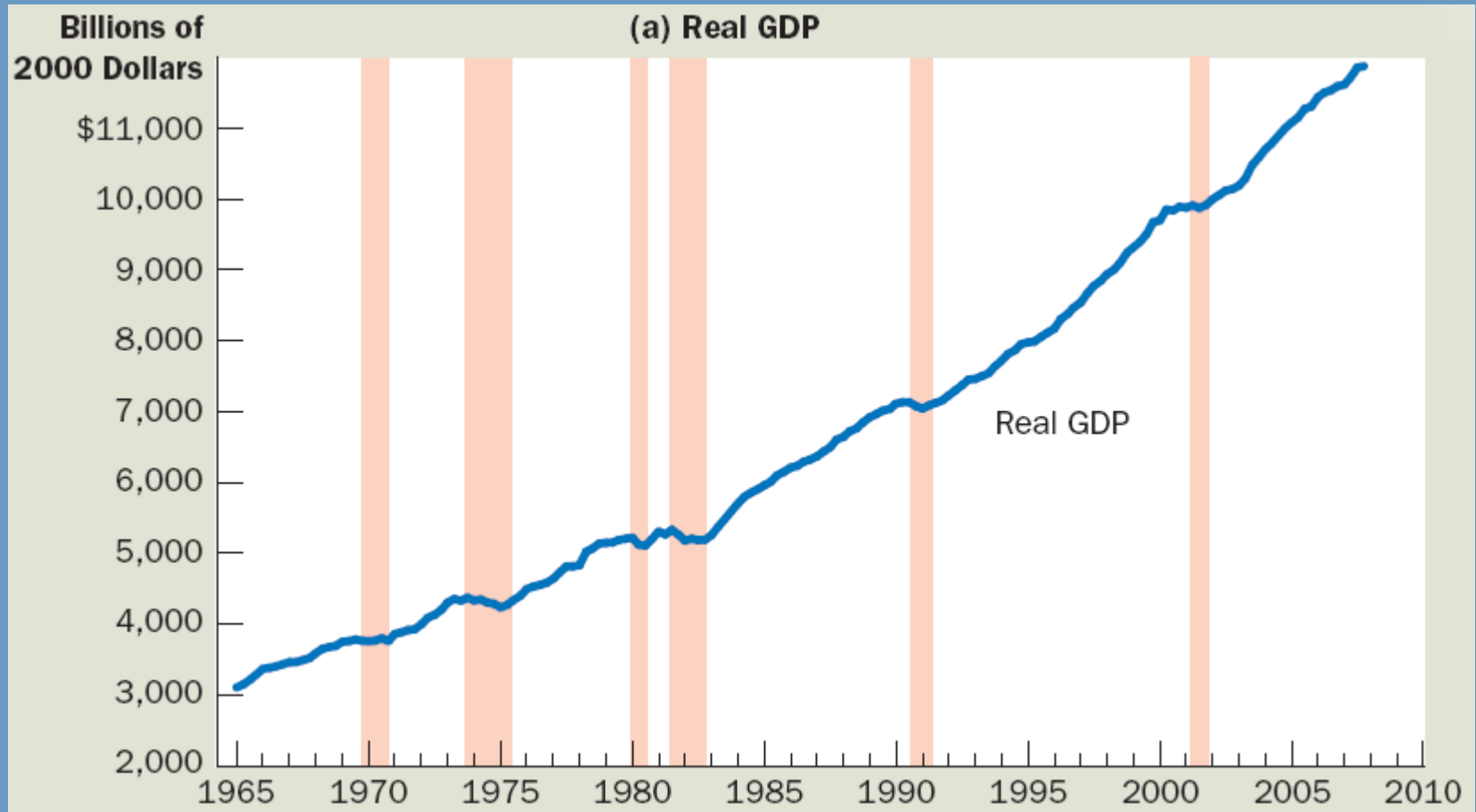
## Three Key Facts About Economic Fluctuations

- 经济波动是不规则和不可预测的。  
Economic fluctuations are irregular and unpredictable.
  - 经济当中的波动常常被称作经济周期（或译商业周期）  
Fluctuations in the economy are often called the business cycle.
- 大多数宏观经济变量一起波动。  
Most macroeconomic variables fluctuate together.
- 随着产出下降，失业率上升。

# 短期经济波动一瞥

## A Look At Short-Run Economic Fluctuations

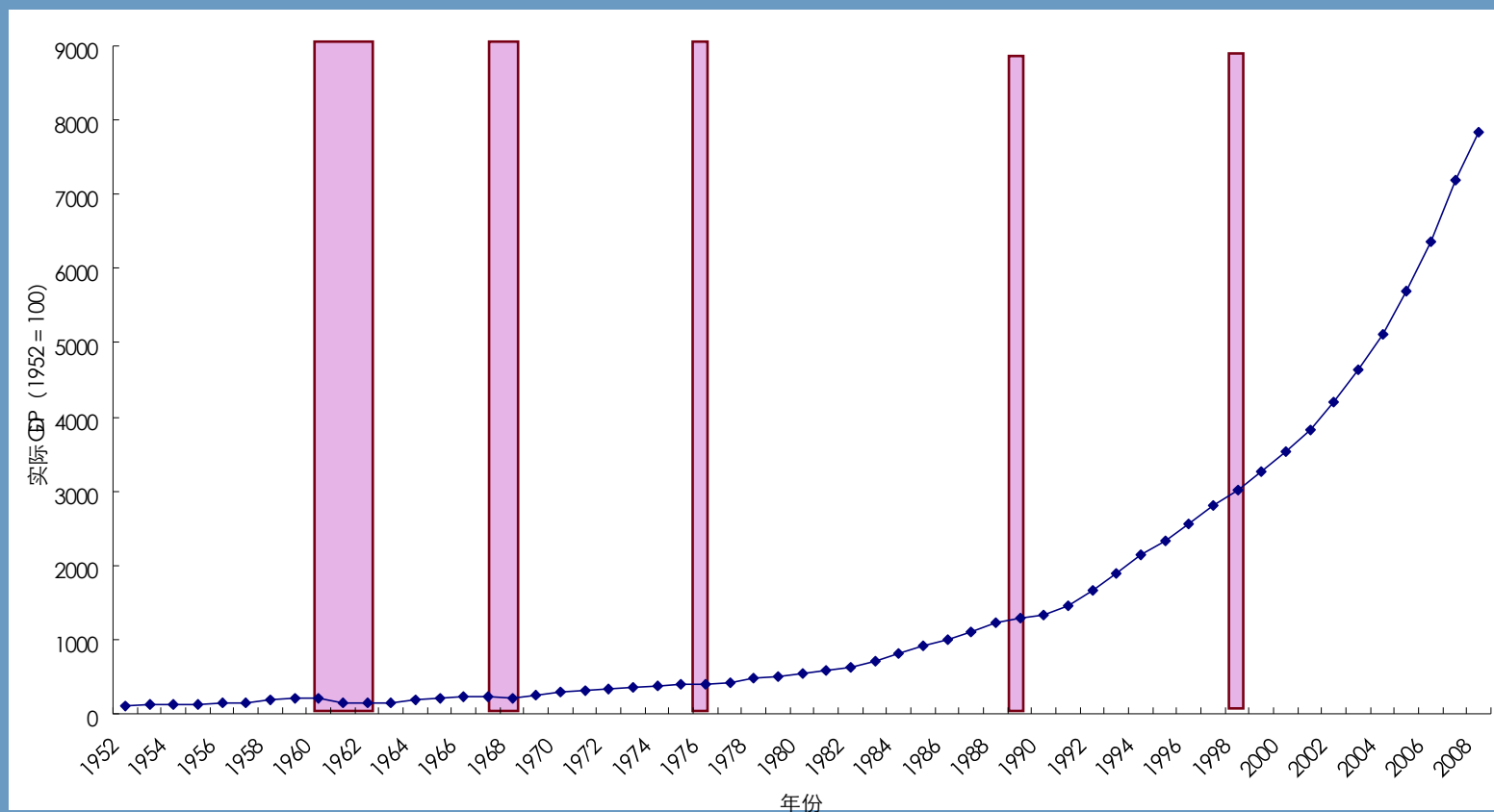
(a) Real GDP  
实际 GDP



# 短期经济波动一瞥：中国

## A Look At Short-Run Economic Fluctuations: China

### (a) 实际 GDP(1952=100)



资料来源：  
《中国国内  
生产总值核  
算历史资料  
， 1952 - 1  
995》，  
《中国统计  
年鉴》以及  
作者计算。

# 关于经济波动的三个关键事实

## Three Key Facts About Economic Fluctuations

- 大多数宏观经济变量一起波动。

**Most macroeconomic variables fluctuate together.**

- 大多数衡量某种收入或生产的宏观经济变量几乎同时波动。

**Most macroeconomic variables that measure some type of income or production fluctuate closely together.**

- 虽然许多宏观经济变量一起波动，他们波动的幅度并不同。

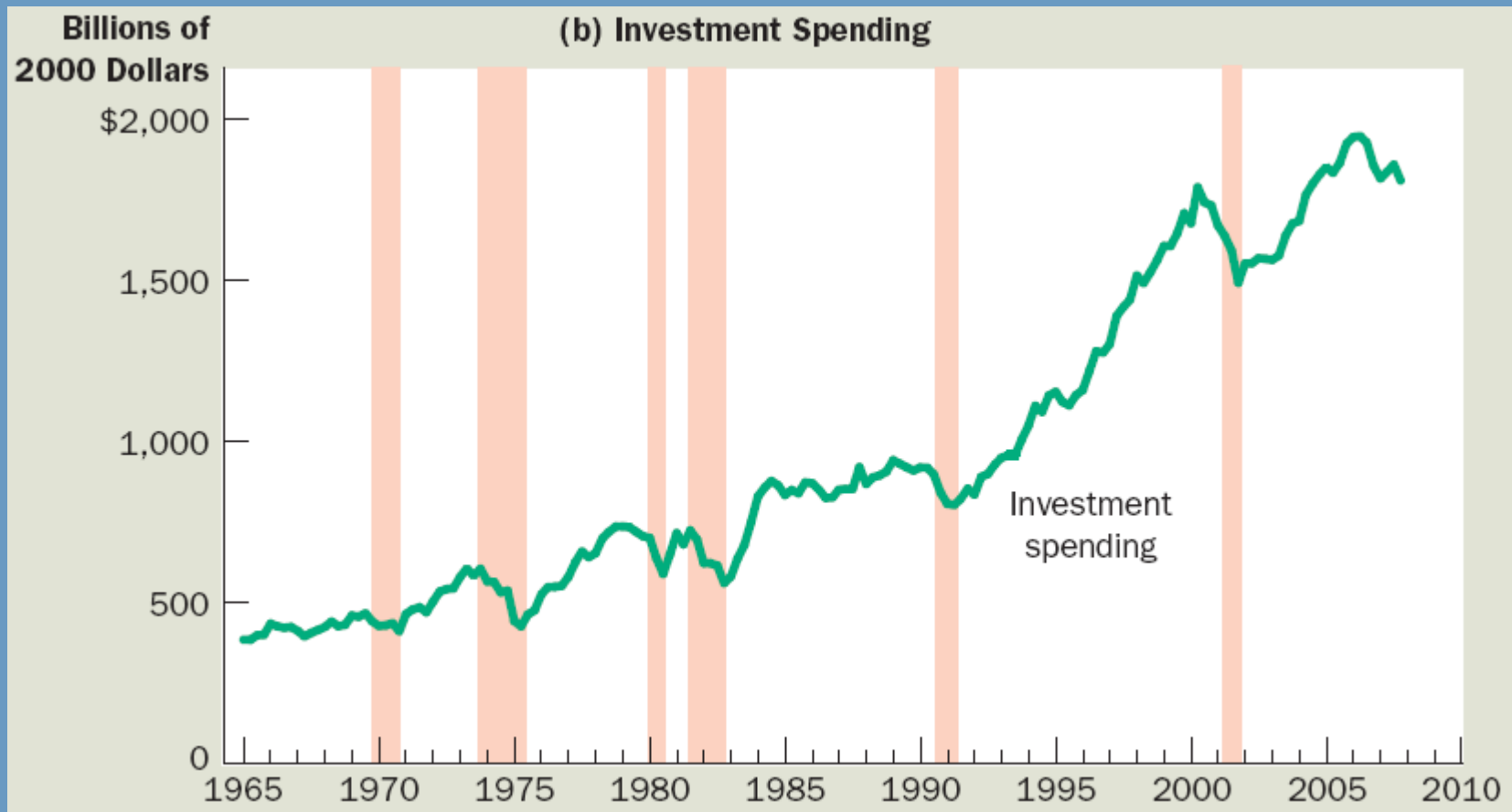
**Although many macroeconomic variables fluctuate together,**



# 短期经济波动一瞥

## A Look At Short-Run Economic Fluctuations (b) Investment Spending

□□□□

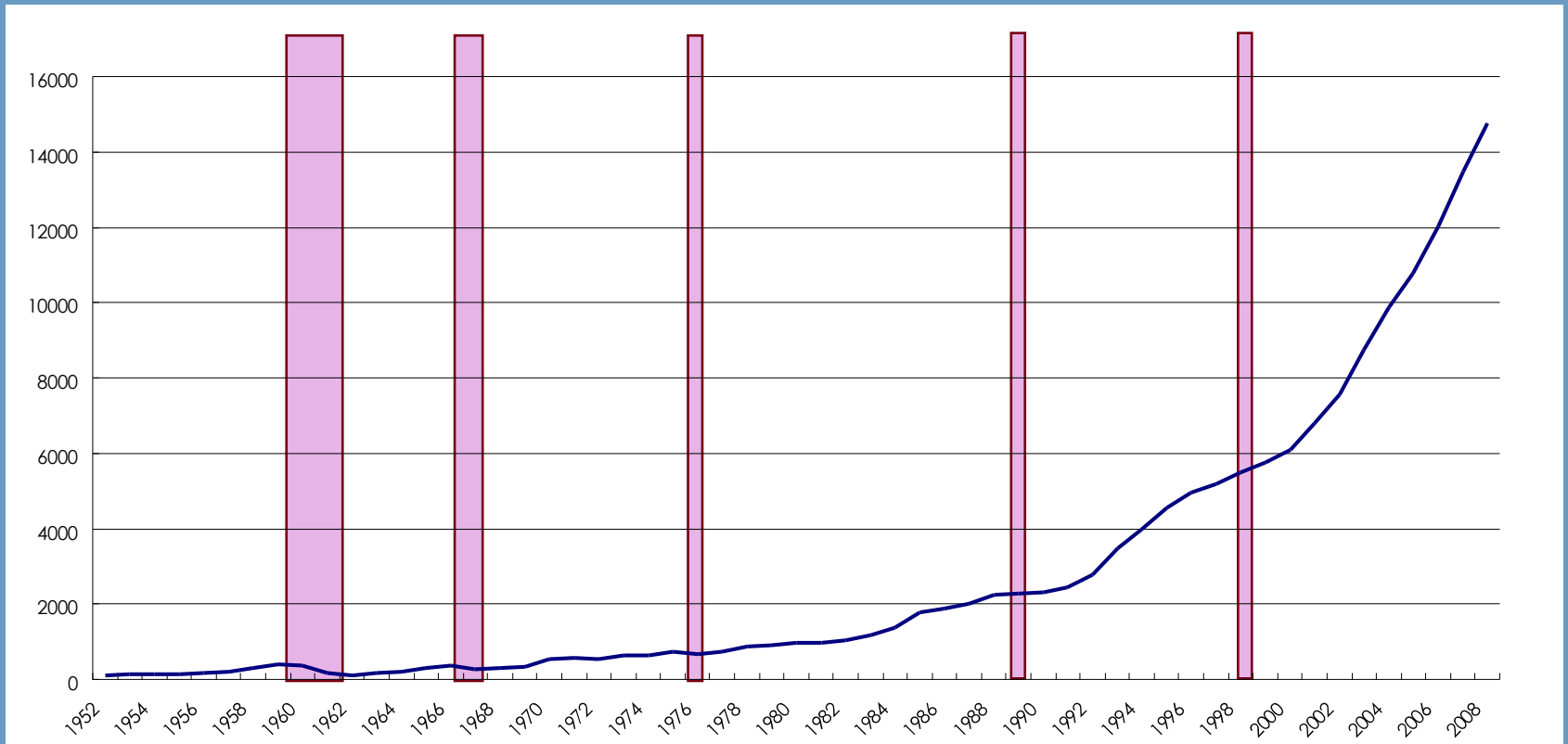




# 短期经济波动一瞥：中国

## A Look At Short-Run Economic Fluctuations: China

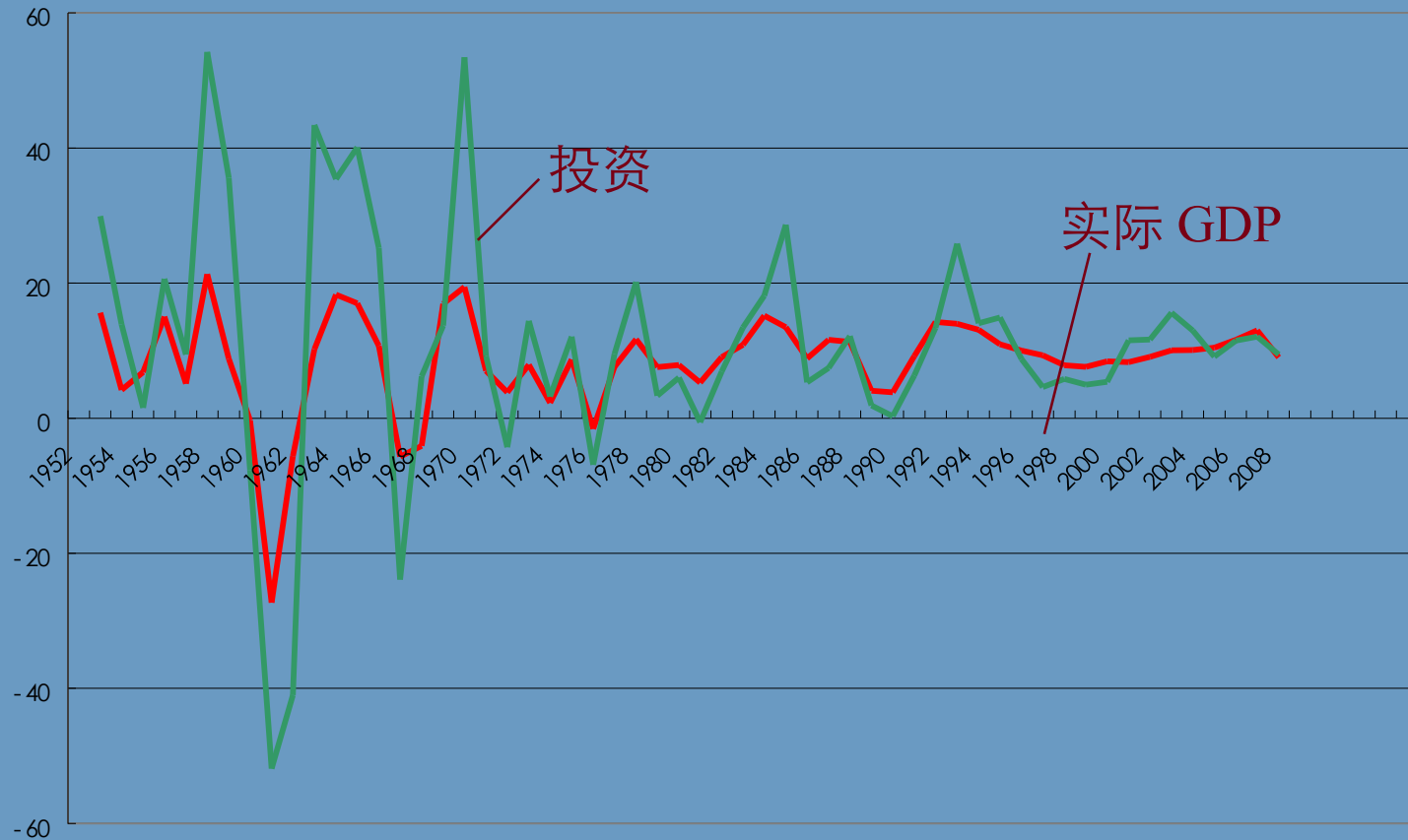
**(b) 投资支出 (1952=100)**



# 短期经济波动一瞥：中国

## A Look At Short-Run Economic Fluctuations: China

实际 **GDP** 与投资支出 (增长率 %)



# 关于经济波动的三个关键事实

## Three Key Facts About Economic Fluctuations

- 随着产出下降，失业上升。

**As output falls,  
unemployment rises.**

- 实际 GDP 的变化和失业率的变化呈反向关系。 **Changes in real GDP are inversely related to changes in the unemployment rate.**



**在衰退时期，失业大幅上升。**

**During times of recession,  
unemployment rises substantially.**

# 短期经济波动一瞥

## A Look At Short-Run Economic Fluctuations (c) Unemployment Rate

□ □ □





# 解释短期经济波动

## Explaining Short-run Economic Fluctuations

- 古典经济学的基本假设是**古典二分法**与**货币中性**。

The basic assumptions of classical economics are the **classical dichotomy** and **monetary neutrality**.

- 按照古典经济学，我们在不引入名义变量（货币供给、价格水平）的情况下，就能够考察实际变量（实际 GDP、实际利率和失业）的决定。

According to classical economics, we are able to examine the determinants of real variables (real GDP, the real interest rate, and unemployment) without introducing nominal variables (the money supply and the price level.)

- 大多数经济学家相信，古典理论描述了长期中的世界，但没有描述短期中的世界。

Most economists believe that classical



# **解释短期经济波动**

## **Explaining Short-run Economic Fluctuations**

- **短期内，实际和名义变量高度相关。**

**In the short run, real and nominal variables are highly intertwined.**

- **货币供给的变化能够暂时地将实际 GDP 移到其长期趋势之外。**

**Changes in the money supply can temporarily push real GDP away from its long-run trend.**



# 总需求与总供给模型

## The Model of Aggregate Demand and Aggregate Supply

经济学家使用**总需求**与**总供给**模型来解释经济活动围绕其长期趋势的短期波动 Economist use the model of **aggregate demand** and **aggregate supply** to explain short-run fluctuations in economic activity around its long-run trend.

# 总需求与总供给模型

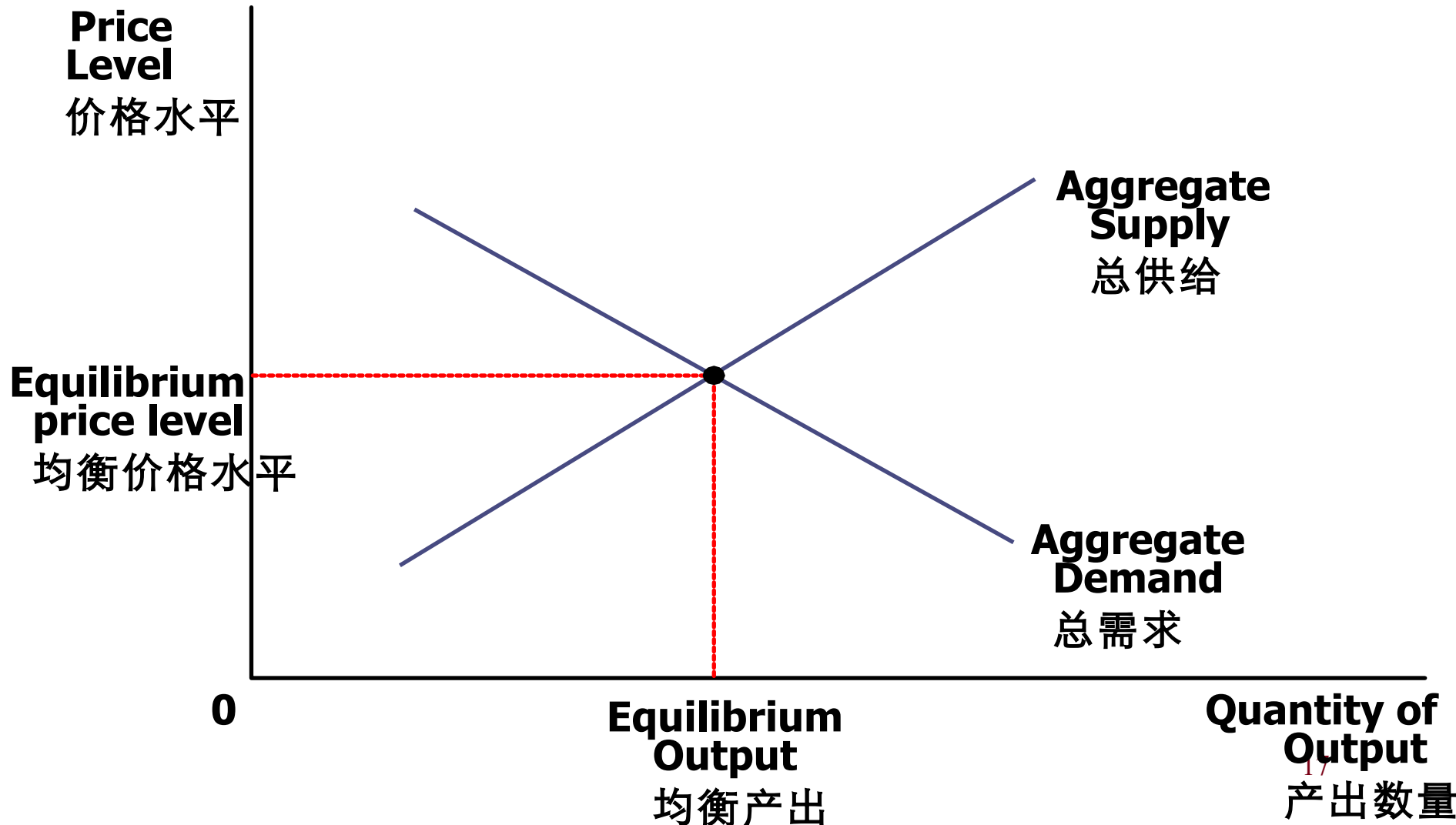
## The Model of Aggregate Demand and Aggregate Supply

- **短期经济波动模型集中关注两个变量的行为。** The model of short-run economic fluctuation focuses on the behavior of two variables.
  - **（以实际 GDP 衡量的）经济中物品与服务的产出。** The economy's output of goods and services measured by real GDP.
  - **（以 CPI 或 GDP 平减指数衡量的）整体价格水平。** The overall price level measured by the CPI or the GDP deflator.



# 总需求与总供给.....

## Aggregate Demand and Aggregate Supply...





# 总需求曲线

## The Aggregate Demand Curve

- **总需求曲线**表示家庭、企业或政府在任一价格水平上想要购买的物品与服务的数量。

The **aggregate demand curve** shows the quantity of goods and services that households, firms, and the government want to buy at each price level.

# 总需求曲线

## The Aggregate Demand Curve

- 其他条件不变，经济中整体价格水平的下降增加了物品与服务的需求数量。

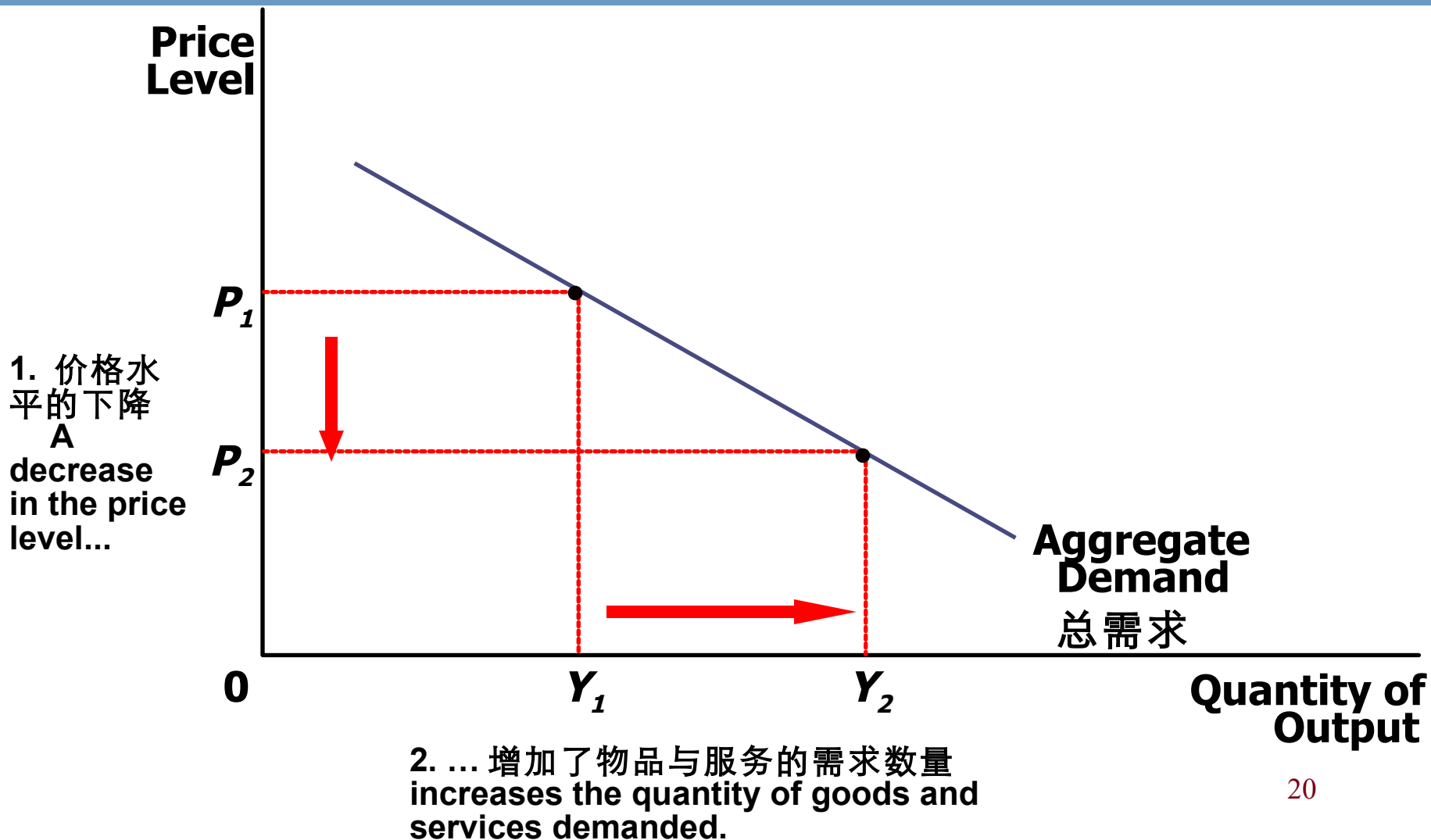
**Other things equal, an decrease in the economy's overall level of prices raises the quantity of goods and services demanded.**

- 价格水平的上升减少物品与服务的需求数量。

**An increase in the price level reduces the quantity of goods and services**

# 总需求曲线

## The Aggregate-Demand Curve...





# 总需求曲线为什么向下倾斜

## Why the Aggregate Demand Curve Is Downward Sloping

- 总需求曲线向下倾斜的原因与单个市场需求曲线向下倾斜的原因有所不同。

The reason for the downward sloping aggregate demand curve is not the same as for the downward sloping demand curve in any single market.

- 在单一市场上，某一商品价格上涨，消费者倾向于用另一更为廉价商品替代，引起该商品需求量下降。  
In a single market, when the price for a good increases, consumers tend to substitute for a cheaper good, thus the quantity demanded for that good decreases.
- 这一替代效应在所有价格都上升时不存在。

This substitution effect does not



# 总需求曲线为什么向下倾斜

## Why the Aggregate Demand Curve Is Downward Sloping

- 回顾：GDP（总支出）的四个组成部分（消费、投资、政府支出、净出口）构成了对物品与服务的总需求。

Recall: The four components of GDP (total expenditure) contribute to the aggregate demand for goods and services.

$$AD \equiv C + I + G + NX$$



# **总需求曲线为什么向下倾斜**

## **Why the Aggregate Demand Curve Is Downward Sloping**

- **价格水平与消费：财富效应**  
**The Price Level and Consumption: The Wealth Effect**
- **价格水平与投资：利率效应**  
**The Price Level and Investment: The Interest Rate Effect**
- **价格水平与净出口：汇率效应**  
**The Price Level and Net Exports: The Exchange-Rate Effect**

# 价格水平与消费：财富效应

## The Price Level and Consumption: The Wealth Effect

- 价格水平的下降提高了货币的真实价值，使得消费者更加富有，鼓励他们支出更多。

**A decrease in the price level raises the real value of money and makes consumers wealthier, which in turn encourages them to spend more.**

- 消费支出的上升意味着对物品与服务更大的需求数量。

**This increase in consumer spending means larger quantities of goods and services demanded.**



# 价格水平与投资：利率效应

## The Price Level and Investment: The Interest Rate Effect

- 更低的价格水平降低了利率，这鼓励了对投资品的更大支出。

A lower price level reduces the interest rate, which encourages greater spending on investment goods.

- 投资支出的增加意味着物品与服务的需求数量更大。

This increase in investment spending means a larger quantity of goods and services demanded.

# 价格水平与净出口：汇率效应

## The Price Level and net Exports: The Exchange-Rate Effect

- 当美国的价格水平下降导致了美国的利率下降，实际汇率就会贬值，这又刺激了美国的净出口。

**When a fall in the U.S. price level causes U.S. interest rates to fall, the real exchange rate depreciates, which stimulates U.S. net exports.**

- 净出口支出的增加意味着物品与服务的需求数量更大。

**The increase in net export spending means a larger quantity of goods and services demanded.**



# **总需求曲线为什么会移动**

## **Why the Aggregate Demand Curve Might Shift**

- **总需求曲线向下倾斜，表示价格水平的下降增加了物品与服务总的需求数量。**

**The downward slope of the aggregate demand curve shows that a fall in the price level raises the overall quantity of goods and services demanded.**

- **然而，在给定价格水平上，许多其他因素影响物品与服务的需求数量。**

**Many other factors, however, affect the quantity of goods and services demanded at any given price level.**

- **当这些其他因素中的任一种发生改变，总需求曲线移动。**



# **总需求曲线为什么会移动**

## **Why the Aggregate Demand Curve Might Shift**

- **来自消费的移动 Shifts arising from Consumption**
  - 股市涨跌 Stock market boom/crash
  - 关于消费与储蓄权衡的偏好改变 Preferences changes: consumption/saving tradeoff
  - 增税减税 Tax hikes/cuts
- **来自投资的移动 Shifts arising from Investment**
  - 更好的技术 Better technology
  - 乐观或悲观的预期 Expectations, optimism/pessimism
  - 货币政策 Monetary policy
  - 投资税收减免 Investment Tax Credit



# 总需求曲线为什么会移动

## Why the Aggregate Demand Curve Might Shift

- 来自政府购买的移动

Shifts arising from Government

Purchases

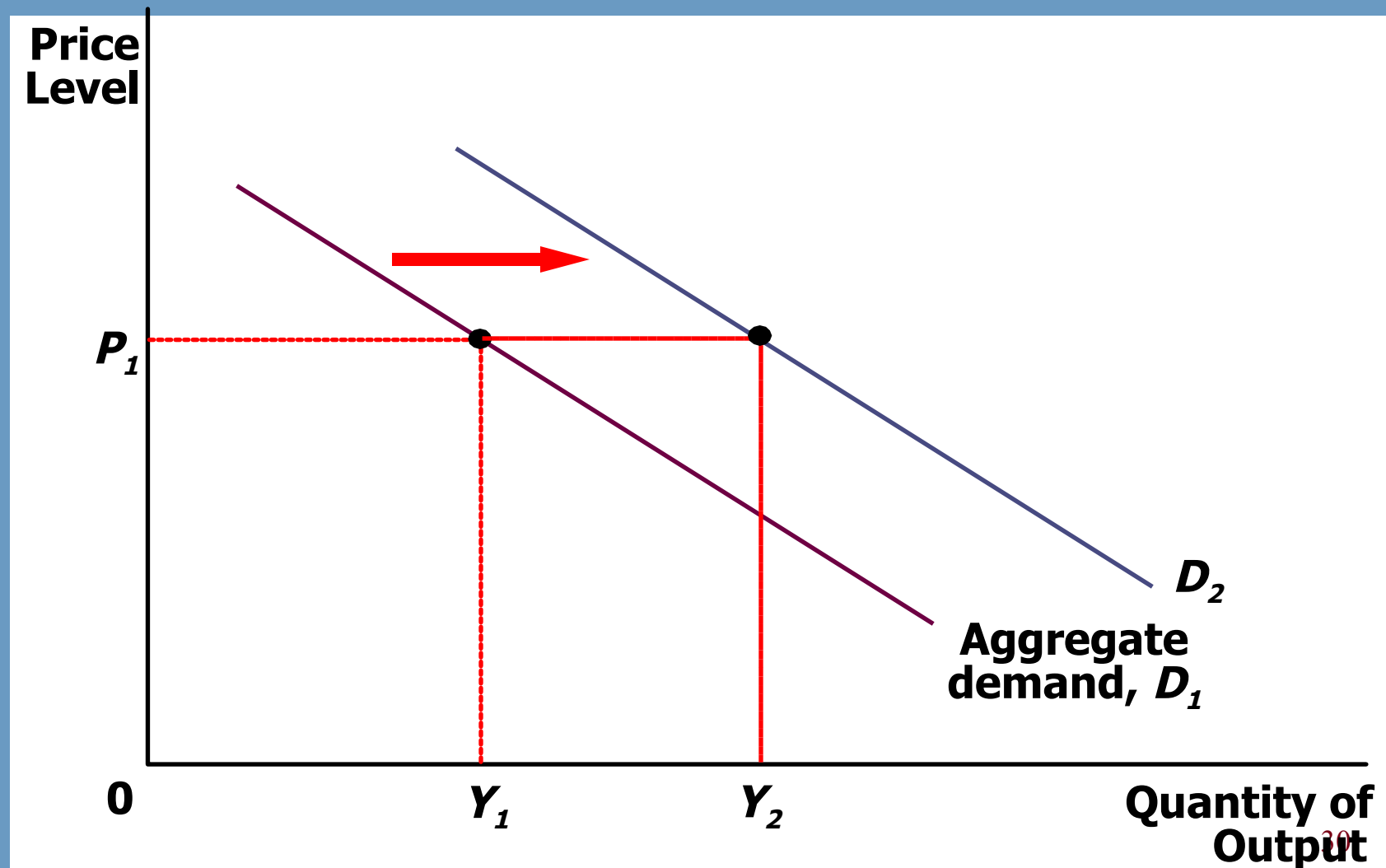
- 增加联邦国防开支 Increase on federal defense spending
- 州或地方政府新修公路或学校 State & local spending on new roads, schools

- 来自净出口的移动 Shifts arising from Net Exports

- 欧洲经济繁荣或衰退 Booms/recessions in Europe
- 由于外汇市场上国际投机行为带来的货币升值或贬值  
Appreciation/depreciation resulting from international spe

# 总需求曲线的移动

## Shifts in the Aggregate Demand Curve...





# 总供给曲线

## The Aggregate Supply Curve

- **总供给曲线**表示企业在任一价格水平上生产和销售的物品与服务的数量。  
The **aggregate supply curve** shows the quantity of goods and services that firms produce and sell at each price level.

# 总供给曲线

## The Aggregate Supply Curve

- 经济中整体价格水平的上升倾向于增加物品与服务的供给数量。

**An increase in the overall level of prices in the economy tends to raise the quantity of goods and services supplied.**

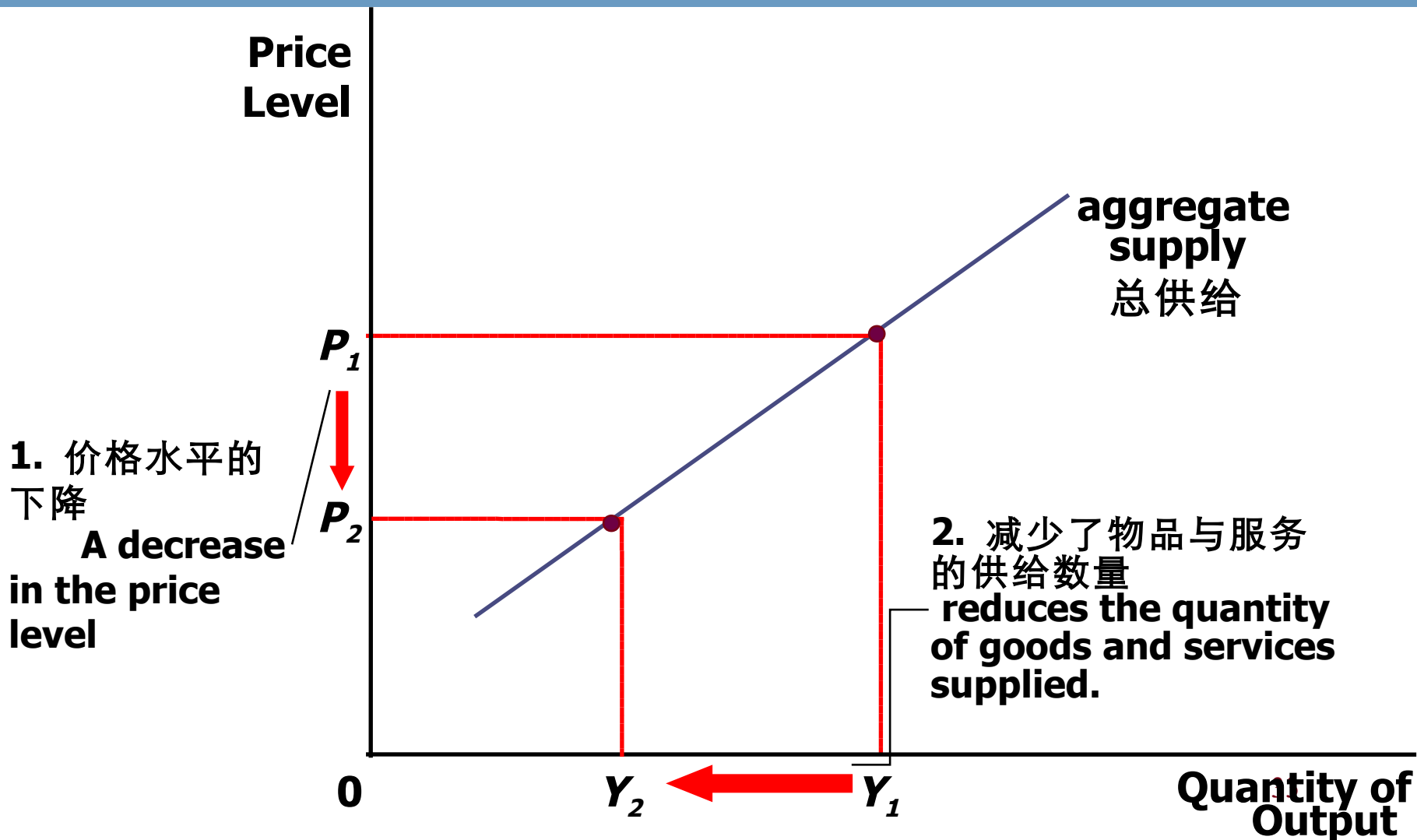
- 价格水平的下降倾向于减少物品与服务的供给数量。

**A decrease in the level of prices tends to reduce the quantity of goods and services supplied.**



# 总供给曲线.....

## The Aggregate Supply Curve...





# **总供给曲线为什么向上倾斜**

## **Why the Aggregate Supply Curve Slopes Upward**

**在一个理想的状态下，当价格水平变化时，企业面对的所有价格以同等比例变动，企业不会改变其产出。**

**In an ideal state, when the price level changes, all the prices firms face, including prices of outputs and inputs, change in the same proportion, thus no firms will change their production at all.**



# 总供给曲线为什么向上倾斜

## Why the Aggregate Supply Curve Slopes Upward

- 粘性工资理论

The Sticky-Wage

Theory

- 错觉理论

The Misperceptions

Theory

- 粘性价格理论

The Sticky-Price

# 粘性工资理论

## The Sticky-Wage Theory

- 名义工资的调整是缓慢的，或者说，在短期内是“粘性的”——工资并不随着价格水平的下降而立即调整。

**Nominal wages are slow to adjust, or are “sticky” in the short run: Wages do not adjust immediately to a fall in the price level.**

- 更低的价格水平使得雇佣和生产的利润更低。

**A lower price level makes employment and production less profitable.**

- 这就导致企业减少物品与服务的供给数量。

**This induces firms to reduce the quantity of goods and services supplied.**

# 错觉理论

## The Misperceptions Theory

- 总体价格水平的下降，暂时地误导供给者，使他们认为他们是他们的价格下降了。  
A fall in the overall price level temporarily mislead suppliers; they believe it's the prices of their products that fell.
- 也就是说，他们错误地认为相对价格下降了。  
That is, they mistakenly believe that their *relative* prices have fallen.
- 这种错觉使得供给者减少物品与服务的供给数量。  
These misperceptions induce suppliers to decrease the quantity of goods and services supplied.

# 粘性价格理论

## The Sticky-Price Theory

- 某些物品与服务的价格为适应经济状况变化所进行的调整是迟缓的。

**Prices of some goods and services adjust sluggishly in response to changing economic conditions:**

- 价格水平的未预料到的下降，留下某些企业的价格高于合意的水平。

**An unexpected fall in the price level leaves some firms with higher-than-desired prices.**

- 这会压低销售，引起企业减少物品与服务的生产数量。

**This depresses sales, which**

# 总供给曲线为什么向上倾斜

## Why the Aggregate Supply Curve Slopes Upward

所有三个理论都可以用下述一个理论概括：

**All the three theories can be summarized into one theory below:**

- 当实际价格水平背离人们预期的价格水平时，产量就背离其自然率。

**Output deviates from its natural rate when the price level deviates from the price level that people expect.**

- 当实际价格水平高于人们预期的水平（越多）时，产量就高于其自然率（越多）。

**When the price rises (more) above the level that people expected, output rises (more) above its natural rate.**

# 总供给曲线为什么向上倾斜

## Why the Aggregate Supply Curve Slopes Upward

- **预期价格水平**（ $P^e$ ）衡量人们对价格水平的预期值。

**Expected price level** ( $P^e$ ) measures how much people expect the overall price level will be.

- **自然产量率**是当实际价格水平等于预期价格水平时的产量。

**Natural rate of output** is the output produced when the price level equals to the expected price level.



# 总供给曲线为什么向上倾斜

## Why the Aggregate Supply Curve Slopes Upward

预期价格 ( $P^e$ ) 不变……	当实际价格 ( $P$ ) 上升……	结果是产出 ( $Y$ ) 增加
粘性工资理论	…… 供给者的 产品价格上升	供给者由于实际 工资下降而增加 产出
错觉理论	…… 供给者自 己的产品价格上 升	供给者误认为自 己产品的相对价 格上升，从而增 加产出
粘性价格理论	…… 其他供给 者的价格上升	供给者自己产品 的相对价格下降 ，需求上升，从 而增加产出。

### 粘性工资理论

供给者难以调整  
名义工资……

…… 供给者的  
产品价格上升

供给者由于实际  
工资下降而增加  
产出

### 错觉理论

供给者认为其他  
产品价格不  
变……

…… 供给者自  
己的产品价格上  
升

供给者误认为自  
己产品的相对价  
格上升，从而增  
加产出

### 粘性价格理论

供给者自己产品  
的价格难以调  
整……

…… 其他供给  
者的价格上升

供给者自己产品  
的相对价格下降  
，需求上升，从  
而增加产出。

# 总供给曲线为什么向上倾斜

## Why the Aggregate Supply Curve Slopes Upward

- 用数学公式将产品供给量、实际和预期价格水平的关系表述如下：

We can express the aggregate supply curve mathematically as follows :

$$\begin{aligned} & \text{产品供给量} = \text{自然产量率} \\ & + a \times (\text{实际价格水平} - \text{预期价格水平}) \\ & \text{Quantity of output supplied} = \\ & \text{Natural rate of output} \\ & + a \times (\text{Actual price level} - \text{Expected price level}) \end{aligned}$$

$$Y = Y_n + a \times (P - P^e)$$

- $a > 0$  反映产出对价格的未预期改变的反应程度。

Where  $a$  is a number that determines how much output responds to *unexpected changes* in the price level.



# **总供给曲线为什么会移动**

## **Why the Aggregate Supply Curve Might Shift**

- **来自预期价格水平的移动**

**Shifts arising  
from the Expected Price Level**

- **来自自然产量率的变动**

**Shifts arising from the natural level  
of output**

# 总供给曲线为什么会移动：预期价格水平的影响

## Why the Aggregate Supply Curve Might Shift: Influence of Expected Price Level

- 预期价格水平的上升减少了物品与服务的供给数量，将总供给曲线向左移动。

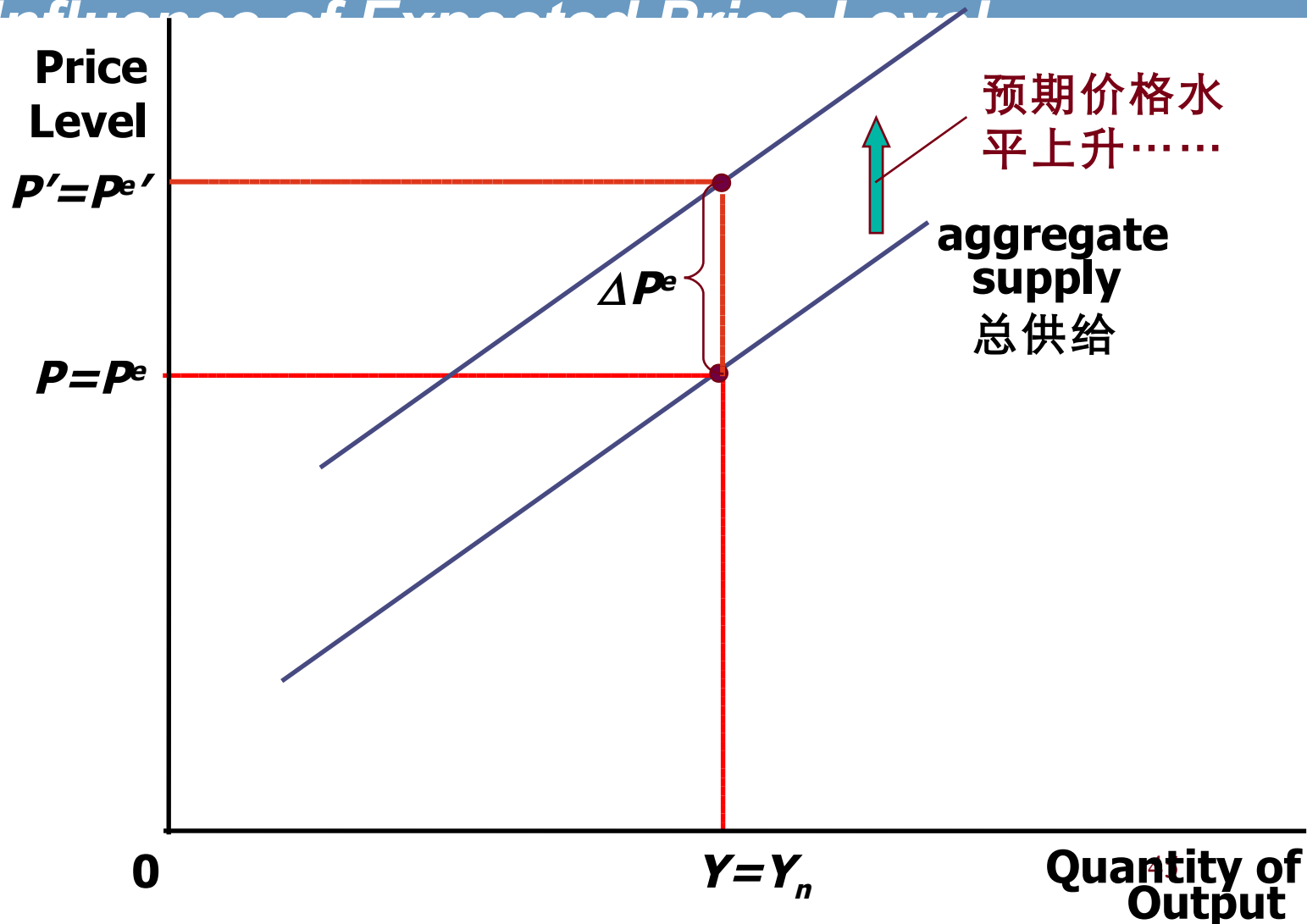
**An increase in the expected price level reduces the quantity of goods and services supplied and shifts the aggregate supply curve to the left.**

- 预期价格水平的下降增加了物品与服务的供给数量，将总供给曲线向右移动。

**A decrease in the expected price level raises the quantity of goods and services supplied and shifts the aggregate supply curve to the right.**

# 总供给曲线为什么会移动：预期价格水平的影响

## Why the Aggregate Supply Curve Might Shift: Influence of Expected Price Level





# **总供给曲线：短期与长期**

## **The Aggregate Supply Curve: Short-run vs. Long-run**

- **预期对总供给曲线位置的影响在解释经济如何从短期转向长期时起了关键作用。**

**The  
influence of expectations on the position of  
the aggregate-supply curve plays a key  
role in explaining how the economy makes  
the transition from the short run to the  
long run.**



# 总供给曲线：短期与长期

## The Aggregate Supply Curve: Short-run vs. Long-run

- 短期中，预期价格水平不变，实际价格水平的上升增加了产品供给量，得到一条向上倾斜的总供给曲线。

In the short run, expected price level is fixed, an increase in actual price level will increase the quantity of output supplied, leading to an upward aggregate supply curve.

- 长期中，预期价格水平与实际价格水平相等，得到一条垂直于自然产量率处的总供给曲线。

In the long run, expected price level is equal to actual price level, leading to a vertical aggregate supply curve at the natural rate of output.



# 总供给曲线：短期与长期

## The Aggregate Supply Curve: Short-run vs. Long-run

- 短期总供给曲线向上倾斜。  
In the **short run**, the aggregate-supply curve is **upward sloping**.
- 长期总供给曲线是垂直的。  
In the **long run**, the aggregate-supply curve is **vertical**.



# 长期总供给曲线

## The Long-Run Aggregate Supply Curve

- 垂直的长期总供给曲线是古典理论的图形表示。  
The vertical long-run aggregate-supply curve is a graphical representation of the classical theory.

- 在长期中，经济的物品与服务的生产依赖于它的劳动、资本与自然资源的供给，以及将这些生产要素转化为产品与服务的可行技术。

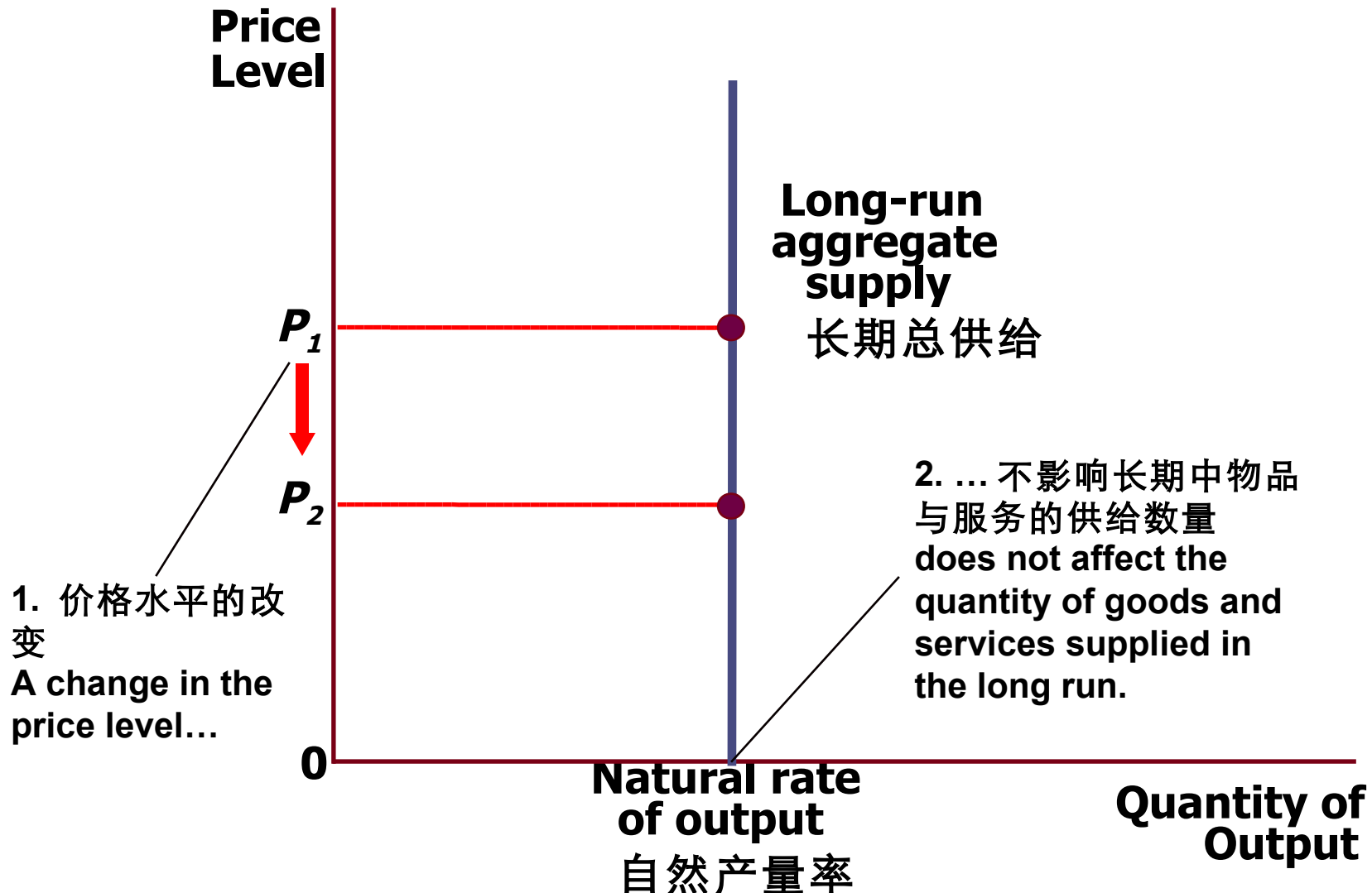
In the long-run, an economy's production of goods and services depends on its supplies of labor, capital, and natural resources and on the available technology used to turn these factors of production into goods and services.

- 价格水平在长期中不影响这些变量。

The price level does not affect these variables in

# 长期总供给曲线

## The Long-Run Aggregate- Supply Curve...





# 长期总供给曲线

## The Long-Run Aggregate Supply Curve

- 长期总供给曲线垂直于**自然产量率**处。  
The long-run aggregate supply curve is vertical at the **natural rate of output**.
- 这一生产水平也被称为**潜在产出或充分就业产出**。

This level of production is also referred to as **potential output** or **full-employment output**.

# 总供给曲线为什么会移动：自然产量率的变动

## Why the Aggregate Supply Curve Might Shift: The Change of Natural Rate of Output

- 任何改变自然产量率的经济变化都会同样地移动短期和长期的总供给曲线。

**Any change in the economy that alters the natural rate of output shifts the aggregate-supply curve, both long-run and short-run.**

- 这样的移动可以按照古典模型中影响产出的若干因素来分类。

**The shifts may be categorized according to the various factors in the classical model that affect output.**

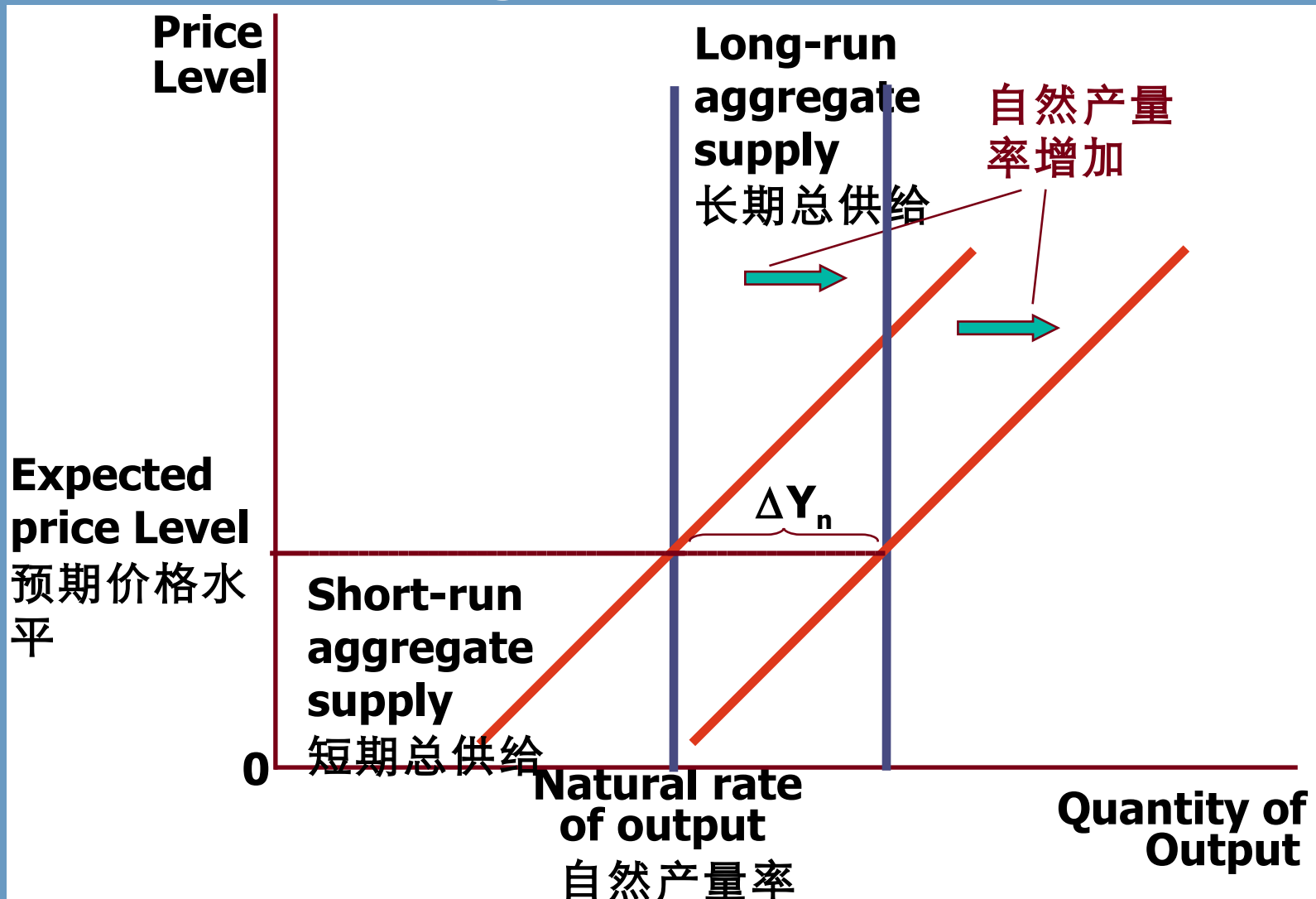
# 总供给曲线为什么会移动：自然产量率的变动

## Why the Aggregate Supply Curve Might Shift: The Change of Natural Rate of Output

- 来自劳动的移动  
Shifts arising from Labor
- 来自资本的移动  
Shifts arising from Capital
- 来自自然资源的移动  
Shifts arising from Natural Resources
- 来自技术知识的移动  
Shifts arising from Technological Knowledge

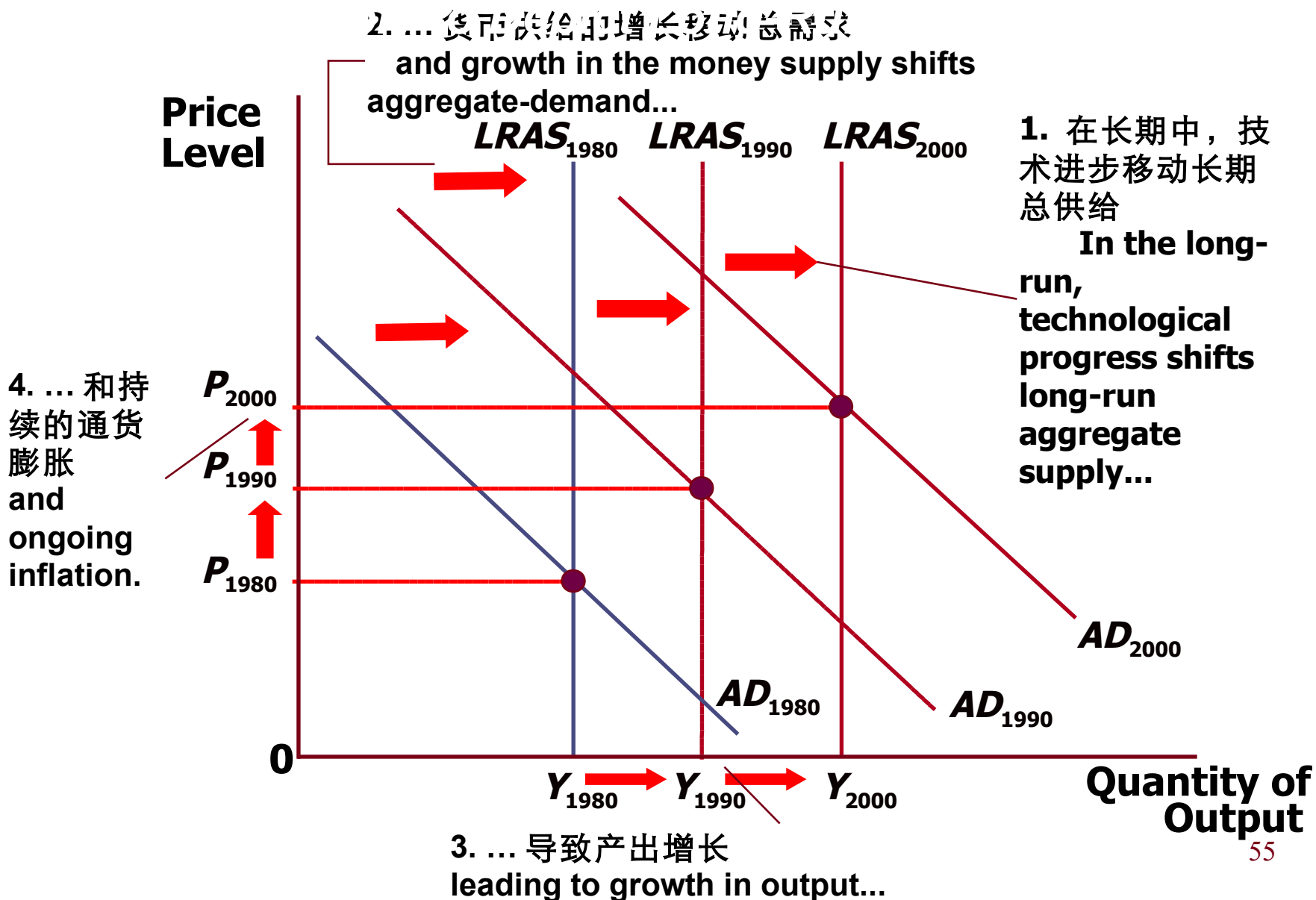
# 总供给曲线为什么会移动：自然产量率的变动

## Why the Aggregate Supply Curve Might Shift: The Change of Natural Rate of Output



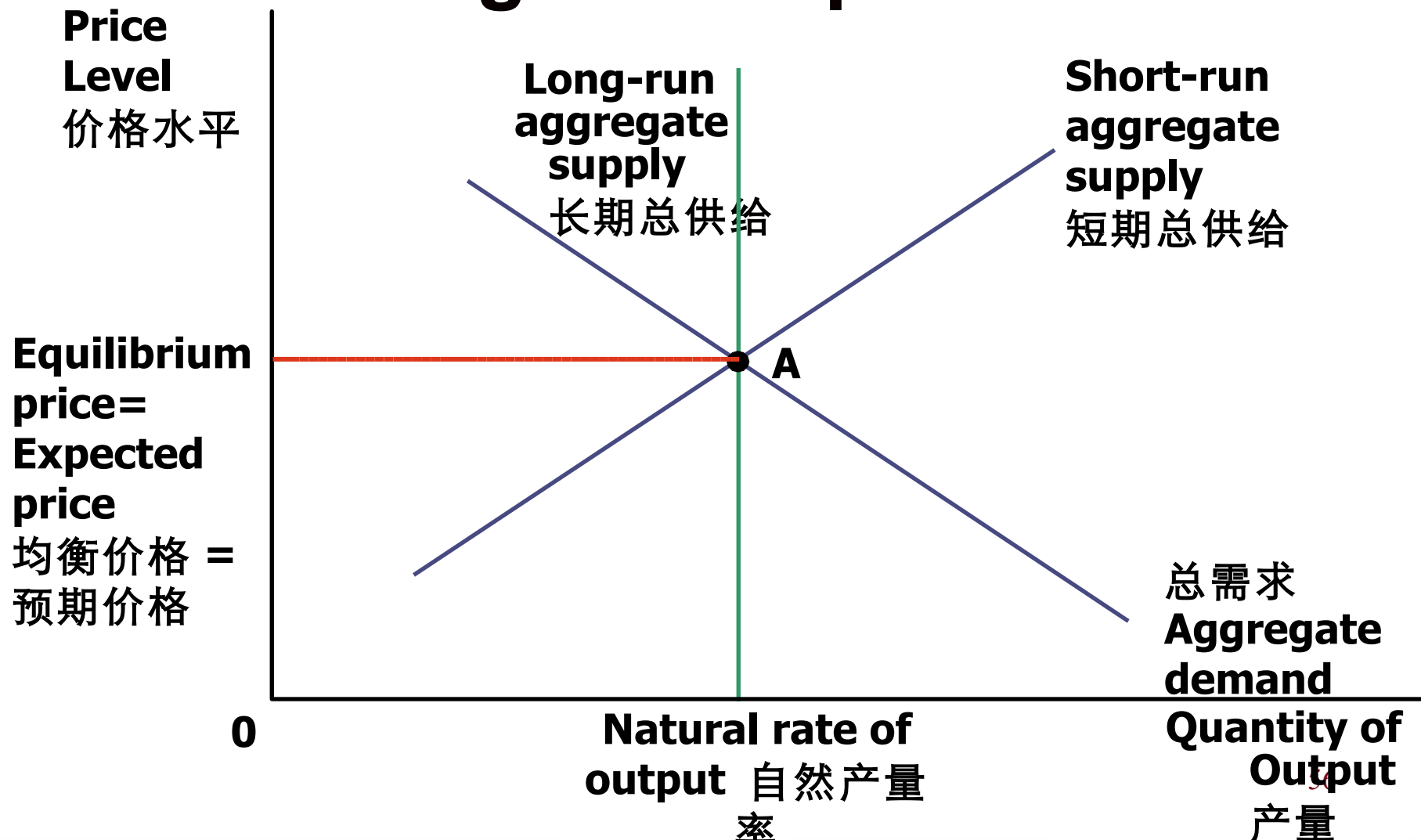
# 运用总供求模型描述长期增长与通货膨胀……

## Using Aggregate Demand and



# 长期均衡

## The Long-Run Equilibrium







# 长期均衡

## The Long-Run Equilibrium

- 当经济达到长期均衡时，预期价格水平调整到与实际价格水平相等。

When the economy reaches this long-run equilibrium, the expected price level will have adjusted to equal the actual price level.

- 产出等于自然产量率。

The output equals to its natural rate.

- 经济的长期均衡处于总需求曲线、短期和长期总供给曲线的交点处。

The long-run equilibrium of the economy is found where the aggregate-demand curve crosses the short-run and long-run aggregate-supply curve.



# **经济波动的两大原因**

## **Two Causes of Economic Fluctuations**

**分析经济波动的四个步骤：**

**Four steps in the process of analyzing economic fluctuations:**

- **决定事件是影响总供给还是总需求**

**Determine whether the event affects aggregate supply or aggregate demand.**

- **决定曲线移动的方向**

**Decide which direction the curve shifts.**

- **使用图形比较短期内的新旧均衡**

**Use the diagram to compare the initial and the new equilibrium in the short run**

- **找出经济从短期均衡到长期均衡的转移路径**

**Keep track of the transition between the short and**

# 经济波动的两大原因

## Two Causes of Economic Fluctuations

- 总需求移动

Shifts in aggregate demand

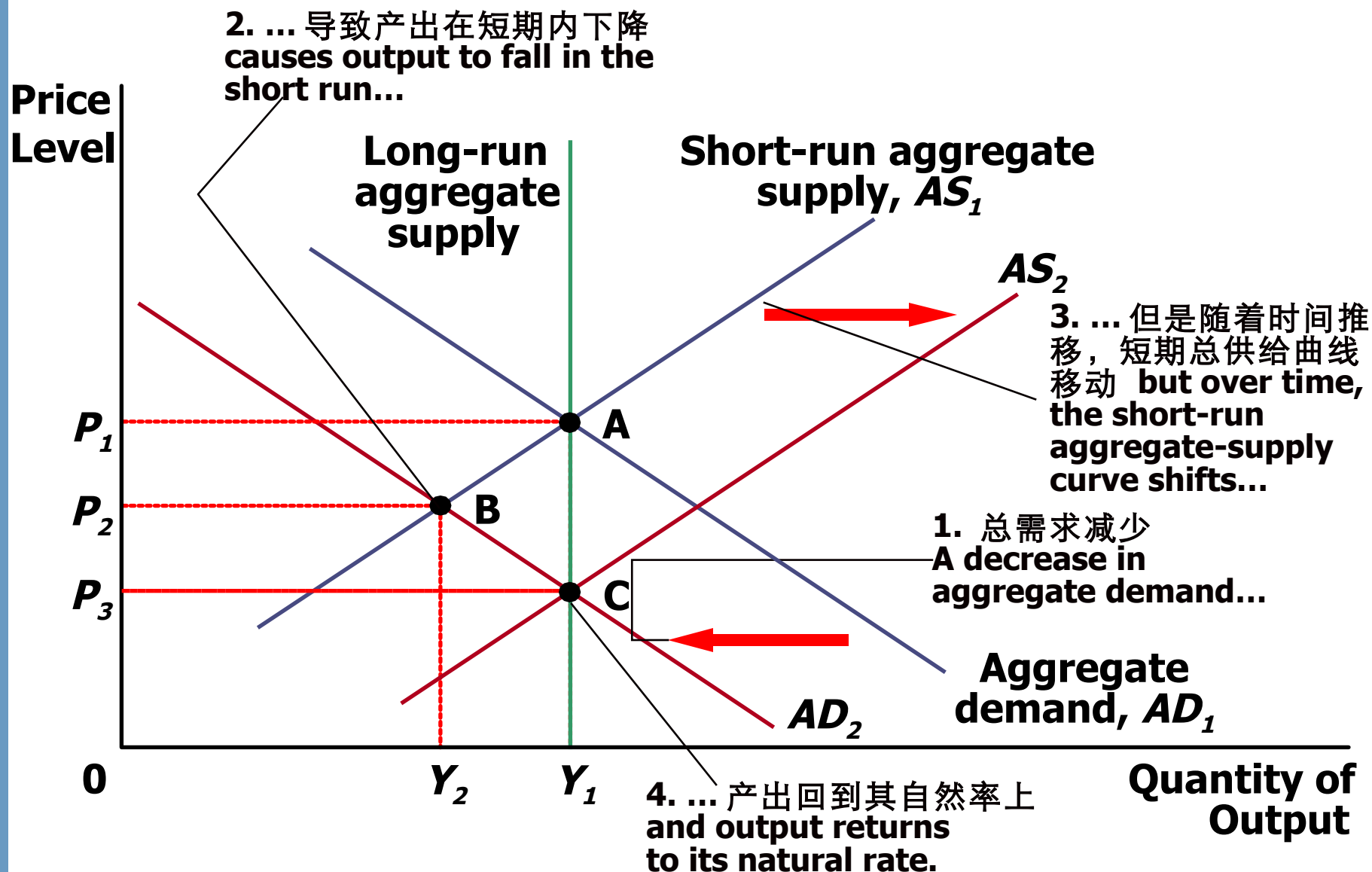
- 总供给移动

Shifts in aggregate supply



# 总需求的收缩.....

## A Contraction in Aggregate Demand...



# 总需求移动

## Shifts in Aggregate Demand

- 在短期内，总需求的移动导致经济中物品与服务的产出发生波动。

In the short run, shifts in aggregate demand cause fluctuations in the economy's output of goods and services.

- 在长期中，总需求的移动影响整体的价格水平但不影响产出。

In the long run, shifts in aggregate demand affect the overall price level but do not affect output.

- 通过影响总需求，政策制定者有可能能够缓解经济波动的严重影响。

Policy makers who influence aggregate demand can potentially mitigate the severity of economic fluctuations.

# 总供给的不利移动

## An Adverse Shift in Aggregate Supply

- 除预期外的决定总供给的因素的不利变动将短期和长期曲线都向左移动。

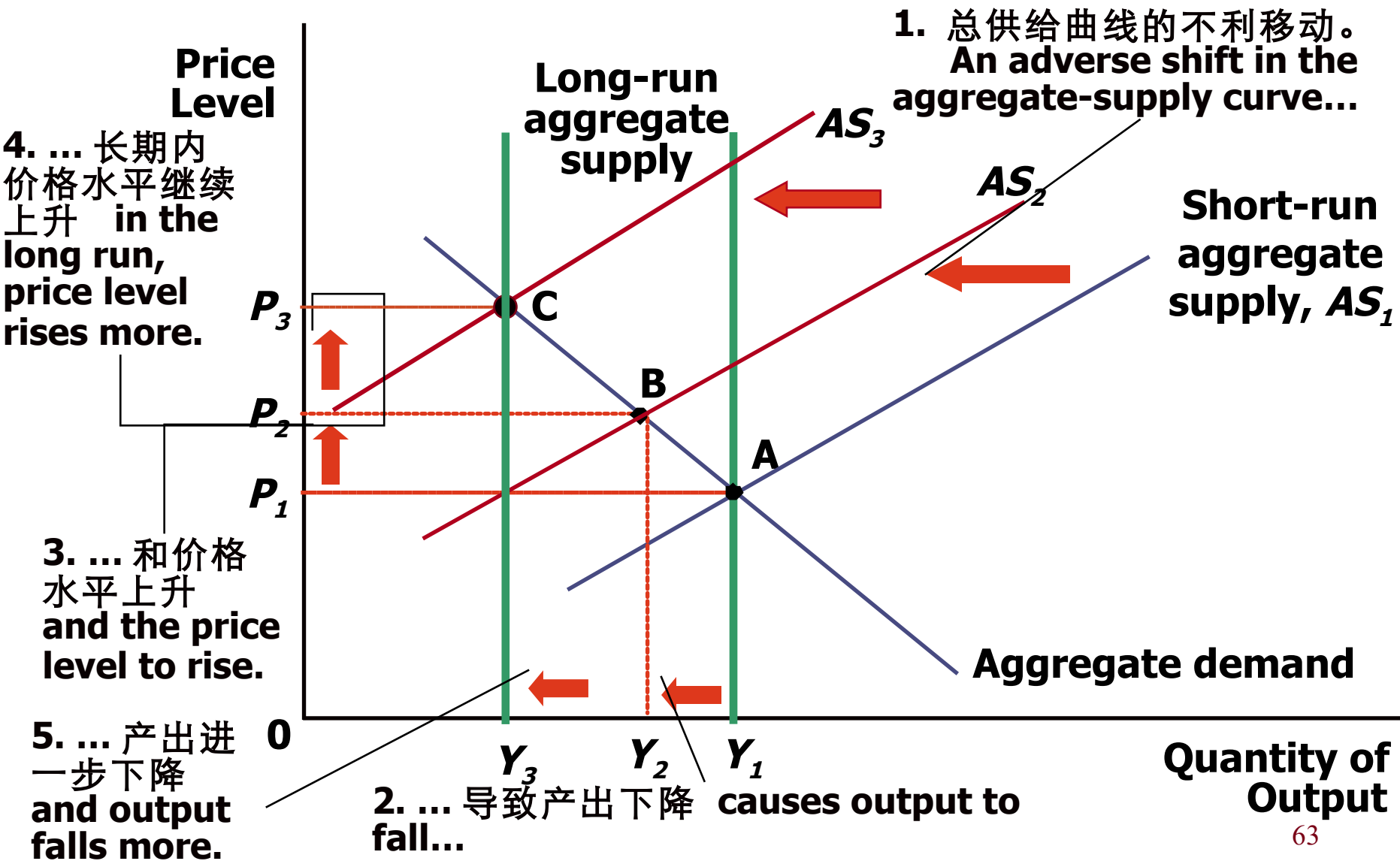
**An adverse change in one of the determinants of aggregate supply except for expectation shifts both the short-run and long-run curves to the left:**

- 自然产量率下降。

**The natural rate of output fall.**

# 总供给的不利移动.....

## An Adverse Shift in Aggregate Supply...



# 滞胀

## Stagflation

- 总供给的不利移动导致**滞胀**——衰退和通货膨胀并存。

Adverse shifts in aggregate supply cause **stagflation**—a combination of recession and inflation.

- 产出下降，失业增加，价格上升。

Output falls, unemployment rises, and prices rise.

- 政策制定者能够影响总需求，但不能同时抵消这两种不利的影响。

Policymakers who can influence aggregate demand cannot offset both of these adverse effects simultaneously.





# 对于衰退的政策反应

## Policy Responses to Recession

- 政策制定者对衰退的反应可以是以下方式之一

**Policymakers may respond to a recession in one of the following ways:**

- 什么也不做，等待价格和工资的调整。

**Do nothing and wait for prices and wages to adjust.**

- 采取行动，通过货币与财政政策来增加总需求。

**Take action to increase aggregate demand by using**

# 对于衰退的政策反应

## Policy Responses to Recession

**对即使是短期的经济衰退做出适当的政策反应，来源于凯恩斯的主张。**

**The long run is a misleading guide to current affairs. In the long run we are all dead.**

**Economists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us when the storm is long past, the ocean will be flat.**

**- John Maynard Keynes**



# 总结

## Summary

- **所有社会都经历了围绕长期趋势的短期经济波动 All societies experience short-run economic fluctuations around long-run trends.**
- **这些波动是不规则的，大多不可预测。**  
**These fluctuations are irregular and largely unpredictable.**
- **当衰退发生时，实际 GDP 和其他一些衡量收入、支出和生产的指标都会下降，失业上升。**  
**When recessions occur, real GDP and other measures of income, spending, and production fall, and unemployment rises.**



# 总结

## Summary

- 经济学家使用总需求与总供给模型来分析短期经济波动。

**Economists analyze short-run economic fluctuations using the aggregate demand and aggregate supply model.**

- 按照总需求与总供给模型，物品与服务的产出和整体价格水平做出调整，以平衡总需求与总供给。

**According to the model of aggregate demand and aggregate supply, the output of goods and services and the overall level of prices adjust to balance aggregate demand and aggregate supply.**



# 总结

## Summary

- 总需求曲线向下倾斜的原因有三：财富效应、利率效应与汇率效应。

The aggregate-demand curve slopes downward for three reasons: a wealth effect, an interest rate effect, and an exchange rate effect.

- 如果任何事件或政策在给定的价格水平上改变了消费、投资、政府购买或净出口，它也将移动总需求曲线。

Any event or policy that changes consumption, investment, government purchases, or net exports at a given price level <sup>69</sup> will shift the aggregate demand curve.



# 总结

## Summary

- 解释（短期）总供给曲线向上倾斜的理论有三个：错觉理论、粘性工资理论与粘性价格理论。  
The are three theories explaining the upward slope of (short-run) aggregate supply: the misperceptions theory, the sticky-wage theory, and the sticky-price theory.
- 在短期内，总供给曲线向上倾斜。  
The short-run, the aggregate supply curve is upward sloping.
- 在长期中，总供给曲线是垂直的。  
In the long run, the aggregate supply curve is vertical.



# 总结

## Summary

- 改变经济产出能力的事件，将移动短期和长期总供给曲线。

**Events that alter the economy's ability to produce output will shift both the short-run and long-run aggregate-supply curve.**

- 此外，短期总供给曲线的位置依赖于预期价格水平。

**Also, the position of the short-run aggregate-supply curve depends on the expected price level.**



# 总结

## Summary

- 经济波动的一个可能成因是总需求的移动。  
One possible cause of economic fluctuations is a shift in aggregate demand.
- 经济波动的第二个可能的成因是总供给的移动。  
A second possible cause of economic fluctuations is a shift in aggregate supply.
- 滞胀是产出下降且价格上升的时期。  
Stagflation is a period of falling output and rising prices.