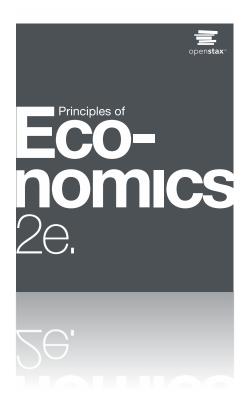
### **PRINCIPLES OF ECONOMICS 2e**

#### **Chapter 26 The Neoclassical Perspective**





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#### **CH.13 OUTLINE**



- 26.1: Building Blocks of Neoclassical Analysis
- 26.2: Policy Implications of the Neoclassical Perspective
- 26.3: Balancing Keynesian and Neoclassical Perspectives

### **Impact of the Great Recession**





(Credit: modification of work by A McLin/Flickr Creative Commons)

- The housing-market collapse of the Great Recession (2007-2009) devastated many regions.
- Many people were forced to abandon their homes and other buildings, including ones midway through construction.

# **26.1 The Building Blocks of Neoclassical Analysis**



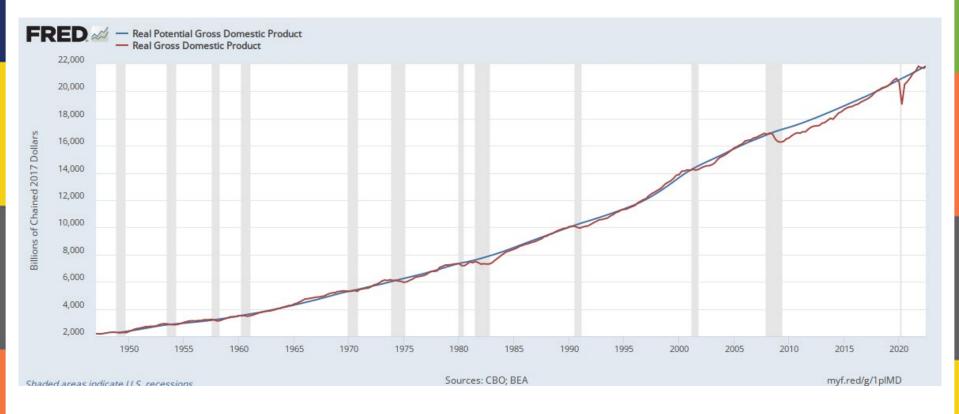
- Neoclassical perspective:
  - in the long run, the business cycle will fluctuate around the potential, or full-employment, level of output.
- Two building blocks of neoclassical economics:
  - Potential GDP is the primary determinate of actual GDP (especially in the long run).
  - Wages and prices eventually adjust in a flexible manner so that the economy will adjust back to its potential GDP level of output.

# The Importance of Potential GDP in the Long Run



- "Potential GDP" is the level of output that an economy can achieve when <u>all resources</u> (land, labor, capital, and entrepreneurial ability) are fully employed.
  - While the unemployment rate in labor markets will never be zero, full employment in the labor market refers to <u>zero</u> <u>cyclical unemployment</u>.
- Economists benchmark actual or real GDP against the potential GDP to determine how well the economy is performing.
  - Over the long run, the level of potential GDP determines the size of real GDP.

#### **Potential vs Actual GDP**



Source: https://fred.stlouisfed.org/graph/?g=1pIMD

Real potential GDP is the nonpartisan CBO's estimate.

Most economic recessions and upswings are times when the economy is 1–3% below or above potential GDP in a given year.

#### **Potential vs Actual GDP (ratio scale)**



Source: https://fred.stlouisfed.org/graph/?g=1plNa

- Actual GDP falls below potential GDP during and after recessions
  - recessions of 1980,1981–82, 1990–91, 2001, and 2008– 2009 and 2020.
- In other cases, actual GDP can be above potential GDP for a time, as in the "new economy" of the late 1990s.

# **Increasing and Investing in Physical and Human Capital**



 GDP growth can be explained by increases and investment in physical capital and human capital per person, as well as advances in technology.

#### Physical capital per capita (i.e., per person):

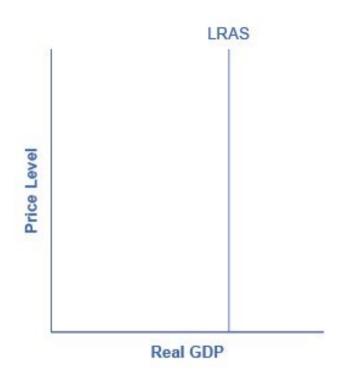
 the amount and kind of machinery and equipment available to help a person produce a good or service.

#### Human capital per capita

- levels of knowledge, education, and skill sets per person through vocational or higher education.
- Physical and human capital improvements with technological advances will increase overall productivity and, thus, GDP.

### **A Vertical Aggregate Supply Curve**





- Neoclassical perspective puts heavy weight on the LR
  - the long-run aggregate supply curve is vertical at the level of potential GDP.
  - Over time, the LRAS curve shifts to the right as productivity increases and potential GDP expands.

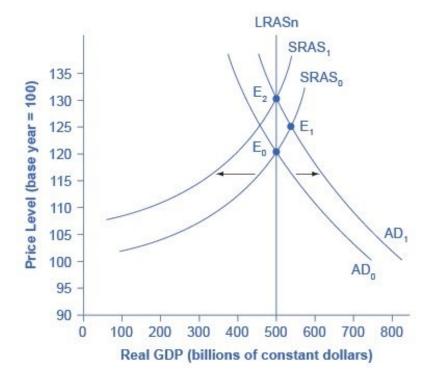
#### **The Role of Flexible Prices**



- Neoclassical economists emphasize that even if <u>wages and</u> <u>prices</u> are "sticky" in the short run, they are still <u>flexible over time</u>.
- An economy may produce above its level of potential GDP in the short run, due to a surge in aggregate demand.
- However, the economy cannot sustain production above its potential GDP in the long run.
- Over the long run, the surge in aggregate demand ends up as an increase in the price level, not as a rise in output.

## The Rebound to Potential GDP after AD Increases

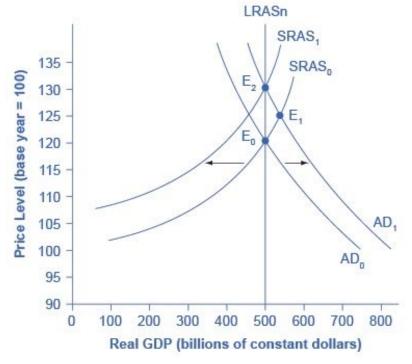




- Original equilibrium (E<sub>0</sub>) at the intersection of AD<sub>0</sub> and SRAS<sub>0</sub>.
- The output at  $E_0$  is equal to <u>potential GDP</u>.
- Aggregate demand shifts right from AD<sub>0</sub> to AD<sub>1</sub>.
- The new equilibrium is E<sub>1</sub>, with a higher output level and price level, but this is not sustainable.

## The Rebound to Potential GDP after AD Increases, Continued

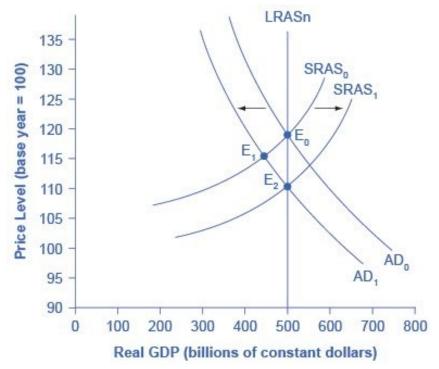




- Since unemployment is unsustainably low, eager employers bid up wages.
- This increases the price of a major input to production, thus shifting the shortrun aggregate supply to the left, from SRAS<sub>0</sub> to SRAS<sub>1</sub>.
- New equilibrium (E<sub>2</sub>): the original level of output, but at a higher price level.
- LRAS<sub>n</sub>, which is vertical at the level of potential GDP, determines the level of real GDP in this economy in the long run.

## A Rebound Back to Potential GDP from a Shift to the Left in Aggregate Demand



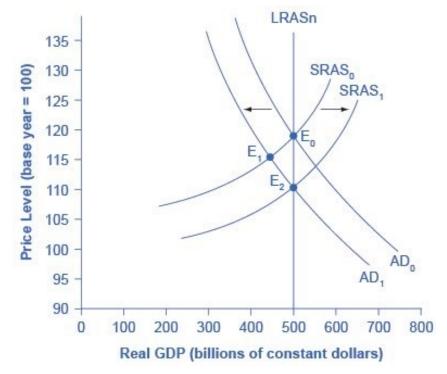


- Original equilibrium (E<sub>0</sub>) at the intersection of AD<sub>0</sub> and SRAS<sub>0</sub>.
- The output at  $E_0$  is equal to <u>potential GDP</u>.
- Aggregate demand shifts LEFT from AD<sub>0</sub> to AD<sub>1</sub>.
- The new equilibrium is E<sub>1</sub>, with a lower output level and price level, but this is not sustainable.

A Rebound Back to Potential GDP from a Shift to the Left in Aggregate Demand,

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**Continued** 



- Since unemployment is unsustainably high, job seekers bid down wages.
- This decreases the price of a major input to production, thus shifting the short-run aggregate supply to the right, from SRAS<sub>0</sub> to SRAS<sub>1</sub>.
- New equilibrium (E<sub>2</sub>): the original level of output, but at a lower price level.
- LRAS<sub>n</sub>, which is vertical at the level of potential GDP, determines the level of real GDP in this economy in the long run.

### **Expected Inflation**

- Expected inflation:
  - future rate of inflation that consumers and firms build into current decision making.
  - expectations formation affects adjustment speed
- Keynesian perspective: pervasive uncertainty means expectations can deviate from reality for long periods of time.
- Neoclassical perspective: people use information efficiently to produce accurate predictions rather quickly.

### **Speed of Macroeconomic Adjustment**



An extreme view of expectations formation is given by the rational expectations hypothesis.

#### Rational expectations hypothesis (RATEX):

- people form the most accurate possible expectations about the future, using all information available to them
- RATEX theory implies that people will recognize when the economy is heading toward a change in the price level and will act quickly on that expectation
  - economic adjustments may happen very quickly
  - avoids a drawn-out zigzag of output and employment.

# How Fast Is the Speed of Macroeconomic Adjustment?, Continued



 An alternate assumption is that people and firms act with adaptive expectations.

#### Adaptive expectations hypothesis:

- based on experience, people gradually adapt their beliefs and behavior as circumstances change.
- "I'll believe it when I see it."
- People not unbiased synthesizers of information and accurate predictors of the future.
- If most people and businesses have some form of adaptive expectations, then the adjustment from the short run to the long run will <u>occur slowly over time</u>.

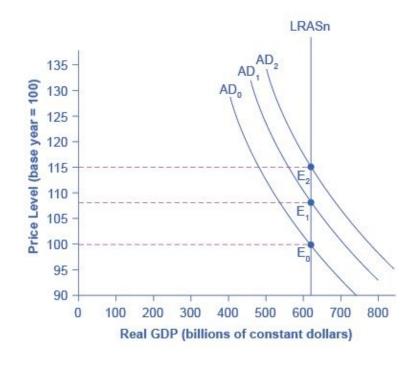
# **26.2 The Policy Implications of the Neoclassical Perspective**



- Keynesian perspective: government should adjust AD so that the economy produces at its potential GDP.
  - Not so low that cyclical unemployment results and not so high that inflation results.
- <u>Neoclassical perspective:</u> government intervention is not necessary, since output quickly adjusts to potential GDP.
  - The natural rate of unemployment determines unemployment.
  - Shifts in aggregate demand primarily determine changes in the price level (rather than output).

## In the Long Run, Aggregate Demand Determines the Price Level

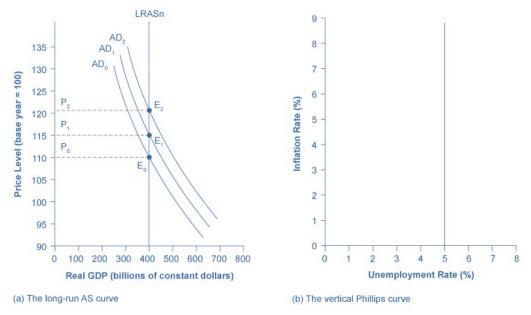




- Aggregate demand shifts to the right, from AD<sub>0</sub> to AD<sub>1</sub> to AD<sub>2</sub>,
  - real GDP and unemployment do not change.
  - there is inflationary pressure for a higher price level as the equilibrium changes from E<sub>0</sub> to E<sub>1</sub> to E<sub>2</sub>.
- In the long-run, increases in aggregate demand lead only to higher prices.

# From a Long-Run AS Curve to a Long-Run Phillips Curve

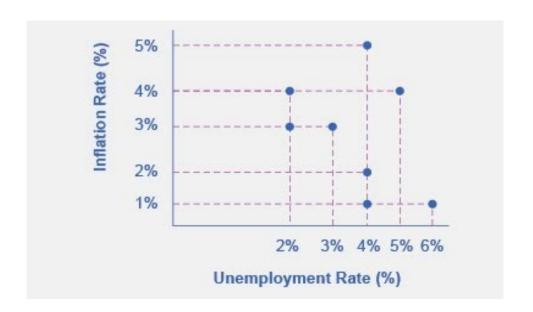




- Graph (a): focusing on the vertical LRAS curve, AD shifts do not alter the level of output but do lead to changes in the price level.
- Output is unchanged between the equilibria  $E_0$ ,  $E_1$ , and  $E_2$ ,
  - all unemployment in this economy is the <u>natural rate</u> of unemployment.
- Graph (b): the natural rate of unemployment is 5%, and the Phillips curve is vertical.
  - Regardless of changes in the price level, the <u>unemployment rate</u> remains at 5%.

### **Tracking Inflation and Unemployment Rates**





- This graph shows US inflation and unemployment rates averaged every 5 years between 1970 and 2000. How to interpret?
- We can perhaps see a short-run Phillips curve that exhibits the inverse trade off between higher unemployment and lower inflation rates.
- But we can also see a long-run Phillips curve at roughly a 4% natural rate of unemployment.
- To say more, we need to turn to statistical tools.

### **Fighting Unemployment or Inflation?**



- When the economy is producing at potential GDP, cyclical unemployment will be zero.
- Neoclassical perspective on unemployment policy:
  - focuses on how the government can adjust public policy to reduce the <u>natural rate</u> of unemployment.
  - does <u>not</u> tend to see aggregate demand as a useful tool for reducing unemployment.
    - Since a vertical LRAS curve determines economic output, then aggregate demand has no long-run effect on unemployment.
  - (AD can be allowed to expand to match the gradual shifts of aggregate supply to the right - keeping the price level much the same and inflationary pressures low.)

### **Prioritizing Long-Term Growth**

- Neoclassical perspective on macroeconomic adjustment:
  - the economy will rebound out of a recession or eventually contract following a boom.
  - flexible prices and wage rates will adjust (either upward or downward) to restore the economy to its **potential GDP**.
- Neoclassical perspective on economic growth
  - economic growth ultimately depends on productivity growth.
  - Policy implication: invest in human capital, physical capital, and technology.
  - Policy implication: support a market-oriented environment that rewards innovation.

The key policy question for neoclassicals is how to promote growth of potential GDP.

## **26.3 Balancing Keynesian and Neoclassical Models**



- Many mainstream economists believe that <u>both</u> the Keynesian and neoclassical perspectives offer helpful guidance.
  - At shorter time scales (and during deep and long-lasting recessions), a Keynesian perspective is appropriate.
  - For policies with a longer-run focus, a neoclassical perspective provides better guidance.

### **Policy and the Long Run**

"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, that when the storm is long past, the ocean is flat again."

J.M. Keynes, Tract on Monetary Reform, 1923

### **Policy and the Long Run**

"Is there some action a government of India could take that would lead the Indian economy to grow like Indonesia's or Egypt's? If so, what exactly? If not, what is it about the 'nature of India' that makes it so? The consequences for human welfare involved in questions like these are simply staggering: once one starts to think about them, it is hard to think about anything else."

Robert E. Lucas, "On the Mechanics of Economic Development." Journal of Monetary Economics. 22 July, 1988, p. 5:

# **Keynesians vs Neoclassicals Oversimplification: Keynes vs Hayek**

"In one sense, we are all Keynesians now; in another, nobody is any longer a Keynesian." – Milton Friedman, 1966

"This is what we believe." – Margaret Thatcher, mid-1970s, while pulling Hayek's book *The Constitution of Liberty* from her briefcase and slamming it on the table.

Recommended video: Fear the Boom and the Bust: https://www.youtube.com/watch?v=d0nERTFo-Sk

END