

AP MACROECONOMICS

UNIT 5

Long-Run Consequences of Stabilization Policies



20–30%
AP EXAM WEIGHTING



~8–10
CLASS PERIODS

The icon consists of a white circle containing a blue square with the letters 'AP' in white. Below the square is a small blue monitor icon with two vertical lines representing a stand.

Remember to go to [AP Classroom](#) to assign students the online **Personal Progress Check** for this unit.

Whether assigned as homework or completed in class, the **Personal Progress Check** provides each student with immediate feedback related to this unit's topics and skills.

Personal Progress Check 5
Multiple-choice: ~20 questions
Free-response: 1 question

- Long

Long-Run Consequences of Stabilization Policies



Developing Understanding

BIG IDEA 1

Economic Measurements **MEA**

- How does an economy grow?

BIG IDEA 3

Macroeconomic Models **MOD**

- What is the relationship between inflation and unemployment?

BIG IDEA 4

Macroeconomic Policies **POL**

- How do monetary and fiscal policies affect the economy in the long run?

In many ways, Unit 5 is a culmination and an extension of material that has been introduced previously. For example, in Units 3 and 4, students learned that public policy can affect the economy's output, price level, and level of employment in the short run; in this unit, students will build on this understanding to examine the long-run implications of policy actions and the concept of economic growth.

Similarly, in Unit 2 students were introduced to inflation and unemployment as economic indicators, and in Unit 3 they learned about the relationship between inflation and unemployment; in this unit, students explore how the Phillips curve model is used to represent this relationship in the short run and long run.

Building Course Skills

2.A 2.B 3.A 3.B 4.B

In this unit, it helps to place a strong emphasis on fully explaining cause-and-effect relationships. Each step in the chain of cause and effect should be modeled and practiced so students are able to appropriately predict and explain the consequences of a change. Students often make leaps in their reasoning that generate an incorrect prediction about the consequences of an action. Successful explanations that describe the effects of monetary policy on the economy, for example, begin with a discussion of how monetary policy is likely to affect interest rates. If students are unable to explain how monetary policy affects interest rates and how interest rates affect household and firm spending, then they are unlikely to demonstrate a strong understanding of the long-run consequences of stabilization policies undertaken by a central bank. Make connections for students to topics covered previously so they can recognize and build on earlier concepts.

Preparing for the AP Exam

It is crucial for economists, especially those who advise policymakers, to consider what actions lead to economic growth. In this unit and on the AP Exam, students will be asked to predict and explain the long-run implications of policy actions. To do so, they need to understand the difference between the short run and long run, how economic growth is measured, and the determinants of economic growth.

Questions involving the Phillips curve model are a common challenge area for students on the AP Exam. As with other models introduced in the course, it's important to spend time first establishing the assumptions behind the model and provide sufficient time practicing graphing given economic situations and changes. Students should understand the importance of proper labeling, the difference between movement along the curve versus shifts of the curve, and the distinction between the short run and the long run.

UNIT AT A GLANCE

Enduring Understanding	Topic	Suggested Skills	Class Periods
			~8–10 CLASS PERIODS
POL-1	5.1 Fiscal and Monetary Policy Actions in the Short Run	2.B Using economic concepts, principles, or models, explain how a specific economic outcome occurs when there are multiple contributing variables or what multiple actions should be taken in order to achieve a specific economic outcome.	
MOD-3	5.2 The Phillips Curve	4.B Demonstrate your understanding of a specific economic situation on an accurately labeled graph or visual.	
POL-3	5.3 Money Growth and Inflation	3.A Determine the outcome of an economic situation using economic concepts, principles, or models.	
	5.4 Government Deficits and the National Debt	3.A Determine the outcome of an economic situation using economic concepts, principles, or models.	
	5.5 Crowding Out	3.B Determine the effect(s) of one or more changes on other economic markets.	
MEA-2, MOD-1	5.6 Economic Growth	2.A Using economic concepts, principles, or models, explain how a specific economic outcome occurs or what action should be taken in order to achieve a specific economic outcome.	
POL-4	5.7 Public Policy and Economic Growth	2.A Using economic concepts, principles, or models, explain how a specific economic outcome occurs or what action should be taken in order to achieve a specific economic outcome.	



Go to [AP Classroom](#) to assign the **Personal Progress Check** for Unit 5. Review the results in class to identify and address any student misunderstandings.

SAMPLE INSTRUCTIONAL ACTIVITIES

The sample activities on this page are optional and offered to provide possible ways to incorporate various instructional approaches into the classroom. Teachers do not need to use these activities or instructional approaches and are free to alter or edit them. The examples below were developed in partnership with teachers from the AP community to share ways that they approach teaching some of the topics in this unit. Please refer to the Instructional Approaches section beginning on p. 113 for more examples of activities and strategies.

Activity	Topic	Sample Activity
1	5.2	<p>Activating Prior Knowledge</p> <p>Introduce the Phillips curve with a review of what they learned about AD–AS analysis beginning in Unit 3. Have students draw the AD–AS model, then shift AD, and then describe the resulting change in unemployment and price level. Use students’ responses to draw the connection between shifts of AD with movement along the short-run Phillips curve. Similarly, point out the correspondence between shifts in the short-run aggregate supply (SRAS) curve and shifts of the short-run Phillips curve.</p>
2	5.4	<p>Debate</p> <p>Have students collect and orally present evidence supporting the affirmative and negative arguments for whether the United States should adopt a balanced budget amendment.</p>
3	5.7	<p>Fishbowl</p> <p>Provide students with a series of national policy decisions and have some students form an inner circle to discuss the expected effect of those policy decisions on economic growth. The remaining students will form an outer circle to listen, respond, and evaluate.</p>

Unit Planning Notes

Use the space below to plan your approach to the unit. Consider how you want to pace your course and methods of instruction and assessment.

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SUGGESTED SKILL

 Interpretation

2.B

Using economic concepts, principles, or models, explain how a specific economic outcome occurs when there are multiple contributing variables or what multiple actions should be taken in order to achieve a specific economic outcome.



AVAILABLE RESOURCES

- External Resource >
 - ♦ [Davidson Next AP Macroeconomics Course—Monetary Policy](#)
 - ♦ [Davidson Next AP Macroeconomics Course—Fiscal Policy](#)

TOPIC 5.1

Fiscal and Monetary Policy Actions in the Short Run

Required Course Content

ENDURING UNDERSTANDING

POL-1

Fiscal and monetary policy have short-run effects on macroeconomic outcomes.

LEARNING OBJECTIVE

POL-1.F

Explain (using graphs as appropriate) the effects of combined fiscal and monetary policy actions.

ESSENTIAL KNOWLEDGE

POL-1.F.1

A combination of expansionary or contractionary fiscal and monetary policies may be used to restore full employment when the economy is in a negative (i.e., recessionary) or positive (i.e., inflationary) output gap.

POL-1.F.2

A combination of fiscal and monetary policies can influence aggregate demand, real output, the price level, and interest rates. [For additional details on fiscal and monetary policy actions and how to demonstrate their effects graphically, see LO POL-1.A and LO POL-1.D.]

TOPIC 5.2

The Phillips Curve

SUGGESTED SKILL

 *Graphing and Visuals*

4.B

Demonstrate your understanding of a specific economic situation on an accurately labeled graph or visual.



Required Course Content

ENDURING UNDERSTANDING

MOD-3

The Phillips curve model is used to represent the relationship between inflation and unemployment and to illustrate how macroeconomic shocks affect inflation and unemployment.

LEARNING OBJECTIVE

MOD-3.A

- Define (using graphs as appropriate) the short-run Phillips curve and the long-run Phillips curve.
- Explain (using graphs as appropriate) short-run and long-run equilibrium in the Phillips curve model.

ESSENTIAL KNOWLEDGE

MOD-3.A.1

The short-run trade-off between inflation and unemployment can be illustrated by the downward-sloping short-run Phillips curve (SRPC).

MOD-3.A.2

An economy is always operating somewhere along the SRPC.

MOD-3.A.3

The long-run relationship between inflation and unemployment can be illustrated by the long-run Phillips curve (LRPC), which is vertical at the natural rate of unemployment.

MOD-3.A.4

Long-run equilibrium corresponds to the intersection of the SRPC and the LRPC.

MOD-3.A.5

Points to the left of long-run equilibrium represent inflationary gaps, while points to the right of long-run equilibrium represent recessionary gaps.

AVAILABLE RESOURCES

- External Resource > [Davidson Next AP Macroeconomics Course—Phillips Curve](#)
- Classroom Resources >
 - Mastering Economic Thinking Skills – *Focusing on the Phillips Curve and Exchange Rates in Macroeconomics*
 - Mastering Economic Thinking Skills – *The Short Run and Long Run Phillips Curves*
 - Well, What Do You Expect? *Inflationary Expectations and Macroeconomic Variables*

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LEARNING OBJECTIVE**MOD-3.B**

Explain (using graphs as appropriate) the response of unemployment and inflation in the short run and in the long run.

ESSENTIAL KNOWLEDGE**MOD-3.B.1**

Demand shocks correspond to movement along the SRPC.

MOD-3.B.2

Supply shocks correspond to shifts of the SRPC.

MOD-3.B.3

Factors that cause the natural rate of unemployment to change will cause the LRPC to shift.

TOPIC 5.3

Money Growth and Inflation

SUGGESTED SKILL

 Manipulation

3.A

Determine the outcome of an economic situation using economic concepts, principles, or models.

Required Course Content

ENDURING UNDERSTANDING

POL-3

There are long-run implications of monetary and fiscal policy.

LEARNING OBJECTIVE

POL-3.A

- Explain (using graphs as appropriate) how inflation is a monetary phenomenon.
- Define the quantity theory of money.
- Calculate the money supply, velocity, the price level, and real output using the quantity theory of money.

ESSENTIAL KNOWLEDGE

POL-3.A.1

Inflation (deflation) results from increasing (decreasing) the money supply at too rapid of a rate for a sustained period of time.

POL-3.A.2

When the economy is at full employment, changes in the money supply have no effect on real output in the long run.

POL-3.A.3

In the long run, the growth rate of the money supply determines the growth rate of the price level (inflation rate) according to the quantity theory of money.

SUGGESTED SKILL

 Manipulation

3.A

Determine the outcome of an economic situation using economic concepts, principles, or models.



AVAILABLE RESOURCE

- External Resource > [Davidson Next AP Macroeconomics Course—Fiscal Policy](#)

TOPIC 5.4

Government Deficits and the National Debt

Required Course Content

ENDURING UNDERSTANDING

POL-3

There are long-run implications of monetary and fiscal policy.

LEARNING OBJECTIVE

POL-3.B

- Define the government budget surplus (deficit) and national debt.
- Explain the issues involved with the burden of the national debt.

ESSENTIAL KNOWLEDGE

POL-3.B.1

The government budget surplus (deficit) is the difference between tax revenues and government purchases plus transfer payments in a given year.

POL-3.B.2

A government adds to the national debt when it runs a budget deficit.

POL-3.B.3

A government must pay interest on its accumulated debt, thus increasing the national debt and increasingly forgoing using those funds for alternative uses. [See also LO POL-3.C on crowding out.]

TOPIC 5.5

Crowding Out

SUGGESTED SKILL

 Manipulation

3.B

Determine the effect(s) of one or more changes on other economic markets.



AVAILABLE RESOURCE

- External Resource > [Davidson Next AP Macroeconomics Course—Fiscal Policy](#)

Required Course Content

ENDURING UNDERSTANDING

POL-3

There are long-run implications of monetary and fiscal policy.

LEARNING OBJECTIVE

POL-3.C

- Define crowding out.
- Explain (using graphs as appropriate) how fiscal policy may cause crowding out.

ESSENTIAL KNOWLEDGE

POL-3.C.1

When a government is in budget deficit, it typically borrows to finance its spending.

POL-3.C.2

A loanable funds market model can be used to show the effect of government borrowing on the equilibrium real interest rate and the resulting crowding out of private investment. [See MKT-4]

POL-3.C.3

Crowding out refers to the adverse effect of increased government borrowing, which leads to decreased levels of interest-sensitive private sector spending in the short run.

POL-3.C.4

A potential long-run impact of crowding out is a lower rate of physical capital accumulation and less economic growth as a result.

SUGGESTED SKILL

 Interpretation

2.A

Using economic concepts, principles, or models, explain how a specific economic outcome occurs or what action should be taken in order to achieve a specific economic outcome.



AVAILABLE RESOURCE

- External Resource > [Davidson Next AP Macroeconomics Course—Economic Growth](#)

TOPIC 5.6

Economic Growth

Required Course Content

ENDURING UNDERSTANDING

MEA-2

The economy fluctuates between periods of expansion and contraction in the short run, but economic growth can occur in the long run.

LEARNING OBJECTIVE

MEA-2.B

- Define measures and determinants of economic growth.
- Explain (using graphs and data as appropriate) the determinants of economic growth.
- Calculate (using graphs and data as appropriate) per capita GDP and economic growth.

ESSENTIAL KNOWLEDGE

MEA-2.B.1

Economic growth can be measured as the growth rate in real GDP per capita over time.

MEA-2.B.2

Aggregate employment and aggregate output are directly related because firms need to employ more workers in order to produce more output, holding other factors constant. This is captured by the aggregate production function.

MEA-2.B.3

Output per employed worker is a measure of average labor productivity.

MEA-2.B.4

Productivity is determined by the level of technology and physical and human capital per worker.

MEA-2.B.5

The aggregate production function shows that output per capita is positively related to both physical and human capital per capita.

ENDURING UNDERSTANDING

MOD-1

The production possibilities curve (PPC) model is used to demonstrate the full employment level of output and to illustrate changes in full employment.

LEARNING OBJECTIVE

MOD-1.B

Explain (using graphs as appropriate) how the PPC is related to the long-run aggregate supply (LRAS) curve.

ESSENTIAL KNOWLEDGE

MOD-1.B.1

An outward shift in the PPC is analogous to a rightward shift of the long-run aggregate supply curve. [See LO MOD-2.I]

SUGGESTED SKILL

 Interpretation

2.A

Using economic concepts, principles, or models, explain how a specific economic outcome occurs or what action should be taken in order to achieve a specific economic outcome.



AVAILABLE RESOURCES

- External Resource > [Davidson Next AP Macroeconomics Course—Economic Growth](#)

TOPIC 5.7

Public Policy and Economic Growth

Required Course Content

ENDURING UNDERSTANDING

POL-4

Authorities and organizations institute policies that affect economic growth.

LEARNING OBJECTIVE

POL-4.A

- Explain (using graphs as appropriate) public policies aimed at influencing long-run economic growth.
- Define supply-side fiscal policies.

ESSENTIAL KNOWLEDGE

[For a description of economic growth and information about how to show it graphically, see LO MEA-2.B, LO MOD-1.B, and LO MOD-2.]

POL-4.A.1

Public policies that impact productivity and labor force participation affect real GDP per capita and economic growth.

POL-4.A.2

Government policies that invest in infrastructure and technology affect growth.

POL-4.A.3

Supply-side fiscal policies affect aggregate demand, aggregate supply, and potential output in the short run and long run by influencing incentives that affect household and business economic behavior.