Economic Indicators and the Business Cycle

← → Developing Understanding

BIG IDEA 1
Economic Measurements MEA
- How is one person's spending another person's income?
- How do we know if an economy is doing well or poorly?

While Unit 1 provided students with an understanding of basic economic theory, Unit 2 sets them up for future analysis of macroeconomic concepts and issues. Students will learn how the economy works with a model of the circular flow of inputs and outputs and the money that pays for them. Students will also explore how economists assess the performance of the economy with an introduction to measures of economic performance and the business cycle. These concepts will be revisited in different contexts and models in the units that follow.

Building Course Skills

1.A 1.B 1.C 1.D 2.C 3.A

In this unit, students will continue to build on their application of economic principles and models by examining key measures of economic performance: gross domestic product (GDP), unemployment, and inflation. Give students opportunities to fully explain these indicators, including what they measure, how they are calculated, and what limitations they have. Since these indicators will be used in different models and contexts later in the course, students should not simply memorize a textbook definition of each indicator. It will be difficult for students to apply their understanding of these indicators in other contexts if they cannot fully explain them.

Preparing for the AP Exam

On the AP Exam, students will be expected to identify and represent economic concepts using quantitative data and calculations. Quantitative analysis is an important practice for economists and an important skill in this unit. When teaching this course, keep in mind that quantitative analysis in economics involves interpretation and application, which is more cognitively demanding than just carrying out a simple calculation. To help them gain fluency, have students practice basic calculations such as converting nominal values into real values. However, it is important to prepare students for the exam with a thorough grounding in the concepts and sufficient practice applying them in numerical contexts. If students do not fully understand the underlying concepts and just memorize a formula or mathematical process, they may struggle to carry out the appropriate calculations or analysis of given data in different contexts on the AP Exam.

UNIT AT A GLANCE

Enduring Understanding	Topic	Suggested Skills	Class Periods
			~9–11 CLASS PERIODS
MEA-1	**2.1** The Circular Flow and GDP	**1.A** Describe economic concepts, principles, or models.	
	2.2 Limitations of GDP	**1.D** Describe the similarities, differences, and limitations of economic concepts, principles, or models.	
	2.3 Unemployment	**1.B** Identify an economic concept, principle, or model illustrated by an example.	
	2.4 Price Indices and Inflation	**2.C** Interpret a specific economic outcome using quantitative data or calculations.	
	2.5 Costs of Inflation	**3.A** Determine the outcome of an economic situation using economic concepts, principles, or models.	
	2.6 Real v. Nominal GDP	**1.C** Identify an economic concept, principle, or model using quantitative data or calculations.	
MEA-2	**2.7** Business Cycles	**1.A** Describe economic concepts, principles, or models.	

AP   Go to **AP Classroom** to assign the **Personal Progress Check** for Unit 2.
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	2.1	**Simulation and Debriefing** Assign students to be either households or businesses and carry out a classroom simulation to demonstrate the relationships represented by the circular flow model. Debrief the experience with students to ensure that connections are made to the concepts being studied.
2	2.2	**Discussion Groups** Assign students to groups to discuss the limitations of GDP. Provide students with a series of questions to prompt discussion (e.g., *What is counted and not counted in GDP? Does GDP measure the well-being of that country's society?*).
3	2.3	**Simplify the Problem** Show students how to access the most recent "Employment Situation Summary" from the **U.S. Bureau of Labor Statistics** website. Instruct students to scroll down the page and use the household survey data provided to calculate the labor force participation rate and unemployment rate themselves. Then have them verify their work based on the data given in the summary.
4	2.4	**Real-World Examples** Instruct students to work together to create a classroom market basket using current prices of the products they typically purchase compared to a base year, such as the year of their birth. (The **U.S. Bureau of Labor Statistics** Databases, Tables & Calculators are a helpful data source for this activity.) Discuss the limitations of the market basket, such as substitution and quality differences.
5	2.1, 2.3, 2.4	**Ask the Expert** Assign small groups to research the three economic indicators addressed in this unit: the unemployment rate, the inflation rate, and GDP. As part of their research, students should find current data and articles so that they are prepared to explain the status of their indicator to their classmates. Once students have become experts on their given indicator, have groups rotate through each expert station to learn about the indicators they have not yet mastered.

✎ Unit Planning Notes

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

SUGGESTED SKILL

✕ *Principles and Models*

1.A

Describe economic concepts, principles, or models.

📄

AVAILABLE RESOURCE
- External Resource > **Davidson Next AP Macroeconomics Course—Measures of Economic Performance**

TOPIC 2.1
The Circular Flow and GDP

Required Course Content

ENDURING UNDERSTANDING

MEA-1

An economy's performance can be measured by different indicators such as gross domestic product (GDP), the inflation rate, and the unemployment rate.

LEARNING OBJECTIVE

MEA-1.A

a. Define (using the circular flow diagram as appropriate) how GDP is measured and its components.
b. Calculate nominal GDP.

ESSENTIAL KNOWLEDGE

MEA-1.A.1

GDP is a measure of final output of the economy.

MEA-1.A.2

GDP as a total flow of income and expenditure can be represented by the circular flow diagram.

MEA-1.A.3

There are three ways of measuring GDP: the expenditures approach, the income approach, and the value-added approach.

TOPIC 2.2
Limitations of GDP

SUGGESTED SKILL

✎ *Principles and Models*

1.D

Describe the similarities, differences, and limitations of economic concepts, principles, or models.

📄

AVAILABLE RESOURCE

- External Resource >
  Davidson Next AP Macroeconomics Course—Measures of Economic Performance

Required Course Content

ENDURING UNDERSTANDING

MEA-1

An economy's performance can be measured by different indicators such as gross domestic product (GDP), the inflation rate, and the unemployment rate.

LEARNING OBJECTIVE

MEA-1.B

Define the limitations of GDP.

ESSENTIAL KNOWLEDGE

MEA-1.B.1

GDP is a useful indicator of a nation's economic performance, but it has some limitations, such as failing to account for nonmarket transactions.

AVAILABLE RESOURCE
- External Resource > **Davidson Next AP Macroeconomics Course—Measures of Economic Performance**

TOPIC 2.3
Unemployment

Required Course Content

ENDURING UNDERSTANDING

MEA-1

An economy's performance can be measured by different indicators such as gross domestic product (GDP), the inflation rate, and the unemployment rate.

LEARNING OBJECTIVE

MEA-1.C

a. Define the labor force, the unemployment rate, and the labor force participation rate.

b. Explain how changes in employment and the labor market affect the unemployment rate and the labor force participation rate.

c. Calculate the unemployment rate and the labor force participation rate.

MEA-1.D

Define the limitations of the unemployment rate.

ESSENTIAL KNOWLEDGE

MEA-1.C.1

The unemployment rate is the percentage of the labor force that is out of work.

MEA-1.C.2

The labor force participation rate is another measure of the labor market activity in an economy. The labor force participation rate is the percentage of the adult population that is in the labor force.

MEA-1.D.1

The measured unemployment rate is often criticized for understating the level of joblessness because it excludes groups such as discouraged workers and part-time workers.

LEARNING OBJECTIVE

MEA-1.E

a. Define the types of unemployment and the natural rate of unemployment.

b. Explain changes in the types of unemployment.

ESSENTIAL KNOWLEDGE

MEA-1.E.1

Economists primarily focus on three types of unemployment: cyclical, frictional, and structural.

MEA-1.E.2

The natural rate of unemployment is the unemployment rate that would exist when the economy produces full-employment real output. It is equal to the sum of frictional and structural unemployment.

MEA-1.E.3

The deviation of the actual unemployment rate from the natural rate is cyclical unemployment.

MEA-1.E.4

The natural rate of unemployment can gradually change over time because of such things as changes in labor force characteristics.

SUGGESTED SKILL

✗ *Interpretation*

2.C

Interpret a specific economic outcome using quantitative data or calculations.

AVAILABLE RESOURCE

▪ External Resource > **Davidson Next AP Macroeconomics Course—Measures of Economic Performance**

TOPIC 2.4
Price Indices and Inflation

Required Course Content

ENDURING UNDERSTANDING

MEA-1

An economy's performance can be measured by different indicators such as gross domestic product (GDP), the inflation rate, and the unemployment rate.

LEARNING OBJECTIVE

MEA-1.F

a. Define the consumer price index (CPI), inflation, deflation, disinflation, the inflation rate, and real variables.

b. Explain how price indices can be used to calculate the inflation rate and to compare nominal variables over time periods.

c. Calculate the CPI, the inflation rate, and changes in real variables.

ESSENTIAL KNOWLEDGE

MEA-1.F.1

The consumer price index (CPI) measures the change in income a consumer would need in order to maintain the same standard of living over time under a new set of prices as under the original set of prices.

MEA-1.F.2

The CPI measures the cost of a fixed basket of goods and services in a given year relative to the base year.

> **X Exclusion:**
> Calculating the producer price index (PPI) is beyond the scope of the course and AP Exam.

MEA-1.F.3

The inflation rate is determined by calculating the percentage change in a price index, such as CPI or the GDP deflator.

MEA-1.F.4

Real variables, such as real wages, are the nominal variables deflated by the price level.

MEA-1.G

Define the shortcomings of the CPI as a true measure of inflation.

MEA-1.G.1

The CPI as a measure of inflation has some shortcomings, such as substitution bias, causing it to overstate the true inflation rate.

TOPIC 2.5
Costs of Inflation

Required Course Content

ENDURING UNDERSTANDING

MEA-1

An economy's performance can be measured by different indicators such as gross domestic product (GDP), the inflation rate, and the unemployment rate.

LEARNING OBJECTIVE	ESSENTIAL KNOWLEDGE
MEA-1.H Explain the costs that unexpected inflation (deflation) imposes on individuals and the economy.	**MEA-1.H.1** Unexpected inflation arbitrarily redistributes wealth from one group of individuals to another group, such as lenders to borrowers.

SUGGESTED SKILL

✕ *Principles and Models*

1.C

Identify an economic concept, principle, or model using quantitative data or calculations.

📄

AVAILABLE RESOURCE

- External Resource > **Davidson Next AP Macroeconomics Course—Real and Nominal Values**

TOPIC 2.6
Real v. Nominal GDP

Required Course Content

ENDURING UNDERSTANDING

MEA-1

An economy's performance can be measured by different indicators such as gross domestic product (GDP), the inflation rate, and the unemployment rate.

LEARNING OBJECTIVE

MEA-1.I

Define nominal GDP and real GDP.

ESSENTIAL KNOWLEDGE

MEA-1.I.1

Nominal GDP is a measure of how much is spent on output. Real GDP is a measure of how much is produced.

MEA-1.I.2

Nominal GDP measures aggregate output using current prices. Real GDP measures aggregate output using constant prices, thus removing the effect of changes in the overall price level.

MEA-1.J

Calculate real GDP and the GDP deflator.

MEA-1.J.1

One way of measuring real GDP is to weigh final goods and services by their prices in a base year. Because this can lead to overstatement of real GDP growth, statistical agencies actually use different methods.

MEA-1.J.2

Nominal GDP can be converted to real GDP by using the GDP deflator.

TOPIC 2.7
Business Cycles

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.A

a. Define (using graphs and data as appropriate) turning points and phases of the business cycle.

b. Explain (using graphs and data as appropriate) turning points and phases of the business cycle.

ESSENTIAL KNOWLEDGE

MEA-2.A.1

Business cycles are fluctuations in aggregate output and employment because of changes in aggregate supply and/or aggregate demand.

MEA-2.A.2

The phases of a business cycle are recession and expansion.

MEA-2.A.3

The turning points of a business cycle are peak and trough.

MEA-2.A.4

The difference between actual output and potential output is the output gap.

MEA-2.A.5

Potential output is also called full-employment output. It is the level of GDP where unemployment is equal to the natural rate of unemployment. [See EK MEA-1.E.2]