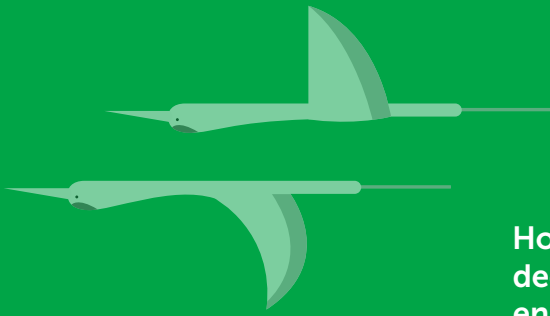


# ECONOMICS MODULE



How do governments make important economic policy decisions? This module enables students and teachers to engage this important question by looking at South Korea's remarkable economic growth during the 1960s and 1970s. South Korea affords an excellent case study because wise economic decision making had a dramatic impact on the lives of its people. The country was a war-torn ruin for much of the 1950s and some Americans questioned whether it could ever be viable and self-sufficient. Yet under the leadership of Park Chung-hee, South Korea moved to export-led growth that focused on textiles and light industry during the 1960s, and then launched the "Big Push" in the 1970s, becoming an internationally competitive exporter of ships, automobiles, and other industrial goods.

By the 1980s, South Korea had a thriving economy and standards of living that were unimaginable a generation before. This module assembles materials that teachers can use to explain why the South Korean government decided to pursue export-led industrialization. These materials explore concepts such as opportunity costs, comparative advantage, and factors of production by examining specific choices made by Korean leaders. The module includes some exercises where students engage these concepts through an individual lens and others where they analyze the factors that influenced South Korean economic policy in detail. Students will come away with a better understanding of how the logic of economics applies to their own lives and how it has transformed the destinies of other nations.

Today, South Korea's high-tech economy is the envy of much of the rest of the world and a model that many other nations seek to emulate. In the twenty-first century, as the World Bank and other international organizations struggle with the problems of global wealth inequality and how to pull less industrialized nations out of poverty, South Korea's history of rapid state-led industrialization yields insights into how some of these efforts might succeed.



# ECONOMICS MODULE



DAY 1:  
WHY DO COUNTRIES  
SPECIALIZE?

# ECONOMICS MODULE OVERVIEW

## SKILL FOCUS

Analyze Data and Support Arguments with Evidence

## CONTENT

Comparative Advantage and Factors of Economic Production

### Why do Countries Specialize?

#### DAY 1

##### CLASS ACTIVITY

##### **Understanding the Concepts of Opportunity Cost, Absolute Advantage, and Comparative Advantage**

This module leads students through the costs and benefits of economic decision making as students work through four activities and complete an exit ticket demonstrating their knowledge. They will examine decision making and opportunity costs through an individual lens and then be introduced to the concepts of opportunity cost, absolute advantage, and comparative advantage at different scales as well as determining how these factors lead to specialization.

##### CHECK FOR UNDERSTANDING

**Student Discussion:** How do the concepts of opportunity costs and comparative advantage explain why countries specialize in what they produce?

### What Factors of Production Have Influenced the Rapid Growth and Success of South Korea's Economy?

#### DAY 2

##### CLASS ACTIVITY

##### **Identifying the Importance of Different Factors of Production in the South Korean Economy**

In this activity, students will explore the factors of production and will apply their understanding by categorizing different examples. Students will use their knowledge of factors of production to identify which factor of production they believe to be most important to South Korea's economy.

##### CHECK FOR UNDERSTANDING

**Exit Ticket:** Which factor of production do you believe is most important to South Korea's economy?

### Assessment

#### DAY 3

##### CLASS ACTIVITY

##### **Short Answer Writing**

Students will review Day 1 and Day 2 activities and read about opportunity costs, comparative advantage, and factors of production to evaluate how these elements have led to the South Korean economic miracle.

##### **The Influence of Factors of Production and Comparative Advantages on Korea's Economic Development**

**Short Answer Prompt:** Evaluate which factors of production and comparative advantages have influenced the rapid growth and success of South Korea's economy.

# ECONOMICS MODULE SOURCES

DAY 1	Stimulus Type	Description	Page
	Graph	Vehicle Production in South Korea, 2010-2019	164
	Graph	Yearly Number of Cars Produced in the United Kingdom, 2013-2019	164

DAY 2	Stimulus Type	Description	Page
	Podcast	Homework Overview: Identifying Factors Of Production	187
	Photo	Hyundai Santa Fe	187
	Photo	Textile Manufacturing Equipment	189
	Chart	Education, Wages, and Labor Productivity in South Korea and China	189
	Photo	Hyundai Car Assembly Line in Ulsan, South Korea	190
	Map	Topography of South Korea	190
	Map	Full-Time Farm Households as a Percentage of Households in South Korea	190
	Text Excerpt	Hyundai Corporation	191
	Chart	Land Use and National Resources in South Korea and China	191
	Chart	South Korean and Chinese Workforce by Sector	192
	Photo	Pohang Iron and Steel Company, South Korea	192
	Text Excerpt	Samsung Electronics Company	193

DAY 3	Stimulus Type	Description	Page
	Article	The South Korean Economic Miracle	214
	Graph	South Korean GDP per capita, 1960-2021	214
	Graph	South Korean Exports, 1960-2019	214
	Graph	The Share of the Population with No Formal Education in Different Countries	214

# DAY 1

BASED ON A 60-MINUTE CLASS

## Why Do Countries Specialize?

### OVERVIEW

This lesson leads students through the concept of cost-benefit analysis by first considering decisions that students might make. They will then analyze opportunity costs, absolute advantage, and comparative advantage related to a country's economic decision-making. Students will then explain how all of these factors influence the goods that a country prioritizes or specializes to produce.

### MATERIALS NEEDED:

#### HOMEWORK

- ▶ Student Homework Handout: Trade-offs/ Cost-Benefit (p. 165)

#### IN-CLASS ACTIVITIES

- ▶ Activity 1 Handout: Trade-Offs and Opportunity Costs (p. 166)
- ▶ Activity 2 Handout: Opportunity Costs for Countries (p. 167)
- ▶ Activity 3 Handout: Absolute Advantage (p. 169)
- ▶ Activity 4 Handout: Comparative Advantage (p. 170)
- ▶ Activity 5 Exit Ticket (pp. 171–172)

#### TEACHER ANSWER KEYS

- ▶ Activity 1 Handout: Trade-Offs and Opportunity Costs (p. 173)
- ▶ Activity 2 Handout: Opportunity Costs for Countries (pp. 174–175)
- ▶ Activity 3 Handout: Absolute Advantage (p. 176)
- ▶ Activity 4 Handout: Comparative Advantage (p. 177)
- ▶ Activity 5 Exit Ticket (p. 178)

# SEQUENCE OF INSTRUCTION

## HOMEWORK OVERVIEW: COST-BENEFIT ANALYSIS OF INDIVIDUAL DECISIONS

HOMEWORK (30 MINUTES)

### EXPLORING COST-BENEFIT IN STUDENT DECISION-MAKING

To introduce economic decision-making, students will determine the costs and benefits (trade-offs) of personal decisions.

#### ACTIVITY PROCEDURE

- ▶ Hand out a copy of the Student Homework Handout: Trade-Offs/Cost Benefit (p. 165) to each student.
- ▶ Read or have a student read the introduction paragraph for the homework activity and explain to students that their homework will be to practice analyzing the benefits and costs (a cost benefit analysis) of their decisions.
- ▶ Use the example from the Student Homework Handout: Trade-Offs/Cost Benefit to explain what students will be expected to complete with the homework assignment.

See the first part of the Teacher Key for the Activity 1 Handout: Trade-Offs and Opportunity Costs (p. 173) for suggested answers.

#### TEACHER NOTES

The activities for Day 1 build from the homework activity. If it is not assigned as homework, it must be the first activity before moving on to the other activities in Day 1.



#### TEACHING TIP

Short homework activities, such as this one, could easily be used as warm-ups depending how you would like to allocate time in this lesson.

## CLASS ACTIVITY 1 OF 5: INTRODUCTION TO TRADE-OFFS AND OPPORTUNITY COSTS

WARM UP/INTRODUCTION (10 MINUTES)

### GROUP IDENTIFICATION AND CLASS DISCUSSION

Students will discuss the choice they made in their homework and the costs and benefits of the decision. Students will then understand the idea that any benefit from a decision results in a trade-off, a cost, or the loss of the benefit of another decision. In economics, this concept is called opportunity cost. Students will also look at how their decisions may lead to specialization.

#### ACTIVITY PROCEDURE

- ▶ Put students into groups of three or four.
- ▶ Give students two or three minutes to share with their group their decision from the Student Homework Handout: Trade-Offs/Cost Benefit and what they believed they would gain and give up from their decision. Have a couple of students share their decisions with the class.
- ▶ Give each student a copy of the Activity 1 Handout: Trade-Offs and Opportunity Costs

- ▶ Explain to students: “In your homework you discovered that when you make a decision, you have to decide between the benefits and costs of that decision. Just as you do when you make a decision, businesses and countries must weigh their economic decisions. The costs of these decisions are referred to in economics as *opportunity cost*. The opportunity cost is what you give up based on your decision.”
- ▷ Use the example on the Teacher Key to the Activity 1 Handout: Trade-Offs and Opportunity Costs to guide students on how to determine opportunity costs. Students will complete the chart in their handout as you guide them on how to determine what the opportunity cost of each decision would be.
- ▷ Next, have students individually write a few sentences to explain what the opportunity cost would be of their decision from the Homework Handout on Trade-Offs/Cost Benefit (p. 165). Remind students that they need not only to state what the opportunity cost is but to explain why this would be an opportunity cost.
  - Sentence Stem: “The opportunity cost for (state decision made) would be . . . because . . .”
  - Have a couple of students share out their definition of opportunity cost. Correct any misconceptions
- ▷ After students have completed their short writing, have a couple of students share out their sentences.
- ▷ Explain to students as a whole class that their decisions lead to specialization. Using the example of a decision about baseball, explain to students that some people decide to use their time/energy to focus on one endeavor such as playing baseball, working after school, participating in band, etc. This concept of specialization will be woven throughout the rest of the activities.

For suggested answers, see the Teacher Key to the Activity 1 Handout: Trade-Offs and Opportunity Costs (p. 173).

### TEACHER NOTES

Students may struggle with the concept of opportunity costs. You may have to use additional examples to help students grasp the concept. One teacher example that could be used is comparing the opportunity costs for grading papers on the weekend. If you decide to grade papers, your opportunity cost would be what you give up (spending time with family, hobbies, watching TV, etc.). If you decide not to grade papers, then your opportunity cost would be not having the papers graded for Monday.



#### TEACHING TIP

Students who struggle with language and/or writing benefit from sentence stems to help guide them through answering short answer questions.



## CLASS ACTIVITY 2 OF 5: OPPORTUNITY COSTS AND ECONOMIC DECISIONS MADE BY COUNTRIES

CLASS ACTIVITY (10-15 MINUTES)

### CALCULATING OPPORTUNITY COSTS AT THE COUNTRY LEVEL

Students will build on their learning from Activity 1 by identifying the opportunity costs of producing computers or smartphones. Students will also look at how the concept of opportunity costs explains why countries decide to specialize in what they produce.

#### ACTIVITY PROCEDURE

- ▶ Keep students in the same groups as in Activity 1.
- ▶ Give each student a copy of the Activity 2 Handout: Opportunity Costs for Countries (p. 167).
- ▶ Explain to students: In Activity 1, you looked at the concept of opportunity cost for individuals. Businesses and countries also have to balance the benefits and costs of any economic decisions. Because resources are scarce (limited amounts), a business or a country must decide what it will produce.
- ▶ The Teacher will demonstrate how to calculate opportunity cost.
  - ▷ Using the example section of the Activity 2 Handout, demonstrate to students how to determine opportunity cost by examining a decision by a country on whether to produce smartphones or computers and determining the number of smartphones that would not be produced if the country chooses to produce computers.
  - Model the problem solving process of how the number of computers and smartphones came from the “output for an hour of labor” chart while students complete the first example on their Activity 2 Handout: Opportunity Costs for Countries.
    - » *Read: Country A has to decide whether it will produce computers or smartphones. If the country decides to produce smartphones it will not be able to produce computers and vice versa. The opportunity cost in this case is what Country A does not produce.*
    - » *Calculate: Students should divide the number of smartphones by the number of computers (20 divided by 4). The reason for this is because we want to know how many smartphones we will miss out on if we produce one computer.*
    - » *Explain: This means for every computer produced, we miss out on producing five smartphones. This means our opportunity cost for producing computers is five smartphones.*
  - Repeat the same procedure above to calculate the opportunity cost for producing smartphones.
    - » *Calculate: Students should divide the number of computers by the number of smartphones (4 divided by 20). The reason for this is because we want to know how many computers we will miss out on if we produce one smartphone. The opportunity cost will equal .20 or  $\frac{1}{5}$ .*
    - » *Explain: This means that for every smartphone produced we would miss out on producing one fifth of a computer.*

- Communicate that the example is a simplified example of opportunity costs and does not take into account many factors that can impact the decision on what to produce, such as the value of the product or how that product benefits the economy as a whole.

▷ Group Practice:

- Release groups to complete the practice section of the Activity 2 Handout together.
- Remind students to look at the examples if they have questions.
- As students are working, walk around to check that students are calculating the correct answer and provide help if needed.
- Have a group share out their answers.

► Group Discussion

- ▷ Remind students that countries have to decide how to allocate their resources and/or have a student read the section of the Activity 2 Handout on specialization focus. Give students examples of products produced in South Korea such as:

- Samsung: smartphones, appliances, etc.
- LG: smartphones, appliances, TVs, etc.
- Hyundai/Kia: automobiles

- ▷ Give students time to answer the following questions individually on their handout:

- In recent years, South Korea has become an important global producer of consumer electronics (i.e.; appliances, smartphones, televisions, etc.) and automobiles. Other than the goal of increasing industrial growth, what would be the advantages of South Korea producing these types of products over specializing in clothing?

- ▷ Have each student discuss why they believe South Korea made the economic decision to produce automobiles and consumer electronics.

- Sentence stems to help guide discussion are:

- » *I believe South Korea chose to focus on automobiles and consumer electronics because . . .*
- » *I agree with your reason and think South Korea also made their decision because . . .*
- » *I also believe . . . was a reason that South Korea decided to focus on automobiles and consumer electronics*

See the Teacher Key to the Activity 2 Handout: Opportunity Costs (pp. 174–175) for suggested answers.

### TEACHER NOTES

If students struggle to compile products made in South Korea, allow them to research consumer products produced in South Korea.

Students may need guidance answering the discussion question. Direct students to think about how wages, profit margins, and encouragement of education increase technological innovation.

**TEACHING TIP**

When students are in a blended or virtual environment, discussion can be facilitated through many Learning Management Platforms, or through apps such as Padlet or even using Google Chat or Google Docs.

## CLASS ACTIVITY 3 OF 5: ABSOLUTE ADVANTAGE

CLASS ACTIVITY (10-15 MINUTES)

### DETERMINING ABSOLUTE ADVANTAGE

Students will continue looking at choices countries make by analyzing the concept of absolute advantage and applying the concept to the previous economic scenario of the production of smartphones and computers. As with previous activities, students will also look at the relationship between specialization of production and absolute advantage.

#### ACTIVITY PROCEDURE

- ▶ Students will remain in the same groups as in the previous activity.
- ▶ Remind students that they have looked at opportunity costs in their everyday decisions, but they also saw how opportunity costs are part of economic decision making at a national level. Remind them that by calculating the opportunity costs countries can make better decisions in allocating resources.
- ▶ Give each student a copy of the Activity 3 Handout: Absolute Advantage (p. 169).
- ▶ Explain to students: *Absolute advantage* is another economic concept that helps in making economic decisions. Absolute advantage is the ability to produce a good or service better or more efficiently than another country producing the same product.
- ▶ The Teacher will demonstrate how to determine absolute advantage.
  - ▷ Using the example section of the Activity 3 Handout: Absolute Advantage, demonstrate to students how to determine which country would have an absolute advantage in producing computers and producing smartphones
    - Model the problem solving process of how the number of computers and smartphones came from the “output for an hour of labor chart” while students complete the first example on their Activity 3 Handout: Absolute Advantage.
      - » *Read: Absolute advantage is another economic concept that helps in making economic decisions. Absolute advantage is the ability to produce a good or service better or more efficiently than another country producing the same product.*
      - » *Model: Show students that the country that produced the most computers or most smartphones would have an absolute advantage. Country A would have an absolute advantage in producing computers and Country B would have an absolute advantage in producing smartphones.*
      - » *Explain: By knowing absolute advantage, students can predict which product would allow a country or company to outproduce its competition. Absolute advantage is used when comparing the production of one product between countries.*

► Group Practice

- ▷ Show students the statistics of automobile production for South Korea and the United Kingdom (p. 164). Mention to students that there are other factors such as cost of production and labor, etc. that are not part of this comparison, but that these examples suffice in giving a real-world application of the concept of absolute advantage.
- ▷ Have groups determine which country would have an absolute advantage in producing automobiles.
- ▷ From the Specialization Focus section in the Activity 3 Handout: Absolute Advantage, read: "As in Activity 1, *absolute advantage* helps explain how countries will utilize their limited resources. If another country can produce many more items than your country, this is an *absolute advantage*. Your country may decide to specialize in another item in which your country has an *absolute advantage*."

► Group Discussion

- ▷ Groups will discuss the following question: Which country do you believe would benefit most from investing a greater amount of resources toward producing automobiles?
  - Give students time to compose their own answer before discussing it with their group.
  - Sentence Stem: I believe (country name) would most benefit from investing resources into the automobile industry because . . .
  - After students discuss the topic, have a couple of groups share out their answer and explanation.

See the Teacher Key to the Activity 3 Handout: Absolute Advantage (p. 176) for suggested answers

**TEACHER NOTES**

Absolute advantage is a simplistic way of identifying products that should be produced. Comparative advantage, which is discussed in Activity 4, is even more accurate in assessing a country's advantage and where that country should focus production.



**TEACHING TIP**

It is important to walk around and listen to students as they discuss so that students don't reinforce inaccurate information. This also gives the teacher the opportunity to see class-wide misconceptions so they can be addressed before moving to the next activity.

## CLASS ACTIVITY 4 OF 5: COMPARATIVE ADVANTAGE

CLASS ACTIVITY (10-15 MINUTES)

### DETERMINING COMPARATIVE ADVANTAGE

Students will use the information from the previous activities to determine which countries in a scenario will have absolute advantage.

#### ACTIVITY PROCEDURE

- ▶ Students will remain in the same groups as in the previous activity.
- ▶ Give each student a copy of the Activity 4 Handout: Comparative Advantage (p. 170).
- ▶ Explain to students that rarely do countries have one product that they produce. To compare multiple products, economists use the concept of comparative advantage. The concepts of trade-offs and opportunity costs are intertwined when looking at which products a country has a comparative advantage.
- ▶ Using the example section of the Activity 4 Handout on Comparative Advantage, demonstrate to students how to determine which country would have an absolute advantage in producing computers and producing smartphones.
  - ▷ Model the problem-solving process of how the number of computers and smartphones came from the "output hour of labor chart" in Activity 2 while students complete the first example on their Activity 4 Handout: Comparative Advantage.
    - Read: *Comparative advantage* is the ability of a producer to produce goods and services at a lower opportunity cost than another producer. With the same scenario from before, we can now quantify the advantage each country has for producing goods.
    - Model: Remind students that when determining comparative advantage, you are looking for the smallest opportunity cost. Have students identify the product in which each country has a comparative advantage in the example box as you explain the following:
      - » *Country A would have a comparative advantage in producing smartphones because its opportunity cost of  $\frac{1}{5}$  of a computer is less than the opportunity cost of  $\frac{1}{2}$  of a computer for country B.*
      - » *Country B would have a comparative advantage in producing computers because its opportunity cost of two smartphones is less than the opportunity cost of five smartphones for Country A.*
    - Explain: Let students know that it is possible for a country to have lower opportunity costs in both products. In this case the country will focus on the product with the lowest comparative opportunity cost. Knowing the concept of absolute advantage, students can predict which product would allow a country or company to outproduce its competition. Absolute advantage is used when comparing the production of one product between countries.
- ▶ Group Practice
  - ▷ In groups, students will use the Activity 4 Handout: Comparative Advantage to determine which country will have a comparative advantage in the production of oil or corn.

- ▶ After groups have completed their answers on their handout, the group will share which country has a comparative advantage in oil and which country has a comparative advantage in corn.

For suggested answers, see the Teacher Key to the Activity 4 Handout: Comparative Advantage (p. 177).

### TEACHER NOTES

Students may be confused between absolute and comparative advantage. Remind students that the big difference is in the number of products being compared. If you are only looking at the production of one product between countries, you are analyzing absolute advantage, and only focusing on which country produces more per unit. When looking at multiple products between countries, you are focusing on comparative advantage.



#### TEACHING TIP

When students struggle with differentiating between concepts, it can be helpful to have students create a t-chart or other graphic organizer to help see differences.

## CLASS ACTIVITY 5 OF 5: CHECK FOR UNDERSTANDING

CLASS ACTIVITY (10-15 MINUTES)

### EXIT TICKET

Given production information for two countries, students will determine the opportunity cost of production, identify which countries have a comparative advantage, and write a short paragraph persuading a country to specialize in production based on opportunity cost and comparative advantage.

### ACTIVITY PROCEDURE

- ▶ Hand the Exit Ticket Handout to each student.
- ▶ Students will complete three steps for the exit ticket.
  - ▶ STEP 1. Students will work in groups to determine opportunity costs for producing computers and smartphones.
    - Students will complete a chart under Step 1 and will check in with the teacher to determine if their answers are correct before moving on to Step 2.
  - ▶ STEP 2. Students will continue to work in groups to determine which country has a comparative advantage in the production of computers and a comparative advantage in the production of smartphones.
    - Students will use the Step 2 section of their handout to identify which country has a comparative advantage in the production of each product, and will provide a brief explanation.
    - Students will determine if their answers are correct before moving on to Step 3.

- ▷ STEP 3. Students will complete Step 3 individually.
- Using the information from Step 1 and Step 2, students will write a short paragraph to persuade Country A to specialize in the production of one product based on opportunity costs and comparative advantage.

See the Teacher Key to the Exit Ticket for suggested answers.

### TEACHER NOTES

If you needed to give students more time to practice or needed time to reteach the big concepts of this lesson, you may want to use the Exit Ticket as a warmup before starting the Day 2 Activities.

### COMMON MISTAKES:

- ▶ Students will simply state that Country A should produce smartphones because it has lower opportunity costs and a comparative advantage. This answer does not show whether students understand the concepts or how these concepts lead to economic decisions.
- ▶ Students may forget to include evidence from their opportunity chart.
- ▶ Students may forget to mention why Country A would not produce computers.



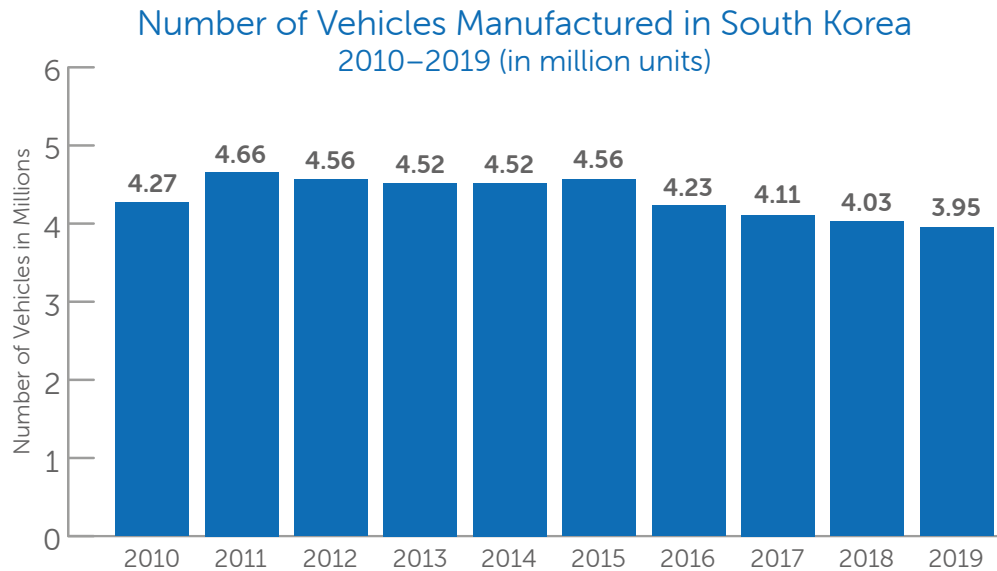
### TEACHING TIP

Using formative checks that have multiple steps can help you identify where students are struggling and provide you an opportunity to correct misconceptions or reteach concepts as students work. Immediate feedback helps students not have to unlearn these misconceptions.

GRAPH

Vehicle Production in South Korea, 2010-2019

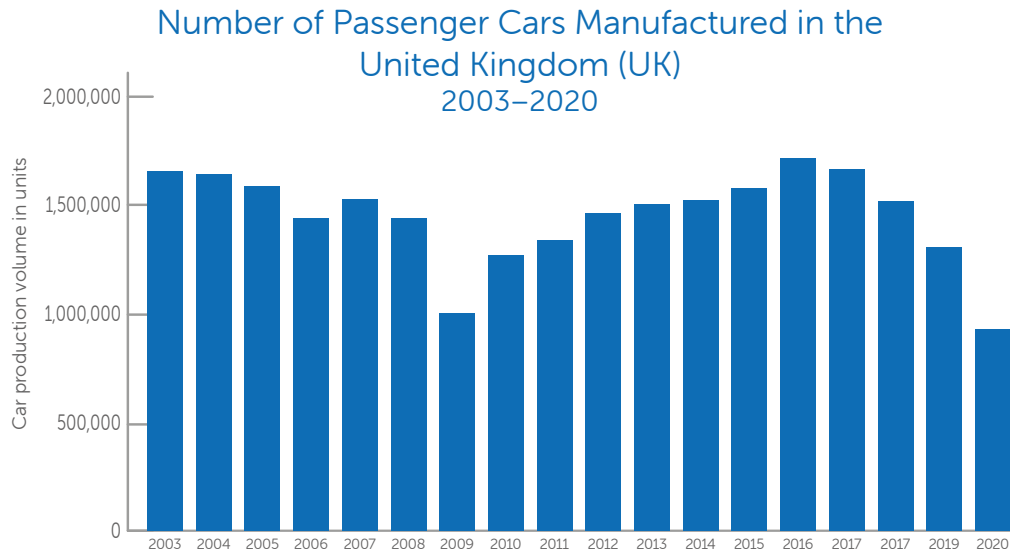
Source: KOSIS; Statistics Korea



GRAPH

Yearly Number of Cars Produced in the United Kingdom, 2013-2019

Source: SMMT





# STUDENT HOMEWORK HANDOUT: TRADE-OFFS/COST-BENEFIT

Name: \_\_\_\_\_ Period: \_\_\_\_\_

One important concept in the study of economics is to analyze the costs and benefits of decisions. When making any decision we have to balance what we gain from making one decision (benefit) with what we give up by making a different decision (cost). This economic approach to decision making is referred to as making trade-offs.

- ▶ For homework you will practice the concept of cost-benefit analysis in economics.
- ▶ Select one of the three decisions below and complete the T-Chart to determine what you gain and what you give up by making your decision. Use the example below to help you identify what you would gain and give up based on your decision.

**Example:** You are a member of your school’s baseball team and you have a difficult choice. Your parents have planned a beach vacation for your upcoming spring break, but you also have baseball practice.

What do I GAIN from my decision to go to baseball practice?	What do I GIVE UP because of my decision to go to baseball practice?
<ul style="list-style-type: none"><li>▷ Improve baseball skills</li><li>▷ Increase playing time</li><li>▷ etc.</li></ul>	<ul style="list-style-type: none"><li>▷ Can’t swim at the beach</li><li>▷ Can’t spend time with family</li><li>▷ etc.</li></ul>

Decision 1	A new season of your favorite TV show has been added to your favorite streaming platform. You also have a test tomorrow in economics about a concept that you know you need more time to study. Do you watch your TV show (knowing that you will most likely watch the entire season) or do you study?
Decision 2	You are out with your friends and you decide to get some food. You have enough money for a large slice of pizza with toppings or for a hamburger and a drink. What do you order?
Decision 3	You have been saving up to buy your first car. Your boss has offered you more hours to work this summer, but you also would like to spend more time with your friends. What do you do?

What do I GAIN from my decision?	What do I GIVE UP because of my decision?

# HANDOUT: TRADE-OFFS AND OPPORTUNITY COST

Name: \_\_\_\_\_ Period: \_\_\_\_\_

Decisions have benefits and costs whether they are individual decisions or decisions made by businesses or even countries. The costs of these decisions are referred to in economics as **opportunity cost**. The opportunity cost is what you give up based on your decision.

**Example of choices and opportunity costs:** You are a member of your school’s baseball team and you have a difficult choice. Your parents have planned a beach vacation for your upcoming spring break, but you also have baseball practice.

Decision 1: You decide to go to baseball practice	Decision 1: You decide to go on vacation
Your opportunity cost (what you are giving up) would be. . .	Your opportunity cost (what you are giving up) would be. . .

## DO THE FOLLOWING:

- Revisit the decision you made on your Student Homework Handout: Trade-Offs/Cost Benefits. Explain in the space below the opportunity cost for the decision you made (Decision 1, 2, or 3). Your explanation should include the decision you made, the opportunity cost, and why the opportunity cost you mentioned is an example of opportunity cost.

## Specialization Focus

In deciding whether you will go to baseball practice or on vacation, there are many factors in play. Factors such as time, money, etc., can all be part of affecting your decision. These factors limit what we can do, and in the language of economics, cause us to **specialize**. With the baseball example, this may mean to specialize in baseball, which would limit other opportunities you may have.

# HANDOUT: OPPORTUNITY COSTS FOR COUNTRIES

Name: \_\_\_\_\_ Period: \_\_\_\_\_

### EXAMPLE

Country A has to decide whether it will produce computers or smartphones. If the country decides to produce smartphones, it will not be able to produce computers and vice versa. The **opportunity cost** in this case is what Country A does not produce:

Output Hour of Labor		
	Computers	Smartphones
Country A	4	20

- If country A produces computers, the **opportunity cost** will be the number of smartphones that are not produced.

Number of Computers	Number of Smartphones	Opportunity Cost for Producing One Computer is:
4	20	

- If country A produces smartphones, the **opportunity cost** will be the number of computers that are not produced.

Number of Smartphones	Number of Computers	Opportunity Cost for Producing One Smartphone is:
20	4	

### PRACTICE

Use the information in the table to the right to determine the opportunity cost for country B.

Output Hour of Labor		
	Computers	Smartphones
Country B	4	10

Opportunity Costs for Producing Computers		
Number of Computers	Number of Smartphones	Opportunity Cost for Producing One Computer is:

Opportunity Costs for Producing Smartphones		
Number of Smartphones	Number of Computers	Opportunity Cost for Producing One Smartphone is:

## Specialization Focus

Like your individual decisions, opportunity costs are part of a country's economic decisions. Countries must prioritize production based on their natural resources. Just as a baseball player cannot both go to practice and on vacation, countries must decide what products they will specialize in producing and which they will not. Individuals and countries choose to specialize based on the least opportunity costs.

One specific example are decisions made in the South Korean economy in the 1970s and 1980s. South Korea had the choice to continue to specialize in the manufacturing of light goods such as textiles and clothing or to focus on export-oriented products such as steel and large ships. In this case, the South Korean government felt that the *opportunity cost* of **not** specializing in the production of clothing was worth the trade-off of specializing in the production of steel for export, which was seen as a direct path to industrial growth. In other words, specializing in steel was worth the *opportunity cost* of **not** specializing in clothing.

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## INDIVIDUAL REFLECTION

Today, South Korea has moved its economic focus to include automobiles and consumer electronics. Why do you believe that South Korea would find less opportunity costs in producing automobiles and consumer electronics than in producing clothing? Be sure to explain **why** South Korea would make that decision..

- In recent years, South Korea has become an important global producer of consumer electronics (i.e.; appliances, smartphones, televisions, etc.) and automobiles. Other than the goal of increasing industrial growth, what would be the advantages for South Korea in producing these types of products over specializing in clothing?

*Sentence Stem: I believe South Korea chose to focus on automobiles and consumer electronics because . . .*

# HANDOUT: ABSOLUTE ADVANTAGE

Name: \_\_\_\_\_ Period: \_\_\_\_\_

Absolute advantage is another economic concept that helps in making economic decisions. **Absolute advantage** is the ability to produce a good or service better or more efficiently than another country producing the same product.

## EXAMPLE

- ▶ Country A would have an absolute advantage in producing \_\_\_\_\_.
- ▶ Country B would have an absolute advantage in producing \_\_\_\_\_.

Output Hour of Labor		
	Computers	Smartphones
Country A	5	10
Country B	2	20

## ANSWER THE FOLLOWING QUESTION:

Which country has an absolute advantage in producing automobiles?

Automobile Production in a Year	
South Korea	10,821 cars per day*
United Kingdom	3,561 cars per day*

\* Number found by dividing total 2019 production by 365 days.

## Specialization Focus

As in Activity 1, *absolute advantage* helps explain how countries will utilize their limited resources. If another country can produce many more items than your country, this is an *absolute advantage*. Your country may decide to specialize in another item in which your country has an *absolute advantage*.

## INDIVIDUAL REFLECTION

Which country do you believe would benefit most from investing a greater amount of resources toward producing automobiles? (Make sure to explain your answer)

- ▶ I believe \_\_\_\_\_ would most benefit from investing resources into the automobile industry because...

# HANDOUT: COMPARATIVE ADVANTAGE

Name: \_\_\_\_\_ Period: \_\_\_\_\_

**Comparative advantage** is the ability of a producer to produce goods and services at a lower opportunity cost than another producer. With the same scenario from before, we can now quantify the advantage each country has for producing goods.

### EXAMPLE

The chart to the right shows the opportunity cost for both Country A and B. To find the comparative advantage you look at where the trade-off or the opportunity cost is the least for a country.

To determine comparative advantage you have to determine which country gives up the most in producing each product.

Opportunity Costs		
	1 Computer	1 Smartphone
Country A	5 smartphones	$\frac{1}{5}$ computer
Country B	2 smartphones	$\frac{1}{2}$ computer

- ▶ Country A has a comparative advantage in \_\_\_\_\_ because its opportunity cost is lower in producing this product.
- ▶ Country B has a comparative advantage in \_\_\_\_\_ because its opportunity cost is lower in producing this product.

Remember when looking at comparative advantage is to determine which product a country has to give up the least to produce. The country with the lower opportunity cost, has the comparative advantage.

### ANSWER THE FOLLOWING QUESTIONS USING THE CHART BELOW.

- ▶ Which country has a comparative advantage in producing oil?
- ▶ Which country has a comparative advantage in producing corn?

Opportunity Costs Producing Oil or Corn		
	Opportunity Cost of producing one unit of oil	Opportunity Cost of producing one unit of corn
Country A	$\frac{1}{5}$	5
Country B	$\frac{1}{3}$	3

# EXIT TICKET

Name: \_\_\_\_\_ Period: \_\_\_\_\_

To demonstrate your knowledge of opportunity costs, absolute advantage, and comparative advantage, your group will determine which product Country A would be most likely to invest resources in.

**Step 1.** Complete the opportunity costs chart for country A and B, using the chart showing the output from an hour of labor.

Output from an hour of labor		
	Computers	Smartphones
Country A	180	200
Country B	80	100

Opportunity Costs		
	Opportunity Cost for producing one computer	Opportunity Cost for producing one smartphone
Country A		
Country B		

Check your answers with your teacher before you move on to Step 2.

**Step 2.** Determine which country has a comparative advantage in producing computers or smartphones.

► Country \_\_\_\_\_ has a comparative advantage in producing computers because . . .

► Country \_\_\_\_\_ has a comparative advantage in producing smartphones because . . .

Check your answers with your teacher before you move on to Step 3.

**Step 3.** Write a short paragraph to persuade the leaders of Country A to specialize in the product that it has the greatest comparative advantage.

Your answer should include:

- ▶ The product in which Country A should specialize.
  - ▶ An explanation of opportunity costs as well as evidence of opportunity costs from the above chart.
  - ▶ An explanation of how the opportunity costs affect the comparative advantage of the product in which you believe Country A should specialize.
  - ▶ An explanation using evidence of opportunity cost to support your argument why Country A should **not** specialize on the other product.
  - ▶ The reason why it would be economically beneficial for Country A to specialize in the product you identified.
-



# TEACHER KEY FOR HANDOUT: TRADE-OFFS AND OPPORTUNITY COSTS

Decisions have benefits and costs whether they are individual decisions or decisions made by businesses or even countries. The costs of these decisions are referred to in economics as **opportunity cost**. The opportunity cost is what you give up based on your decision.

**Example of choices and opportunity costs:** You are a member of your school’s baseball team and you have a difficult choice. Your parents have planned a beach vacation for your upcoming spring break, but you also have baseball practice.

Decision 1: You decide to go to baseball practice	Decision 1: You decide to go on vacation
Your <b>opportunity cost</b> (what you are giving up) would be. . . . I won’t be able to go to the beach I won’t be able to spend time with my family	Your <b>opportunity cost</b> (what you are giving up) would be. . . . I won’t improve at playing baseball I may lose playing time

**DO THE FOLLOWING:**

- Revisit the decision you made on your Student Homework Handout: Trade-Offs/Cost Benefits. Explain in the space below the opportunity cost for the decision you made (Decision 1, 2, or 3). Your explanation should include the decision you made, the opportunity cost, and why the opportunity cost you mentioned is an example of opportunity cost.

**Sample answer using the baseball example:**

The opportunity cost for going on vacation with my family would be losing playing time in the next baseball game because I didn’t go to baseball practice.

# TEACHER KEY FOR HANDOUT: OPPORTUNITY COSTS FOR COUNTRIES

Country A has to decide whether it will produce computers or smartphones. If the country decides to produce smartphones, it will not be able to produce computers and vice versa. The **opportunity cost** in this case is what Country A does not produce:

- If country A produces computers, the **opportunity cost** will be the number of smartphones that are not produced.

Number of Computers	Number of Smartphones	Opportunity Cost for Producing One Computer is:
4	20	5 smartphones

- If country A produces smartphones, the **opportunity cost** will be the number of computers that are not produced.

Number of Smartphones	Number of Computers	Opportunity Cost for Producing One Smartphone is:
20	4	$\frac{1}{5}$ of a computer

## PRACTICE

Use the information in the table to the right to determine the opportunity cost for country B.

### EXAMPLE

Output Hour of Labor		
	Computers	Smartphones
Country A	4	20

Opportunity Costs for Producing Computers		
Number of Computers	Number of Smartphones	Opportunity Cost for Producing One Computer is:
5	10	2 smartphones

Output Hour of Labor		
	Computers	Smartphones
Country B	4	10

Opportunity Costs for Producing Smartphones		
Number of Smartphones	Number of Computers	Opportunity Cost for Producing One Smartphone is:
10	5	0.5 or $\frac{1}{2}$ of a computer

## INDIVIDUAL REFLECTION

Today, South Korea has moved its economic focus to include automobiles and consumer electronics. Why do you believe that South Korea would find less opportunity costs in producing automobiles and consumer electronics than in producing clothing? Be sure to explain **why** South Korea would make that decision..

- ▶ In recent years, South Korea has become an important global producer of consumer electronics (i.e.; appliances, smartphones, televisions, etc.) and automobiles. Other than the goal of increasing industrial growth, what would be the advantages for South Korea in producing these types of products over specializing in clothing?

**Student answers could include:**

- ▶ **Wages are higher for producing consumer goods and automobiles.**
- ▶ **There is a greater profit margin in the production of consumer goods and automobiles.**
- ▶ **Encourages education because of the need of a more educated workforce.**
- ▶ **Developing these industries helps to encourage technological advancement—for example, Samsung flip phones, smart TVs, wireless networks and networking, etc.**

# TEACHER KEY FOR HANDOUT: ABSOLUTE ADVANTAGE

Absolute advantage is another economic concept that helps in making economic decisions. **Absolute advantage** is the ability to produce a good or service better or more efficiently than another country producing the same product.

### EXAMPLE

- ▶ Country A would have an absolute advantage in producing **computers**.
- ▶ Country B would have an absolute advantage in producing **smartphones**.

Output Hour of Labor		
	Computers	Smartphones
Country A	5	10
Country B	2	20

### ANSWER THE FOLLOWING QUESTION:

Which country has an absolute advantage in producing automobiles?

Automobile Production in a Year	
South Korea	10,821 cars per day*
United Kingdom	3,561 cars per day*

\* Number found by dividing total 2019 production by 365 days.

### INDIVIDUAL REFLECTION

Which country do you believe would benefit most from investing a greater amount of resources toward producing automobiles? (Make sure to explain your answer)

- 
- ▶ I believe \_\_\_\_\_ would most benefit from investing resources into the automobile industry because...

Student answers could include:

- ▶ I believe South Korea would most benefit from investing resources into the automobile industry because it has an absolute advantage. Resources would be used more efficiently and would have a greater impact since South Korea has an absolute advantage.
-

## TEACHER KEY FOR HANDOUT: COMPARATIVE ADVANTAGE

**Comparative advantage** is the ability of a producer to produce goods and services at a lower opportunity cost than another producer. With the same scenario from before, we can now quantify the advantage each country has for producing goods.

### EXAMPLE

The chart to the right shows the opportunity cost for both Country A and B. To find the comparative advantage you look at where the trade-off or the opportunity cost is the least for a country.

To determine comparative advantage you have to determine which country gives up the most in producing each product.

- ▶ Country A has a comparative advantage in **smartphones** because its opportunity cost is lower in producing this product.
- ▶ Country B has a comparative advantage in **computers** because its opportunity cost is lower in producing this product.

Remember when looking at comparative advantage is to determine which product a country has to give up the least to produce. The country with the lower opportunity cost, has the comparative advantage.

Opportunity Costs		
	1 Computer	1 Smartphone
Country A	5 smartphones	$\frac{1}{5}$ computer
Country B	2 smartphones	$\frac{1}{2}$ computer

### ANSWER THE FOLLOWING QUESTIONS USING THE CHART BELOW.

- ▶ Which country has a comparative advantage in producing oil?  
**Country A would have the comparative advantage in producing oil.**
- ▶ Which country has a comparative advantage in producing corn?  
**Country B would have the comparative advantage in producing corn.**

Opportunity Costs Producing Oil or Corn		
	Opportunity Cost of producing one unit of oil	Opportunity Cost of producing one unit of corn
Country A	$\frac{1}{5}$	5
Country B	$\frac{1}{3}$	3

# TEACHER KEY: EXIT TICKET

To demonstrate your knowledge of opportunity costs, absolute advantage, and comparative advantage, your group will determine which product Country A would be most likely to invest resources in.

**Step 1.** Complete the opportunity costs chart for country A and B, using the chart showing the output from an hour of labor.

Output from an hour of labor		
	Computers	Smartphones
Country A	180	200
Country B	80	100

Opportunity Costs		
	Opportunity Cost for producing one computer	Opportunity Cost for producing one smartphone
Country A	2 smartphones	0.5 of a computer
Country B	1.25 smartphones	0.8 of a computer

**Step 2.** Determine which country has a comparative advantage in producing computers or smartphones.

- ▶ Country B has a comparative advantage in producing computers because . . .
- ▶ Country A has a comparative advantage in producing smartphones because . . .

**Step 3.** Write a short paragraph to persuade the leaders of Country A to specialize in the product that it has the greatest comparative advantage.

**Student answers could include:**

- ▶ Country A should specialize in smartphones over the production of computers. This is because of the opportunity costs, or what a country gives up due to its economic decision. Country A's opportunity cost of producing smarting phones is .5 of a computer versus .8 of a computer for Country B. Because opportunity costs are the lowest for Country A producing smartphones. In addition Country B has an opportunity cost of 1.25 smartphones to Country A's cost of 2 smartphones, giving Country B a comparative advantage in producing computers. This gives Country A a comparative advantage in producing smartphones over country B. Country A could use this advantage to profit more from the production of smartphones.

# ECONOMICS MODULE



DAY 2:  
WHAT FACTORS OF PRODUCTION  
INFLUENCE THE SOUTH KOREAN  
ECONOMY?

# ECONOMICS MODULE OVERVIEW

## SKILL FOCUS

Analyze Data and Support Arguments with Evidence

## CONTENT

Comparative Advantage and Factors of Economic Production

### Why do Countries Specialize?

#### DAY 1

##### CLASS ACTIVITY

##### **Understanding the Concepts of Opportunity Cost, Absolute Advantage, and Comparative Advantage**

This module leads students through the costs and benefits of economic decision making as students work through four activities and complete an exit ticket demonstrating their knowledge. They will examine decision making and opportunity costs through an individual lens and then be introduced to the concepts of opportunity cost, absolute advantage, and comparative advantage at different scales as well as determining how these factors lead to specialization.

##### CHECK FOR UNDERSTANDING

**Student Discussion:** How do the concepts of opportunity costs and comparative advantage explain why countries specialize in what they produce?

### What Factors of Production Have Influenced the Rapid Growth and Success of South Korea's Economy?

#### DAY 2

##### CLASS ACTIVITY

##### **Identifying the Importance of Different Factors of Production in the South Korean Economy**

In this activity, students will explore the factors of production and will apply their understanding by categorizing different examples. Students will use their knowledge of factors of production to identify which factor of production they believe to be most important to South Korea's economy.

##### CHECK FOR UNDERSTANDING

**Exit Ticket:** Which factor of production do you believe is most important to South Korea's economy?

### Assessment

#### DAY 3

##### CLASS ACTIVITY

##### **Short Answer Writing**

Students will review Day 1 and Day 2 activities and read about opportunity costs, comparative advantage, and factors of production to evaluate how these elements have led to the South Korean economic miracle.

##### **The Influence of Factors of Production and Comparative Advantages on Korea's Economic Development**

**Short Answer Prompt:** Evaluate which factors of production and comparative advantages have influenced the rapid growth and success of South Korea's economy.



# ECONOMICS MODULE SOURCES

DAY 1	Stimulus Type	Description	Page
	Graph	Vehicle Production in South Korea, 2010-2019	164
	Graph	Yearly Number of Cars Produced in the United Kingdom, 2013-2019	164

DAY 2	Stimulus Type	Description	Page
	Podcast	Homework Overview: Identifying Factors Of Production	187
	Photo	Hyundai Santa Fe	187
	Photo	Textile Manufacturing Equipment	189
	Chart	Education, Wages, and Labor Productivity in South Korea and China	189
	Photo	Hyundai Car Assembly Line in Ulsan, South Korea	190
	Map	Topography of South Korea	190
	Map	Full-Time Farm Households as a Percentage of Households in South Korea	190
	Text Excerpt	Hyundai Corporation	191
	Chart	Land Use and National Resources in South Korea and China	191
	Chart	South Korean and Chinese Workforce by Sector	192
	Photo	Pohang Iron and Steel Company, South Korea	192
	Text Excerpt	Samsung Electronics Company	193

DAY 3	Stimulus Type	Description	Page
	Article	The South Korean Economic Miracle	214
	Graph	South Korean GDP per capita, 1960-2021	214
	Graph	South Korean Exports, 1960-2019	214
	Graph	The Share of the Population with No Formal Education in Different Countries	214

## DAY 2

BASED ON A 60-MINUTE CLASS

# What Factors of Production Influence the South Korean Economy?

### OVERVIEW

This lesson introduces the concept of factors of production and builds on the ideas of opportunity costs as well as absolute and comparative advantage. By examining how the factors of production can influence economic decisions, students will understand economic decision making in better detail. They will analyze sources and rank which factor they believe to be most influential. Applying their understanding of the factors, students will sort examples from South Korea into the categories of land, labor, capital, and entrepreneurship. After selecting an example for each of the four factors, students will explain their rationale and how that factor would impact the South Korean economy. Students will revisit their rankings from the first activity of this lesson to see if their rankings and importance of each factor have changed.

### MATERIALS NEEDED:

#### HOMEWORK

- ▶ Handout: What are Factors of Production? (p. 187)
- ▶ Factors of Production Podcast (p. 187)

#### IN-CLASS ACTIVITIES

- ▶ Activity 2: Factors of Production Case Study: Korea Practice Card (p. 189)
- ▶ Activity 2: Factors of Production: Korea Case Study Cards (1 set per groups of 2 or three students)
  - ▷ Factors of Production Case Study: Korea Card 1 (p. 189)
  - ▷ Factors of Production Case Study: Korea Card 2 (p. 190)
  - ▷ Factors of Production Case Study: Korea Card 3 (p. 190)
  - ▷ Factors of Production Case Study: Korea Card 4 (p. 191)
  - ▷ Factors of Production Case Study: Korea Card 5 (p. 191)

- ▷ Factors of Production Case Study: Korea Card 6 (p. 192)
- ▷ Factors of Production Case Study: Korea Card 7 (p. 192)
- ▷ Factors of Production Case Study: Korea Card 8 (p. 193)

- ▶ Activity 2 Handout: Factors of Production/ Card Sort Analysis (p. 194)
- ▶ Activity 3 Exit Ticket: Factors of Production (p. 197)

#### TEACHER ANSWER KEYS

- ▶ Homework Handout: What are Factors of Production? (p. 198)
- ▶ Activity 2 Handout: Factors of Production/ Card Sort Analysis (p. 200)
- ▶ Activity 3 Exit Ticket: Factors of Production (p. 203)

# SEQUENCE OF INSTRUCTION

## HOMEWORK OVERVIEW: IDENTIFYING FACTORS OF PRODUCTION

### HOMEWORK (30 MINUTES)

Students will listen to a podcast from the Federal Reserve Bank of St. Louis at <https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-2-factors-of-production> to identify the four factors of production and to identify examples of each factor.

### ACTIVITY PROCEDURE

- ▶ Provide students either a copy of or digital access to the Homework Handout, “What Are Factors of Production?”
- ▶ Students will do the following homework:
  - ▷ Individually, students will complete the Brainstorming section of the homework handout by predicting who and what is involved in the production of an automobile as well as thinking about where it would occur.
  - ▷ Next students will listen to the Factors of Production podcast (total length 6:19) from the Federal Reserve Bank of St. Louis to identify that land, labor, capital, and entrepreneurship are the factors of production. In the section on “What are Factors of Production?” in their homework handout, students will identify, describe, and provide examples of the four factors of production (Land, Labor, Capital, and Entrepreneurship).
  - ▷ Finally, students will then rank the four factors based on what they believe is the most important in the production of an automobile (or any other product) and will include a brief justification for their ranking. Students will discuss their ranking and rationale in the next activity.

For suggested answers, see the Teacher Key to the Homework Handout, “What Are Factors of Production?” (p. 198)

### TEACHER NOTES

The link to the Factors of Production podcast also has a transcript under the listening bar which could be helpful for students who may struggle with auditory learning. Students can use the transcript to highlight key information as they listen.



#### TEACHING TIP

When students are ranking items such as those in the homework, it is beneficial for you to let students know that there is no single correct answer and that the justification of their ranking is more important than the actual ranking.

## CLASS ACTIVITY 1 OF 3: RANKING THE FACTORS OF PRODUCTION

WARM UP/INTRODUCTION (15 MINUTES)

### RANKING AND JUSTIFICATION

#### ACTIVITY PROCEDURE

- ▶ Group students in groups of three or four:
- ▶ Review with them that the factors of production include the following information. Have students add information that they did not identify from their homework.
  - ▷ Land: Includes land regardless of use, but also includes any natural resource that comes from the land.
  - ▷ Labor: Labor is the effort put into a product or service and includes the size, skill, and relative cost of the labor force.
  - ▷ Capital: Capital usually includes money, but in this case capital consists of the machinery and tools needed to produce goods and services.
  - ▷ Entrepreneurship: Refers to the people/organizations/companies that combine with the other factors of production to earn a profit.
- ▶ Each student will share with their group their rankings and justifications from their homework on the Handout, What are Factors of Production?
  - ▷ Students can use the following sentence stems to help guide their discussions.
    - The least important factor is . . .
    - The most important factor is . . .
    - I think . . . is the most important factor because . . .
    - I think . . . is the least important factor because . . .
- ▶ Next, groups will rank the factors their group believes to be most important.
- ▶ Groups will then develop a justification statement for their ranking.
- ▶ After groups have prepared their justification each group will share its ranking with the class.

For suggested answers, see the Teacher Key to the Homework Handout, "What Are Factors of Production?" (p. 198)

#### TEACHER NOTES

If factors of production have already been taught, consider skipping to Activity 2 or review the Homework Handout, "What Are Factors of Production?"

Students who may not have completed the homework should listen to the Factors of Production podcast, and complete the "What are Factors of Production?" section of their Handout, while groups discuss their ranking.



#### TEACHING TIP

Giving students the opportunity to justify their thoughts and to discuss them with other students increases understanding and allows for the practice of important skills.

## CLASS ACTIVITY 2 OF 3: FACTORS OF PRODUCTION CARD SORT

CLASS ACTIVITY (30 MINUTES)

### CARD SORT AND JUSTIFICATION

#### ACTIVITY PROCEDURE

- ▶ Divide the previous groups into groups of two or three so all students have an opportunity to be part of the decision making process.
- ▶ Give each student the Handout on Factors of Production/Card Sort Analysis (p. 194).
- ▶ First model the expectations of what students will be doing in this activity:
  - ▷ Project the Practice Card: Korea Case Study, and have groups discuss which factor of production is being shown.
  - ▷ This card provides an example of capital because it shows the machinery needed for production.
  - ▷ Show students the first row of their handout, which features the card on textile equipment manufacturing, and have them put a check in the capital box under the heading "Which of the Four Factors of Production?"
- ▶ Next have each group of students sort the cards into Land, Labor, Capital, and Entrepreneurship:
  - ▷ Factors of Production Case Study: Korea Card 1
  - ▷ Factors of Production Case Study: Korea Card 2
  - ▷ Factors of Production Case Study: Korea Card 3
  - ▷ Factors of Production Case Study: Korea Card 4
  - ▷ Factors of Production Case Study: Korea Card 5
  - ▷ Factors of Production Case Study: Korea Card 6
  - ▷ Factors of Production Case Study: Korea Card 7
  - ▷ Factors of Production Case Study: Korea Card 8
- ▶ Check the answers of the groups (see the Teacher Key for the Handout on Factors of Production/Card Sort Analysis, p. 200).
  - ▷ Inform groups which cards have not been sorted accurately and allow the students to resort until they are correct.
- ▶ Students will remain in the same groups.
  - ▷ Using the Practice Card: Korea Case Study, and the second page of the Handout on Factors of Production/Card Sort Analysis, model how students will analyze the cards representing factors of production and guide students through completing the sample card analysis chart.
  - ▷ Have groups work together to analyze the example cards from the sorting activity to complete the rest of their Handout on Factors of Production/Card Sort Analysis.

► Student Discussion

- ▷ Based on the Factors of Production cards, groups will discuss how the cards would help describe the focus of the South Korean economy. Groups will provide a justification for their answer.
- ▷ Give students time to formulate their own answer before they share with their group using the space provided on their Handout on Factors of Production/Card Sort Analysis.
  - Sentence stem: I believe South Korea's economy is focused on the production of . . . because . . .

For suggested answers, see the Teacher Key to the Handout on Factors of Production/Card Sort Analysis (p. 200).

**TEACHER NOTES**

Depending on the time allocated for this concept, you can shorten Activity 2 by having students only describe and justify one card for each of the factors of production.

Remind students of what they learned about South Korea's economy from the Day 1 activities to help guide struggling students or groups.



**TEACHING TIP**

Sorting and other hands-on activities help students to practice using concepts and offer a quick visual opportunity for teachers to see if students understand.

## CLASS ACTIVITY 3 OF 3: CHECK FOR UNDERSTANDING

CLASS ACTIVITY ( 15 MINUTES)

**EXIT TICKET**

**ACTIVITY PROCEDURE**

- Give the Factors of Production Exit Ticket to each student.
- Individually, have students revisit their rankings from Activity 1 and determine their ranking of the factors based on which factors they think most impact the South Korean Economy.
- Students will explain if there was a change to their ranking from Activity 1 and why or why not.
- Using the factor that students believe is the most impactful for South Korea's economy, students will justify why they believe this to be the most important factor and why.

For suggested answers, see the Teacher Key to the Factors of Production Exit Ticket (p. 203).

# HANDOUT: WHAT ARE FACTORS OF PRODUCTION?

Name: \_\_\_\_\_ Period: \_\_\_\_\_

**Follow the directions below:**

**Brainstorm:** Look at the picture of the automobile and complete the chart below identifying the elements needed for the production of the car in the space below.

**PHOTO**  
Hyundai Santa Fe



<b>Who is involved in production?</b>	
<b>What is involved in production?</b>	
<b>Where is this production taking place?</b>	

**What are Factors of Production?** Listen to the Factors of Production Podcast from the Federal Reserve Bank of St. Louis at <https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-2-factors-of-production> and complete the chart below.

<b>Factor of Production</b>	<b>Description</b>	<b>Example</b>

**Rank the four factors of production from most important to least important. Consider which is most important in the production of a car.** (This is an opinion; there are no right or wrong answers.)

	<b>Factor of Production</b>
<b>1</b>	
<b>2</b>	
<b>3</b>	
<b>4</b>	

**Provide a justification of your rankings in a sentence in the space below.**

**STOP INDIVIDUAL HOMEWORK NOW.**

GROUP DISCUSSION

Share your ranking and justification with your group.

Sentence Stems to help with your conversation:

- ▶ The least important factor I believe to be . . .
- ▶ The most important factor I believe to be . . .
- ▶ I think . . . is the most important factor because . . .
- ▶ I think . . . is the least important factor because . . .

As a group, rank the factors.

	Factor of Production
1	
2	
3	
4	

Provide a justification of your group rankings in a sentence in the space below.

---

---



## FACTORS OF PRODUCTION CASE STUDY: KOREA PRACTICE CARD

### PHOTO

#### Textile Manufacturing Equipment



## FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 1

### CHART

#### Education, Wages, and Labor Productivity in South Korea and China

Source: World History Digital Education Foundation, 2020.

Country	Mean Years of Schooling Attained*	Wages in US Dollars	Productivity per Hour in US Dollars
China	7.9	\$3.60 (average)	\$15.00
South Korea	12.2	\$7.30 (minimum wage)	\$34.30

\* The average number of completed years of education of the country's population 25 or older.

# FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 2

## Hyundai Car Assembly Line in Ulsan, South Korea

Source: Wikimedia Commons. [https://commons.wikimedia.org/wiki/File:Hyundai\\_car\\_assembly\\_line.jpg](https://commons.wikimedia.org/wiki/File:Hyundai_car_assembly_line.jpg)



# FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 3

### MAP

## Topography of South Korea

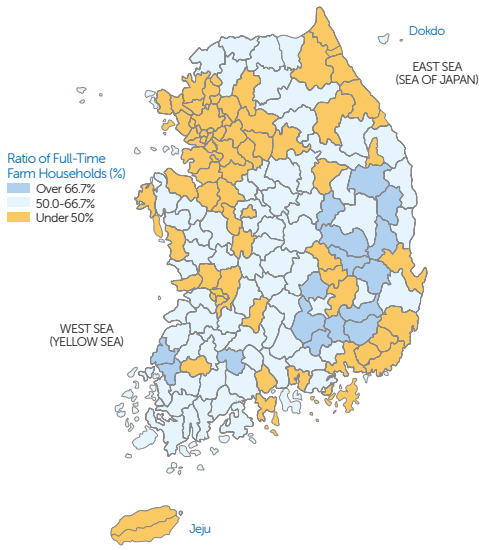
Source: Wikimedia Commons. <https://commons.wikimedia.org/w/index.php?curid=5196542>



### MAP

## Full-Time Farm Households as a Percentage of Households in South Korea

Source: National Atlas of Korea, <http://www.nationalatlas.ngii.go.kr/us>



## FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 4

### TEXT EXCERPT

#### Hyundai Corporation

Source: World History Digital Education Foundation, 2020

Hyundai Corporation is a major South Korean and global corporation. Formed in 1976, its operations encompass the production of chemicals, ships, machines, plants, steel, and electronic products as well as the production of cars, with which Americans are most familiar. Hyundai's investments in the South Korean economy and global economy are powerful reminders of its impact and influence.

## FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 5

### CHART

#### Land Use and National Resources in South Korea and China

Source: CIA World Factbook, <https://www.cia.gov/the-world-factbook/>

	South Korea	China
<b>Land used for agriculture</b>	18.1% of total land	54.7%
<b>Forest</b>	63.9%	22.3%
<b>Coastline</b>	2,413 km	14,500 km
<b>Natural Resources</b>	Coal, tungsten, graphite, lead, hydropower potential	Coal, iron ore, helium, petroleum, natural gas, arsenic, bismuth, cobalt, cadmium, ferrosilicon, gallium, germanium, hafnium, indium, lithium, mercury, tantalum, tellurium, tin, titanium, tungsten, antimony, manganese, magnesium, molybdenum, selenium, strontium, vanadium, magnetite, aluminum, lead, zinc, rare earth elements, uranium, hydropower potential.

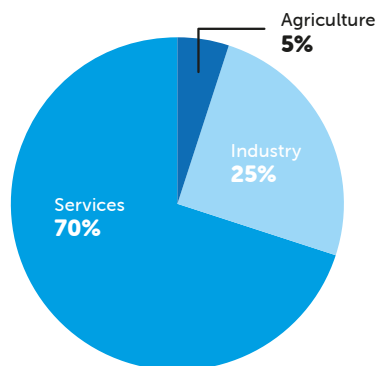
## FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 6

### CHART

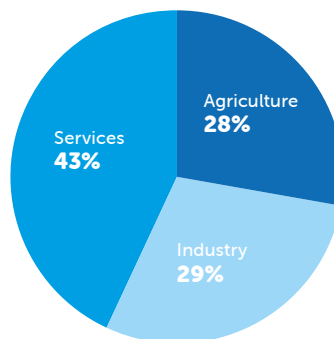
#### South Korean and Chinese Workforce by Sector

Source: CIA World Factbook, <https://www.cia.gov/the-world-factbook/>

South Korea Workforce by Sector



China Workforce by Sector



**Agriculture** includes farming, fishing, and forestry.

**Industry** includes mining, manufacturing, energy production, and construction.

**Services** include governmental activities, communications, transportation, finance, and all other private economic activities that do not produce material goods.

## FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 7

### PHOTO

#### Pohang Iron and Steel Company, South Korea



## FACTORS OF PRODUCTION CASE STUDY: KOREA CARD 8

### TEXT EXCERPT

#### Samsung Electronics Company


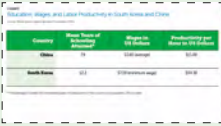



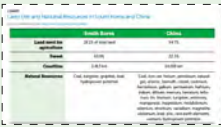



Source: World History Digital Education Foundation, 2020

Samsung is one of the world's largest producers of consumer electronics and it has played an integral role in the South Korean and global economy over the last 50 years. Its products are very diverse, focusing on producing consumer electronics such as home appliances as well as equipment that benefits health and medical providers. The mobile communication side of the business is also very impactful and includes the production of some of the most popular and innovative smartphones on the market as well as the development of an infrastructure for next-generation networking.

# HANDOUT: FACTORS OF PRODUCTION/CARD SORT ANALYSIS

Name: \_\_\_\_\_ Period: \_\_\_\_\_

**Card Sort.** After you have sorted and checked with your teacher for accuracy, identify which factor of production is shown in the card by putting a check in the appropriate box.

Card	Which of the Four Factors of Production?			
	Land	Labor	Capital	Entrepreneurship
<b>Example</b> 				
<b>1</b> 				
<b>2</b> 				
<b>3</b> 				
<b>4</b> 				
<b>5</b> 				
<b>6</b> 				
<b>7</b> 				
<b>8</b> 				

## ANALYZING FACTORS OF PRODUCTION CARDS

### PRACTICE CARD ANALYSIS

Card	Factors of Production Case Study: Korea Practice Card
Describe the information shown in the card	
Justify why this is an example of Capital	

Use the Korea Case Study Cards to complete the charts below.

	Land	
Card		
Describe the information shown in the card		
Justify why this is an example of Land		

	Labor	
Card		
Describe the information shown in the card		
Justify why this is an example of Labor		

Continued on the next page



Capital		
Card		
Describe the information shown in the card		
Justify why this is an example of Capital		

Entrepreneurship		
Card		
Describe the information shown in the card		
Justify why this is an example of Entrepreneurship		

## STUDENT DISCUSSION

Looking at the factors of production, how would you describe the focus of the South Korean economy? How do factors of production justify your answer?

Use this space to write your answer before you discuss it with your group.

---

► Sentence stem: I believe South Korea's economy is focused on the production of . . . because . . .



# EXIT TICKET: FACTORS OF PRODUCTION

Name: \_\_\_\_\_ Period: \_\_\_\_\_

Based on your learning today and looking at examples from South Korea, re-rank the four factors of production (land, labor, capital, and entrepreneurship) based on how you believe they impact the South Korean economy.

Factor of Production	
1	
2	
3	
4	

Did your rankings change from Activity 1? (why/why not?)

Write a short paragraph identifying which factor of production you believe to be the most important to South Korea's economy and why?

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## TEACHER KEY: HANDOUT OF “WHAT ARE FACTORS OF PRODUCTION?”

**Brainstorm:** Look at the picture of the automobile and complete the chart below identifying the elements needed for the production of the car in the space below.

PHOTO

Hyundai Santa Fe



<b>Who is involved in production?</b>	
<b>What is involved in production?</b>	
<b>Where is this production taking place?</b>	

**What are Factors of Production?** Listen to the Factors of Production Podcast from the Federal Reserve Bank of St. Louis and complete the chart below.

Factor of Production	Description	Example
Land	Includes natural resources used to produce goods and services. This includes not just land, but anything that comes from the land.	Land, water, oil, copper, natural gas, coal, and forests.
Labor	The effort that people contribute to the production of goods and services.	Engineers, waiters, etc.
Capital	Think of capital as the machinery, tools and buildings humans use to produce goods and services.	Hammers, forklifts, conveyor belts, computers, and delivery vans.
Entrepreneurship	An entrepreneur is a person who combines the other factors of production to earn a profit.	Henry Ford, Bill Gates, Michael Dell.

Rank the four factors of production from most important to least important. Consider which is most important in the production of a car. (This is an opinion; there are no right or wrong answers.)

Factor of Production	
1	
2	
3	
4	

Provide a justification of your rankings in a sentence in the space below.

GROUP DISCUSSION

Share your ranking and justification with your group.

Sentence Stems to help with your conversation:

- ▶ The least important factor is . . .
- ▶ The most important factor is . . .
- ▶ I think . . . is the most important factor because . . .
- ▶ I think . . . is the least important factor because . . .

As a group, rank the factors.

Factor of Production	
1	
2	
3	
4	


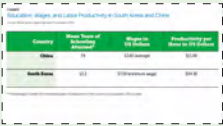







Provide a justification of your group rankings in a sentence in the space below.

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# TEACHER KEY: HANDOUT ON FACTORS OF PRODUCTION/CARD SORT ANALYSIS

**Card Sort.** After you have sorted and checked with your teacher for accuracy, identify which factor of production is shown in the card by putting a check in the appropriate box.

Card	Which of the Four Factors of Production?			
	Land	Labor	Capital	Entrepreneurship
<b>Example</b> 			✓	
<b>1</b> 		✓		
<b>2</b> 			✓	
<b>3</b> 	✓			
<b>4</b> 				✓
<b>5</b> 	✓			
<b>6</b> 		✓		
<b>7</b> 			✓	
<b>8</b> 				✓

## ANALYZING FACTORS OF PRODUCTION CARDS

### PRACTICE CARD ANALYSIS

Card	Factors of Production Case Study: Korea Practice Card
<b>Describe the information shown in the card</b>	Machinery for producing textiles
<b>Justify why this is an example of Capital</b>	Machinery used for producing a good is part of the capital category

Use the Korea Case Study Cards to complete the charts below.

Land		
Card	3	5
<b>Describe the information shown in the card</b>	The topographic map shows the different elevations found on the Korean Peninsula. The Full-time Farm Households map shows which areas in South Korea have the most farmers.	Land use is compared between South Korea and China, showing that China has much more land used for agriculture, but fewer forests than South Korea. Both have large coastlines, with China having a larger coastline. Both have many resources.
<b>Justify why this is an example of Land</b>	These maps show the type of land found in South Korea and how the land is used based on the percent of full-time farm households.	This is an example of land because it shows amounts of agricultural land, forest, coastline, and natural resources, which come from the land.

Labor		
Card	1	6
<b>Describe the information shown in the card</b>	The card shows that South Korean workers attend school for longer, earn more, and are more productive than Chinese workers.	The graphs show the breakdown of South Korea and Chinese workforce by sector. China has a larger percent of agriculture workers and South Korea has a larger percent of service workers.
<b>Justify why this is an example of Labor</b>	This is an example of labor because it shows the qualities of workers.	This is an example of labor because it shows the percent of workers in both countries divided by economic categories.

Capital		
Card	2	7
<b>Describe the information shown in the card</b>	The card shows a car factory in South Korea manufacturing automobiles.	The card shows a factory of the Pohan Iron and Steel Company.
<b>Justify why this is an example of Capital</b>	This card is an example of capital because it shows the machines in a factory needed to produce a good.	This card is an example of capital because it shows a factory that produces iron and steel.

Entrepreneurship		
Card	4	8
<b>Describe the information shown in the card</b>	The card describes the Hyundai Corporation and explains what it produces and that it trades globally.	The card explains what Samsung produces and its role in the global economy.
<b>Justify why this is an example of Entrepreneurship</b>	This card is an example of entrepreneurship because it explains how Hyundai Corporation puts the factors of production together to make a product.	This card is an example of entrepreneurship because it explains how Samsung Corporation puts the factors of production together to make a product.

## STUDENT DISCUSSION

Looking at the factors of production, how would you describe the focus of the South Korean economy? How do factors of production justify your answer?

Use this space to write your answer before you discuss it with your group.

---

- Sentence stem: I believe South Korea's economy is focused on the production of . . . because . . .

# TEACHER KEY FOR THE EXIT TICKET: FACTORS OF PRODUCTION

Based on your learning today and looking at examples from South Korea, re-rank the four factors of production (land, labor, capital, and entrepreneurship) based on how you believe they impact the South Korean economy.

Factor of Production	
1	
2	
3	
4	

Did your rankings change from Activity 1? (why/why not?)

Write a short paragraph identifying which factor of production you believe to be the most important to South Korea's economy and why?

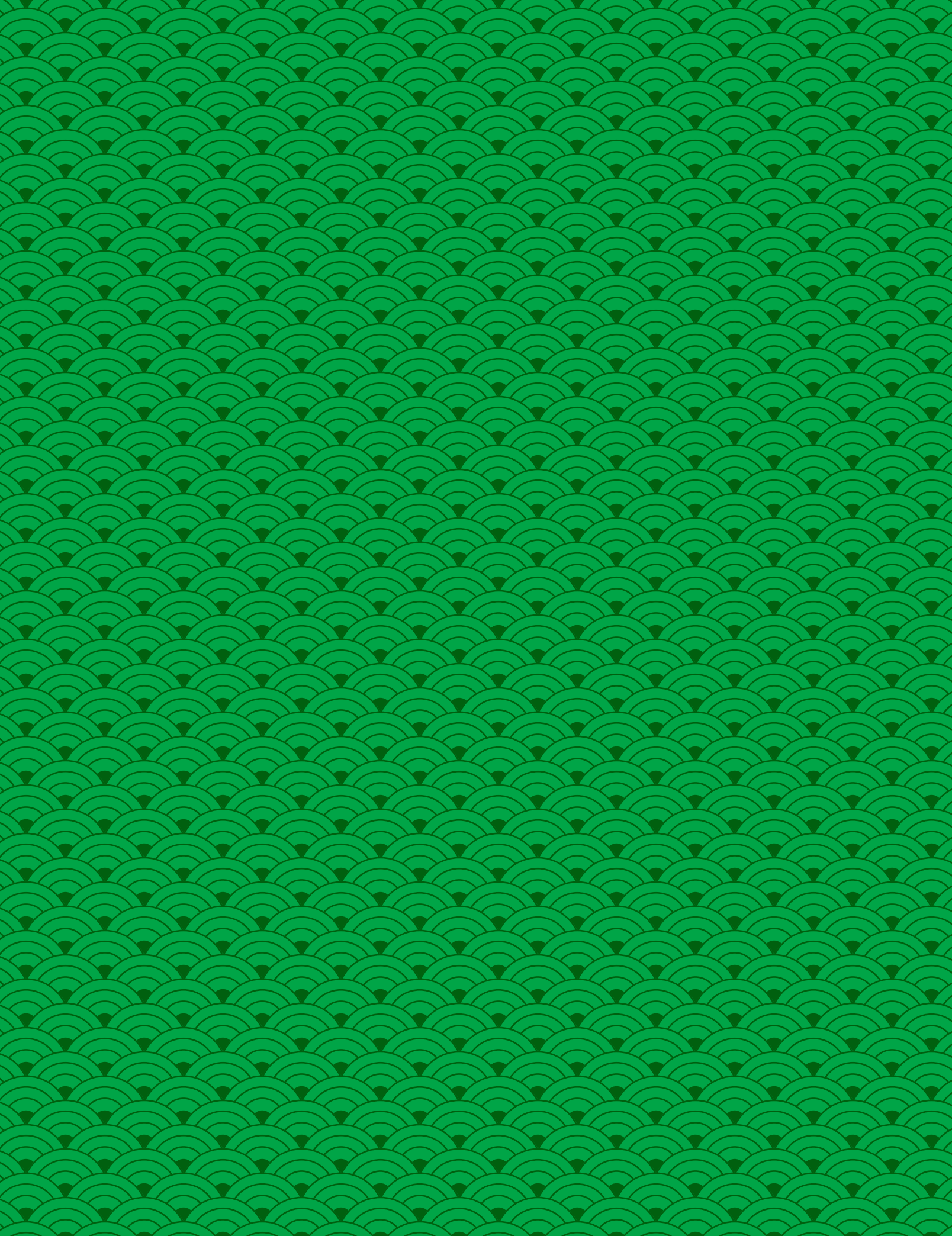
Possible Answers:

**Land.** Most students will not say that land is the most influential. If land is mentioned, students should discuss the resources found in South Korea.

**Labor.** Students who pick labor may mention the educated workforce, high levels of productivity, large numbers of workers in services and industry, few workers in agriculture, etc.

**Capital.** South Korea has large factories that produce many products, including consumer electronics, automobiles, and even steel, which is used in the manufacturing of many products sold globally.

**Entrepreneurship.** South Korea has many large companies, such as Hyundai and Samsung, which are able to bring all of the elements of production together, making production more efficient and leading to South Korea's strong role in the global economy.





# ECONOMICS MODULE



DAY 3:  
ASSESSMENT —  
SHORT ANSWER WRITING

# ECONOMICS MODULE OVERVIEW

## SKILL FOCUS

Analyze Data and Support Arguments with Evidence

## CONTENT

Comparative Advantage and Factors of Economic Production

### Why do Countries Specialize?

#### DAY 1

##### CLASS ACTIVITY

##### **Understanding the Concepts of Opportunity Cost, Absolute Advantage, and Comparative Advantage**

This module leads students through the costs and benefits of economic decision making as students work through four activities and complete an exit ticket demonstrating their knowledge. They will examine decision making and opportunity costs through an individual lens and then be introduced to the concepts of opportunity cost, absolute advantage, and comparative advantage at different scales as well as determining how these factors lead to specialization.

##### CHECK FOR UNDERSTANDING

**Student Discussion:** How do the concepts of opportunity costs and comparative advantage explain why countries specialize in what they produce?

### What Factors of Production Have Influenced the Rapid Growth and Success of South Korea's Economy?

#### DAY 2

##### CLASS ACTIVITY

##### **Identifying the Importance of Different Factors of Production in the South Korean Economy**

In this activity, students will explore the factors of production and will apply their understanding by categorizing different examples. Students will use their knowledge of factors of production to identify which factor of production they believe to be most important to South Korea's economy.

##### CHECK FOR UNDERSTANDING

**Exit Ticket:** Which factor of production do you believe is most important to South Korea's economy?

### Assessment

#### DAY 3

##### CLASS ACTIVITY

##### **Short Answer Writing**

Students will review Day 1 and Day 2 activities and read about opportunity costs, comparative advantage, and factors of production to evaluate how these elements have led to the South Korean economic miracle.

##### **The Influence of Factors of Production and Comparative Advantages on Korea's Economic Development**

**Short Answer Prompt:** Evaluate which factors of production and comparative advantages have influenced the rapid growth and success of South Korea's economy.

# ECONOMICS MODULE SOURCES

DAY 1	Stimulus Type	Description	Page
	Graph	Vehicle Production in South Korea, 2010-2019	164
	Graph	Yearly Number of Cars Produced in the United Kingdom, 2013-2019	164

DAY 2	Stimulus Type	Description	Page
	Podcast	Homework Overview: Identifying Factors Of Production	187
	Photo	Hyundai Santa Fe	187
	Photo	Textile Manufacturing Equipment	189
	Chart	Education, Wages, and Labor Productivity in South Korea and China	189
	Photo	Hyundai Car Assembly Line in Ulsan, South Korea	190
	Map	Topography of South Korea	190
	Map	Full-Time Farm Households as a Percentage of Households in South Korea	190
	Text Excerpt	Hyundai Corporation	191
	Chart	Land Use and National Resources in South Korea and China	191
	Chart	South Korean and Chinese Workforce by Sector	192
	Photo	Pohang Iron and Steel Company, South Korea	192
	Text Excerpt	Samsung Electronics Company	193

DAY 3	Stimulus Type	Description	Page
	Article	The South Korean Economic Miracle	214
	Graph	South Korean GDP per capita, 1960-2021	214
	Graph	South Korean Exports, 1960-2019	214
	Graph	The Share of the Population with No Formal Education in Different Countries	214

# DAY 3

BASED ON A 60-MINUTE CLASS

## Which Factors of Production and Comparative Advantages have Influenced the Rapid Growth and Success of South Korea's Economy?

### OVERVIEW

Students will use information from the previous two lessons to explain how South Korea's economy was able to grow so dramatically in a short period of time using the concepts of opportunity cost, comparative advantage, and factors of production.

### MATERIALS NEEDED:

#### IN-CLASS ACTIVITIES

Materials from Economics Day 1 and Day 2 for review activity:

- ▶ Day 1 Activity 4 Handout: Comparative Advantage (p. 170)
- ▶ Day 2 Homework Handout: What are Factors of Production? (p. 187)
- ▶ Day 2 Activity 2 Handout: Factors of Production/Card Sort Analysis (p. 194)

Materials for Day 3:

- ▶ Activity 1 Handout: The South Korean Economic Miracle (pp. 212–213)
- ▶ Activity 2 Reading: Article on the South Korean Economic Miracle (pp. 214–215)
- ▶ Activity 3 Handout: The South Korean Economic Miracle Writing Rubric and Prompt (pp. 216–217)

#### TEACHER ANSWER KEYS

- ▶ Day 1 Activity 4 Handout: Comparative Advantage (Day 1, p. 177)
- ▶ Day 2 Homework Handout: What are Factors of Production? (Day 2, p. 198)
- ▶ Day 2 Activity 2 Handout: Factors of Production/Card Sort Analysis (Day 2, p. 200)
- ▶ Activity 1 Handout: The South Korean Economic Miracle (pp. 218–219)
- ▶ Activity 3 Handout: Sample Proficient Answer to the South Korean Economic Miracle Writing Prompt (p. 220)

# SEQUENCE OF INSTRUCTION

## CLASS ACTIVITY 1 OF 3: REVIEW OF KEY CONCEPTS FROM DAYS 1 AND 2

REVIEW OF KEY CONCEPTS (10 MINUTES)

### REVIEW OF OPPORTUNITY COST, COMPARATIVE ADVANTAGE, AND FACTORS OF PRODUCTION

#### ACTIVITY PROCEDURE

- ▶ Group students in groups of 3-4.
- ▶ Explain to students that they are preparing evidence to address the prompt for Day 3: Evaluate which factors of production and comparative advantages have influenced the rapid growth and success of South Korea's economy.
- ▶ As a group, students will use the Handout on the South Korean Economic Miracle (pp. 212–213) to complete the review of evidence from the activities of Economics Day 1 and Economics Day 2.
  - ▷ Students will use the following Day 1 and Day 2 handouts to help explain comparative advantage and to identify evidence from Day 2 of factors of economic production that are important to South Korea's economic growth.
    - Day 1 Handouts
      - » *Activity 4: Comparative Advantage*
    - Day 2 Handouts
      - » *What are Factors of Production?*
      - » *Factors of Production/Card Sort Analysis*
- ▶ If time permits, have groups share out some of the evidence they collected.

For suggested answers, see the Teacher Key to the Handout on The South Korean Economic Miracle (pp. 218–219).

#### TEACHER NOTES

Students should have all of their handouts available to help with the Day 3 activities. If students seem to be struggling with the concepts, you should guide them to appropriate activities from Day 1 and Day 2.

The Factors of Production Cards from Day 2 will provide students with specific evidence that can be used to prepare to answer the prompt.



#### TEACHING TIP

Using online platforms like Kami can allow students to be able to annotate and highlight readings, saving the numbers of copies needed for students and providing a tool to complete activities such as this one in a virtual setting.

## CLASS ACTIVITY 2 OF 3: THE SOUTH KOREAN ECONOMIC MIRACLE READING

CLASS ACTIVITY (15 MINUTES)

### CLOSE READING

#### ACTIVITY PROCEDURE

- ▶ Hand out the Reading on The South Korean Economic Miracle (pp. 214–215) to each student.
- ▶ Students will read the article individually and will write down evidence of opportunity costs, comparative advantage, and factors of production in their Handout on The South Korean Economic Miracle.
- ▶ Refer students back to the prompt and remind them they are collecting evidence to answer the prompt.

For suggested answers, see the Teacher Key to the Handout on The South Korean Economic Miracle (pp. 218–219).

#### TEACHER NOTES

Students could read the article in groups. Students would stay in groups of four with each member reading only for evidence of one of the factors of land, labor, capital, or entrepreneurship. As they read about their particular factor of production, students would also identify how comparative advantage is affected by their factor of production.



#### TEACHING TIP

Using online platforms like Kami can allow students to be able to annotate and highlight readings, saving the numbers of copies needed for students and providing a tool to complete activities such as this one in a virtual setting.

## CLASS ACTIVITY 3 OF 3: EVALUATING WHICH FACTORS OF PRODUCTION AND COMPARATIVE ADVANTAGE HAVE INFLUENCED THE RAPID GROWTH AND SUCCESS OF SOUTH KOREA'S ECONOMY.

WARM UP/INTRODUCTION (40 MINUTES)

### SHORT ANSWER RESPONSE

#### ACTIVITY PROCEDURE

- ▶ Give a copy of the Handout on The South Korean Economic Miracle Writing Rubric and Prompt (p. 216) to each student.
- ▶ Explain the prompt and the rubric to students so that they understand how their writing will be evaluated.
- ▶ Make sure students know that the expectation is that they should identify at least two factors of production and their related comparative advantage that have been influential to South Korea's economic growth.
- ▶ Before writing, have students complete the graphic organizer. The teacher can check the graphic organizer to make sure students have adequate information to begin to write.
- ▶ Allow students to answer the prompt on the Handout on The South Korean Economic Miracle Writing Prompt and Rubric.

For suggested answers, see the Teacher Key to the Sample Proficient Answer to the South Korean Economic Miracle Rubric and Writing Prompt (p. 220).

#### TEACHER NOTES

Students could work in small groups to brainstorm before they individually write. Teachers can also provide feedback and have students write an improved draft if time is available. The number of points has been intentionally left off the rubric so that you can provide feedback before students see the actual grade. Teachers can determine how the rubric correlates to a number or letter grade. A good rule of thumb is that the proficient category equals grade-level expectations and thus should be no lower than a 90%.

Students who struggle with writing may identify one factor of production and its related comparative advantage. These students may need multiple sentence stems to help guide them through the writing.



#### TEACHING TIP

It is important to give students the opportunity to understand and deconstruct a writing rubric before they write. The rubric will give students a strong road map to help guide their answers, leading to better quality writing. The better students know the rubric, the easier it is for teachers to give feedback to help students improve their writing skills.

When giving feedback, it is important to not show students the grade they have earned. Often when students are satisfied with their grade, they will not want to improve the first draft.

# HANDOUT: THE SOUTH KOREAN ECONOMIC MIRACLE

Name: \_\_\_\_\_ Period: \_\_\_\_\_

**Your job:** Evaluate which factors of production and comparative advantages have influenced the rapid growth and success of South Korea's economy.

1. Complete the "Evidence from Day 1" and "Evidence from Day 2" Activities in the chart below using the following Handouts that you received on Day 1 and Day 2: Comparative Advantage; What are Factors of Production?; and Factors of Production/Card Sort Analysis to answer the following prompt:

Read the article on the South Korean Economic Miracle. Record any evidence that relates to the concepts of opportunity cost and comparative advantage, as well as the four factors of production.

Comparative Advantage	Evidence from Day 1 Activity	Evidence from the article on the South Korean Economic Miracle
	From the Day 1 Comparative Advantage Handout, explain the concept of comparative advantage:	Provide three specific examples of comparative advantage from the article:



From the Day 2 Handouts on Factors of Production and Factors of Production/Card Sort Analysis, provide specific South Korean examples of the four factors of production below.

	Evidence from Day 2 Activity	Evidence from the article on the South Korean Economic Miracle
<b>Land</b>		Provide two specific examples of land as a factor from the article:
<b>Labor</b>		Provide three specific examples of labor as a factor from the article:
<b>Capital</b>		Provide three specific examples of capital as a factor from the article:
<b>Entrepreneurship</b>		Provide three specific examples of entrepreneurship as a factor from the article:

# HANDOUT

## ARTICLE

### The South Korean Economic Miracle

World History Digital Education Foundation

Looking at South Korea today, it is hard to believe that directly after the Korean War, South Korea was an underdeveloped country focused on agricultural production. Intentional changes were undertaken to recreate the South Korean economy by taking advantage of the factors of production in which South Korea had a comparative advantage. These comparative advantages have led to South Korea today becoming a global powerhouse in the production of chemicals, ship building, automobiles, and consumer technologies such as smartphones.

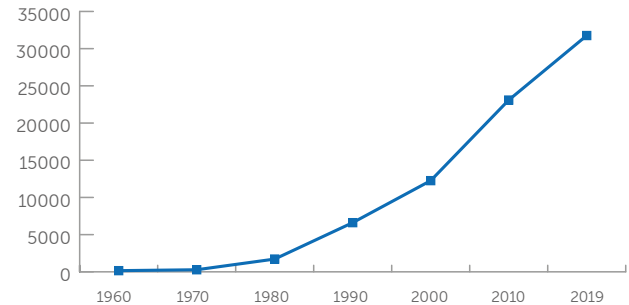
To understand how South Korea leveraged its comparative advantage, first we need to understand how different the economy of South Korea looks today. The two graphs on the right show the economic growth of the South Korean economy from 1960 to 2019. The tremendous growth illustrates how radical the economic changes in South Korea were during this time period. The economic change depicted in the graphs was not the result of chance and came from a concerted effort of the South Korean government to leverage the factors of production and the country's comparative advantage.

As South Korea emerged from the Korean War, the economy was focused on subsistence agricultural production. For a country in which only 30% of the land is cultivable, this reliance on agriculture hindered economic growth. For South Korea to see economic growth, a new focus was necessary.

Labor was a factor of production that South Korea began to leverage to start its meteoric economic growth. Not only did South Korea have a large labor force, but the labor force was relatively well educated. This focus on education came from cultural traditions that valued education and led to a very well-developed education system. This focus can be seen when comparing the percentage of the South Korean population that had no formal education in 1970 with similar levels in other countries. Almost 75% of the adult population of South Korea had received formal education. Even though this number seems low when one thinks of South Korea today, this relatively large number provided a comparative advantage over countries that had the same level of development at the time. With this labor force, the economy began to focus on the manufacturing of light goods, such as garments.

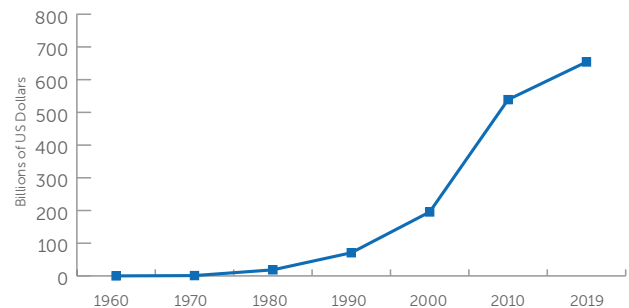
#### GRAPH

South Korean GDP per capita, 1960-2021



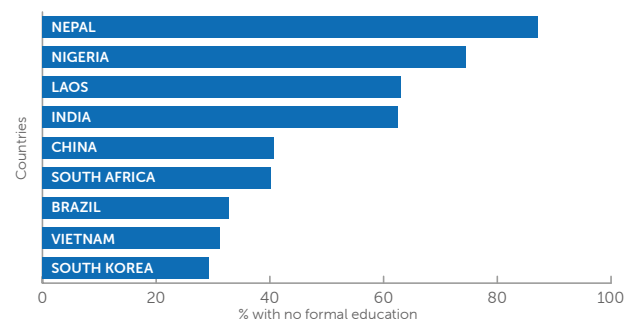
#### GRAPH

South Korean Exports, 1960-2019



#### GRAPH

The Share of the Population with No Formal Education in Different Countries



In 1961, a regime change occurred with the installation of Park Chung-hee as President. New economic policies focused on controlling the allocation of factors of production by targeting sectors of the economy that were considered the foundation of an industrial economy such as petrochemicals, non-ferrous metals, and refined oil. Under Park's government, large capital investments, tax incentives, and cheap government-backed loans provided target industries the funds to build large capital products such as factories and big steel complexes. The Korean government's role in the economy and its symbiotic relationship with businesses have been referred to as "Korea Inc". This allowed for a more efficient allocation of resources as a result of the government's focus on strategic industries. The government role gave South Korea's economy a comparative advantage over other countries in Asia and the world because of the focus on what would benefit the country's economy as a whole.

With this capital development, by the 1980s South Korea was not only able to produce enough steel to meet domestic needs but also to develop new sectors of the economy, such as shipbuilding. As target industries changed, incentives were extended that led to the growth of other industries such as automobile and consumer electronics production. These incentives gave South Korean industries a comparative advantage over industries in other countries that were forced to pay much more for access to land, labor, and capital.

Another factor of production that was influenced by the South Korean government was the use of large business conglomerates, called Chaebols, to be the driving entrepreneurial forces in the economy. Chaebols were considered large enough to compete with large foreign multinational corporations. In addition, the chaebols and the government worked together to target strategic industries that would benefit the development of the entire South Korean economy. Today, chaebols such as Samsung, LG, and Hyundai are dominant parts of the South Korean economy, accounting for 84% of the country's GDP in 2019 due to access to government subsidies, loans and tax incentives. The continued dominance of the chaebols drives employment in both Korea and the world. For example, Samsung Electronics, one of the largest components of Samsung, employs more people globally than Apple and Google combined.

Hyundai is an example of the partnerships between the South Korean government and chaebols that have continued to give South Korea a comparative advantage in the global economy.

Hyundai had begun developing fuel cell vehicles in 1998, and introduced its first prototype fuel cell car, the Santa Fe Fuel Cell Electric Vehicle concept, in 2000. At

the 2004 Geneva Motor Show, Hyundai announced its second-generation fuel cell concept, the Tucson FCEV, which was equipped with a new lithium polymer battery. Hyundai celebrated a key milestone in eco-mobility in 2013 as the ix35 Fuel Cell became the first commercially mass-produced hydrogen fuel cell vehicle in the world. The vehicle's quick refueling time and 600-kilometre driving range, combined with its lack of CO2 emissions, provided benefits for both customers and society as a whole. In 2018, Hyundai's advantage in the development of alternative fueled automobiles grew with the launch of NEXO, the only fuel cell SUV in the world. Hyundai continues today to be the industry leader in alternative fuel vehicles and has set the goal through "Fuel Cell Vision 2030" of boosting its ability to produce fuel cell vehicles up to 700,000 vehicles by 2030. This focus is well placed, as the market and demand for alternative fuel vehicles continues to grow. With this focus on the future, Hyundai and similar corporations can target strategic industries as well as allocate finances and technology to give them a comparative advantage in their markets.

South Korea's economic growth, starting in the 1960s and continuing today, has been dramatic. The country has leveraged its land, labor, capital and entrepreneurship to maximize its comparative advantages, propelling it into the ranks of the leading global economic powers.

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# HANDOUT: THE SOUTH KOREAN ECONOMIC MIRACLE WRITING RUBRIC AND PROMPT

Name: \_\_\_\_\_ Period: \_\_\_\_\_

**Your job:** Use your knowledge from the Day 1 and Day 2 Handouts and your Student Handout on The South Korean Economic Miracle to help you develop an answer to the prompt below.

**Prompt:** Evaluate which factors of production and comparative advantages have influenced the rapid growth and success of South Korea's economy by identifying two factors and their associated comparative advantage that has led to South Korea's economic success. Use the rubric and the graphic organizer to help you plan your answer.

	Advanced	Proficient	Emerging	Not Yet
<b>Topic Sentence</b>	All of the proficiency elements are present and the student makes connections to the economic growth of other countries and/or explains the opportunity costs and trade-offs related to South Korea's economy.	The topic sentence clearly identifies at least two factors of production and their associated comparative advantage that have led to South Korea's economic success.	The topic sentences may identify factors but it is unclear how those factors gave South Korea a comparative advantage and led to its economic growth.	Factors of production and comparative advantage are not present or incorrect.
<b>Factor 1</b>	Includes all of the proficient elements (see the next column) and includes an explanation of the trade-off and or opportunity costs related to the factor of production that gave South Korea a comparative advantage.	<ul style="list-style-type: none"> <li>▷ Clearly identifies one factor of production that has led to South Korea's economic success.</li> <li>▷ The comparative advantage related to the factor of production is clearly evident.</li> <li>▷ Provides adequate evidence to support the claim that the factor gave South Korea a comparative advantage.</li> </ul>	Identifies one factor but the explanation of comparative advantage does not adequately show how the factor of production has led to South Korea's economic growth.	The factor of production and its associated comparative advantage are not present or incorrect
<b>Factor 2</b>	Same as Factor 1	Same as Factor 1	Same as Factor 1	Same as Factor 1

Use the graphic organizer on the next page to guide your answer before you write.

Complete the Factor boxes first, and then develop your topic sentence. You can use the sentence stem or develop your own sentence.

**Write your topic sentence here.**

*Sentence Stem: (Factor 1) and (Factor 2) have influenced the South Korean economic miracle, by giving South Korea a comparative advantage in (Factor 1's comparative advantage) and (Factor2's comparative advantage).*

Factor 1	Factor 2
What factor do I believe was important to South Korea's economic growth?	What factor do I believe was important to South Korea's economic growth?
How did this give South Korea a comparative advantage?	How did this give South Korea a comparative advantage?
What evidence do I have to support this?	What evidence do I have to support this?

**Start your answer here.**

# TEACHER KEY: HANDOUT ON THE SOUTH KOREAN ECONOMIC MIRACLE

**our job:** Evaluate which factors of production and comparative advantages have influenced the rapid growth and success of South Korea's economy.

1. Complete the "Evidence from Day 1" and "Evidence from Day 2" Activities in the chart below using the following Handouts that you received on Day 1 and Day 2: Comparative Advantage; What are Factors of Production?; and Factors of Production/Card Sort Analysis to answer the following prompt:

**Read the article on the South Korean Economic Miracle. Record any evidence that relates to the concepts of opportunity cost and comparative advantage, as well as the four factors of production.**

	Evidence from Day 1 Activity	Evidence from the article on the South Korean Economic Miracle
<b>Comparative Advantage</b>	<p>From the Day 1 Comparative Advantage Handout, explain the concept of comparative advantage:</p> <p>Comparative advantage is the ability of a producer to produce goods and services at a lower opportunity cost than another producer. With the same scenario as before, we can now quantify the advantage each country has for producing goods.</p>	<p>Provide three specific examples of comparative advantage from the article:</p> <p><b>South Korea did not have a comparative advantage in agriculture.</b></p> <ul style="list-style-type: none"> <li>▷ An educated workforce gave South Korea a comparative advantage.</li> <li>▷ Government incentives gave South Korean businesses a comparative advantage over businesses that did not have similar support.</li> <li>▷ Chaebols are able to use factors of production effectively to compete with multinational corporations.</li> </ul>

**From the Day 2 Handouts on Factors of Production and Factors of Production/Card Sort Analysis, provide specific South Korean examples of the four factors of production below.**

	Evidence from Day 2 Activity	Evidence from the article on the South Korean Economic Miracle
<b>Land</b>	<p>South Korea has limited amounts of arable land and few areas with large numbers of farm families. Only 18.1% of its land is used for agriculture; 63.9% of the country is forest.</p>	<p>Provide two specific examples of land as a factor from the article:</p> <ul style="list-style-type: none"> <li>▷ After World War II, labor was focused on subsistence agriculture.</li> <li>▷ Too little land and subsistence agriculture meant that agriculture limited economic growth.</li> <li>▷ The country had to focus away from subsistence agriculture.</li> </ul>

Continued on page 219

<b>Labor</b>	Most South Koreans work in Industry (25%) or in Services (70%). South Korean workers attend school for many years and are more productive per hour than similar workers in China.	<p>Provide three specific examples of labor as a factor from the article:</p> <ul style="list-style-type: none"> <li>▷ South Korea has a large workforce.</li> <li>▷ The workforce is relatively well educated.</li> <li>▷ South Korea had a higher level of education than similarly developed countries in the 1970s.</li> <li>▷ The focus on education came from a cultural tradition that valued education.</li> </ul>
<b>Capital</b>	South Korea has many large manufacturing facilities that use state of the art technology to produce goods. South Korea first focused capital improvements on steel production.	<p>Provide three specific examples of capital as a factor from the article:</p> <ul style="list-style-type: none"> <li>▷ The government focused resources on developing an industrial economy (petrochemicals, non-ferrous metals, refined oil).</li> <li>▷ The government gave tax incentives, and cheap government-backed loans to targeted industries.</li> <li>▷ As target industries changed, loans and tax incentives were used for new industries such as automobiles and consumer electronics.</li> </ul>
<b>Entrepreneurship</b>	South Korea has several large companies such as Hyundai, LG, and Samsung, which effectively combine the other factors of production and have become important in global economics.	<p>Provide three specific examples of entrepreneurship as a factor from the article:</p> <ul style="list-style-type: none"> <li>▷ The government acted as an entrepreneur.</li> <li>▷ Chaebols were large businesses that were the entrepreneurial forces in the economy.</li> <li>▷ Chaebols such as Samsung, LG, and Hyundai were considered big enough to compete against large multinational corporations.</li> <li>▷ In 2019, chaebols controlled 84% of the country's GDP.</li> <li>▷ Samsung is able to employ more people than Apple and Google combined.</li> </ul>

## TEACHER KEY: SAMPLE PROFICIENT ANSWER TO THE SOUTH KOREAN ECONOMIC MIRACLE WRITING PROMPT

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Start your answer here.

Labor and Entrepreneurship have influenced the South Korean economic miracle by giving South Korea a comparative advantage in the size and education of its work force and in the ability of Chaebols to use the other factors of production.

South Korea has an advantage in labor because of its educated workforce. When compared to countries like China, South Koreans attend school longer. The cultural value of education has also led to South Korea's workforce being highly educated, making it much more productive per hour than countries such as China. Because of this comparative advantage in labor, South Korea was able to industrialize and to develop and adapt better and more efficient ways to produce goods allowing for rapid economic growth.

South Korea also has an advantage in entrepreneurship. South Korea's economic growth mirrored the growth of Chaebols, or large conglomerate businesses. Businesses such as Hyundai, LG, and Samsung were large enough to give them a comparative advantage when competing with large multinational corporations. The power of these Chaebols is evident in the fact that in 2019, they made up 84% of South Korea's GDP. Due to the government-business partnerships, companies like Hyundai have been at the forefront of new technologies, such as the development of alternative fuel automobiles. Because of the Chaebols, South Korea was able to turn its entrepreneurship into a global comparative advantage leading to rapid economic growth and continued global economic power.

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