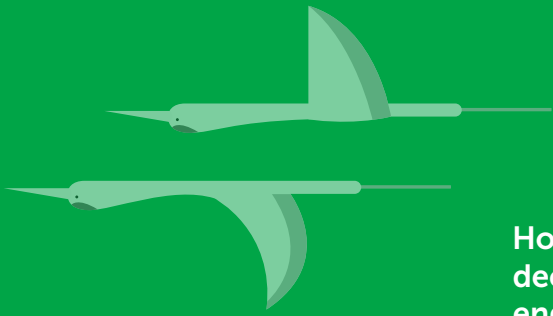


ECONOMICS MODULE



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.



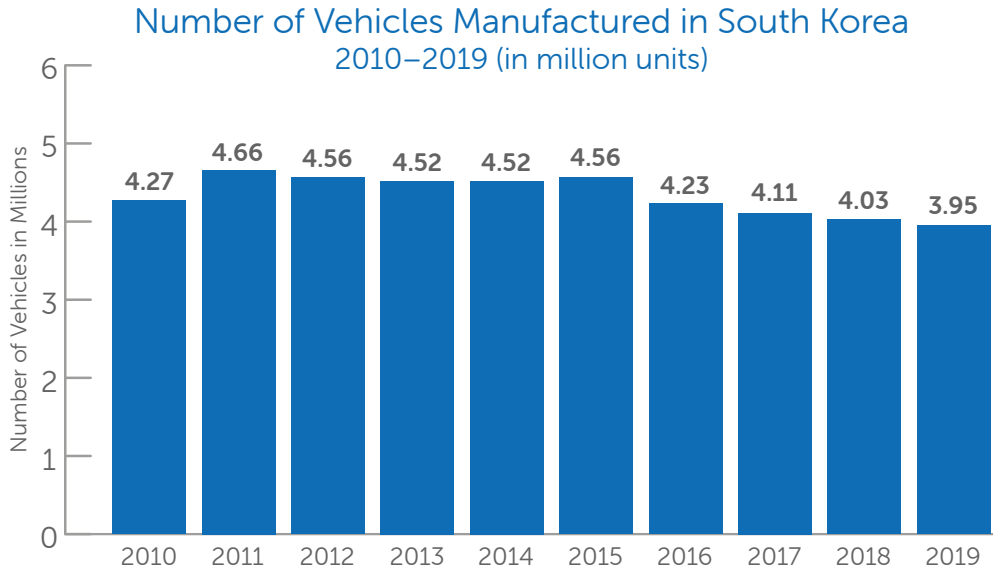
TEACHING TIP

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

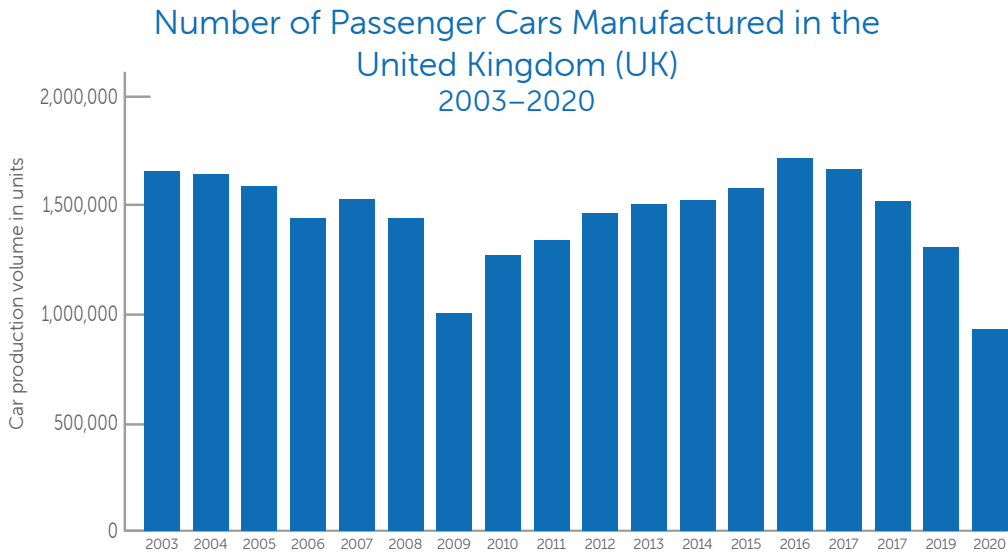
Source: KOSIS; Statistics Korea



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"> ▷ Improve baseball skills ▷ Increase playing time ▷ etc. 	<ul style="list-style-type: none"> ▷ Can’t swim at the beach ▷ Can’t spend time with family ▷ etc.

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.

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.
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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 opportunity cost (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 opportunity cost (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:

EXAMPLE

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	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.

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:
5	10	2 smartphones

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

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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		
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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
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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.**