Factors Influencing Gross Domestic Product

Lesson Author

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Lesson Description

In this activity, students will explore how a country's factors of production influence a country's level of gross domestic product (GDP). In the lesson, they will be introduced to economic terminology, complete a graphic organizer, and participate in a group card sorting activity. Students will use their understanding of the factors influencing GDP to make and support a hypothesis about which GDP and GDP per capita goes with each country. They will then write a short piece using evidence from the card sort to justify which factors they think are most important in determining a country's GDP.

Grade Level

9–12

Concepts

Entrepreneurship
GDP per capita
Gross Domestic Product
Human Capital

Literacy Rate Natural Resources Physical Capital Standard of Living

Objectives

Students will be able to:

- Define key terms such as entrepreneurship, GDP per capita, gross domestic product, human capital, literacy rate, natural resources, physical capital, and standard of living.
- Explain how changes in a particular factor will influence a country's GDP.
- Analyze economic data and identify to which type of resource the data refers.
- Compose a written piece giving evidence to support which factors seem to have the most significant effect on GDP.

Related Content Areas

Economics, World Studies, Current Events, Human Geography

Time Required

One 55-minute class period

Materials

PowerPoint slides ("Factors Influencing GDP") (https://atlfed.org/3r8IrRE)

Internet access for video (if possible)

Handout 1: "Fed Explained Assessment" (one per student if this was not assigned as Video Q & A homework)

Handout 2: "Factors Influencing Economic Growth and Standard of Living" (one per student)

Activity 1: One set of cards laminated and cut out for each group of six students

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Preparation

Formative Assessment Option: Step 7 in the procedures suggests showing *The Fed Explains Real vs. Potential GDP* video. Teachers have the option of assigning this video to students through the Fed's Econ Lowdown learning platform. Teachers can use the instructions found on pages 4 and 5 in this document to register their students for Video Q & A. Teachers should register students at least two days prior to the lesson. The students will receive login instructions from their teacher the day before the lesson and access the video on their home computer or on a classroom device if available. After viewing the video, students will answer questions about the content. The students' scores will be automatically displayed in the teacher's gradebook in Econ Lowdown. This will give the instructor an idea of student understanding prior to implementing lesson.

Preparing for the lesson:

- 1. Copy the handouts.
- 2. Print, laminate, cut out, and bag one set of cards for each group of students.
- 3. If showing the video during class, make sure it will launch on your school computer. The hyperlink connects to <u>youtube.com</u>. If you cannot access youtube.com from school, you can use your Econ Lowdown account to show the video. That site does not pull it from YouTube.

Procedures:

Instructions for the PowerPoint are in *italics*. Content background is in regular type.

- 1. Open the PowerPoint and Display slide 2. Review the lesson objectives.
- 2. Introduce the lesson by asking the following question: "What do people mean when they say 'the economy'?" Students will have a wide range of responses to this question. They may mention money, businesses, jobs, prices, etc. Tell the students that some people would describe the economy as the complex interactions among consumers, businesses, and government as each seeks to produce, consume, and distribute resources, goods, and services.
- 3. Ask the students how they think we would measure whether or not the US economy is doing well. If you assigned the *Fed Explained Video Q & A* for homework, some students may say gross domestic product or they may just know the term already. Some will likely say we measure it by looking at whether businesses succeed, people can find jobs, and /or citizens can afford to buy what they need. Tell students that we usually use changes in our gross domestic product to measure whether our economy is growing or shrinking. If you did not already assign the video for homework, tell them they will watch a short video on GDP and work with their classmates to complete a short assessment.
- 4. Display slide 3 (or slide 4 if you assigned the video for homework). Click on the image to launch a browser and the video.
- 5. (If you watched the video in class.) Give each student a copy of Handout #1, the video assessment, and ask them to complete the activity as a group. Ask the groups to share their responses and go over the correct answers with the students. (The video Q & A questions are available in a print format in this document and an answer key follows the student version.)
- 6. If students are not already in groups, divide them into groups of six or less. Give each group of students a stack of the cards you prepared before class.
- 7. Display slide 4.

Factors Influencing Gross Domestic Product (Updated 2020)

- 8. Ask the groups to find the cards shown on slide 4. Tell them to organize the cards on the table top in front of them in the format shown on the slide.
- 9. Distribute Handout #2. Tell students that they will be learning about some important factors countries need to have good GDP. Tell them they will fill in their handout and complete their table top chart as you discuss each factor.
- 10. *Display slide 5.* Ask a student to read the definition of "human capital." Ask the students to give some real life examples of human capital. Ask them to see if they can find two cards for each country which seem to belong to the human capital category. Ask them to place the cards in the correct spot. Continue this same process as you *display slides 6 -8.* Go around the room and check if the students are placing cards correctly.
- 11. *Display slide 9.* Ask a student to read the definition. Tell students to find the literacy rate cards on their chart.
- 12. *Display slide 10.* Read the definitions with the students and ask them to place the GDP and GDP per capita cards beside Natural Resources on their chart. Ask the students to analyze the factors for each country and try to place the GDP and GDP per capita cards with the correct country. Ask several students to share why they placed a particular card with a particular country.
- 13. *Display slide 11.* Ask if any group placed all the GDP numbers correctly. Encourage the students to share how well they did and why they made particular placement. Ask them to correct their charts if necessary.
- 14. *Display slide 12.* Discuss the debriefing questions with the students. Ask them to address these questions on the space provided on Handout #2. Ask students to share their responses and ask other students to comment on the explanations. Indicate whenever a student uses a good example of evidence to back their opinions.
- 15. Optional Activity: Go to <u>http://catalog.socialstudies.com/pdf/ZP219Psample.pdf</u> and show your students the photo collection from Material World. These are a bit dated, but each photo is accompanied by the per capita income and literacy rate of the country. The photos depict a middle class family from the country with all their possessions.

Factors Influencing Gross Domestic Product (Updated 2020)



Using Online Resources from the Econ Lowdown® Teacher Portal of the Federal Reserve Bank of St. Louis

The lessons and additional resources include videos, online modules, articles, and recordings from the Federal Reserve Bank of St. Louis and are available through the Econ Lowdown® Teacher Portal. These interactive resources are designed for students to complete individually online, either in class or as an out-of-class assignment. Once registered, teachers gain access to a "Management Panel" that allows them to preview the resources, assign them to students, and monitor student use and scores. Register and use the resources as follows:

Register

- 1. Go to <u>www.econlowdown.org</u> and click on the "Register as an Instructor" link or the "Register" button.
- 2. Enter the required information and click the "Register" button.
- 3. An email will be sent to you with a link to the login screen (www.econlowdown.org) and your temporary instructor code and password.
- 4. Sign in and create a new password. Going forward, you will log in using your email address and chosen password.

Create a Classroom and Add Students

- 1. Click on "My Classrooms," and then add a classroom name and the "Begin" and "End" dates of the class. Click the "Create" button.
- 2. You will be prompted to select how students will log in: Select either "Log in with Google" or "Log in with EconLowdown" and follow the prompts.
 - For the Google option, you will provide students with a specified link and a classroom join code.
 - For the Econ Lowdown[®] option, you will be prompted to add student names (and email addresses provided your students are 13 years old or older). See the options at the bottom of the page to "auto create student names" or "import student list."

Add Resources and Notes to Your Classroom Syllabus

- 1. On the "My Classrooms" tab, in the "Classroom Name" list, select the classroom you want to add a resource to.
- 2. Select the "Resources" button to access the Resource Gallery and find the resource(s) you want to add. All resources are listed alphabetically. (You can also sort by "Resource Type," "Grade Range," and other filters.)
- 3. When you have found the resource(s) you would like to assign to your students, select the "+" sign next to the title, and then select the green "Add to Syllabus" button in the lower-right-hand corner of your screen.
- 4. Select the "Custom Content" button to add a note to the syllabus, for example, to include your own assignment description, due dates, and instructions.
- 5. To arrange the items in your syllabus, select the up/down arrows on the left-hand side of a resource in your syllabus and drag and drop the item up or down the list. For example, you might want to arrange the resources in the order to be completed.

Factors Influencing Gross Domestic Product (Updated 2020)

- 6. You can also arrange items by editing the date range for a particular resource.
- 7. When your syllabus is in the desired order, select the "Publish" button so it will be accessible to your students.

Share Your Syllabus with Students

- 1. If using Google for students to log in, proceed as follows to share your syllabus—and the assignments in it— with your students:
 - Instruct students to log in using the provided Econ Lowdown[®] student link and classroom join code. Once logged in, students will be able to see your instructions, click the links on their syllabus page to launch assignments, and see their score(s) for the completed assignment(s).
- 2. If using Econ Lowdown[®] for students to log in, proceed as follows to share your syllabus—and the assignments in it—with your students:
 - When you are on a classroom page, select the "Students" tab and choose either the "Email Log in Information" or "Print Log in Information" button and follow the prompts. (You will be able to add a note to include with either option.) Each of your students will receive a unique student code and password to access your classroom syllabus and the associated assignment(s). Once logged in, students will be able to see your instructions, click the links on their syllabus page to launch assignments, and see their score(s) for the completed assignment(s).

Track Student Progress

• To track student progress and see scores of completed assignments, when logged in and on a given classroom page, select "Student Progress" and follow the prompts.

Factors Influencing Gross Domestic Product (Updated 2020)

Handout 1: The Fed Explained Assessment–Student Version

- 1. The two main economic goals pursued by the Federal Reserve are
 - a. economic security and economic growth.
 - b. price stability and maximum employment.
 - c. economic stability and economic freedom.
 - d. maximum employment and economic security.
- 2. How often do government statisticians compute our country's GDP?
 - a. Every month
 - b. Every six months
 - c. One time per year
 - d. Every three months
- 3. All of the following activities would be included in the country's GDP except
 - a. cutting someone's hair at a hair salon.
 - b. washing the dishes after dinner at home.
 - c. fixing a customer's car at the auto repair shop.
- 4. Select all of the following items that would lower the potential GDP of a country.
 - a. Production machinery is damaged and cannot be used.
 - b. A large percentage of workers become elderly and can no longer work.
 - c. Fewer people complete high school and college leading to lower worker productivity.
 - d. A national recession lowers the number of goods and services produced in the economy.
- 5. When the economy is operating below potential GDP, the Federal Reserve is most likely concerned with
 - a. rising price level.
 - b. increasing inflation.
 - c. high levels of unemployment.
 - d. shortages of necessary goods like energy and food.
- 6. The Federal Reserve goals of price stability and maximum employment are sometimes called
 - a. monetary policy.
 - b. the dual mandate.
 - c. open market operations.
 - d. supervision and regulation.

Handout 1: The Fed Explained Assessment–Student Version (Continued)

- 7. Real Gross Domestic Product (RGDP) can best be defined as
 - a. the average of all the prices of goods and services produced in the economy.
 - b. the percent change in the price level of all goods and service produced in an economy in a given time period.
 - c. the total value of all final goods and services produced in an economy in a given time period adjusted for inflation.
 - d. the value of all final goods and services that could be produced in an economy in a given time period if all its capacity was utilized.
- 8. An economy producing below its potential GDP most often results from
 - a. high prices of production inputs.
 - b. corrupt government policies that stifle economic growth.
 - c. low consumer demand for goods and services in the economy.
 - d. loss of consumer purchasing power due to a high inflation rate in the economy.
- 9. Production done at home is not counted in gross domestic product because
 - a. economists want people to work at companies not at home.
 - b. there is no market price to calculate for work done for oneself.
 - c. production done at home is not valuable to anyone except the person doing it.
 - d. goods produced at home lack the quality control found in the commercial market.
- 10. When the economy is operating above its potential GDP, the Federal Reserve will most likely
 - a. increase the amount of dollars in circulation to boost economic activity.
 - b. decrease the amount of dollars in circulation to keep inflation under control.
 - c. pursue policies designed to decrease the unemployment rate in the economy.
 - d. do nothing since the economy is performing even better than everyone expected.

Factors Influencing Gross Domestic Product (Updated 2020)

Handout 1: The Fed Explained Assessment-Student Version (Answer Key)

Answers are indicated with *.

- 1. The two main economic goals pursued by the Federal Reserve are
 - a. economic security and economic growth.
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 - c. economic stability and economic freedom.
 - d. maximum employment and economic security.
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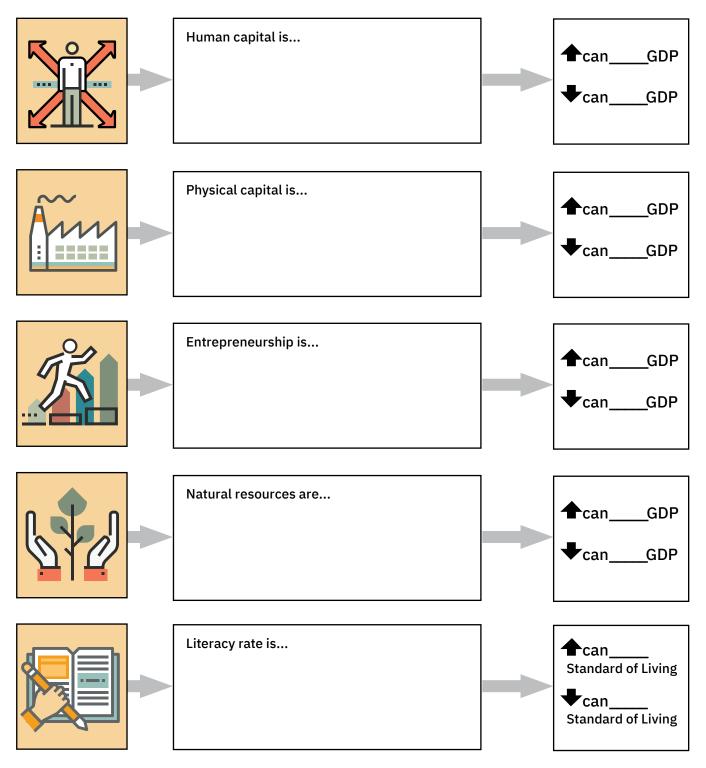
Handout 1: The Fed Explained Assessment—Student Version (Answer Key Continued)

- 7. Real Gross Domestic Product (RGDP) can best be defined as
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Handout 2: Factors Influencing Economic Growth and Standard of Living

Define each of the following terms as your teacher discusses them. You will complete the boxes on the right after you have participated in an activity.



Factors Influencing Gross Domestic Product (Updated 2020)

In the chart below, predict which GDP and GDP per capita you think goes with each country you analyzed.

India	
China	
Japan	
Germany	
United Kingdom	
Russia	

In the chart below, write the correct GDP and GDP per capita you think goes with each country you analyzed.

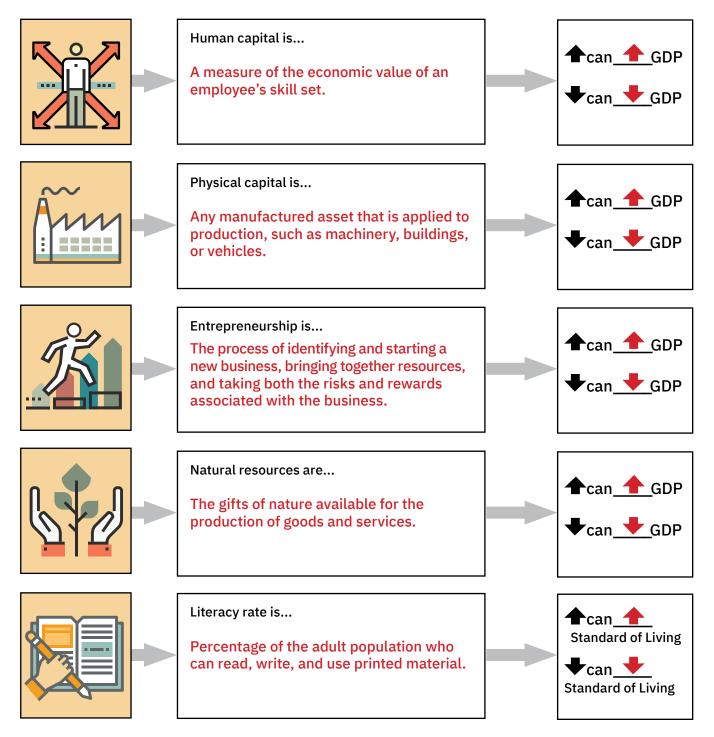
India	
China	
Japan	
Germany	
United Kingdom	
Russia	

In the space below, discuss which factors influencing GDP seem to be the most important in determining GDP in the countries you analyzed.

Factors Influencing Gross Domestic Product (Updated 2020)

Handout 2: Factors Influencing Economic Growth and Standard of Living (Answer Key)

Define each of the following terms as your teacher discusses them. You will complete the boxes on the right after you have participated in an activity.



Factors Influencing Gross Domestic Product (Updated 2020)

In the chart below, predict which GDP and GDP per capita you think goes with each country you analyzed.

India	Answers will vary	
China		
Japan		
Germany		
United Kingdom		
Russia		

In the chart below, write the correct GDP and GDP per capita for each country you analyzed.

India	\$8.44 Trillion	\$6,100
China	\$23.00 Trillion	\$16,400
Japan	\$5.22 Trillion	\$41,400
Germany	\$4.24 Trillion	\$50,900
United Kingdom	\$2.8 Trillion	\$41,600
Russia	\$3.88 Trillion	\$26,500

In the space below, discuss which factors influencing GDP seem to be the most important in determining GDP in the countries you analyzed. Also discuss the relationship between literacy rates and standard of living.

Answers will vary _____

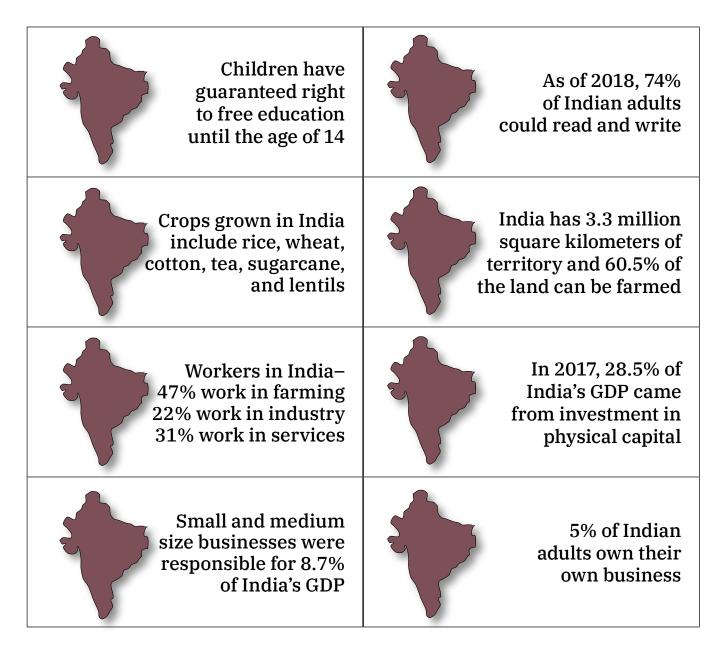
Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort

Human Capital	Human Capital
Physical Capital	Physical Capital
Entrepreneurship	Entrepreneurship
Natural Resources	Natural Resources

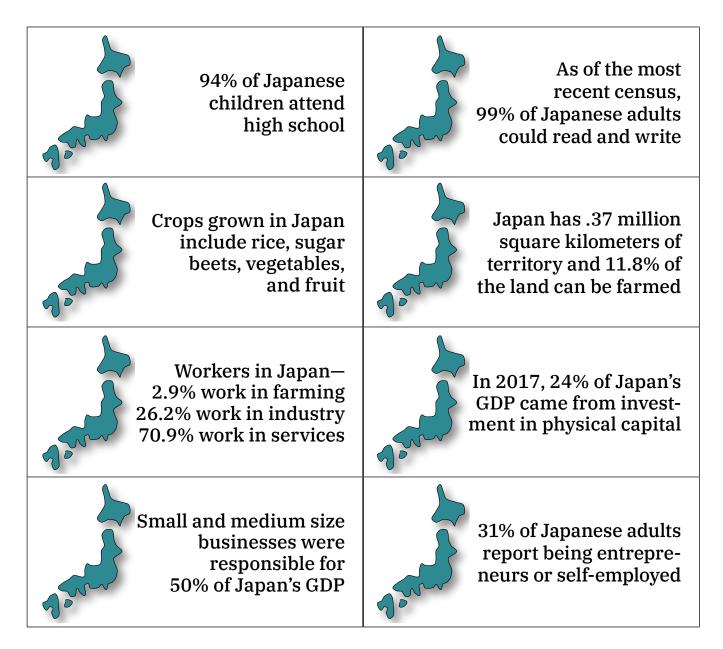
Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort (Page 2 of 9)



Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort (Page 3 of 9)



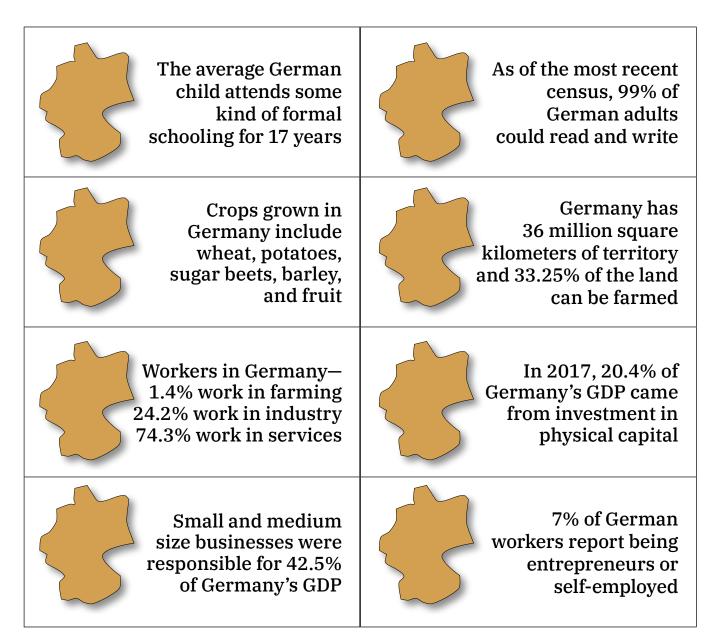
Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort (Page 4 of 9)

80% of Chinese children finish middle school; high school is not required	In 2018, 96.8% of Chinese adults could read and write
Crops grown in China include rice, wheat, potatoes, corn, peanuts, tea, and cotton	China has 9.6 million square kilometers of territory and 11.6% of the land can be farmed
Workers in China– 27.7% work in farming, 28.8% work in industry, 43.5% work in services	In 2017, 42.7% of China's GDP came from investment in physical capital
Small and medium size businesses were responsible for 60% of China's GDP	8% of Chinese adults own their own business

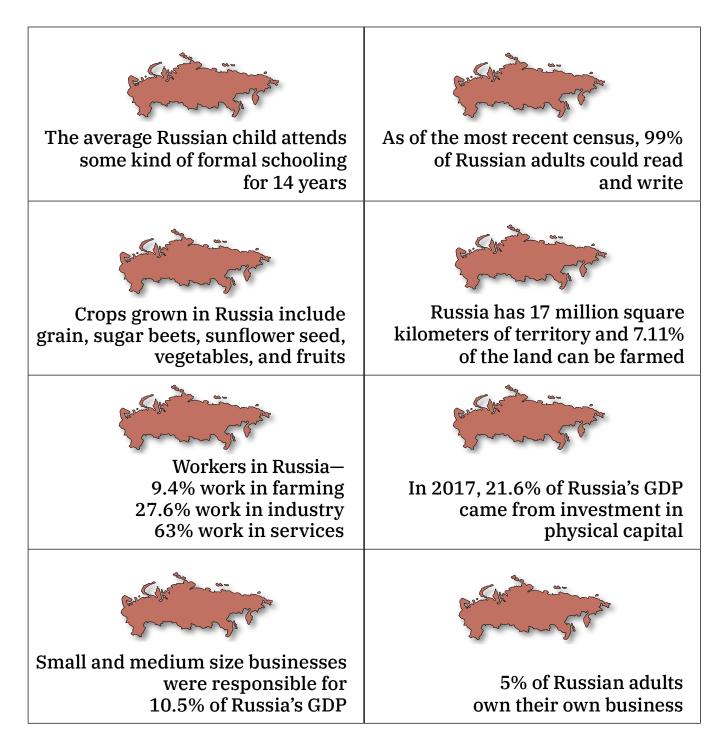
Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort (Page 5 of 9)



Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort (Page 6 of 9)



Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort (Page 7 of 9)

The average United Kingdom child attends some kind of formal schooling for 17 years	As of the most recent census, 99% of United Kingdom adults could read and write
Crops grown in the United Kingdom include cereals, oilseed, potatoes, and vegetables	The United Kingdom has 0.24 million square kilometers of territory and 24.8% of the land can be farmed
Workers in the United Kingdom– 1.3% work in farming 15.2% work in industry 83.5% work in services	In 2017, 17.2% of United Kingdom GDP came from investment in physical capital
Small and medium size businesses were responsible for 50.45% of United Kingdom GDP	14.6% of United Kingdom workers report being entrepreneurs or self-employed

Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort (Page 8 of 9)

India	Japan
China	Germany
United Kingdom	Russia

Factors Influencing Gross Domestic Product (Updated 2020)

Activity 1: Cards for Group Card Sort (Page 9 of 9)

GDP =	GDP =
\$8.44 Trillion	\$5.22 Trillion
GDP =	GDP =
\$23.00 Trillion	\$4.24 Trillion
GDP =	GDP =
\$2.80 Trillion	\$3.88 Trillion
GDP/Capita =	GDP/Capita =
\$6,100	\$41,400
GDP/Capita =	GDP/Capita =
\$16,400	\$50,900
GDP/Capita =	GDP/Capita =
\$41,600	\$26,500

Factors Influencing Gross Domestic Product (Updated 2020)

Key–Do not print and laminate.

India	Japan
GDP = \$8.44 Trillion	GDP = \$5.22 Trillion
GDP/Capita = \$6,100	GDP/Capita = \$41,400
China	Germany
GDP = \$23.00 Trillion	GDP = \$4.24 Trillion
GDP/Capita = \$16,400	GDP/Capita = \$50,900
United Kingdom	Russia
GDP = \$2.80 Trillion	GDP = \$3.88 Trillion
GDP/Capita = \$41,600	GDP/Capita = \$26,500

Based on Purchasing Power Parity (PPP) 2021 from CIA World Factbook

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