



Choice:

ECONOMICS MATERIALS FOR
SUCCESS

STEFANI MILOVANSKA-FARRINGTON

GDP – Businesses' optimism and GDP.

Related news article: [Businesses' investment in new equipment helped boost GDP](#)
(Marketplace, August 29, 2024)

Summary: This worksheet could be used for in-class or homework practice. Students will be asked to read the *excerpts* from a short article about the increase in the U.S. gross domestic product (GDP) in the second quarter (Q2) of 2024. The article contributes the increase to a rise in nonresidential fixed investment, that is, spending of businesses on new equipment. The new technologies have allowed businesses to improve quality and productivity. Then, students will be asked questions which will help them understand what nonresidential fixed investments are, what is included in the GDP of a given country, what led to an increase in the U.S. GDP in Q2 of 2024, and why GDP and the gross domestic income (GDI) do not always match. **Answers are provided at the end of this document.**

Learning objectives: At the end of this worksheet, students will be able to:

- o Understand what the four components of GDP are;
- o Analyze examples to identify what is included in the U.S. GDP;
- o Understand why an increase in business fixed investment and spending on equipment increases GDP;
- o Understand the difference between GDP and GDI;
- o Explain why GDP and GDI may differ;
- o Discuss how the Fed could use information about GDP to make decisions about monetary policy.

Economics concepts: Gross domestic product (GDP), GDP components, Business investment, Consumer spending, Investment, Gross domestic income (GDI), Labor demand, Labor supply

Suggested excerpts:

“How much better can the good economic news get? Real gross domestic product for the second quarter [of 2024], which we already thought was strong from the



preliminary report, was even stronger after the first revision, according to new data. GDP grew at a 3% annual rate from April to June, more than double the 1.4% rate in the first three months of the year. Bureau of Economic Analysis, in accounting for the improvement in GDP, cited increases in consumer spending, inventories and something called nonresidential fixed investment — basically, businesses' spending on new plants and equipment."

"“Businesses are profitable, they're making lots of money, demand is pretty good,” said Mark Zandi at Moody's Analytics.”

“Bill Adams at Comerica Bank said there was a big jump in transportation equipment spending.”

“But investment in trucks to haul raw materials and consumer goods was also strong. So was spending on computer equipment to help companies adopt automation and artificial intelligence.”

““We have made this past year, despite the higher interest rates, investments in new capital equipment,” [Jim] Piper [owner of a 40-employee metal fabrication company] said. “Nearly \$2 million includes new machines for cutting, also heavier-duty machines for forming steel.” Piper said that'll allow him to improve quality and productivity.”



Student Questions

1. According to the article, which of the following statements about the U.S. real GDP in the second quarter of 2024 is correct?
 - a. GDP declined from April to June 2024.
 - b. GDP growth in the second quarter of 2024 was more than twice as high as the GDP growth rate in the first quarter.
 - c. GDP increased while business investment was declining.
 - d. The only GDP component that increased and contributed to the rise of the GDP was consumer spending.
2. True or false? Nonresidential fixed investment is included in the calculation of GDP.
3. Which of the four main components of GDP signals businesses' level of optimism?
 - a. Consumption (C).
 - b. Business investment (I).
 - c. Government spending (G).
 - d. Net exports (NX).
4. According to the Bureau of Economic Analysis cited in the article, which components of GDP contributed to the U.S. GDP growth in the second quarter of 2024?
5. An increase in which of the following would contribute to an increase in the U.S. GDP? Select all that apply.
 - (1) U.S. business spending on transportation equipment made in the U.S.
 - (2) U.S. business spending on computer equipment produced in the U.S.
 - (3) U.S. business spending on second-hand wall decorations for business offices in the U.S.
 - (4) U.S. business spending on artificial intelligence technologies made in the U.S.
6. The article refers to GDP as a measure of the health of the economy. Another measure is the gross domestic income (GDI). If GDP is growing, does this always mean that GDI is increasing as well?
7. Jim Piper, the owner of a 40-employee metal fabrication company that makes air dampers for pollution control in factories, cited in the article, has explained that his company had spent almost \$2 million on "new machines for cutting, also heavier-duty machines for forming steel." Mr. Piper hoped that this investment would:
 - a. Improve the quality of his product and workers' productivity.
 - b. Make workers less important for his business.



- c. Increase the costs of production.
- d. Increase the supply of workers willing to work for his company.

8. The article has cited Jim Piper, the owner of a 40-employee metal fabrication company who said that an increase in the demand for the product of his business would increase the need for additional employees. This means that:

- a. Labor demand would shift to the right.
- b. Labor demand would shift to the left.
- c. Labor supply would shift to the right.
- d. Labor supply would shift to the left.

9. True or False? Computer equipment to help American businesses adopt automation that is imported to the U.S. from Japan is counted towards the GDP of the U.S.

10. In your opinion, how could the Fed use the information about the rising GDP to make decisions about monetary policy?



Answer Key

1. According to the article, which of the following statements about the U.S. real GDP in the second quarter of 2024 is correct?

- a. GDP declined from April to June 2024.
- b. GDP growth in the second quarter of 2024 was more than twice as high as the GDP growth rate in the first quarter.
- c. GDP increased while business investment was declining.
- d. The only GDP component that increased and contributed to the rise of the GDP was consumer spending.

Answer: B. According to the article, real GDP for the second quarter of 2024 “grew at a 3% annual rate from April to June, more than double the 1.4% rate in the first three months of the year.” Increases in consumer spending, inventories and nonresidential fixed investment contributed to the increase in the GDP.

2. True or false? Nonresidential fixed investment is included in the calculation of GDP.

Answer: True. Nonresidential fixed investment, or “businesses’ spending on new plants and equipment” is included in the GDP. The article explains that it was one of the reasons for the improvement of the U.S. GDP in the second quarter of 2024.

3. Which of the four main components of GDP signals businesses’ level of optimism?

- a. Consumption (C).
- b. Business investment (I).
- c. Government spending (G).
- d. Net exports (NX).

Answer: B. The four major components of GDP are consumption (C), business investment (I), government spending (G) and net exports (NX). Business investment is an indication of businesses’ level of optimism. In the second quarter of 2024, it grew faster than the overall GDP in the same period. You can read more about this growth [here](#).

4. According to the Bureau of Economic Analysis cited in the article, which components of GDP contributed to the U.S. GDP growth in the second quarter of 2024?

Answer: According to the Bureau of Economic Analysis, “increases in consumer spending, inventories and something called nonresidential fixed investment — basically, businesses’ spending on new plants and equipment” contributed to the improvement in GDP in the U.S. in the second quarter of 2024.



5. An increase in which of the following would contribute to an increase in the U.S. GDP? Select all that apply.

- (1) U.S. business spending on transportation equipment made in the U.S.
- (2) U.S. business spending on computer equipment produced in the U.S.
- (3) U.S. business spending on second-hand wall decorations for business offices in the U.S.
- (4) U.S. business spending on artificial intelligence technologies made in the U.S.

Answer: (1), (2) and (4) would be included in the U.S. GDP. The article mentions “a big jump in transportation equipment spending,” “investment in trucks to haul raw materials” and “spending on computer equipment to help companies adopt automation and artificial intelligence.” Second-hand goods are not included in the calculation of the GDP.

6. The article refers to GDP as a measure of the health of the economy. Another measure is the gross domestic income (GDI). If GDP is growing, does this always mean that GDI is increasing as well?

Answer: Not necessarily. GDP is the total market value of all final goods and services produced within a country in a given period of time. If instead of spending, one adds all income of consumers, businesses and government in a country, GDI will be obtained. Because somebody’s spending is somebody else’s income, GDP and GDI should coincide, but in reality, they do not always match due to differences in measurement techniques, surveys, samples, sample sizes, time periods and so on. In fact, in 2022, GDP shrank in both the first and the second quarter while GDI grew in both quarters. You can read more about this [here](#).

7. Jim Piper, the owner of a 40-employee metal fabrication company that makes air dampers for pollution control in factories, cited in the article, has explained that his company had spent almost \$2 million on “new machines for cutting, also heavier-duty machines for forming steel.” Mr. Piper hoped that this investment would:

- a. Improve the quality of his product and workers’ productivity.
- b. Make workers less important for his business.
- c. Increase the costs of production.
- d. Increase the supply of workers willing to work for his company.

Answer: A. The article states that “Piper said that’ll allow him to improve quality and productivity.”

8. The article has cited Jim Piper, the owner of a 40-employee metal fabrication company who said that an increase in the demand for the product of his business would increase the need for additional employees. This means that:



- a. Labor demand would shift to the right.
- b. Labor demand would shift to the left.
- c. Labor supply would shift to the right.
- d. Labor supply would shift to the left.

Answer: A. Labor demand would increase. Graphically, the labor demand curve would shift to the right.

9. True or False? Computer equipment to help American businesses adopt automation that is imported to the U.S. from Japan is counted towards the GDP of the U.S.

Answer: False. Computer equipment produced in Japan counts towards Japan's GDP in the year it was made.

10. In your opinion, how could the Fed use the information about the rising GDP to make decisions about monetary policy?

Answer: Answers will vary. Students might explain that if the economy is overheating, the Fed might decide to increase interest rates to cool the economy down and decrease inflation.