

Nominal GDP (2020) = (Price of MP3 in 2020 x Quantity of MP3 in 2020) + (Price of Tacos in 2020 x Quantity of Tacos in 2020) + (Price of Coats in 2020 x Quantity of Coats in 2020)

$$\text{Nominal GDP (2020)} = (200 \times 45) + (2.25 \times 2200) + (52 \times 310)$$

$$= \$9,000 + \$4,950 + \$16,120$$

$$\text{Nominal GDP (2020)} = 30,070$$

$$\text{Nominal GDP (2021)} = (150 \times 50) + (2.40 \times 2300) + (55 \times 350)$$

$$= \$7,500 + \$5,520 + \$19,250$$

$$\text{Nominal GDP (2021)} = \$32,270$$

Real GDP (2020) = (P of MP3 in 2015 * Q of MP3 in 2020) + (P of Tacos in 2015 * Q of Tacos in 2020) + (P of Coats in 2015 * Q of Coats in 2020)

$$\text{Real GDP (2020)} = (250 \times 45) + (2 \times 2200) + (50 \times 310)$$

$$= \$11,250 + \$4,400 + \$15,500$$

$$\text{Real GDP (2020)} = 31,150$$

Real GDP (2021) = (P of MP3 in 2015 * Q of MP3 in 2021) + (P of Tacos in 2015 * Q of Tacos in 2021) + (P of Coats in 2015 * Q of Coats in 2021)

$$\text{Real GDP (2021)} = (250 \times 50) + (2 \times 2300) + (50 \times 350)$$

$$= 12,500 + \$4,600 + \$17,500$$

$$\text{Real GDP (2021)} = 34,600$$

Part 1 Answer:

The nominal GDP for 2020 is 30,070 and for 2021 is 32,270.

Part 2:

Gross Domestic Product (GDP) is the total market value of all final products and services produced inside the borders of a country in a particular period. GDP gauges a country's total economic production and growth. It includes private consumption, government spending, business investment, and net exports. GDP shows the size of an economy and how fast it is growing. However, GDP has limitations in measuring people's welfare and well-being.

First, GDP does not account for leisure time. Countries that work more hours will have higher GDP, even if people's welfare is lower due to less leisure and recreation time. Second, GDP ignores equality and distribution of income. A country's GDP may rise while most wealth goes to a small percentage of the population. Third, GDP does not consider the value of unpaid work like household labor and volunteer activities. The welfare people get from unpaid work is not counted in GDP. Fourth, GDP treats all expenditures as positive even if they do not improve welfare, like spending on wars, disasters, and pollution. Rebuilding after a natural disaster adds to GDP but reduces a nation's assets and welfare.

In conclusion, although GDP is a helpful indicator of economic production and growth, it has limits. GDP does not precisely represent the living conditions or well-being of a country's population. Standard of living and equality are important factors for welfare that GDP fails to capture. Supplementary indicators that measure health, education, and sustainability are needed along with GDP to better measure national welfare.

Principles of Macroeconomics - Open Textbook Library. (n.d.). Open Textbook Library.

<https://open.umn.edu/opentextbooks/textbooks/33>