

1. Explain in your own words, what did you understand by 'model'?
2. Set up a hypothetical economy with some sellers and buyers. Trade some hypothetical good with ur chosen price level and explain how the three approaches to calculating GDP are equivalent. Example that was explained in class will be very helpful for this question.
3. Differences between nominal and real GDP.

1(Ans)

A model represents the relationship between the dependent variable and one or more independent variables. The model aims to capture the linear relationship between these variables. Once the model is trained, it can be used to make predictions about future values based on new values of the independent variables. The accuracy of these predictions depends on the quality of the model and the reliability of the data used to train it.

2 (Ans)

As example:

Let's assume there is a farmer who sells mangoes and a juice maker sells mango juice. Farmer sells to consumers by amount of Rs 100/kg and juice maker by amount of Rs 120/kg, whereas juice maker sells juice to consumers by amount of Rs 20/glass (10 glasses = 2kg) is equivalent to Rs 100/kg.

If a farmer has grown 100 kg of mangoes, then he will sell by amount Rs 10k to consumers and Rs 12k to juice maker. Under farmers there are some workers with total wages of Rs 8k and tax Rs 6k.

Juice maker buys mangoes of Rs 12k, he sells to consumers for Rs 30k. Under him, some workers are working with total wages of Rs 5k, tax of Rs 5k .

(i) product approach = $10k + 30k = \text{Rs } 40k$

(ii) income approach = $8k + 5k + 6k + 5k + 8k + 8k = \text{Rs } 40k$

(iii) expenditure approach = $10k + 30k = \text{Rs } 40k$

Three approaches are equivalent and same to GDP

3(Ans)

Nominal GDP and real GDP are two ways of measuring the value of a country's economic output, but they differ in how they account for changes in prices over time.

1. Nominal GDP is the value of a country's economic output measured at current market prices, while real GDP is the value of the same output measured at constant prices from a specific base year.
2. Nominal GDP does not take into account the effect of inflation or deflation, which can cause changes in the price of goods and services over time, while real GDP adjusts for inflation or deflation by using constant prices.
3. Nominal GDP can be higher than real GDP if prices have increased since the base year, while real GDP can be higher than nominal GDP if prices have decreased since the base year.
4. Nominal GDP is commonly used to compare the size of economies across different countries or time periods, while real GDP is used to compare the actual economic output of an economy over time.
5. Real GDP is considered a better measure of economic growth than nominal GDP because it shows how much the economy has grown after adjusting for changes in the price level.

