STUDY NOTES · BASIC CONCEPT

What is the Double Deflation Methodology?

Indian Economy

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What?

Double deflation is a method used by economists to calculate the true physical growth (real GDP/GVA) of a business or sector by stripping out price inflation twice—once for output and once for input.

To measure actual value added, you subtract the cost of raw materials (inputs) from total sales (output): Value Added = Output - Inputs

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Single vs. Double Deflation

Single Deflation: Adjusting the final value added by just one general price index (like output price inflation). It assumes raw materials and finished goods change prices at the exact same rate, which is rarely true.

Double Deflation: Separately adjusting outputs using an output price index AND inputs using a raw material price index before calculating the difference.

Real Value Added = Gross Output/Output Price Index- Raw Materials/Input Price Index

Simple Example: The Bakery

Imagine a bakery that makes bread using flour:

Year 1: Sells ₹200 worth of bread using ₹100 worth of flour. Value Added = ₹100

Year 2: Wheat/flour prices spike sharply. The bakery sells ₹240 of bread, but had to spend ₹150 on flour due to high raw material costs.

Nominal Value Added = ₹240 − ₹150 = ₹90 (it looks like the business shrank from ₹100 to ₹90).

Double Deflation Application

Suppose bread output prices rose by 2% . So the Real Bread Output = 240 / 1.02 = ₹235

Suppose flour input prices rose by 50% due to a crisis, So, the Real Flour Input = 150 / 1.50 = ₹100

Real Value Added = ₹235 - ₹100 = ₹135

Why it matters: Even though high flour costs squeezed profits in cash terms (₹90), double deflation strips out that temporary raw material price spike to show that the bakery actually produced and sold more physical loaves of bread (₹135 real output) than the previous year.

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