

Price & volume measures:

3.3 – An illustrative exercise

Tim Jones
SIAP consultant/lecturer

Objectives

After this session, participants will be aware of:

- How double deflation can go wrong
- How double deflation can work

in measuring GVA at constant prices
for electricity production

Example 1

- Imagine a small country where the state-owned power company generates electricity exclusively using oil-fired generators. The oil is imported in bulk once a quarter.
- You have the company's financial accounts for the base year 2013 and quarterly since then.
- The government has kept the price of electricity fixed over this period at 2,500 CUs/KWH
- But the price of oil has changed in line with the international prices. The average quarterly price is from the World Bank.

Calculate your best estimate of GVA at constant prices from the data.

Example 2

- Now instead suppose, in 2014, the government arranged to import electricity from a neighbouring country for a fixed (relatively advantageous) price.
- In 2014 Q3, the imports account for 5% of the total
- In subsequent quarters they account for 10%
- The use of petroleum goes down accordingly
- You now have slightly different financial accounts

Calculate your best estimate of GVA at constant prices from the data.

Example 3

- In this example, instead of importing electricity, the government invested in hydro power.
- This came into operation in 2014, saving on the cost of petroleum, while other costs remain the same.
- In 2014 Q3, the hydro accounts for 5% of the total
- In subsequent quarters it accounts for 10% (as before)
- Again you have slightly different financial accounts

Calculate your best estimate of GVA at constant prices from the data.

Discussion