

Estimation of Employment Creation

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Simple Comparisons

- To monitor the employment situation, labour force estimates and projections have to be compared to estimates of likely employment creation.
- The simplest way: compare the numbers employed according to surveys already conducted at two different points of time and take the increase to represent additional job creation.
- Unemployment at the end point survey would give us a figure for those who, though willing to work, have failed to find work.
- One problem is that we do not know what will happen over a future period of time; the survey for the future date has not and cannot be done now.

Simple use of elasticity (1)

- Assume output to grow over the coming five years at 8 per cent per annum;
- Assume the elasticity (or responsiveness) of employment to output expansion is 0.4.
- Then employment will grow at 3.2 per cent per annum.
- Whether this comes out right depends on whether the projected output growth and the assumed elasticity were right.
- We can improve our exercise by disaggregating output by sectors and estimating sectoral employment elasticities which would then be sensitive to changes over time in the composition of output.

Some Problems

- Elasticities have to be estimated from past data.
- Apart from defects in the data, there is the risk that one or other of the years used was atypical or that employment output ratios are not stable and cannot be taken as valid for a future date.
- If data are available for several time points the estimated elasticity may be more reliable, but that does not guarantee that they will be valid over the projection period.
- We discuss this later

Simple use of elasticity (2)

- One simple use of employment elasticities at an aggregate level is the following.
- Assume 0.33 employment elasticity.
- The surveys tell us that the labour force is growing at about 2 per cent per annum.
- Clearly output must grow by at least 6 per cent if new entrants are to be provided jobs. (More if the unemployed/underemployed are to benefit.)
- One can do many exercises of this kind to see the likely effects of different plans for output growth on the employment situation.

Planning Application

- For planning purposes, the gross output vector of the initial and terminal years of a plan are developed by the planner.
- The increase in gross output over the five-year period is estimated for each sector (there could be as many sectors as the data permits).
- The percentage increase in the gross output of each sector is multiplied by the estimated employment elasticity to get the estimated increase in employment. In this way for each sector and all sectors taken together, we can estimate the increase in employment expected over the plan and compare it to the increase in the labour force.
- The situation regarding changes in unemployment can then be obtained.

Problems with Use of Elasticities

- In reality the use of employment elasticities is fraught with problems, especially when we are looking at the employment intensity of the process of growth.
- The economy-wide employment elasticity reflects the demand for labour generated by the growth process but is also influenced by the supply of labour (due to population growth and participation rate changes).
- This because there is widespread under-employment and increased labour demand may not fully show up in jobs created and hence in employment elasticities, but instead help to reduce under-employment.
- Also we are neglecting the impact of changes in wage rates on employment. If labour supply is increasing and wages are falling, all other things remaining the same, employment is likely to respond more to output increases.

Interpretation of Elasticities

- Consider the following possibilities for employment elasticities:
- It is, or rises to, near one: this means that employment expansion has not been accompanied by an increase in output per worker – and this is not desirable as growth requires rising productivity.
- It is low or falling: increased labour demand has translated itself into higher wages rather than more jobs.
- It is low or falling: even though the expansion of the economy is creating many jobs in some sectors, other sectors with large numbers of excess workers are shedding jobs.
- It is low or falling: there is a change in the composition of output towards more capital intensive products or techniques.

Conclusion

- The real problem is that the process of economic growth is generating a certain volume of work opportunities. Part of this is accounted for by new jobs for the unemployed and new entrants and part of it may go to reduce under-employment among the already employed.
- If the elasticity relates to the number of actual jobs created by a particular quantum of output expansion, then it ignores the phenomenon of work sharing. The elasticity should really relate to the volume of work created by a particular quantum of output expansion.
- If we do this, then we need to convert labour supply also into similar units, i.e person-years of work and then compare labour supply and labour demand in person-years.
- The problem remains that we would not be able to predict how a particular volume of work is shared, until we get the results of another survey.

THANK YOU