

### TITLE OF E-CONTENT

## **GROWTH ACCOUNTING**

Name of Content Creator: Dr. SANJEEV KUMAR

**Designation:** Associate Professor

Name of Department: Economics

Name of University: Chaudhary Charan Singh University, Meerut

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## **GROWTH ACCOUNTING**

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## 1. Learning Outcomes

After studying this module, you shall be able to:

- > Understand the concept of Solow residual
- ➤ Learn about the technical change
- > Identifying the source of growth in an economy
- > Discuss the criticisms of Solow residual
- > Understand the concept of total factor productivity
- Learn about sources of errors
- ➤ Identifying Denison's sources of growth of an economy
- ➤ Identifying Jorgenson-Griliches sources of growth of an economy

Discuss the criticisms of Denison and Jorgenson-Griliches approach for sources of growth

#### 2. Introduction

In economics, growth accounting is a procedure to measure the contribution of various factors to economic growth. Growth accounting refers to the breaking down the rate of growth of total output of an economy into contribution from the growth of such inputs as capital and labour and as well as technological growth. Growth accounting is also related to the sources of growth. In an economy, the rate of technological progress is indirectly compute, measured as a residual.

### 8. Summary

- ❖ The standard growthaccounting exercises generate a Solow residual, which is typically viewed as a measure of technological progress.
- Recent theories of endogenous growth allow for a sharper perspective on this residual. Specially, the residual can be clearly interpreted within settings that allow for increasing returns and spillovers or in models in which technological progress is generated by purposeful research. These interpretations provide guidance for explaining the residual in terms of R&D outlays, public policies, and other factors.
- \* The standard growth-accounting exercises provide useful information within the context of modern theories of endogenous growth and that the recent theories can be used to extend

the usefulness of traditional growth accounting. Hence, the older and newer approaches to economic growth are complementary.

❖ Several economists such as Denison, Kendrick, Jorgenson and Griliches and others have tried to quantify and break down the residual in to further several components. They contend that the residual is not a catch-all and that changes in output are due to changes of quantities and qualities of inputs, in economies of scale and advances in knowledge rather than the results of technical change, assuming a stable production function.

Note: Please visit the following site for full version of the model;

https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=11

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Paper: P-12. Economics of Growth & Development-I

Module: M-10. Growth Accounting