# Modern Growth Theories Lecture 1

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# Syllabus – Lecture

- 1. Keynesian approach to economic growth.
- 2. Harrod-Domar growth model.
- 3. The neoclassical growth theory. The Solow growth model. Extension of the Solow model.
- 4. Growth accounting in the neoclassical framework. Convergence to the steady-state. Convergence across economies.

# Syllabus – Lecture

- 5. Analytical foundation of growth theory. Elements of dynamic programming and optimal control.
- 6. Growth model with endogenous savings. Endogenous growth models. One sector model AK model. Two sector models capital human growth models. R&D models of economic growth.

# Syllabus – Lecture

- 7. Trade and growth theory. Finance and growth theory main channels, empirical evidence.
- 8. Foreign aid and economic growth.

# Syllabus – Tutorials

- 1. The pattern of economic growth worldwide. Measures of economic growth and decomposition of GDP growth rate.
- 2. Measures of economic development.
- 3. Growth strategies.
- 4. The fastest and slowest growing least developed countries.
- 5. Determinants of economic growth: case study.
- 6. The world income distribution. Measures of poverty.
- 7. Ways of poverty alleviation in poor countries.

## **Recommended Reading**

- Acemoglu, D., *Introduction to Modern Growth Theory*. Princeton University Press, 2009.
- Aghion, P., Howitt, P., *The Economics of Growth*. MIT Press, 2009.
- Barro, R.J., Sala-i-Martin, X., *Economic Growth*. 2<sup>nd</sup> edition, MIT Press, 2004.
- Sengupta J., *Understanding Economic Growth*. Springer, 2011.
- Haughton, J., Khandker, S.R., *Handbook on Poverty and Inequality*. The World Bank Washington, 2009.

#### **Recommended Reading**

• Romer D., Advanced Macroeconomics, McGraw-Hill, 1996.

- Chiang A.C., Wainwright K., Fundamental Methods of Mathematical Economics, McGraw-Hill/Irwin, Boston, Mass., (4th edition) 2005.
- Chiang A.C., *Elements of Dynamic Optimization*, Waveland Press, 1992.

### **Exam 2019**

- Economic growth vs economic development.
- Growth strategies.
- Original and augmented Washington Consensus.
- Empirical tests of economic growth.
- The world income distribution.
- Sigma-convergence vs beta-convergence.
- The mechanism behind classic and technological convergence.

## **Exam 2019**

- Types of growth models.
- Assumptions and conclusions of the Harrod model.
- The Domar model the razor's edge.
- Growth rate and its properties.
- Labour- and capital-augmenting technical progress.
- The neoclassical production function.
- The Solow growth model assumptions and growth rates at steady state.
- The Solow model convergence to steady-state.
- Growth accounting in the neoclassical framework.

## **Exam 2019**

- An extended Solow model with physical and human capital.
- CIES utility function and its properties.
- The neoclassical growth model with endogenous savings.
- Models of endogenous technological progress.
- Models with human capital assumptions and determinants of growth rates.
- Determinants of growth rates in R&D-based growth models.
- Trade in growth models.
- Finance and growth theory.
- Foreign aid and economic growth.