

ECON 333 PROBLEM SET # 4

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Due date: October 19, 2000

1. What are the main assumptions in Lewis model? Explain the main improvements that Lewis model features as compared to Harrod-Domar model as a model of economic development (*economic development in the sense we have discussed in previous classes*)? Give a graphical exposition of the Lewis model, and explain the concepts of "labor surplus", and "labor absorption process" in the manufacturing sector using the Lewis model. In the Lewis model, how does an underdeveloped economy become industrialized? What is the role of agricultural sector in this development process? What are the main criticisms of this model as a model of economic development?
2. In Lewis model, explain what role does population growth play? Take two countries A and B. Country A has higher population growth rate than country B. Otherwise both countries are identical at the current moment, including the population size being the same at the current moment. According to Lewis model, what will be the differences in the rate of growth of income, and the rate of industrialization in countries A and B? Can you construct a criticism of the Lewis model based on your answers, and given the fact that the countries with higher population growth are observed to grow slowly.
3. In Lewis model suppose the capitalist is free to import technology from abroad, or invest in the capital markets abroad. Describe under what conditions, free import of technology and unrestricted investment abroad might slow down the development process of the Lewis type. What government policies would you recommend in those situations?
4. In Solow model with labor augmenting technological change, what are the effects of population growth rate, savings rate and initial level of per capita income on growth in per capita income. Distinguish your answers for the short-run and the long-run effects. In the long-run what is the main determinant of growth in Solow model?