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Homework

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Production is the process of transforming resources into a blessing that directly or indirectly serves human needs. Fixed production technology are those quantitative scales of application that cannot be changed at a given time interval. As a rule, most production factors are constant only in the short term. This is a period during which some production factors of an enterprise cannot be changed. Thus, the production capacity of the enterprise in this period remains unchanged, i.e. constant, but the volume of production can be changed by applying more or less living labor, raw materials and other resources.

Variable production technology are called those whose quantitative composition can be changed at a given time interval. Such a period of time is usually a long-term period. This is a long enough period for the enterprise to be able to change all factors of production, to adapt to the requirements of the changed situation. In the long run, all factors are considered variable. The duration of time periods at different enterprises is different. So, apparently, a sewing factory is enough to change all factors of production for 5-6 months, and for a tractor factory - 3-5 years.

The government will validate the benchmarks for air pollutants in the coming months. It will work with industry, provinces and territories, unions, environmental and health protection groups during the validation process. The regulatory framework for air pollutants - that is, the compliance mechanisms, and the regulatory timeline - will be completed by the fall of 2007, after the government has validated benchmarks for air pollutants. In an effort to reduce costs for the industry and the impact on the economy, compliance mechanisms have been put in place to give businesses the opportunity to choose how they will meet their regulatory obligations and government should choose the variable technology in industries. Due to cost distortions, industries in USA have long benefited from low costs that allowed them to compete internationally (Carraro, 1998). This situation is gradually changing, partly because of USA economic development and partly because of the increasing pressure of market liberalization. The increase in input costs has not yet had a significant impact in USA, but in the long term, the upward trend in costs is expected to increase and USA will only be able to maintain its competitive advantage if it refocuses on activities with higher added value. Moreover, if USA wants to continue attracting industries, it must strengthen its education and logistics system, but also take advantage of the tremendous potential of its domestic market. It means that the government should increase the variable technology due to the decreases the marginal cost of pollution.

The Lorenz curve is a graphic image of the inequality of income distribution among the population. It was proposed in 1905 by the American economist and statistician Max Otto Lorentz (1876-1959). The curve describes how much of the total income of a society each share of low-income and high-income households receives (Hutchens, 1991). In figure 1, shows that the share of the population is deposited, and on the y-axis, the share of income in society as a percentage. As can be seen from the graph, there is always a disparity in income distribution in society, which is reflected in the OABCDE curve - the Lorenz curve. For example, the first 20% of the population can receive 5% of income, 40% of the population - 15% of income, 60% of the population - 35% of income, 80% of the population - 60% of income, and of course 100% of the population - 100% of income.

 

If society had an equal distribution of income, then the Lorenz curve would take the form of a straight line (bisector on the chart), called the line of absolute equality, and finally, if only 1% of the population in the society received all income, then on the chart vertical straight line, called the line of absolute inequality. Based on the Lorenz curve, the Ginny coefficient can be derived.

In the rectangular coordinate system, the Lorenz curve is convex downward and passes under the diagonal of the unit square located in the I coordinate quarter. Each point on the Lorenz curve corresponds to a statement like "The 20 poorest percent of the population receive only 7% of income." In the case of equal distribution, each population group has an income proportional to its size. Such a case is described by the equality curve (line of perfect equality), which is a straight line connecting the origin and the point (1; 1). In the case of complete inequality (when only one member of society has income), the curve ( line of perfect inequality ) first “sticks” to the x-axis, and then “soars” from the point (1; 0) to the point (1; 1). The Lorenz curve lies between the equality and total inequality curves. Lorenz curves are used for the distribution of not only income, but also household property, market share for firms in the industry, and natural resources across states. You can meet the Lorenz curve outside of economics.

References

Carraro, C. (1998). New economic theories. Environmental and Resource Economics, 11(3-4), 365-381.

Hutchens, R. M. (1991). Segregation curves, Lorenz curves, and inequality in the distribution of people across occupations. Mathematical Social Sciences, 21(1), 31-51.