

### **Dual Dynamic Programming with Constraints and Some Economic**

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#### **ABSTRACT**

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If we are going to analyse costs through a production function and prices then duality theorem is especially useful.

The essentiality of duality theory is that all elements of production technology (available for enterprises) which are important for economists can be simply placed in cost function. Empirical investigations acknowledge also a great interest in study duality theories: a capital value is very often difficult to be measurable and information concerning usefulness of the capital is almost not available. The enterprises have much more information about their costs. The duality theory allows us to infer properties of production function from cost function which is more readable and reliable. Of course, such a duality theorem exists up to now, only for production processes described by static mathematical models i.e. models do not depending on time.

The aim of this note is to present a concept of a duality theory for dynamic production processes i.e. production processes described by dynamical mathematical models (models depending on time).

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**Keywords:** *Dual dynamic programming, cost function, production cost, economic applications*

**Mathematics Subject Classification:** *49J*

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