

On the converse of Hartwick's result in a multi-dimensional model of an economy with exhaustible resources

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Abstract

An important role in finding conditions which would guarantee intergenerational equity in the sense that the consumption level is constant over time in an economy with exhaustible resources plays Hartwick's result: *If along a competitive path the investments of renewable capital goods are provided only by the rents from exhaustible resources, then the consumption remains constant over time.* The premise of this result, known as Hartwick's rule, gives sufficient condition for receiving constant consumption. Scientists are trying to make clear, under which conditions the converse of Hartwick's result is possible. In the contribution this question is discussed with respect to the state and also to the price Hartwick's rule. In the case of the state Hartwick's rule there will be presented results, giving sufficient conditions, under which a path with constant consumption satisfies the state Hartwick's rule. In the case of the price Hartwick's rule there will be presented results, giving sufficient conditions, under which a price equitable path satisfies the price Hartwick's rule.