Aggregate Elasticity of Substitution and Structural Change

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Abstract

Larger elasticity of substitution between capital and labor in the macro economy has the possible

cause of declining aggregate labor shares that tend to prevail in developed countries. This paper

formulates an aggregate elasticity of substitution in the two-sector CES type general equilibrium

model incorporating rising service sector features that are characterized by a non-homothetic utility

function. The factor substitutability within production technologies and the commodity

substitutability between the demands for goods mainly consist of the aggregate substitution. We

analyze how these substitutabilites as well as the heterogeneity characters such as factor intensities

and income effects across sectors influence and enlarge our aggregate elasticity of substitution.

Key words: Aggregate elasticity of substitution, CES production function, S-Branch utility function

JEL classifications: E13, E25, O41

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