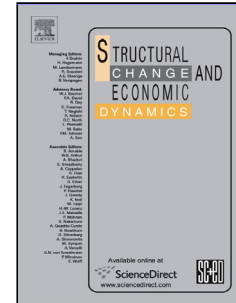


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Author: Robert U. Ayres Jeroen C.J.M. van den Bergh
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The Underestimated Contribution of Energy to Economic Growth

Robert U. Ayres^{a,b}, Jeroen C.J.M. van den Bergh^{c,d,e},
Dietmar Lindenberger^f and Benjamin Warr^a

^a European School of Business Administration, INSEAD, 77305 Fontainebleau, France.

^b International Institute for Applied Systems Analysis, A-2361 Laxenburg, Austria.

^c ICREA, Barcelona, Spain.

^d Institute for Environmental Science and Technology, and Department of Economics and Economic History, Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain.

^e Faculty of Economics and Business Administration, and Institute for Environmental Studies, VU University Amsterdam, The Netherlands.

^f Institute of Energy Economics, Cologne University, D-50923 Cologne, Germany, (Corr. Author)

dietmar.lindenberger@uni-koeln.de; Tel. +49 221-277 29 106

Abstract

Standard economic theory regards capital and labour as the main factors of production that satisfy the “cost-share theorem”. This paper argues that when a third factor, namely energy, is added physical constraints on substitution among the factors arise. We show that energy is a much more important factor of production than its small cost share may indicate. This implies that continued economic growth along the historical trend cannot safely be assumed, notably in view of considerably higher energy prices in the future due to peak oil and climate policy.

Keywords: Economic growth; economic theory; energy cost share; technological constraints; peak oil; climate policy

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