

Resource productivity, environmental tax reform and sustainable growth in Europe



The Energy Demand in the British and German Industrial Sectors: Heterogeneity and Common Factors

Paolo Agnolucci

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Abstract: This paper estimates energy demands for the German and British industrial sectors over the 1978-2004 and the 1991-2004 samples. From time series models we can conclude that there is a considerable variation in the value of the coefficients across sectors, even though energy demands with sensible parameters can rarely be estimated. When using a panel approach, the ability of some estimators to allow for diversity across subsectors was an important factor in explaining the estimates for price elasticity. On the other hand, correlation across panel members or common factors did not markedly influence our results. With regard to the estimated parameters, our preferred choice for elasticity of economic activity and price in the longer sample is 0.52 and -0.64. Similar values are found in the case of the shorter samples. Bearing in mind the high price elasticity, energy taxes can be considered an effective strategy for reducing energy consumption.