

Zur Evolution des deutschen Konjunkturzyklus 1958-2004

Ergebnisse einer dynamischen Diskriminanzanalyse

On the Evolution of German Business Cycles 1958-2004

Results of a Dynamic Linear Discriminant Analysis

Von Ullrich Heilemann und Roland Schuhr, Leipzig

JEL E29, E32, O52

Business cycle, 4-phase scheme, discriminant analysis, Germany 1958 to 2004.

Summary

This paper examines changes of the (West) German business cycle from 1958 to 2004. It starts with a multivariate linear discriminant analysis (LDA) based decomposition of the cycle into 4 phases (upswing, upper turning point, downswing, lower turning point). After examining inter-cyclical changes of the cycle, i.e. changes of the weights of the 12 macroeconomic variables employed for classification, the question of intra-cyclical changes is addressed. This is done by using DLDA, a new dynamic variant of LDA which exploits the time series character of the data used to analyse changes of the multivariate structure of the cycle. The DLDA results exemplify that the transition from one to the next phase is much smoother and more continuous than might be expected. Within the sample examined these movements vary as well as the weights attributed to the classifying variables. In a methodological perspective DLDA turns out to be a promising broadening of classification methods.