Output Variability and Economic Growth: The Japanese Case*

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Abstract

We examine the empirical relationship between output variability and output growth using quarterly data for the 1961-2000 period for the Japanese economy. Using three different specifications of GARCH models, namely, Bollerslev's model, the Taylor/Schwert model, and Nelson's EGARCH model, we obtain two important results: First, we find robust evidence that the "in-mean" coefficient is not statistically significant. This evidence is consistent with Speight's (1999) analysis of UK data and implies that output variability does not affect output growth. In other words, this finding supports several real business cycle theories of economic fluctuations. Second, we find no evidence of asymmetry between output variability and growth, a result consistent with Hamori (2000).

Keywords: Output variability, Output growth, GARCH models

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