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Title	Are Economic Growth and the Variability of the Business Cycle Related? Evidence from Five European Countries
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Publication Date	2002
Publication Information	Fountas, S. & Karanasos, M. (2002) "Are Economic Growth and the Variability of the Business Cycle Related? Evidence from Five European Countries" Department of Economics, National University of Ireland, Galway.
Publisher	National University of Ireland, Galway
Item record	http://hdl.handle.net/10379/1286

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Are Economic Growth and the Variability of the Business Cycle Related? Evidence from Five European Countries^{*}**

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Working Paper No. 63

June 2002

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^{***} The authors are grateful to Marika Karanassou for helpful comments and suggestions. The usual disclaimer applies.
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Abstract

We use a long series of annual data that span over 100 years to examine the relationship between output growth and output growth uncertainty in five European countries. Using the GARCH methodology to proxy output growth uncertainty, we obtain two important results: First, more uncertainty about output growth leads to a higher rate of output growth in three of the five countries. Second, output growth reduces output growth uncertainty in all countries except one. Our results provide strong support to the view that macroeconomists should examine the theories of economic growth and the variability of the business cycle in tandem.

Keywords: Output growth, output growth uncertainty, GARCH

JEL Classification: C22, E32

References

Bernanke, B. 1983. Irreversibility, uncertainty, and cyclical investment. *Quarterly Journal of Economics*, 98: 85-106.

Black, F. 1987. *Business Cycles and Equilibrium*. New York: Basil Blackwell.

Bollerslev, T. and J.M. Wooldridge. 1992. Quasi-maximum likelihood estimation and inference in dynamic models with time varying covariances. *Econometric Review*, 11: 143-172.

Brunner, A. 1993. Comment on inflation regimes and the sources of inflation uncertainty. *Journal of Money, Credit and Banking*, 25: 512-514.

Caporale, T. and B. McKiernan. 1996. The relationship between output variability and growth: evidence from post war UK data. *Scottish Journal of Political Economy*, 43: 229-236.

Caporale, T. and B. McKiernan. 1998. The Fischer Black hypothesis: some time-series evidence. *Southern Economic Journal*, 64: 765-771.

Friedman, M. 1968. The role of monetary policy. *American Economic Review*, 58: 1-17.

Friedman, M. 1977. Nobel Lecture: Inflation and Unemployment. *Journal of Political Economy*, 85: 451-472.

Grier, K. and G. Tullock. 1989. An empirical analysis of cross-national economic growth: 1951-1980. *Journal of Monetary Economics*, 24: 259-276.

Grier, K. and M. Perry. 2000. The effects of real and nominal uncertainty on inflation and output growth: some GARCH-M evidence. *Journal of Applied Econometrics*, 15: 45-58.

Henry, O. and N. Olekalns. 2001. The effect of recessions on the relationship between output variability and growth. *Southern Economic Journal*, 68: 683-692.

Keynes, J.M. 1936. *The General Theory of Employment, Interest and Money*. London: Macmillan.

King, R., C. Plosser and S. Rebelo. 1988. Production growth, and business cycles: II. New directions. *Journal of Monetary Economics*, 21: 309-341.

Kormendi, R. and P. Meguire. 1985. Macroeconomic determinants of growth: cross-country evidence. *Journal of Monetary Economics*, 16: 141-163.

Kydland, F. and E. Prescott. 1982. Time to build and aggregate fluctuations. *Econometrica*, 50: 1345-1370.

Long, J. and C. Plosser. 1983. Real business cycles. *Journal of Political Economy*, 91: 39-69.

Mirman, L. 1971. Uncertainty and optimal consumption decisions. *Econometrica*, 39: 179-185.

Mitchell, R. 1998. *International Historical Statistics: Europe*.

Pindyck, R. 1991. Irreversibility, uncertainty, and investment. *Journal of Economic Literature*, 29: 1110-1148.

Ramey, G. and V. Ramey. 1991. Technology commitment and the cost of economic fluctuations. NBER Working Paper No. 3755.

Ramey, G. and V. Ramey. 1995. Cross-country evidence on the link between volatility and growth. *American Economic Review*, 85: 1138-1151.

Sandmo, A. 1970. The effect of uncertainty on saving. *Review of Economic Studies*, 37: 312-320.

Solow, R. 1956. A contribution to the theory of economic growth. *Quarterly Journal of Economics*, 70: 65-94.

Speight, A. 1999. UK output variability and growth: some further evidence. *Scottish Journal of Political Economy*, 46: 175-184.

Taylor, J. 1979. Estimation and control of a macroeconomic model with rational expectations. *Econometrica*, 47: 1267-1286.

Woodford, M. 1990. Learning to believe in sunspots. *Econometrica*, 58: 277-307.

Zarnowitz, V. and G. Moore. 1986. Major changes in cyclical behaviour. In R. Gordon, ed., *The American Business Cycle*. Chicago: University of Chicago Press.