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Threshold heteroskedastic models. (English) Zbl 0806.90018
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Summary: We consider a modification of the classical ARCH models introduced by *R. F. Engle* [*Econometrica* 50, 987-1007 (1982; [Zbl 0491.62099](#))]. In this modified model the conditional standard deviation is a piecewise linear function of past values of the white noise. This specific form allows different reactions of the volatility to different signs of the lagged errors. Stationarity conditions are derived. Maximum likelihood and least squares estimation are also considered. Finally an empirical example relating to the French CAC stock index is presented and several specifications are compared.

MSC:

[91B84](#) Economic time series analysis
[62P20](#) Applications of statistics to economics
[91B62](#) Economic growth models

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[asymmetries in volatility](#); [stationarity conditions](#)

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