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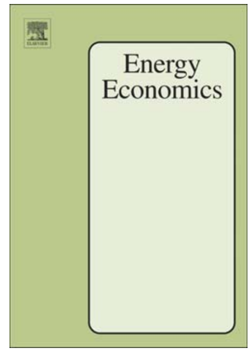

Does the volatility of commodity prices reflect macroeconomic uncertainty?

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Does the volatility of commodity prices reflect macroeconomic uncertainty?

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Abstract

While there exists numerous studies on the macroeconomic effects of oil and commodity shocks, the literature is quite silent on the impact of macroeconomic uncertainty on oil and commodity prices and, especially, on their volatility. This paper tackles this issue through the estimation of a structural threshold vector autoregressive (TVAR) model on a sample of 19 commodity markets. We aim at (i) assessing whether the effect of macroeconomic uncertainty shocks on commodity price returns depends on the degree of uncertainty, and (ii) investigating the transfer from macroeconomic uncertainty to price uncertainty using a newly developed measure of commodity price uncertainty. Our findings show that both agricultural and industrial markets are highly sensitive to the variability and the level of macroeconomic uncertainty, while the impact on precious metals is more parsimonious given their well-identified safe-haven role in time of economic turmoil. In addition, we find evidence that the recent 2007-09 recession has generated an unprecedented episode of high uncertainty in numerous commodity prices. Interestingly, our analysis further reveals that volatility and uncertainty in prices can be disconnected. This is especially true for the oil market as most important shocks in the 1990s and the beginning of the 2000s that lead to price volatility do not generate price uncertainty, highlighting the relevance of our uncertainty measure in linking uncertainty to predictability rather than to volatility.

JEL Classification: Q02, E32, C32.

Keywords: macroeconomic uncertainty, commodity prices, threshold vector autoregressive model.