



Universität
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Research Project

Volatility in early commodity markets

Third-party funded project

Project title Volatility in early commodity markets

Principal Investigator(s) [Zimmermann, Heinz](#) ;

Organisation / Research unit

Departement Wirtschaftswissenschaften / Finanzmarkttheorie (Zimmermann)

Department

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The empirical research studying the volatility of commodity futures markets has grown significantly in the past decade, partly because of the public concern about potentially destabilizing effects of financial investments which have grown considerably since the turn of the century. Among these investments, commodity-index related instruments are blamed as major drivers of prices and volatilities, which seem to covary more and more with the prices and volatilities of financial assets in recent times than with the “real” economic fundamentals. However, little is known about the anatomy of commodity volatilities in the very long run. This limitation makes it difficult to assess how unique some of the recent “abnormal” observations actually are against the background of the history of these markets. Our major goal in this project is to set up a database that allows to analyze commodity price volatility, and its dynamics in a truly historical context. Specifically, we will set up a completely unexplored, proprietary dataset of daily spot and futures prices, covering three maturities, in the time period 1877 to 1921. For comparison, the database of the National Bureau of Economic Research (NBER), which is the basis for a majority of earlier studies contains spot prices only, for a range of selected commodities on a monthly and averaged basis. In addition to the long run history, our data provides several important methodological advantages. Since we observe daily high and low prices, we can calculate point estimates of daily volatilities, following Parkinson's (1980) range-based volatility concept and its dynamic extension by Chou (2005). Compared to current practice, the use of daily high/low price data leads to a substantial improvement in the estimation of the dynamics and spillovers of volatilities. A comprehensive analysis of the anatomy of volatilities over time is therefore the main empirical contribution of this project.

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