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How Market Structure Drives Commodity Prices[1] BIN LI, K. Y. MICHAEL WONG, AMOS H. M. CHAN, TSZ YAN SO, HERMANNI HEIMONEN, Hong Kong University of Science and Technology, DAVID SAAD, Aston University — To understand how market structure drives commodity price trends with respect to resource availability we introduce an agent-based model, in which agents set their prices to maximize profit. At steady state the market self-organizes into three groups: excess producers, consumers and balanced agents. When resources are scarce prices rise sharply below a turning point marking the disappearance of excess producers. By introducing an elasticity parameter to mitigate noise and long-term changes in commodities data, we confirm the trend of rising prices, provide evidence for turning points, and indicate yield points for less essential commodities.

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