Research Working Papers

The Passthrough of Agricultural Commodity Prices to Food Prices

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Agricultural commodities prices have had a small and uncertain effect on changes in food prices at least since 2008.

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Food inflation has been excluded from core measures of inflation under the reasoning that it is a phenomenon of the supply side of the economy, driven by stochastic supply shocks to agricultural production that can affect the availability of farm products and increase food price volatility. However, the share of food costs related to agricultural production has fallen over the years as food value chains have become more complex and food prices tied more closely to value added downstream in the supply chain. We calculate the magnitude and extension of agricultural price passthroughs to food prices in the United States after 2008. We leverage the results of simple models of food pricing under imperfect competition along the supply chain to identify possible sources of bias in the passthrough calculations. We argue that we can identify U.S. agricultural price passthrough to U.S. food prices in a structural vector autoregressive setting using weather instruments that shift supply of farm production but are excluded from demand. Our results suggest that the passthrough of agricultural commodity prices to food prices is generally small and imprecisely estimated. Our results suggest that understanding food inflation can benefit from focusing on factors affecting downstream segments of the supply chain.

JEL classifications: Q10, E31

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Related Research

- Leibtag, Ephraim. 2009. “How Much and How Quick? Pass Through of Commodity and Input Cost Changes to Retail Food Prices.” *American Journal of Agricultural Economics*, vol. 91, no. 5, pp. 1462–1467. Available at https://doi.org/10.1111/j.1467-8276.2009.01365.x

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