Effects of Commodity Price Shocks on Inflation: A Cross Country Analysis*

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April 15, 2014

Abstract

Using local projections, this paper investigates effects of commodity price shocks on inflation. We estimate impulse responses of the consumer price indexes (CPIs) to a commodity price shock, based on a monthly panel consisting of 120 countries. Our results from the local projections suggest that the CPIs are almost fully adjusted within a year in response to a commodity price shock and thus effects of commodity price shocks are transitory. We then explore the possibility that the responses of the CPIs may be dependent on the inflation regimes. Based on the smooth transition autoregressive models that use the past inflation rate as a transition variable, we find that commodity price shocks have more persistent effects on inflation in the low inflation regime than in the high inflation regime. Our analysis also shows that, in the high inflation regime, there are (i) stabilizing roles of the exchange rate on consumer prices; and (ii) large differences in price responses between developed and developing countries. However, these effects are not detected in the low inflation regime. Our findings suggest that business cycle factors may play an important role in understanding effects of commodity price shocks on the CPIs.

JEL Classification: E31; E37; Q43

Keywords: Commodity prices, inflation, pass-through, local projections, smooth transition autoregressive models

*Takayuki Tsuruga acknowledges the financial support for the Grants-in-Aid for Scientific Research.

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