

Using Exchange Rates to Estimate Production Functions: Evidence from Colombia

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Abstract

This paper develops an instrumental-variables methodology for estimating production-function coefficients using exchange rates as a source of exogenous variation in input prices. We use rich data from the Colombian manufacturing census, which includes information on prices and physical quantities of all outputs and inputs of firms, in conjunction with customs records on all import and export transactions of Colombian firms. Preliminary results indicate that exchange-rate movements in source countries generate sufficient across-firm variation in input usage to estimate production functions of Colombian firms, and that our estimates differ from those of proxy-variable methods currently dominant in the literature.