

Do prices rise faster than they fall? Evidence from scanner data

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CONTEXT

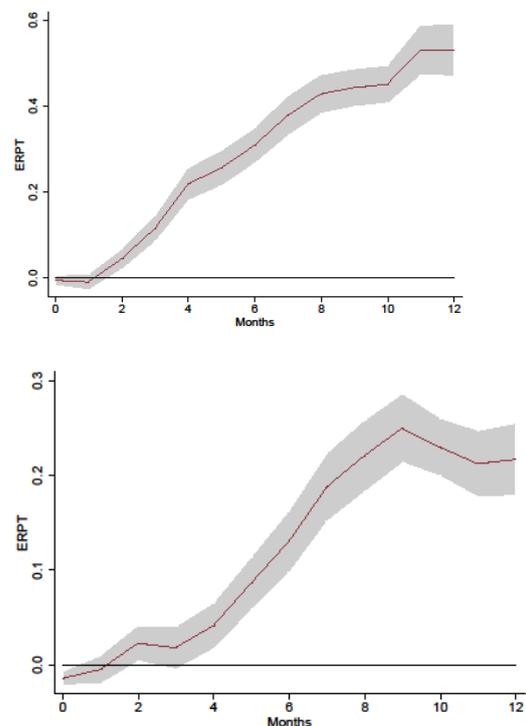
A stylized fact is that prices of goods tend to react and rise faster in response to an increase in costs of intermediate input costs, than they do when the costs of intermediate inputs decrease. This fact has been well documented in advanced economies, like the U.S., for industrial producer prices, agricultural prices and consumer prices. The degree of such asymmetry seems to be related to the complexity of the supply chain. For instance, when such a cost shock is filtered through a fragmented wholesale distribution system, the asymmetric response is larger. An important source of such cost shocks is the volatility of exchange rates as they play a key role in the global transmission of shocks via trade linkages.

In a recent [paper](#), Joep Konings from the NU Graduate School of Business together with In Kyung Kim from the NU Economics Department and Jinhyuk Lee from the Economics Department of Korea University have analyzed monthly scanner data covering more than 135,000 products sold in various retailers in Kazakhstan between January 2014 and December 2016. This is particularly interesting as this period was characterized by a switch of the exchange rate regime from a fixed to a float in August 2015, resulting in a large depreciation of the Tenge. But at the same time, this period was also characterized by months in which the Tenge appreciated. Thus, this allows to distinguish between negative and positive cost shocks.

MAIN TAKE AWAYS

An important result of our work is that exchange rate shocks are not fully transmitted into adjusted retail prices. Figure 1 shows how a one percent change in the Tenge-USD exchange rate only affects prices in the supermarket after a few months. Even after 12 months the impact is only half a percent for foreign products, such as Belgian beer, while for domestic products, such as local bread, the impact is even lower, only 0.2 a percent. In other words, if the Tenge-USD depreciates with 10 percent, prices only increase by 2 to 6 percent depending on the type of the product. And this price increase only occurs after 12 months.

Figure 1: Left panel is exchange rate pass-through for foreign products, right panel for domestic products



Another important finding of our work is that this exchange rate pass through is asymmetric. But this asymmetry depends on the type of product. For foreign products the impact of the depreciation on prices is much larger than the impact of an appreciation. Since a depreciation increases costs, these costs are passed on more into higher prices of the foreign products. An appreciation reduces costs, but this is reflected much less in lowering the prices of foreign products in shops. We find the opposite for domestic products.

One explanation for this finding is that large supermarkets tend to have more foreign products and they tend to have more stable market shares. So, they can easily increase prices to recover cost increases, while they keep prices high when costs reduce to increase profit margins. They can do so because they face less competition. In contrast, small retailers try to preserve market share and will be less inclined to increase prices when they face a negative cost shock.

POLICY IMPLICATIONS

Prices do rise faster than they fall: Cost shocks triggered by fluctuations in exchange rates affect prices of consumer products. When costs increase, retailers pass this partially on to consumers by increasing prices in their shops. When costs decrease, retailers tend not to lower the prices they charge, which implies they obtain larger margins.

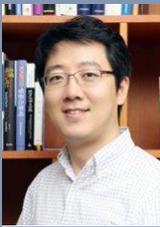
This insight matters for monetary policy concerned with inflation targeting, highly relevant in Kazakhstan. This means that a Central Bank which aims to set interest rates to control inflation needs to be more aggressive doing so after a depreciation than after an appreciation. Furthermore, the incomplete pass-through requires also a more aggressive monetary policy than usual. Finally, the nature of product composition plays a role. Increasing competitive pressure may reduce the asymmetric responses of price changes to costs, to the benefit of consumer welfare.



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