

Asymmetry of the exchange rate pass-through in Belarus

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The aim of the research was to investigate the asymmetric effect of exchange rate variations on prices over the short- and long-run in Belarus. The extent to which exchange rate changes are transmitted into prices is of utmost importance for monetary policy decision-making. This effect, known as exchange rate pass-through (ERPT), influences not only current inflation, but also inflation expectations, the setting of monetary policy, and the ability of exchange rate changes to correct trade imbalances. According to the basic concepts of the price ratio, the transfer of exchange rate fluctuations on domestic prices must be complete, that is, the elasticity of domestic prices to the exchange rate should be equal to unity. However, in many cases some of assumptions that underlie these concepts, are not met in reality, which may lead to an incomplete transfer effects, as well as differences in its size and characteristics, due to the specifics of national economies.

In accordance to Taylor rule, the higher the level, or duration and volatility of inflation, the greater the effect of the pass-through. This conclusion confirmed by many empirical research in which shown that in countries with low inflation there is a slight exchange-rate pass-through effects, and in most countries with traditionally high inflation it's above. As well found out that while the economic situation in the country stabilize – the pass-through effects is reduced. In other words, the decline in inflation is the main stabilizing factor which reduces the value of pass-through effect.

A significant role in determining the value of pass-through can play macroeconomic environment in the country. Thus, ERPT can be higher in periods of financial or confidence crises. High volatility of the exchange rate can cause to decreasing transfer effect because importers is unprofitable frequent price changes. A similar situation can be obtained by unstable demand for goods, when as well the importer is unprofitable to change prices due to frequent changes in private aggregate demand.

The main applied methods and models of research and estimate the pass-through effect are: panel data models; systems of simultaneous equations (SSE); vector autoregression (VAR) or vector error correction models (VECM). Depending national particularities of the economy additional variables that affect the variables of the exchange rate, production and foreign trade balance of the country can be considered. To obtain estimates of the exchange-rate pass-through effects the author was used vector autoregression model (VAR). Analysis of the asymmetry of pass-through carried out by estimating a model in which were used variables that reflect the appreciation and depreciation of the national currency. As inflation variable was considered consumer price index and producer price index of industrial products, as exchange rate – the exchange rate of the Belarusian ruble against the US dollar and the nominal effective exchange rate. Also variables of monetary aggregate M2 and industrial output were presented in model. Besides that author consider the cointegrating relationship between prices and exchange rate to evaluate asymmetric

effects.

According to estimates of VAR-models and response function CPI weakly responds to changes in the exchange rate, and obtained estimates of exchange rate pass-through to match the empirical results of a flexible exchange rate regime. The results of estimation indicate economically and statistically significant evidence of asymmetry. With the depreciation of the national currency exchange-rate pass-through is higher than in the entire period under review. With currency appreciation exchange-rate pass-through is positive almost for all combinations of price indices and exchange rate variables. Consequently, with appreciation national currency the price level rising, but more slowly than when it is depreciation. In other words, the depreciation of the national currency leads to rising prices, whereas appreciation it does not cause them to decline. These results have important implications for the proper conduct of monetary policy.