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Exchange rate pass-through in Turkish export and import prices

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Abstract

This article examines exchange rate pass-through into prices of internationally traded goods in the case of a small emerging open market economy such as Turkey. In this study, we provide empirical evidence on complete pass-through in export prices in Turkey using aggregate data on the manufacturing sector. Our data do not however support complete pass-through in import prices in Turkey. This contradicts with the findings of the existent literature, which typically concludes that the degree of pass-through in import prices is higher than the one of export prices. This can be interpreted as a result of competition between import and import substituting industries where importers fall short of competing successfully with import substituting sectors. Although Turkish importers can be responsive to exchange rate changes to a certain degree in the short-run, in the long-run, they seem to lose their market power perhaps as a result of swift competition. A complete exchange rate pass-through to export prices in Turkey

implies that the Turkish manufacturing export sector has the competitive strength to transmit exchange rate movements into their prices.

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Notes

[1]As is usually the case, empirical studies have focused mainly on developed countries. See, Goldberg and Knetter (1997), Campa and Goldberg (2002) for surveys. A few studies on developing countries are mentioned below.

[2]See also Anderton (2003), for counter evidence on complete pass-through in Euro area.

[3]To our knowledge, the only study that considers Turkey is Leigh and Rossi (2002). They find evidence on incomplete pass-through. However, they only analyse the pass-through in CPI not in tradable prices.

[4]The theoretical underpinning of these specifications can be found in, for example, Mann and Hooper (1989) or in several others inspired by this pioneering study.

[5]Disadvantages of using unit value indices instead of real transaction prices have been widely reported. The major criticism depends on the fact that the composition of the unit and the weights assigned to individual items within the unit remain unchanged from one period to another. Alterman (1991) examines the effect of using unit values as opposed to transaction prices in estimating pass through relationship. In the US case, he finds that the estimates of the degree of pass through obtained using import unit values are significantly lower than those obtained using import price indices.

[6]Data on export and import unit value indices are obtained from OECD Statistical Compendium CDROM.

[7]This variable is obtained from the International Financial Statistics CDROM published by IMF.

[8]This variable is obtained from OECD Statistical Compendium CDROM.

[9]This is important for us since the multivariate cointegration test applied here requires that variables should be firmly established as integrated order one (I(1)).

[10]We also used ADF–GLS test of Elliot et al. (1996). This test, however, yields similar results with ADF tests reported in Table 1.

[11]During estimation trend term is restricted into the cointegration space and intercept is left unrestricted. Since the level variables are trended and this formulation ensures that the solution of the model in terms of level variables does not contain quadratic trends, we think of this is as the most appropriate specification.

[12]All computations in this and following sections are carried out in PcGive 10.4.

[13]We only report trace statistics as suggested by Cheung Lai (1993) and Lütkepohl et al. (2001).

[14]This is true when tested at 5% significance level except VAR (4), for which the result of two cointegration vector can only be accepted at 10% significance level.

[15]Qualitatively we obtain similar results from the other VAR models.

[16]$\Delta$is the first difference operator.

[17]Therefore, the last coefficients in long-run matrix belongs to this linear trend term.

[18]These dummy variables take on the value of 1 in the second quarter of 1994 and 2001, and zeros elsewhere. We have also run the regressions without these dummies and found more or less similar results. For instance, the coefficients of exchange rate pass-thorugh in export and import pricies in regressions without dummies were found to be −0.55 and 0.56 respectively. These results are also availabe upon request.

[19]In Table 5, for robustness check, we tested complete pass-through hypotheses with and without exclusion restriction of unit labour costs, although it was already tested and not rejected above.

[20]Even if we use coefficients estimates in (2), we obtain exactly the same equilibrium-correction equations as in Table 6, with some minor changes in coefficient estimates leaving the qualitative results, reported below unaltered.

[21]For export price equation its error-correction term shows that when px_t is below its long-run value (i.e. when ε_{xt-1} is negative), this requires a downward adjustment in export prices. Its magnitude (0.303) indicates the degree of feedback from disequilibrium to export price changes. The estimate of this coefficient shows that

30.30% of deviations from the equilibrium in period t– 1 is corrected in the next period, corresponding to approximately two quarters for the half of the disequilibrium to be corrected. However, import prices indicate much slower rate of disequilibrium correction, leading to about 17 quarters of half life.