Real Exchange Rate, Productivity and Labor Market Rigidities

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Summary

We demonstrate in this paper that the degree of labor market rigidities across sectors and countries affects the strength of the structural relationship between real exchange rate and sectoral productivity differentials and in some circumstances, the standard Balassa-Samuelson effects may not hold. Specifically, in a world with labor market frictions and unemployment, employed workers no longer move instantaneously and costlessly across sectors in response to changes in relative sectoral wages. Instead, it is unemployed workers that move freely across sectors in response to changes in expected lifetime income arising from changes in relative sectoral wages and associated frictional costs such as the probability of finding a new job and of an existing job being destroyed. Thus, an increase in the relative productivity of tradable sector may lead to an increase in the relative wage in that sector, but the extent of the increase would in general, be lower compared with what is predicted by the standard Balassa-Samuelson model, as part of the increase in the marginal product of labor will be used to cover frictional costs in the labor market.

The increase in the wage in the tradable sector will lead to an increase in the expected lifetime income of unemployed workers searching in the tradable sector, attracting unemployed workers in the non-tradable sector to move to the tradable sector. This movement of unemployed workers across sectors will continue until the expected lifetime income of unemployed workers searching in each sector is equalized. The resulting increase in the expected lifetime income of unemployed workers in the non-tradable sector may bid up wages of employed workers in the non-tradable sector. However, the increase in the price of the non-tradable good may be higher or lower than what is predicted by the standard Balassa-Samuelson model, depending on the relative market rigidities between the two sectors, as the effect of an increase in the non-tradable sector's wage on non-tradable price will be absorbed by the relative flexibility in its labor market, resulting in a higher or lower price of non-tradable goods and hence, the national price level.

The empirical evidence supports our theory: controlling for the difference in labor market rigidities across countries provides a better fit in estimating the Balassa-Samuelson effect.