

Sectoral Productivity and Cross-Country Inflation Differentials: Much Ado About Nothing?

Vladislav FLEK – CNB and Institute of Economic Studies, Faculty of Social Sciences, Charles University, Prague (vladislav.flek@cnb.cz)

Lenka MARKOVÁ – CNB and Institute of Economic Studies, Faculty of Social Sciences, Charles University, Prague (lenka.markova@cnb.cz)

Jiří PODPIERA – CNB and CERGE-EI, joint place of the Charles University and Academy of Sciences of CR, Prague (jiri.podpiera@cnb.cz)

Within selected national economies (eight EU countries and the Czech Republic), we estimate relative price changes that stem from fluctuations in sectoral productivity. By doing so, we refine partly the methods of econometric analysis usually employed in studying the Balassa-Samuelson-Effect (BSEF). Subsequently, we calculate cross-country CPI-inflation differentials implied by sectorally unbalanced productivity growth, taking into account country-specific weights of non-tradables in consumption (value added) and assuming there are no adjustments in nominal exchange rates. Being aware of statistical imperfections and model simplifications, we find that the impact so far of the BSEF on the CPI inflation (real exchange rate appreciation) is likely to be very low if not negligible in the Czech Republic.

Standard model specification of the BSEF assumes that the marginal impact of productivity on relative prices is equal in both traded and non-traded sectors. Using this specification for unbalanced panel estimations, we find that a statistically significant impact of relative productivity developments on relative prices does exist in investigated countries, even though it is much lower than the BSEF would predict. In the case of the Czech Republic, the missing faster productivity growth in the traded sector results in a negative sign of the BSEF.

Our extension to the standard approach is embodied in the unrestricted model specification where we allow for different marginal effects attached to sectoral productivity in both sectors. This proves to be superior to the standard approach. The resulting impact of relative productivity changes on the CPI inflation is close to zero once again, but positive.

In contrast to Gollinelli and Orsi (2001), who find that the annual contribution of the BSEF to inflation in the Czech Republic is 4.3 %, the most recent findings suggest that the BSEF is rather poor explanatory variable and another. So far less highlighted factors should be tested as determinants of the equilibrium real exchange rate evolution or the notion of equilibrium itself would have to be redefined. Partial analogy with our results can be found also in Kohler (1999) who uses standard specification and reports that the value of „BSEF-implied inflation“ is close to zero for Asian and African developing countries. Making reference to Kohler (1999), we can mention, as examples, countries such as China or Zimbabwe which have recorded very low values of implied inflation.

Thus, when summarizing our results and also making reference to Kohler (1999) and Egert (2002), it seems that the BSEF mechanism in its standard form works predominantly, if at all, in highly developed countries such as the EU-member countries or the US. For the Czech economy the effect is rather negligible, just as it is in Slovakia, Slovenia and some non-European developing countries. Even in case of a re-

latively rapid future productivity growth in the traded sector, the magnitude of the BSEF-based impact on domestic inflation (real exchange rate appreciation) would, according to our simulations, hardly reach an interval between one and two percent, as compared with the current close-to-zero impact.

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SUMMARY

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Vladislav FLEK – Czech National Bank, Prague; Faculty of Social Sciences, Charles University, Prague (vladislav.flek@cnb.cz)

Lenka MARKOVÁ – Czech National Bank, Prague; Faculty of Social Sciences, Charles University, Prague (lenka.markova@cnb.cz)

Jiří PODPIERA – Czech National Bank, Prague; CERGE-EI, joint place of the Charles University, Prague and Academy of Sciences of the CR (jiri.podpiera@cnb.cz)

We find that sectoral productivity developments have a statistically significant impact on relative prices in EU countries and also in the Czech Republic, but the magnitude of the impact is not as strong as the Balassa-Samuelson effect would suggest. The final impact of relative productivity changes on CPI-inflation is even weaker, and is negligible in the case of the Czech Republic.