This paper investigates how foreign direct investment (FDI) spillovers and regional features affect the total factor productivity (TFP) of local firms in five new EU member states (Czech Republic, Estonia, Hungary, Slovak Republic and Slovenia) in 2004-2009 period. The high per capita FDI inflow in these countries makes it of crucial importance to analyse whether incentives given to multinational corporations (MNCs) so far are warranted and should countries continue to pursue policies aimed at attracting MNCs. The investigation combines several research techniques made available to researchers only recently. TFP of local firms is estimated using Wooldridge one-step estimator while regional output decomposition techniques are used in order to shed light on the role of productivity in regional output dynamics. Maximum likelihood panel spatial Durbin model is used to examine the impact of FDI on TFP of local firms. Finally, the distinction between direct and indirect spatial effects is examined.

The results of investigation suggest that:

- there is positive impact of productivity on regional output dynamics in nearly all analysed countries
- there are positive inter-regional TFP spillovers among local firms
- there are negative backward and horizontal intra-regional FDI spillovers
- there are positive forward intra-regional FDI spillovers
- there are negative horizontal inter-regional FDI spillovers
- there is positive impact of migration on TFP of local firms
- urbanisation externalities and firm size increase TFP of local firms
- the impact of industrial concentration on TFP of domestic firms is negative
- there is positive impact of protection in the area of intellectual property rights on TFP of local firms
- the impact of change in independent variable of individual regions on the TFP of local firms in other regions amounts to about half of the impact on the region itself
- the reported findings remain robust to different specifications of spatial weight matrix and different measures of TFP

It can be concluded that main channel for spatial diffusion of technology and knowledge are interactions among local firms while the beneficial effect of MNCs is mainly limited to their supplier role possibly due to the inability of domestic firms to meet standards of MNCs or their lack of absorptive capacity. Overall, these findings question the validity of schemes offered to attract MNCs in new EU member states and suggest that, in addition to measures for attraction of FDI, actions should be undertaken in order to increase absorptive capacity of domestic firms and their ability to benefit from FDI spillovers.

Keywords: FDI, TFP, regions, spatial analysis, new EU member states