



## POLICY NOTE OF THE WORKING PAPER 2/13

# Origin of FDI and domestic productivity spillovers: does European FDI have a 'productivity advantage' in the ENP countries?

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## OBJECTIVE OF RESEARCH IN RESPECT TO POLICY

The EU plays an important role for the countries in the 'eastern neighborhood': as an economic gravitational force, as a normative power for democratization, and as a source of much needed financial and knowledge-related resources. Although economic integration through trade liberalization and the forging of deeper political links are of course important for the further development of the countries in the European periphery, in many respects foreign direct investment plays a distinctive role as it provides the material means (capital flows) and technology transfers (knowledge and other spillovers) to support restructuring and modernization and, through this, creates the conditions for democratic reforms and economic openness. In many respects, however, these benefits are taken for granted and there is often little empirical evidence to support common perceptions or related theoretical claims. In the case of the literature studying the economic gains from capital investments in the ENP and other transition countries, no study has examined to date the size of the (presumed positive) spillovers of European FDI vis-à-vis foreign investments originating from other parts of the world. Thus, it is not known whether the preferential relations offered by EU's European Neighborhood Policy and related bilateral agreements, and the intensification of economic interactions – including capital flows – that these facilitate, are in fact beneficial for the countries of the region. Also not known are the geographical implications of these – at least with respect to the geography / location and spatial variation of the productivity spillovers generated by FDI. The relevant literature has shown that at the national level these spillovers are by and large positive, raising the productivity of domestic firms (albeit often conditional on a range of factors, such as firm sizes, domestic technology and institutions, etc.) and thus of the economy as a whole. But studies for other parts of the world have shown the geographical distribution of these effects to be highly variable, often favoring the most advanced regions. As a result, FDI can often contribute to a widening of regional disparities in recipient countries. In the ENP context, where spatial asymmetries are often acute and geographical disparities already large, this effect may be particularly difficult to redress.

## SCIENTIFIC / RESEARCH METHODS

From the EU side, the ENP provides an institutional framework of association (including preferential trade agreements) which, arguably, gives EU firms a relative advantage at least in the sense of reducing entry costs and uncertainties (such as information asymmetries and legal barriers). If, as it is believed to have happened in the new EU member-states, the framework of association facilitates less speculative and more long-term strategic investments, then EU-originating investments are likely to be more organically linked to the local economies of the host countries, thus, possibly, generating larger spillovers for domestic firms. This hypothesis is examined by applying a standard production-function approach to estimate the productivity spillovers accruing to domestic firms by the presence of foreign investments and examine how these spillovers vary both for groups of countries belonging to different processes with respect to EU association and separately for

investments of EU and non-EU origin. The localization of these spillovers is further investigated by examining how their intensity varies at different geographical scales (national – regional) and for different types of locations (capitals versus the rest). Thus, the study covers issues, which have attracted less attention in the transition literature, relating to questions of geography and space – albeit in different dimensions. The first issue concerns the role of the origin of foreign investments for the size of the observed spillovers and the second issue concerns the geography of spillovers within the recipient countries. The standard production function used incorporates, in addition to the two main factors of production (capital, measured by fixed assets, and labor), the share of foreign presence in the sector where each firm is located. Additionally, the model includes various controls for the different dimensions of the sample (e.g. Fixed Effects for countries and years). The main independent variable of the model is horizontal spillovers, which is constructed using each individual firm's reported share of foreign ownership and information on country, sector and yearly output of each firm. Firm-level output is first multiplied by each firm's foreign ownership share and aggregated to country-sector-year clusters. Then, horizontal FDI variable is calculated as the ratio of this variable to total output in the cluster. The same approach is followed for the construction of the origin- and region-specific measures. The model is estimated using, alternatively, Ordinary Least Squares estimation technique and Fixed Effects estimators, the latter in order to correct for the non-independence of repeated observations (firms) over time. The Fixed Effects estimation controls for unobserved firm-specific characteristics (e.g. management quality) but effectively removes from the estimating sample all those firms that only appear in the sample once. The data used in the paper comes from the Business Environment and Enterprise Performance Survey (BEEPS). This survey is implemented by the EBRD together with the World Bank and it enquires individual firms in Eastern Europe and Central Asia about their business and business environment. The paper uses an unbalanced panel from three waves – 2002, 2005 and 2009 – containing approximately 28,000 observations from 28 transition countries. The dataset contains information on sales, employment, fixed assets, share of foreign ownership, share of exports, sector (using NACE two-digit classification), country and region where the firm is located and origin of FDI.

## POLICY VALUE-ADDED

This study obtains a host of interesting findings. First, EU-originating FDI appears to have a 'productivity advantage' over investments from other parts of the world, in the sense that it tends to generate greater productivity spillovers for domestic firms. It thus seems that the process of association with these regions, which gives a preferential access to European firms in their markets, does not carry a 'hidden' or indirect penalty for them. Second, FDI spillovers, including European ones, have not reached their maximum value in the ENP region. In the SEE, where the involvement of the EU is magnified, such spillovers are very positive and strong, despite the recipient countries of the region sharing similar problems of institutional quality and absorptive capacity with many of the ENP countries. This suggests that further approximation with the countries of the region and further intensification of economic links and capital flows may prove to be increasingly beneficial. Third, the observed productivity spillovers, although not particularly localised, tend to be significantly stronger and more positive for firms located in the capital-city regions of the recipient countries. As FDI tends to concentrate in these regions anyway, it follows that it indeed acts to amplify spatial disparities within their countries. European FDI appears to have the strongest contribution to this adverse geographical effect. This assigns an increased responsibility to EU policy – and to ENP in particular – to implement and support actions that will seek to reduce spatial disparities and asymmetries in the countries of the EU neighbourhood.