



## **POLICY NOTE OF THE WORKING PAPER 2/17**

# **The Effect of FDI on Regional Inequality in the ENPs; Evidence from Israel**

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### **OBJECTIVE OF RESEARCH IN RESPECT TO POLICY**

While increased capital outflow from the EU to the ENPs may be a tangible expression of economic integration and a reflection of the internationalization of the economies in the EU neighborhood, it can also lead to increased regional inequality and distorted spatial distribution of economic activity in the recipient countries. This report examines whether EU FDI polarizes inequality in the ENPs. The topic has not received much attention primarily due to the paucity of available empirical data especially relating to FDI. To address this lacuna, we present an empirical method for estimating the effects of FDI on regional inequality, in the absence of regional FDI data. We suggest using data on national FDI which is universally available and estimating its effect on regional capital stock. This in turn is related to regional wages and thus a link between FDI and regional earnings inequality is established. The policy implications of this are clear. FDI is not simply a vehicle for the transfer of capital flows but also a mechanism for transferring technology, skills and capabilities to the ENPs. Thus, if FDI does cause spatial polarization this is likely to have secondary effects in a whole slew of other areas no less important for the economic development and economic integration of the ENPs.

### **SCIENTIFIC / RESEARCH METHODS**

We use a novel approach to modeling the impact of FDI on regional inequality and illustrate its empirical application using data for Israel. First, we model regional capital stock as a function of national FDI stock, and other variables including regional incentives, regional population and human capital. We show that regional capital stocks vary in their sensitivity to national FDI shocks. Second, we estimate a regional wage model in which regional wages depend on capital-labor ratios and regional demographics. We show that given everything else, regional wages vary directly with capital-labor ratios. Since regional capital stocks may be more or less sensitive to FDI shocks, and regional wages vary directly with capital-labor ratios, a connection is established between FDI and regional wage inequality. Third, we use the regional wage model to decompose the factors driving regional wage inequality, as measured by the variance of regional wages. One of these factors is the effect of FDI on polarizing regional wages.

We create regional panel data (1987-2010) from a variety of secondary sources. and estimate both individual regional capital and earnings models (with and without spatial spillovers). We show that polarization in regional wage inequality induced by FDI varies directly with the variance in the sensitivities of regional investment to national FDI shocks, and the effect of regional capital-labor ratios on labor productivity and wages, and it varies inversely with regional elasticities of supply of labor. Indeed, if labor supply is perfectly elastic, the polarizing effect of FDI tends to zero. Polarization also varies directly with the level of the stock of FDI. We calculate that about half of regional wage inequality (as measured by the variance) in the late 1980s was attributable to the polarizing effect of FDI. However, by 2010 this effect fell to less than a third, largely because regional wage inequality increased for other reasons.

These results show that the polarizing effect of FDI on regional inequality may be large. This effect is likely to be smaller in a small country such as Israel than in larger countries where the physical distances between center and periphery are greater. In larger countries there may be entire regions not reached by FDI, which naturally exacerbates the polarizing effect of FDI. Therefore, in other ENPs, which are much larger than Israel, the polarizing effect of FDI is likely to be even greater.

## **POLICY VALUE-ADDED**

First and foremost FDI exacerbates regional economic disparities. Policy makers should be aware that this is an unfortunate side-effect of FDI, which otherwise has desirable effects on the host economies. Second, since polarization varies inversely with the elasticity of labor supply, these adverse effects of FDI may be mitigated by policies which encourage internal migration. For example, in the context of Israel the economic center has benefited from FDI relative to the periphery. The government has changed its regional development policy by concentrating investment grants in the periphery at the expense of the center.