

pools of skilled workers have contributed to the attractiveness of Central and Eastern European countries for offshoring activity from EU countries.

While labour and other production costs are important components of total costs of a product, fragmenting stages of production internationally involve also resources in order to trade these inputs across borders. Such resulting trade costs (widely defined as costs of transportation and tariffs/non-tariff barriers) also contribute substantially to overall costs incurred. Notwithstanding the fact that trade costs in general have fallen and thus enabling more offshoring to take place, research has found that these costs can also be important in determining to which locations and in which countries firms offshore activities.

Hanson et al. (2005) in their analysis of fragmentation of production by US multinationals find that the level of costs of trading between the foreign affiliate and the US parent is an important determinant of offshoring activity. Baier and Bergstrand (2000) also show in their analysis that tariff rates and transport costs are important determinants of outsourcing. Specifically, in model simulations they find that a 7.5 percentage point decline in tariff rates combined with a 5 percentage point decrease in transport costs can lead to an increase in vertical specialization (offshoring) by around one-third.

The importance of tariff barriers for offshoring is also highlighted by government policies which provide tariff reductions or exemptions for trade in intermediate goods which are processed abroad and are then shipped back to the home country for final production. As alluded to above, this is known as outward processing trade in the European Union, which is the customs' arrangement allowing goods to be temporarily exported from EU territory for processing, and the resultant products to be released for free circulation in the EU with total or partial relief from import duties (e.g., Görg, 2000). In the US a similar programme is known as overseas assembly provision (e.g., Swenson, 2004).

Finally, risk is an important determinant of where offshoring activity takes place. This includes issues such as exchange rate risk (Swenson, 2000) but also more broadly defined risks such as political disruptions, corruption, patent protection laws etc. Yeats (2001) provides an empirical analysis which points to the important role played by country risk in determining the location of offshoring activities in the Caribbean region.

What types of firms offshore?

Let us now turn to the question whether, among a random sample of firms we would expect all firms to engage in offshoring or whether it is only a certain group of firms with some specific characteristics that would do so. The answer to this is: only a certain group – and this should consist of the “better” firms in our sample. Not all firms engage into outsourcing.

Recent developments in international trade theory have argued that it is reasonable to assume that offshoring (as any other type of international engagement, such as exporting or foreign direct investment) involves substantial sunk costs. These are irreversible costs that occur due to searching for a foreign partner, setting-up a business partnership, and learning about the possible contractual arrangements, etc. Under this assumption, only very efficient firms will be able to overcome these sunk cost barriers and successfully start to offshore (Antras and Helpman, 2004).

Empirical evidence has been produced which supports this theoretical prediction emphasizing sunk costs. A number of studies look at large samples of firm level data for a number of countries. For example, Tomiura (2005) and Kurz (2006) using data for Japan and the US, respectively, model a firm's decision to outsource and find that more productive firms are more likely to outsource. In particular, Kurz (2006) concludes that