Foreign direct investment

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The purpose of this note is to briefly describe some major trends in Foreign Direct Investment (FDI) and to outline the state of our knowledge and remaining gaps in the literature pertaining to: the determinants of FDI flows; the benefits of FDI for the host economy; and the effectiveness of policies attempting to attract FDI.

FDI has become an increasingly important feature of the world economy, but there has been much less research on the determinants, consequences, and policy implications of FDI than on its sister, international trade. FDI flows are largely made up of the operations of multinational enterprises (MNEs), including the financing of new greenfields investments, cross-border mergers and acquisitions, retained earnings of subsidiaries, and loans between related entities. Multinational enterprises account for one third of world output and are responsible for two-thirds of world trade.

There has been massive growth in the activity of multinational enterprises over the last 20 years. As shown in Figure 1, the rate of growth of FDI accelerated dramatically in the mid-1980s. Between 1985 and 2002, the average rate of growth of real worldwide FDI inflows was 11.3 per cent. During the same period, the rate of growth of trade (4.2 per cent) and real GDP (2.7 per cent) was much slower. The explosion of FDI in the last two decades compares strikingly with the period before 1985, when FDI grew at just 5.5 per cent, similar to the growth rate of trade (5.7 per cent) and real GDP (3.1 per cent).

[Figure 1: World Trade, FDI, and Merchandise Exports, 1970-2002, Index, 1970=100, (Source: World Bank 2004)]
As the volume of FDI has grown, it has become an important source of private capital, particularly for developing countries. As Figure 2 shows, until the 1980s private bank lending, fuelled by petrodollars, was the major source of finance for developing countries. In the 1970s, FDI made up only 12% of all financial flows to developing countries. When commercial lending dried up in the 1980s, most countries responded by aggressively seeking to attract foreign direct investment. Since the 1980s, total resource flows to developing countries have more than doubled. The largest growth has been in the volume of FDI which accounted for more than half of all private flows towards the end of the century.

![Figure 2: Selected Resource Flows to Developing Countries, 1970-2002, US$bn. (Source: World Bank 2004)](image)

While FDI has grown dramatically, it remains, for the most part, highly concentrated in a small number of locations. By far the largest proportion of FDI flows goes to the rich industrialised countries (68 per cent in 2003). Latin America received 8 per cent of FDI, developing countries in East Asia and the Pacific received 13 per cent, Sub Saharan Africa received 1 per cent, and developing countries in Europe received 3 per cent. However, even within the group of developing countries, FDI is concentrated in a few successful countries. Over half of the FDI that does reach developing countries is concentrated in 5 economies. The low income countries received just 2.1 per cent of world FDI inflows; significantly less than their share of world GDP (3.0 per cent).
The paucity of FDI in many developing countries is a puzzle. While there are in principle many factors which could determine FDI flows, economists have long believed that one critical price - the relative wage - should play a strong role in driving FDI flows towards developing countries. We expect that low wages should attract multinational production to poor countries and therefore cause them to attract a more than proportional share of direct investment flows. It is all the more puzzling because there are some notable successes among developing countries, including China and India, which have attracted large amounts of FDI. This brings us to one of the central questions of the FDI literature: what explains the observed pattern of worldwide FDI?

The location/attraction of MNEs

The literature on multinational enterprises provides two central theoretical motivations for foreign direct investment which supply different predictions about the factors determining the location of foreign direct investment. Firms can invest ‘horizontally’ to place production close to customers and avoid trade costs (Markusen [1984], Brainard [1993]), and they can invest ‘vertically’ to take advantage of abundant unskilled labor in (primarily) developing countries (Helpman [1984], Helpman and Krugman [1985]). These theories explain the scale and location of the foreign activities of multinationals as a function of the characteristics of both their home and host countries.

These models have been subject to empirical investigations which by and large give strong support to the predictions of the horizontal model (Brainard [1997], Ekholm [1995, 1998]). The horizontal theory predicts that firms will choose to serve foreign markets through FDI rather than exports when trade costs are low, when there are large network scale economies (i.e. the fixed costs associated with maintaining centralised headquarters facilities), and when there are low plant-level scale economies (i.e. the fixed costs of having plants both at home and abroad). Brainard (1997) finds support for the horizontal model. She finds that the sales of the subsidiaries of MNEs are positively correlated with trade costs and average firm size in the industry, and negatively correlated with the average plant size in the industry. These results are consistent with the horizontal theory, i.e., larger plant-level scale economies decrease FDI relative to exports, but higher trade costs and larger network scale economies increase FDI relative to exports.

However empirical attempts to identify the vertical motive for foreign investment have been considerably less successful - notably failing to find consistent support for the
prediction that low factor costs and low export-trade costs encourage export-oriented investment. Markusen and Maskus (1999 and 2001) nest the horizontal model, the vertical model, and a hybrid of the two in a framework which results in a strong rejection of the vertical model. They find that sales by MNE affiliates are higher when home and host countries have similar market sizes but they also find that differences in labour abundance do not appear to increase FDI. These results suggest that MNEs' expansion paths are more consistent with horizontal rather than vertical theories of FDI. This is supported by Blonigen, Davies, and Head [2002] who base their rejection of the vertical model on their finding that skill differences imply lower MNE activity between countries, and further that where country's have large skill differences, high host country trade costs increase MNE activity - two results markedly at odds with the vertical model. Taken together these studies of bilateral investment activity have not robustly identified vertical motivations for foreign investment.

The failure to find evidence in favour of the vertical theory of FDI is a puzzle because there are many intuitive reasons to expect that multinational firms should be attracted by the abundant and cheap labour forces in developing countries. This is clearly an area for further research.

**The benefits of FDI for the host economy**

The affiliates of multinational firms are typically different from domestically owned firms. There is strong evidence that MNEs tend to be larger and more productive than their domestic counterparts (Girma et al. 2001, Conyon et al. 2002), pay higher wages (Lipsey 2002), employ skilled labor more intensively (Griffith and Simpson 2003) and are more likely to export (Blake and Pain (1994), O'Sullivan (1993)). Since MNEs face the extra costs of expanding activity into foreign markets, it is intuitive that they must also have firm-specific advantages which enable them to outperform their domestic counterparts in other dimensions. These advantages may take the form of knowledge-based assets such as proprietary product or process technologies, or skills in management, marketing, or branding. These advantages are the reason the firms become multinational and choose to penetrate international markets through direct investment rather than exports or licensing arrangements.

The superiority of multinational firms across various operational dimensions opens the possibility that they may generate externalities that raise the productivity of host-country factors of production. Theory identifies several channels through which multinationals might positively affect the productivity of domestic firms. For example, spillovers may take place when domestic firms copy technologies or working practices of foreign affiliates operating in the local market, either based on imitation by observation or by hiring workers trained by the affiliates. Spillovers may also occur through the linkages between foreign firms and their local suppliers or customers. MNEs may assist their suppliers to improve their production processes or they may demand that suppliers raise the quality of their products. In addition, if multinational firms increase competition in the host country, they may increase the productivity of domestic firms by forcing them to increase their efficiency (Blomstrom and Kokko, 1999) although they may also reduce the profitability of domestic firms in the same industry.

While there are plenty of conceptual reasons to believe that foreign firms improve domestic firms' productivity, the determination of the effects of MNEs on the host
economy is ultimately an empirical question. Recent research has confirmed the value of FDI in cross-country studies, which have found a positive relationship between the volume of foreign investment flows and the rate of economic growth. Blomstrom, Lipsey, and Zejan [1994] find that FDI is positively related to growth in rich countries. Similarly, Borensztein, De Gregorio, and Lee [1998] find a positive correlation between FDI inflows and per capita GDP for a large sample of countries in the 1970s and 1980s. However their results are qualified: they report a positive relationship only when a country has a minimum threshold of human capital. Alfaro, Chanda, Kalemli-Ozcan, and Sayek [2004] find that countries benefit significantly from FDI, but only when they have well developed financial markets.

Aggregate analysis is often subject to the objection that unobserved country or industry heterogeneity may be correlated with FDI and growth. Industry productivity growth or country GDP growth may be positively correlated with the presence of multinational firms because MNEs bring benefits to the local economy, but the correlation may also result from any tendency of MNEs to be attracted to high-productivity industries (Davies and Lyons [1991]).

Recent empirical studies have addressed these identification problems by using firm-level panel data to analyse how the productivity of domestic plants has changed over time in response to the presence of foreign firms (Lipsey [2002] and Görg and Strobl [2001]). While firm level studies repeatedly document productivity premiums in foreign firms, they frequently do not find positive spillovers benefitting domestic firms. Aitken and Harrison [1999] is a benchmark study. Using firm-level data for Venezuela, they show that once the tendency of foreign firms to concentrate in high productivity industries is taken into account, the positive relationship between productivity growth and the level of foreign ownership in an industry breaks down.

The increasing enthusiasm with which national governments are welcoming foreign investors is not yet matched by an empirical consensus on the benefits of foreign direct investment (FDI) for host countries. Despite the strong conceptual case for a positive relationship between economic growth and FDI, the empirical evidence has been mixed.

**Host country policies for FDI**

The evidence presented above does not provide conclusive evidence of the benefits of FDI for the local economy. Yet policymakers in many developing and transition economies are undeterred. They place activities to attract FDI high on their agenda, expecting FDI inflows to bring new technologies, managerial expertise and thus contribute to increasing efficiency and competitiveness of domestic industries. During the last 25 years, almost all countries have reduced barriers to FDI, and created a policy infrastructure to actively encourage foreign multinational firms. Of the 140 changes in FDI laws worldwide in 1999, 131 liberalised conditions for FDI; of these, one-fifth introduced new incentives for foreign investors (UNCTAD [1999]). More than 160 national level investment promotion agences (IPAs) have been established and there are more than 250 subnational ones worldwide. These government agencies are tasked with performing various activities to attract foreign direct investment. Wells and Wint [1990] grouped these activities into four functional categories: (i) national image building, i.e., many IPAs disseminate favourable information about their country as a host for foreign investors through advertising campaigns, participation in investment exhibitions, or trade
missions; (ii) investment generation, i.e., IPAs engage specific firms or industry groups for research and sales presentations; (iii) facilitation services for potential investors, i.e., many IPAs assist foreign firms to identify potential locations, meet regulatory criteria, accelerate investment approval processes; (iv) policy advocacy, for example IPAs may have a role in providing feedback from foreign investors to policymakers, and may specifically lobby for pro-investment policies. The most publicised investment promotion activities are associated with the provision of financial and fiscal incentives to foreign firms. These may take the form of so called 'tax holidays', exemptions from import duties, and the offer of direct subsidies. Since 1998, special tax concessions have been offered to foreign MNEs by more than 100 countries (Avi-Yonah, 1999).

Investment promotion is not cheap. Ireland's investment promotion agency, the Industrial Development Agency Ireland, reported that its total expenditure per job created over the period 1997-2003 was USD 19,000 (IDA [2003]). In 1991 Portugal paid a $680 million grant to Ford/Volkswagen to encourage a $3.1 billion investment in Setubal, which it narrowly won from four competing European locations. In 1996 the Brazilian state of Parana attracted an investment by Renault involving 1,500 new jobs. In return for the deal Renault was offered a capital grant of $300 million, interest free loans, and a series of local tax breaks.

The considerable quantity of research on the benefits of FDI, despite the lack of consensus in the literature, has been used to justify these expenditures on policies to encourage foreign investment. However economists have been far less concerned with a second and equally important question: do measures to promote inward FDI actually work? Despite the analytical appeal of investment promotion, there are few empirical studies analysing its effect on investment volumes in international data. Testing the effectiveness of investment promotion in international data has been an elusive empirical question. Given the myriad factors determining the size of any nation's foreign direct investment flows, it is difficult to isolate the effect of a single (endogenous) policy regime.

References


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