Guest editor’s introduction to the special issue: Indian outward FDI and MNEs

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Following the ongoing liberalization and openness measures begun in the 1990s, an increasing number of Indian firms have progressively taken to outward FDI (OFDI), in line with their efforts to diversify away from domestic markets. This expansion has been heightened by market competition on firms’ home turf, the continued high growth of the home economy (leading to investible resources) and considerably expanding business prospects worldwide. Internationalization has gained strategic importance in the survival and growth of capable Indian firms in recent periods.

Although most of the Indian firms investing abroad are relatively small compared with their developed-country counterparts, a number of them have turn global in their operations. They tend to be involved in a wide range of manufacturing and services activities, with a notable presence in knowledge-based sectors. Some Indian firms have risen to leading global positions through mergers and acquisitions (M&As) and greenfield investments in industries such as pharmaceuticals, automotive, steel, information and communication technology (ICT) and petroleum refining. These emerging global players are acquiring particular relevance to host countries – developing as well as developed – in important ways.

Given the increase in their number and the geographical diversity of their operations over the past two decades, outward-investing Indian firms have attracted growing academic and policy attention in both developed and developing countries (e.g. Amendolagine et al., 2015; Sauvant et al., 2010; Balasubramanyam and Forsans, 2010). An important stream of the literature is devoted to understanding the dynamics of Indian OFDI flows in the framework of macroeconomic empirical modelling contextualized in the liberalization policies of the home and host countries and their developmental and locational advantages. The size of the home and host markets, the strength of trade flows between these countries, the host country’s policy on openness to inward FDI, the strength of the Indian diaspora, the endowment of

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natural resources, the exchange rate, and other factors have been the focus of empirical literature (e.g. Verma and Brennan, 2013; Anwar and Mughal, 2013; Nunnenkamp et al., 2012; De Beule and Van Den Bulcke, 2012; Pradhan, 2011; Pradhan and Singh, 2011; Dasgupta, 2009).

Another stream of the research on Indian OFDI has been directed at exploring the firm-level factors that shape Indian firms' responses to growing international competition or efforts to seek emerging opportunities through establishing overseas affiliates or acquiring overseas companies. In addition to using their existing firm-specific competitive advantages (e.g. Goldar, 2016; Narayanan and Bhat, 2011; Bhat and Narayanan, 2011; Singh, 2011; Pradhan, 2004), Indian firms are found to have been relying on the acquisition of companies abroad to access created assets such as technology, brand names, distribution networks and managerial skills (e.g. Pradhan and Singh, 2011; Pradhan and Abraham, 2005).

Industry-level analysis has also focused on the role of industry specificities, including institutional and policy arrangements governing competitive rivalry, and the creation and diffusion of technologies, which are important for promoting and facilitating the firm-specific competency building that is crucial for internationalization (e.g. Balcet and Bruschieri, 2010; Pradhan, 2010a, 2010b, 2008a). Analysis of Indian FDI also addresses its developmental impacts on home and host countries at the economy level or the firm level (Singh, 2013; Pradhan and Singh, 2009; Pradhan, 2008a, 2008b).

The papers in this special issue contribute to the existing knowledge on Indian OFDI and MNEs in respect of three dimensions: (i) the firm-level determinants of OFDI in the manufacturing sector; (ii) the competitive advantages of Indian MNEs in the pharmaceutical industry; and (iii) the impact of foreign research and development (R&D) investments on parent Indian firms' domestic R&D activities.

Firm-level determinants of OFDI in Indian manufacturing

As the developmental paradigm of India is undergoing significant transformation in the phase of high growth and accelerated liberalization that has been active since the 2000s, it is important to revisit the drivers of Indian OFDI. The paper by Ronny Thomas and K. Narayanan has carried forward the discourse on firm-level determinants by emphasizing the necessity to control for unobserved heterogeneity and endogenous initial conditions where productivity and technological efforts are included as heterogeneity factors determining the OFDI behaviour of Indian manufacturing firms. In accordance with the prediction of heterogeneous-enterprise models of internationalization, heterogeneity in productivity level is a key determinant of firms' progression in internationalization status from being a domestic player to becoming an exporter or an outward investor (e.g. Helpman et al., 2004).

Thomas and Narayanan have found that OFDI firms in Indian manufacturing are comparatively bigger, older, more technology intensive and more productive and pay higher worker compensation than exporting firms. The results from dynamic random-effects probit and tobit models further suggest that manufacturing firms' probability of undertaking OFDI and intensity of OFDI operation (OFDI share in total assets) are positively and strongly determined by past exports, productivity, R&D, capital goods import intensity, firm age, firm size and previous OFDI decisions. Disaggregating the study period into sub-periods (1998–2003 and 2004–2009) tends to indicate that the role of enterprise productivity in predicting the OFDI behaviour of firms is more relevant for the later period.

It may be worth comparing these findings with the results previously obtained by Pradhan (2004) pertaining to the OFDI behaviour of Indian manufacturing firms during the period from 1990/91 to 2000/01. Keeping in mind the limitations implied by the differences in the method of estimation and sample coverage of these studies, it may be that firm-specific factors such as firm size, firm age and in-house R&D intensity continue to be important drivers of the OFDI activities of Indian manufacturing firms. Both of these studies tend to confirm that past export experience is another crucial determinant of OFDI. The variables of labour productivity in the case of Pradhan (2004) and total factor productivity in the case of Thomas and Narayanan further indicate that productive firms that tend to efficiently utilize their resources turn out to be leading players in OFDI. The comparison also reveals that capital goods import intensity has assumed distinct relevance in the recent period, unlike in the previous period. Also, one may note that controlling for past OFDI status of Indian manufacturing firms is important while analyzing inter-firm differences in decisions to undertake OFDI.

Home country impact of international R&D investments

Issues of the home-country effects of OFDI have become more important, as Indian OFDI is expanding rapidly as an increasing number of Indian firms are turning into global investors. However, extant literature on Indian OFDI has largely revolved around trends, patterns and determinants of such investments. Only a handful of studies explore the impact of OFDI on exports by Indian parent firms (Singh, 2013; Pradhan, 2008a) or on domestic R&D activities (Pradhan and Singh, 2009). Thus, particular attention is warranted for exploring the ways in which OFDI affects the developmental parameters of the home economy.

The paper by Filip De Beule and Dieter Somers is an important contribution to the nascent literature in several ways. It deals with the subject of Indian MNEs undertaking international R&D investments, which is a relatively new phenomenon for developing-country OFDI and therefore little understood. Investments in foreign R&D laboratories by Indian firms can contribute to host-country technological activities in important ways, but the investing Indian firms may also be affected significantly. In addition to leveraging the abundant innovation supportive infrastructure available abroad, foreign R&D laboratories are likely to shape the future flows of new knowledge to the investing Indian firms. This may also influence the extent of R&D undertaken by these firms in the home country. A key question is how home country R&D of parent Indian companies is affected by their international R&D investments.

Results reported by De Beule and Somers suggest that foreign technology investments have a positive impact on the domestic R&D intensity of the Indian parent firms. Disaggregated analysis further indicates that investments in foreign R&D labs trigger a significantly bigger positive effect on the R&D intensity of the parent companies in the home country than do investments in design, development and testing abroad. Moreover, parent firms' domestic innovation is more positively influenced by their technology investments in developed countries than by those in developing countries. Thus, the positive contribution of foreign R&D facilities to home-country R&D activities is a distinctive feature of Indian OFDI in recent periods, which deserves to be highlighted. With appropriate policy measures, India can promote foreign R&D investments by firms to achieve strategic objectives of improved global competitiveness as determined by enhanced technological capabilities.

Comparative advantages and internationalization of Indian pharmaceutical industry

The internationalization trajectory of the Indian pharmaceutical industry has undergone rapid changes since the late 1990s (Balcet and Bruschieri, 2010; Pradhan and Alakshendra, 2006). In addition to exports, overseas greenfield investments and acquisitions, Indian pharmaceutical firms used a wider range of interfirm cooperation, such as strategic marketing alliances, collaborative research and out-licensing, as their strategy for global growth. An industry that was virtually dominated by foreign firms for the supply of modern drugs and medicines during the years from 1947 to 1969 has emerged as a globally competitive one since the 2000s, reflecting the rapidly growing trade surplus, increasing greenfield OFDI and surging overseas acquisitions.

The paper by Heather L. Taylor delves into the evolution of comparative advantages of the Indian pharmaceutical industry in the manufacture of generic drugs. Using a sectoral institutional framework, it shows that the changing capacity building and internationalization of nine Indian pharmaceutical companies are closely linked to institutional arrangements of corporate finance, corporate governance, industrial relations, education and vocational training, innovation transfer and public policies. From the early 1970s to the early 1990s, state industrial policies facilitated the growth of a self-sufficient pharmaceutical industry with enormous strength in generics and reverse process developments. This phase of growth was supported by family ownership and internal finance, lax enforcement of competition and a liberal intellectual property regime.

Since the late 1990s the industry has witnessed rapid changes with Indian pharmaceutical companies seeking entry into more competitive markets. This up-market internationalization necessitated firms' efforts to upgrade their research and discovery capabilities and to seek increasing specialization in contract research and manufacturing services. Leveraging their strong process development and internal R&D capabilities, a number of Indian companies forged strategic alliances and partnerships, including licensing agreements, joint R&D and marketing agreements with foreign companies. This phase of growth is now propelled by a broader form of financing structure marked by Indian firms' increasing inclination to tap global capital markets and consequently facing compliance with intensified norms of transparency and disclosure. The ever-growing importance of contract-based partnerships has provided a number of Indian pharmaceutical companies an opportunity to acquire and develop a set of firm-specific competitive advantages outside the context of their domestic institutional configuration and still participate in the process of internationalization. With the implementation of the product patent regime, the role of state policy has shifted from direct intervention to a facilitation based on tax breaks and tax deductions for R&D and for initiation of various programmes and incubation projects to support the technological upgrading of the industry.

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