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Impact of American Investment in India

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Abstract

The United States is India's largest trade and investment partner and is engaged with India at various levels of economic cooperation. This paper studies the direct and indirect impact of US FDI inflows in India and identifies the challenges faced by US investors.

The paper is based on secondary data and information from primary firm level surveys. Analysis of the secondary data helped in identifying sectors where the overall impact of US FDI was high. A primary survey was then conducted in selected sectors comprising in-depth personal interviews and consultation meetings with relevant stakeholders. The main contribution of this paper is to our understanding of the impact of FDI through these surveys.

The largest recipient of US FDI in the last few years has been the services sector, followed by manufacturing. The sectors chosen for study in this paper are finance, fast-moving consumer goods (FMCG), IT, pharmaceuticals, consulting, and automobiles. They were chosen primarily because the spillovers (of the impact of investment) to the local/consumer level are relatively high. The primary survey of American firms and other stakeholders was carried out in Delhi NCR, Mumbai, Bengaluru and Hyderabad in 2013. The findings of the paper include some examples of the direct impact of American FDI - the employment generated by American firms in India is considerable. Exports from these firms are also significant.

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Impact of American Investment in India

Saon Ray, Smita Miglani and Neha Malik

1. Introduction

The contributions of Foreign Direct Investment (FDI) to the host country are numerous and varied. Direct effects are often measured in terms of inflows of foreign capital, which affect employment, R&D and forge export channels. The indirect (spillover) effects take place through the impact of multinational enterprises (MNEs) affiliates on operations of local firms (through channels such as skill and knowledge transfers).

While there are many studies on the impact of FDI on host countries, there are very few studies pertaining to the impact of bilateral FDI flows. The present paper is an attempt to fill this gap and studies the direct and indirect effect of FDI inflows from India's largest investor – the United States of America (USA or US). The main contribution of this paper is an addition to our understanding of the impact of FDI through a firm-level survey.

The paper is organized in the following manner: Section 2 presents the trends in FDI, globally as well as for India. Section 3 presents the analytical framework of the study, discusses the methodology of the study and reviews the literature briefly. The latter highlights channels through which FDI affects the host economy. Section 4 discusses the findings of the primary survey, and Section 5 concludes, offering some policy prescriptions.

2. Trends in FDI inflows

2.1 Global trends in FDI Flows

Global FDI[1] flows in the decade 2003-12, steadily rose from 2003, reached a peak in 2007 at approximately US $ 2 trillion, fell sharply in 2009 and have been volatile since then

[1] According to UNCTAD (2007), 'FDI is defined as an investment involving a long-term relationship and reflecting a lasting interest in and control by a resident entity in one economy (foreign direct investor or parent enterprise) of an enterprise resident in a different economy (FDI enterprise or affiliate enterprise or foreign affiliate). Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates.' FDI inflows comprise capital provided (either directly or through other related enterprises) by a foreign direct investor to an FDI enterprise. FDI includes the following components: equity capital, reinvested earnings and intra-company loans.
There are many types of FDI – Greenfield investment (GF), and, Mergers and Acquisitions (M&As). Since the late 1980s, FDI has increasingly taken the form of cross border M&As rather than Greenfield investment (UNCTAD, 2000). Greenfield investment involves building new facilities or expansion of existing facilities. M&As involve the taking over of an existing foreign firm and may involve capacity building. FDI could be horizontal or vertical – either in the same stage of production or in the backward or forward stage of production. FDI can involve the creation of a 100 per cent subsidiary (wholly foreign-owned enterprise, WFOE), which could be either a GF or M&A. It can also take the form of international joint ventures (IJVs), which could also either be GFs or M&As. India and China, have, till recently, allowed investment mostly in the form of IJVs (Lahiri, 2009). M&As were the main force behind the rise of FDI in the period between 1990 and 2000. The total number of M&As, cross border and domestic, has grown at 42 percent annually between 1980 and 1999.

(UNCTAD, 2014). In 2011, they rose to US$ 1700 billion, before plunging to 1330 billion in 2012, and 1452 billion in 2013. FDI inflows to developed economies increased by 9.5 percent, while those to developing countries rose by around 6.5 percent, between 2012 and 2013. Developed countries attracted nearly 39 percent of global FDI flows while developing countries got close to 54 percent in 2013. The rest went to transition economies (UNCTAD, 2014). Developing countries accounted for more than half of global FDI in 2012, surpassing the figure for developed economies for the very first time. This was driven largely by investments in Asia and Latin America. Although India has continued to account for the bulk of inflows to South Asia, the FDI inflow to China has always been substantially larger than that to India.

2.2 Trends in India

Foreign Direct Investment, in India, is defined as long term investment by a non-resident with 10 percent or more control. FDI flows to India picked up after the economic liberalization programme in 1991 and subsequent opening up in the 1990s. India has emerged as one of the major recipients of FDI flows among the emerging market economies in the last few years and was among the top twenty host economies in 2012 and 2013 (UNCTAD, 2014). FDI flows to India increased significantly over the last decade. FDI inflows in India increased from around $3.5 billion in 2000, to around US$ 36 billion in 2011. Despite the turmoil in the world economy, India continued to attract substantial FDI inflows, due to its flexible investment regimes.

Over the years, both the composition and the route of FDI inflows have changed. The automatic route has emerged as the most important channel of FDI flows to India, followed by reinvested earnings and acquisition of shares (see Appendix 1A). Goel et al. (2012) observe that the majority of the FDI flowing into India is via the automatic route and through the acquisition of existing shares, and not through the Foreign Investment Promotion Board (FIPB). FDI through the government approval route, on the other hand, has declined over time in line with policy reforms.

Recently, in April 2012, India allowed full foreign ownership in parts of the agriculture sector, (more specifically, in the development and production of seeds and planting material), animal husbandry, pisciculture, aquaculture under controlled conditions and services related to agribusiness and related sectors. In addition, the previous cap (51 percent) on foreign investment was removed to pave the way for a 100 percent investment in single-brand retail.[2] The Companies Act was amended in 2013 and new procedures for audit and accounting, corporate governance, inter-corporate loans/investment, and amalgamations and demergers have been laid down.[3]

The value of all M&As has risen from 0.3 percent of world GDP in 1980 to 8 percent in 1999 (UNTCAD, 2000).

[2] The FDI regime in selected sectors is given in Table 1A of Appendix A.

[3] Available at http://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf

Countries with major investments in India include the United States, Japan, and Germany. Although Mauritius is the largest investor in terms of the value of FDI inflows, the US surpasses other leading investors in terms of the number of FDI projects and is engaged at various levels of economic cooperation.[4] The source-wise investment in terms of value of FDI is presented in Table 1.

Table 1: Foreign direct investment inflows by origin* for selected countries (US$ million)

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14[a]
Mauritius	6363	11096	11229	10376	6987	9942	9497	4113
Singapore	578	3073	3454	2379	1705	5257	2308	3678
US	856	1089	1802	1943	1170	1115	557	721
UK	1878	1177	864	657	2711	7874	1080	3187
Netherlands	644	695	883	899	1213	1409	1856	1700
Japan	85	815	405	1183	1562	2972	2237	1009
Cyprus	58	834	1287	1627	913	1587	490	464
Germany	120	514	629	626	200	1622	860	849
France	117	145	467	303	734	663	646	288
UAE	260	258	257	629	341	353	180	230
Total inflows, based on equity capital components	12492	24575	27330	25834	21383	35121	22423	18749

Source: Compiled from various factsheets on FDI of the DIPP,[5] Government of India.

Note: [a] data upto January 2014.* Equity inflows

The sectoral composition of FDI to India has undergone significant changes since the 1990s. From being mainly concentrated in manufacturing during the pre-liberalization period, the bulk of FDI flows have been directed towards the services sectors in recent years. Sectors with the largest US FDI inflows during 2004-12 were financial services, food and beverages (within manufacturing), and construction (see Table 2A). This conforms with the general pattern of FDI inflows to India. Most countries exhibit this pattern except South Korea, from which inflows to India into the manufacturing sector are greater than those into the services sector (Ray and Kaushal, 2012).

McKinsey Global Institute (2006) observe that MNEs are increasingly either seeking growth by entering developing countries' market or reducing costs by relocating parts of the production process to countries with lower labor costs.[6] A comparison of the industry composition of US[7] overseas FDI in China (and other Asian countries) with that in India, shows that manufacturing accounts for a large share of US FDI in China and the other

[4] Ernst & Young (2012) "Ready for the transition", Attractiveness Survey, India.
[5] FDI recorded by DIPP is invariably lower compared to data from RBI (Rajan et al. 2011).
[6] While the former can be viewed as market seeking, the latter is viewed as efficiency seeking.
[7] Ghosh and Wang (2011) examine how Canadian and US investors expanded opportunities in India and China during 1989-2001. Their results indicate that while the US looks to invest in growing economies that is not the case with Canada.

dynamic East Asian economies.[8] In India this share is rather small (Hoda and Rai, 2014), presumably because of the nature of the domestic investment climate (Athukorala, 2013). Most of US manufacturing FDI is in ‘global production sharing’ activities (for electronics and electrical goods in particular). The investment environment is India is still not suitable for such activities. [9]

Satyanand and Raghavendran (2010) found that the main drivers of foreign investment in India have been liberalization in FDI policy, a globally competitive workforce, and rapid GDP and market growth. Prime et al. (2012) identifies reasons for the large differential in FDI received by China over India by using the four parts of Porter’s diamond. They argue that the differential is largely due to China’s fortuitous ‘location and timing’ that placed it in the centre of the building of production networks with East Asian investment beginning in the early 1980s. Bajpai and Dasgupta (2004) examine the investment climate in India and conclude that it falls short of China’s in areas such as the retail-trade sector, export-oriented manufacturing, creation of quality SEZs and the proactive role of state governments in aiding the FDI process in conjunction with the central government and private sector. Nagaraj (2003) suggests that a realistic foreign investment policy is needed for enhancing domestic production and technological capability in order to access the external market for labor intensive manufactures for India, as has happened with China.

Dreher et al. (2013) examine approved technical cooperation cases and FDI to India in 1991-2004 to assess the impact of country characteristics on the number of projects by 45 countries of origin. Market size, sophistication of financial markets, human capital endowment, country of origins’ international experience, host countries’ level of development and the protection of foreign investors through bilateral investment treaties are determinants of FDI and affect the type of engagement by foreign investors in the post-reform period.

3. Framework and methodology

3.1 The theoretical framework

FDI has both direct and indirect effects on the host economy. A distinction has been made in the literature between the ‘resource seeking’, ‘market seeking’ and ‘efficiency seeking’ nature of FDI (also known as ‘export-oriented’ FDI) according to the factors affecting decisions of multinational enterprises (MNEs) to locate production or operations in a given host country (Athukorala, 2009). Further, there are types of FDI: cross border M&A and Greenfield investments. Both types of ventures further involve three components: equity capital, retained earnings and intra-firm borrowings.

The impact of FDI on an economy depends on the type of FDI it attracts. Keeping this in mind, the impact of FDI can then be broadly classified into direct and indirect effects on the host economy. Direct effects are often measured in terms of inflows of foreign capital, which lead to effects on employment generation, R&D, forging export channels, etc. The indirect

[8] See Lipsey (1998) and Mataloni (2007).
[9] See also the literature review for other explanations of this phenomenon.

(spillover) effects take place through the impact of MNE affiliates on operations of local firms (through channels such as skill transfer when workers trained in MNE affiliates move to local firms, knowledge transfer through subcontracting relationships and transmitting new managerial/marketing practices through demonstration effects, etc.) This also induces greater competition and forces improvements in the industry. However, disentangling the effects of FDI is not easy, since there are many channels through which it can affect the host economy (Lipsey, 2004; Barba Navaretti and Venables, 2004; Caves, 1996).

The present paper studies the direct and indirect effect of FDI inflows in India from the US through a firm-level survey.[10] This approach enables us to specifically focus on channels through which the impact takes place. US FDI (and FDI in general) in India is basically the 'market seeking' type.[11] The location decisions of firms primarily depend on the prevalence of production/distribution opportunities in the host country aimed predominantly at meeting domestic demand. Most of the available studies are based on the analysis of secondary data, which helps only to identify the impact in general terms. In this paper, secondary data has been used to identify the sectors which have been subsequently taken up in the firm level survey.

The purpose of the survey was to gather specific details on the economic impact of the investment (both direct and spillover effects) such as employment statistics, R&D generation, best practices and skill enhancement. Understanding the regulations that govern the FDI regime in a country also form an integral part of its business environment because there are certain necessary preconditions, as the literature shows, for FDI to have an impact on a host economy. By focusing on the barriers[12] faced by US companies while investing in India and their perception of the domestic business climate/regulatory framework, an understanding of the missing preconditions, in the Indian context, is presented.

3.2 Literature Review on impact of FDI

The socio economic impact of FDI on a given host economy has been examined in the literature through means such as wealth creation, economic development, economic growth, improvements in standard of living, and even improvements in productivity and supply chain benefits as a result of FDI in the telecommunication and banking sector. A table summarizing the studies that have analyzed the channels through which FDI affects the host economy is presented in Appendix 3A. The objective of this discussion is to dissect the channels through

[10] Most of the available studies are based on the analysis of secondary data, which helps only to identify the impact in general terms. An exception is McKinsey Global Institute (2006).

[11] However, as noted by McKinsey (2006) FDI in the Indian BPO sector is efficiency seeking. Efficiency seeking FDI has had overwhelmingly positive impact on host countries. Foreign players provide access to export markets through their global distribution networks and brands. In case of Indian IT/BPO, the example of IBM locating their off-shoring operations to India gave a great boost to that sector. Market seeking FDI tends to improve sector productivity which can be direct (as in case of Brazilian consumer electronics) or indirect as in the case of India auto (productivity improvements in Maruti Suzuki) through increased competitive pressure and exit of firms.

[12] The survey also examined the barriers faced by US firms in investing in India.

which some of these impacts transmit to the economy and will be studied further in the section on the survey of American firms in India.

Several authors have empirically examined the effect of FDI on the growth of a country. While the effect of FDI on growth is ambiguous, it is certain that it depends upon the presence of certain conditions in host countries such as resource endowment, infrastructure, and the business environment. Also, certain kinds of investment are likely to cause more spillover effects in the host economy. The importance of a certain threshold of human capital seems to be critical for the positive impact of FDI on growth and which is discussed further below. The impact of FDI on growth works through increasing the productivity, an important channel which is also discussed below.

The literature covers both, the positive and negative effects of FDI inflows to developing countries in the areas of politics, society, technology, finance, environment and culture. Many of the negative effects are short-term and the standard of living for many developing countries would be worse off without FDI flows. Some authors feel that it remains the responsibility of MNCs and the governments of the more developed countries, to assist developing countries in building the infrastructure necessary to reap the benefits of FDI, to continually provide financial assistance in the form of long-term productive capital, and to reinvest profits inward rather than repatriate them.

The literature on the impact of FDI on the poverty of a country finds that FDI does contribute significantly to economic development but argues that certain preconditions seem to be necessary; these depend on the nature of human capital, domestic fixed capital formation, government spending, and the trade orientation of the region. Also, certain policies of the host governments that seek to alleviate the negative effects of the presence of foreign firms on local small and medium sized firms by closing off certain sectors, industries and activities, reducing import dependency of manufacturing industries, and promoting minimum wages that guarantee a reasonable labor income, are also necessary.

A strand of the literature on the effect of FDI on employment and wages suggests that there is a positive effect of FDI on human development through its effect on economic growth and infrastructure creation. Another strand has examined the impact of FDI on wages and working conditions in developed and developing economies, with particular emphasis on the wages and working conditions offered by OECD-based multi-national enterprises (MNEs) to their workforces in non-OECD countries. The impact of MNEs on wages and working conditions varies in complex ways across different types of investment, workforce groups and national environments. This means that the governments and other stakeholders need to take measures to enhance the contribution of FDI to economic and social development, including measures to enforce labour standards and public and private initiatives to promote responsible business conduct.

While some authors find a positive relationship between foreign equity participation and plant performance implying that foreign participation does indeed benefit plants that receive it, others find that FDI has a negative and significant coefficient for some industries, indicating that foreign firms are less inefficient than domestic firms in these selected industries. One possible reason is that cross sectional studies tend to overstate the intra industry spillover effects, as they are possibly unable to control for unobservable industry heterogeneity and hence get either positive or negative results.

A study on the effect of FDI on exports finds that an increase in the stock of FDI enhances the horizontal diversification of exports. The actual magnitude of the effect however, varies greatly across countries depending on the existing stock of FDI and stage of diversification, giving rise to an almost inverted U-shaped relationship.

Studies analyzing the inflow of FDI into a country are unanimous in that positive spillovers in the host country will occur if there is an environment conducive to the inflow of FDI. These conditions refer to an environment that is adequate in providing human capital, private and public infrastructure, legal protection, and public infrastructure such as educational institutions and publicly funded R&D. This research also discusses host country factors that are likely to attract export oriented FDI; these involve fragmenting the production process geographically by different stages. Important location factors thought to influence this type of FDI are labor costs, infrastructure, trade barriers, exchange restriction and policies favorable to FDI.

Some papers examine the host country determinants of FDI flows in services as a whole, and in the major service industries. Institutional quality and democracy appear important for FDI in services and such FDI is market-seeking, and unaffected by trade openness. Others investigate the true determinants of FDI and find that traditional gravity variables, cultural factors, parent-country per capita GDP, relative labor endowments, and regional trade agreements are important. In some instances, the importance of industrial agglomeration in determining the locations of multinational companies has been emphasized: it has been found that US affiliate activity in manufacturing is more concentrated in countries where skilled labor is abundant. US manufacturing MNEs tend to engage more widely in outsourcing and move manufacturing activities offshore to take advantage of specialized contract manufacturing.

The main conclusion that can be drawn from the survey of the literature is that while there are many benefits of FDI, certain preconditions seem necessary in the host country to enable them to reap the benefits. These preconditions range from infrastructure, to environment which includes the nature of human capital, domestic fixed capital formation, government spending, trade orientation in the region, and the legal environment. In the case of innovation, public infrastructure such as educational institutions and publicly funded R&D also add to the absorptive capacity.

3.3 Methodology

This paper uses a qualitative approach rather than trying to quantify the effects of FDI in India. This involves identifying sectors where US investment is relatively high, followed by an assessment of impact in forms such employment creation, contribution to exports, technology transfers, etc. While there are many studies examining this issue quantitatively, there are problems associated with availability of data, prevalence of informal markets and unorganized information flows in developing countries. Also, the methodologies adopted in many econometric studies are unable to distinguish between various channels through which FDI affects the host economy (Javorik, 2008).[13]

This study is based upon the results of a primary survey and analysis of secondary data. Secondary data was analyzed to help identify sectors where the overall impact of US FDI is high. A primary survey was then conducted in selected sectors; in-depth personal interviews based on semi-structured questionnaires and consultation meetings with relevant stakeholders were held in each sector.

The sectors chosen for study in this paper are finance/banking, fast-moving consumer goods (FMCG), information technology (IT), pharmaceuticals, consulting, automobiles and others.[14] The survey was carried out in cities where US FDI flows are concentrated: Delhi/NCR,[15] Mumbai (Maharashtra), Bengaluru (Karnataka) and Hyderabad (Andhra Pradesh) during April-September 2013. A snapshot of the survey is given in Table 4A.

The purpose of the survey was to gather specific details on the economic impact of the investment (both direct and spillover effects) such as employment statistics, R&D generation, best practices and skill enhancement. Understanding the regulations that govern the FDI regime in the country also form an integral part of the business environment in the country as certain preconditions are seen as necessary (also emphasized in the literature for FDI) to have an impact on the host economy. By focusing on the barriers faced by US companies while investing in India and their perception of the domestic business climate/regulatory framework, an understanding of the missing preconditions in Indian context is presented. This paper contributes by qualifying some of these findings in a nuanced manner.

4. Economic impact of US investment in India: findings from the primary survey

This section broadly outlines the findings of the survey.[16] There are many dimensions of the impact of FDI on host countries since FDI has direct and indirect effects on the host economy (detailed in the literature review). The direct effect of FDI is felt at the level of the firm or company since it allows for construction of new facilities or plants, acquisition of equipment and supplies, and hiring/training of workers. A dissection of the channels through which

[13] McKinsey Global Institute (2006) notes that a case study approach allows a distinction between different kinds of FDI: a) motive of FDI (whether it is market seeking or efficiency seeking), b) type of investment made (through Greenfield which involve new plants, or M&A which involve transfer of existing assets or expanding the existing operations of MNEs) and c) stage of investment (whether early or mature).

[14] 'Others' here represents industries such as paper, chemicals, ecommerce, and education.

[15] NCR stands for National Capital Region.

[16] Some details of the survey, including the questionnaire, are available in Ray et al. (2014).

some of these impacts of FDI are transmitted to the host economy is made and discussed below.[17]

4.1 Direct impact

The sectors chosen for study in this paper are the finance/banking, fast-moving consumer goods (FMCG), information technology (IT), pharmaceuticals, consulting, automobiles and others. The determinants of FDI flows in the country varied with sector. Broadly, a good growth rate of the country over the last few years, favorable government policies and low-cost workforce, encouraged investments. Given the diverse geographical nature of the country and its federal set-up, these factors also influenced companies' choice of location for their offices/plants.

American companies have a significant presence; and employ a significant number of people in all the sectors chosen for the survey, In the auto industry, Ford India Private Limited and General Motors India Private Limited have vehicle manufacturing facilities and engine plants in the country. The operations of Ford India Private Limited support Ford's global operations in the areas of IT, accounting and finance, and automotive operations support, global analytics and engineering services. Some manufacturers in the auto component segment manufacture a wide array of components while others have their own assembly units and also serve as original equipment manufacturers (OEMs) for automobile manufacturing companies. These companies, though not many in number, have brought in the latest technologies and some of them are exploring the possibility of manufacturing for export markets. Some OEMs have purchase offices in India to source their global requirements.

The Indian financial sector comprises commercial banks, financial services and/or non-banking financial companies (NBFCs), stock exchanges and insurance. American banks with branches in India include the American Express Banking Corporation, Bank of America, Citibank N.A. and J.P. Morgan Chase Bank N.A., while American banks with representative offices in India include The Bank of New York Mellon Corporation and Wells Fargo Bank N.A. The others are either standalone NBFCs and/or off shoring offices of American banks. All three entities, banking, non-banking and sourcing (as a subset of non-banking), have generated significant employment opportunities in India. Our survey findings suggest that most American banks are set up as wholly owned subsidiaries (WOS) of the parent company. Some American banks have set up NBFC entity/(ies) such as wealth and/or asset management businesses and investment advisory services in India. These banks and NBFCS also have off shoring facilities which are mostly 100 percent export-oriented units. Cost arbitrage was the most commonly cited reason for setting up business in India. Other factors include arbitrage opportunities on the technical and operational fronts.

[17] Inputs of the individual (surveyed) companies comprising a particular sector have been collated to arrive at a broader sectoral view, in some cases. Some companies' names have been withheld upon request.

In the FMCG sector, American companies also sell consumer products directly in India. Some well-known names in the sector are Procter & Gamble Company (foods, cleaning agents and personal care products); PepsiCo Inc. (food and beverages); Coca-Cola Company (beverages); and Amway (direct selling of homecare and personal care products). The survey focused on seven categories of FMCG products: skin care, hair care, detergent powder, cold drinks, toothpaste and packaged food. American companies have entered the Indian market and are performing well in each of these segments. Companies such as Procter & Gamble, and Dupont are large industrial groups and sell multiple products. Product customization is offered by companies to attract a wider range of customers. The products meet global quality standards and are distributed through established supply chain networks. They provide employment to several thousand people.

In the IT[18] sector, multinational corporations (MNCs) of US origin are present in all segments of the industry. The survey sample for this study covered a few firms in all segments. Microsoft Corporation has been a pioneer, operates through six business units in India and has been able to contribute significantly to employment (5800 people) and sharpen HR skills. Other significant benefits include employment generation and improved human resource (HR) skills. According to the National Association of Software and Services Companies (NASSCOM) (2010), the US was the biggest market for the Indian Business Process Outsourcing (BPO) industry, accounting for a major share, 60.4 percent, of total BPO exports in 2010. Companies serving the US markets have located specific parts of their value chain (labour intensive data management and customer support) in India and created a new and rapidly growing sector with significant employment generation. [19]

In the pharmaceutical industry, American pharmaceutical companies have collaborated with their Indian counterparts in various segments of the industry. For instance, some have formed alliances with local generic pharmaceutical companies with the purpose of jointly manufacturing and marketing drugs. India is also a preferred manufacturing location for over-the-counter (OTC) drug products for export to other markets. There are other firms involved in pharmaceutical packaging and production of medical devices which are classified under the healthcare sector. Recently, a pharmaceutical packaging firm (manufacturer of rubber and

[18] The Indian IT sector can be divided into three major segments – software, IT services and ITeS-BPO (IT enabled services-business process outsourcing). Each of these can further be divided into sub-segments. The software segment can be divided into software products and engineering and R&D services. The IT services segment can be divided into project-oriented services (IT consulting, systems integration, core architecture data model, network consulting and integration and software testing), core IT outsourcing services (application management, IS outsourcing and web or e-commerce services) and training and support services. The ITeS-BPO segment includes client interaction, financing and accounting, human resource (HR) and knowledge process outsourcing (KPO) services.

[19] Mckinsey Global Institute (2006) notes that the nature and impact has been different for different segments in the IT sector: the strongest positive impact has been made in the ITeS-BPO segment followed by the other two segments. In the IT services and software segments, US FDI has enabled in increasing size of operations and gradual moving up the value chain. On the other hand, in the ITeS-BPO segment, US FDI has been a catalyst for creating the segment, driving its growth and creating large-sized companies. US companies played a positive role by infusing capital, training labour, demonstrating value and increasing the competitive intensity of the segment. Companies like American Express and GE were the pioneers in off-shoring operations to India and this encouraged activity and dynamism in the sector which played a positive role in establishing India as a key destination for such services.

aluminum caps used in injections), currently involved only in sales and marketing in India, established a manufacturing base. It will only manufacture the core product, the raw material for which will be imported from the US and Germany. The pharmaceutical drug makers have generated significant employment. For example, J&J, India, employs 3500 direct employees and 7000-8000 indirect employees in both, white collar and blue collar jobs. Since the introduction of product patents, there has been considerable inflow of foreign investment to this sector, specifically by US companies.

Consulting services sector in India can be broadly categorized into management consultancy and engineering consultancy. Over the last few years, India's consultancy sector has grown rapidly owing to factors such as liberalization of the FDI regime and cost arbitrage. Management consultancy usually comprises professional services such as accountancy, audit, assurance, tax, and advisory. The focal point of this survey was the management consultancy and the impact of the US investment on it. Engineering/IT consulting firms have not been included in this section. Most companies offering such services are set up as a brand. Some of these have also set up a sourcing/export unit for the US parent. US consulting firms which are established as a brand include PWC, KPMG, E&Y and Deloitte. All of them operate under a slew of verticals such as accountancy, auditing and tax. Deloitte and E&Y also have their sourcing entities/ export units in India. The export unit of Deloitte accounts for almost 10 per cent of the revenue of the global business. These firms have generated significant employment opportunities. PWC, KPMG, E&Y and Deloitte together account for approximately 37000 employees across India.

A snapshot of the nature of US investments in India categorized by area of operation is given below.

Table 2: Main areas of operation of American firms

Sector	Area of operation	Contribution
Automobile and auto-components	➢ Manufacturing: Passenger cars; engines and critical components ➢ Back-end operations: IT, accounting and finance, financial services and automotive operations support, global analytics and engineering services.	➢ Manufacture of high-end automobiles
Banking/finance	➢ Outsourcing operations - advisory services, asset management solutions ➢ Data and risk management ➢ Client reporting ➢ Credit research	➢ Vast network of online banking and promotion of plastic money
Biotechnology		➢ R&D; development of hybrid seeds
Consultancy	➢ Solution designing ➢ Project management	➢ Promotion of outsourcing activity
FMCG	➢ All major FMCG segments	➢ Greater choice of products to consumer ➢ Organization of supply chain networks
IT	➢ Software development and	➢ Promotion of outsourcing activity

Sector	Area of operation	Contribution
	management ➢ IT services ➢ ITeS-BPO	
Pharmaceuticals	➢ Manufacturing of branded generics ➢ Healthcare equipment	➢ Diversification of presence across segments and access to high-efficacy drugs
All sectors		➢ Corporate best-practices ➢ Revenue and employment generation

Source: Authors' compilation based on primary survey

As is apparent from the discussion above, the employment provided by American firms in India is considerable. American firms have set up manufacturing facilities as well as R&D centers in the country and are engaged in state-of-the-art technology development. Exports from these firms are also considerable. Hence the direct effects of US FDI are well captured.

4.2 Indirect impact

The most important indirect effect is through the R&D activities performed by the American companies and the spillovers thereof. For example in the auto sector, General Motors India Private Limited has a technical centre in Bangalore which is involved in the engineering, design and R&D activities for developing alternative, environment-friendly technologies of the future.

In the banking sector, banking operations have facilitated transmission of technology; Citibank has played a key role in this area by establishing Citicorp Overseas Software Limited and Iflex Solutions Limited. It also pioneered the ITeS industry in financial services through Citigroup Global Services Limited (CGSL) (which was later acquired by TCS). Citibank has also been pivotal in launching SME banking, which has helped MMEs, SMEs and Emerging Local Corporates manage their businesses. Both banking as well as non-banking US entities have generated liquidity in the money as well as capital markets. One American asset management company has contributed to liquidity in the Indian stock/capital market through sales of mutual funds. Citibank has also facilitated liquidity by way of transient funds.

The companies have brought in corporate best practices in the FMCG sector. Companies have also invested in supply chain management to reach deeper into the rural markets. According to some respondents, FDI in this sector has had a positive impact on the economy in terms of knowledge spillovers in human resources, and introduction of global best practices have set examples for other firms in the industry to follow.

American investment has been critical to the IT industry. It has provided a tremendous boost, bringing in capital and technology. Companies such as Dell have also set up an assembling and R&D centres in India in addition to captive BPO, sales and marketing, financial services and analytics and software services. Many companies such as Mphasis started with a BPO arm and later moved on to software application development in the infrastructure sector. IT services are provided in Europe, India and Asia Pacific – in both mainstream software development and backend operations such as HR services and dealership services. Other companies like ECIL-RAPISCAN has supplied X-Ray baggage/cargo inspection systems (XBIS) to Indian customers such as the Customs, Airports Authority, Parliament House, defence, air lines, and state police. US investment is however, inclined more towards the Indian software segment as compared to hardware, both in terms of manufacturing and R&D. Likewise, exports from the software and services segments are higher. According to NASSCOM (2010), India's contribution to new patents in the world is less than one percent. The Indian IT industry needs to develop innovative solutions in climate change, mobile software applications, clinical research, automotive platform development, cloud-computing technology-enabled healthcare delivery and economical medical device designs.

Investment by the US healthcare and pharmaceutical companies has created R&D capacity and led to significant benefits such as introduction of medical devices/drugs for life threatening diseases, technology spillovers; it has also led to the integration of India into the global value chain. For instance, the pharmaceutical vertical of Johnson and Johnson (J&J) was the pioneer of HIV drugs in India. It has also created a considerable R&D base for making branded generics in the country. The pharmaceutical segment of J&J has manufacturing bases at locations including Himachal Pradesh, Chennai, and Mumbai. The survey suggests that while US drug makers have established manufacturing units in India, the same does not hold true for manufacturers of high-end medical devices. For instance, medical devices sold in India by J&J are imported from China. Varian, a manufacturer of medical devices and software for treating cancer, also does not have a manufacturing facility in India.

In the consulting sector, there has also been significant knowledge transmission from the home to the host country in the form of advanced software, internal training programs, etc. Since research and communication skills are important for most of these companies, they take initiatives with respect to upgrading skills, building capacity by way of training programs. For instance, some of the best practices of Deloitte include streamlining career and HR management, knowledge transmission (from the parent company) in the form of in-person connects, leadership programs, etc. In Corporate Executive Board (CEB), a career committee is appointed which ensures downward and upward review calibration so as to eliminate any element of bias in the process of appraisal. There is however, a common view in relation to the skill deficit in India, especially in areas of critical thinking and communication.

4.3 Problems faced by firms

Table 6 summarizes some of the problems faced by the firms in each of the sectors surveyed. This can be used further to quantify the indirect effects of American FDI in Indian and capture the spillovers of such investment.

Table 3: Key problems faced

Sector	Problems
IT	Taxation and regulatory delays Arbitrariness in procedures Unclear regulations (w.r.t. setting up businesses, transfer pricing)
Banking/finance	Regulatory concerns
Pharmaceuticals	Weak intellectual property rights (IPR) regime Unclear regulations on clinical trials
Automobile and auto-components	Infrastructure related concerns

Source: Authors' compilation based on primary survey

In the IT sector, companies have faced problems with the taxation and regulatory departments of the Government of India in the past. There have been three main areas of concern. First, service tax refunds are a problem in the indirect tax segment, while corporate tax collection procedures are arbitrary and confusing in the direct tax segment. There are also problems with transfer pricing regulations where there is a lack of clarity on what constitutes taxable income. This problem has been deterring investment and transfer of technology in the sector. According to the companies surveyed, clear cut rules in the transfer pricing segment would help avoid such problems.

In the banking sector, the main regulatory concerns for the American banking entities include the RBI's requirement to open branches in smaller towns to facilitate financial inclusion. According to a company surveyed, branches in Tier II cities are not sustainable since the workforce in such cities lacks the required skill set. There is also some discrimination against foreign (and American) banks usually in relation to audit and compliance. Revisions in the lending norms for priority sectors have also hurt foreign banking entities. In addition, there are bottlenecks related to the infrastructure. The current stamp duty structure which varies according to the jurisdiction also needs to be reviewed. For American NBFCs with financial or sourcing operations established in India, regulatory concerns differ in nature. For entities involved with financial services, political uncertainty and a widening skill mismatch are the main bottlenecks. Moreover, the performance of American NBFCs into segments such as asset management and investment advisory services has been hampered by the still nascent capital markets and immature investors in India. For instance, growth in the asset management business of one company surveyed has not met expectations mainly because mutual funds are still not popular in India. Gold and real estate are viewed as better investment opportunities although the Government of India (GoI) has been trying to incentivize the mutual funds industry in Tier I and Tier II cities where gold investment tends to be high. Sourcing entities face challenges in the form of current transfer pricing norms and service tax refunds. According to one of the American NBFCs surveyed, distortion in transfer pricing norms dis-incentivizes transfer of high value jobs to India and hinders growth of intellectual capital. The other pressing issue is with respect to the service tax refunds wherein a substantial backlog has not been released by the service tax authorities. Limited availability of domain knowledge is another hindrance which is connected with the delay in the establishment of the mutual fund industry in India.

In the pharmaceutical sector, according to the survey, hindrances to the growth of the pharmaceutical industry company in India lie mainly in the current regulatory structure and pricing mechanisms wherein compulsory licensing is a major barrier.[20] In some cases, healthcare providers themselves determine the price of drugs. Other problems include a lack of coordination among different ministries, absence of a separate bill governing medical devices which are currently categorized under the Drugs and Cosmetics Act, 1945, and inclusion of as many as 654 drugs under the Drug Price Control Order. Availability of animals for laboratory research is also a problem. Delayed licensing, demand for excessive documentation and factory assessments also hampers the industry's growth. As for the manufacturers and sellers of medical devices, there is a dearth of program managers in the Government which affects execution of projects. Pharmaceutical companies can start manufacturing medical devices in India if there are incentives. For the pharmaceutical packaging industry, it is easier to get approvals. The medical device and components manufacturers have a fairly large presence in China which offers a much larger market size than India. The view is also that the Chinese government provides a more conducive environment for establishing manufacturing facilities.

4.4 Ease of setting up a business unit in India

One other objective of the survey in this sector was to get an insight into the ease of setting up a business unit since it is part of the client advisory work performed by consulting firms. One view that was presented in this connection was that the present structure of regulations, led to a preference for the Foreign Venture Capital Investment (FVCI) route over FDI. Hence, some FDI comes in the garb of FVCI. Further, the route or type of investment depends on the nature of the sector seeking investment. For instance, in the infrastructure sector, projects require regular approvals and hence, a Joint Venture (JV) model is more viable. Financial services, on the other hand, usually follow the route of a wholly owned subsidiary. Within the financial services there is further segmentation – a separate set of rules applies to insurance.

Closure of a company is an extremely onerous task wherein the Registrar of Companies (ROC) in the Ministry of Corporate Affairs poses a major hurdle. Repatriating money to the home country is another problem. Hence, merger, rather than complete closure, becomes the preferred option for the US parent.

4.5 Reforms suggested

Reforms suggested by the companies include stricter implementation of anti-piracy laws for the product segments, constancy of taxation laws, uniformity of accounting standards and

[20] According to the WTO, compulsory licensing is when a government allows a third party to produce the patented product or process without the consent of the patent owner.

procedures in transfer pricing and greater synergy between central and state governments. It was mentioned that the FDI should be promoted in sectors where it is cumulative and not a one-time investment. These issues are in addition to the problems already faced by all firms in doing business in India, as well as problems in logistics.[21]

The issue of transfer pricing has been a major stumbling block for most foreign companies that have already set up their subsidiaries in India and has also hindered potential investment by other companies. As regards rules related to transfer pricing, a common view is that there is a mismatch between the accounting format (cash flow) followed by the government and that followed by the individual companies. The gap has widened in the past few years and tax assessment is a long procedure. The Transfer Pricing Officer (TPO) gets transferred every two years, leading to inconsistency in the process.[22] With a view to reducing TP disputes, Advance Pricing Agreements (APAs) were introduced in the Union Budget 2012.[23] Our findings suggest that there is, currently, a deadlock on the APAs with the US. The overall problem is with the administration of the law. For most of the surveyed companies, China is a preferable investment destination as the structure of taxation is planned unlike in India. Hence, the potential for harassment in China is less than that in India.

5. Conclusion

The development path for a country was thought to begin with agriculture-led growth, to the establishment of a manufacturing base with the final stage being the growth of the services sector. India seems to have by passed manufacturing led growth by embarking on services led growth. However, this is not to deny the importance of manufacturing, since it is undeniably this sector that can provide employment, a critical issue for India. The nature of manufacturing has undergone significant changes in the last two decades. Production processes have been spliced and are now take place in several countries. While manufacturing may be done in one country, assembly could be done elsewhere: whether the former or latter takes place will be determined by the country's stage of development. India seems to be in the assembly stage for many multinationals, especially American ones. This indicates that India is in the former stage of development as far as manufacturing is concerned, but with aspirations to move into the manufacturing stage. Much of the assembling that is currently taking place in India, under the aegis of American MNCs, can, with time, upgrade to manufacturing. The role of multinationals in this case is critical, since they provide the linkage that enables a country to belong to a network of production

[21] India scores 142 in "Ease of Doing Business 2015" compiled by the World Bank. However, its score has improved over the last year in Starting a Business, Getting Electricity and protecting minorities. The UNCTAD Liner Shipping Connectivity (2013) reports a steady rise in the index for India, reflecting an improvement in connectivity. However, infrastructure bottlenecks continue to plague India. In terms of the World Bank Logistic Performance Index (2012) India has a score of 46 and is down one place from 47 in 2010. India score poorly in infrastructure but is better in logistics quality and competence.

[22] Secondary research also suggests lack of clarity of the TPOs in that they do not possess the domain knowledge required to handle TP issues (Singh and Nagpal, 2014).

[23] APA is an advance agreement that sets transfer price of the covered transactions prospectively between the taxpayer and tax authorities. The taxpayer and tax authority also mutually agree on the TP method to be applied and its application for a certain period of time.

(Athukorala, 2011). Removing governance related hurdles and ease of business parameters (including infrastructure such as power and water) can go a long way in achieving this outcome.

The contribution of American investment is enormous: this study has not attempted to quantify the contribution but it has instead tried to highlight some of the most significant contributions as well as underline the channels through which these contributions have come. Patterns, trends, and reasons for FDI flows vary with sector. As mentioned in the introduction to the study, the contribution of investment has to be seen in terms of the direct impacts such as creation of jobs as well as the indirect impacts through the spillover effects of R&D in the country. While some examples of the direct impacts of American FDI have been mentioned in the study, the indirect effects through generation of technology also need to be understood. Many of the American R&D centres in India are engaged in cutting edge research, with Indian scientists and engineers also involved in transferring technology generated in these labs elsewhere. Also the best practices brought in by many American firms need to be recognized. Notwithstanding the problems faced by American MNCs in India, most have indicated that they are here for the long term.

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Appendix A

1A: FDI regulations in India

There are two routes through which investment can be made in India by non residents in equity shares/ fully, compulsorily and mandatorily convertible debentures or convertible preference shares: these are the automatic route and the government route. In the automatic route the investor or the Indian company does not require approval from the RBI or the Government of India for the investment. Prior approval of the government is required for the Government Route through the Foreign Investment Promotion Board (FIPB)[24] in the Department of Economic Affairs (DEA), Ministry of Finance. Such approvals would be required in all cases in sectors /activities with caps which include defense production, air transport services, ground handling services, asset reconstruction companies, private sector banking, broadcasting, commodity exchanges, credit information companies, insurance, print media, and telecommunications and satellites. Any investment would require government approval if the activity requires an industrial license, if the investment is in the financial sector, if the investor has an existing joint venture in the country in the same field or if the investment falls outside the ownership cap or in sectors in which foreign investment is prohibited.

The Government liberalized the FDI policy as part of its economic reforms programme initiated in the early 1990s. While the pharmaceutical and IT sectors were already open to investment by MNCs, the 1991 general liberalization gave the private sector a greater say in economic activities. This boosted the software computer services industry. The financial sector liberalization of 1990s included phased de-controlling of interest rates, reducing of reserve ratios, reduced government control of banking operations and establishing a market regulatory framework. India recently allowed full foreign ownership in parts of the agriculture sector, namely, in the development and production of seeds and planting material, animal husbandry, pisciculture, aquaculture under controlled conditions, and services related to agribusiness and related sectors. In addition, the country expanded the degree of foreign investment allowed in single-brand retail trading to 100 percent from the previous limit of 51 percent.

As for the pharmaceutical sector, the Government of India in the New Drug Policy of 1994 and 2002 abolished the licensing requirement for entry and expansion of firms. As of today, up to 100 percent inward FDI has been allowed under the automatic approval of RBI and automatic approval for technological collaboration has been approved in the drugs and pharmaceuticals sector. Further, free import of formulations, bulk drugs and intermediaries is allowed.

[24] All applications put before the FIPB will be examined on the basis of priority: items in the infrastructure sector, items having export potential, items which have large scale employment potential especially for rural people, items that have direct or backward linkages with agro business/farm sector, items which have social relevance such as hospitals, human resource development, life saving drugs and equipment, and proposals which result in induction of technology or infusion of capital.

Table 1A.1: FDI regime in selected sectors

Sector	FDI Cap/ Equity	Entry Route	Other conditions
C. Manufacturing			
1. Hazardous chemicals and isocyanates	100 percent	Automatic	
2. Industrial explosives - manufacture	100 percent	Automatic	
3. Drugs and pharmaceuticals	100 percent	Automatic	
(FDI is not permitted in generation, transmission & distribution of electricity produced in atomic power plants/atomic energy since private investment in this activity is prohibited and reserved for public sector.)			
2. Asset reconstruction companies	49 percent	FIPB[25]	
3. Banking (private) sector	74 percent (FDI+FII). FII not > 49 percent	Automatic	
4. NBFCs: underwriting, portfolio management services, investment advisory services, financial consultancy, stock broking, asset management, venture capital, custodian, factoring, leasing and finance, housing finance, forex broking, etc.	100 percent	Automatic	Subject to minimum capitalisation norms
6. Commodity exchanges	49 percent (FDI+FII) (FDI 26 percent FII 23 percent)	FIPB	
7. Insurance	26 percent	Automatic	Clearance from IRDA
ISP with gateways, radio paging, end-to-end bandwidth.	74 percent	Automatic – up to 49 percent FIPB – beyond 49 percent up to 74 percent	
ISP without gateways	74 percent	Automatic – up to 49 percent FIPB – beyond 49 percent up to 74 percent	
Infrastructure provider providing dark fibre, right of way, duct space, tower (Category I)	100 percent	100 percent (Automatic – up to 49 percent) (FIPB – beyond 49 percent)	
Electronic and voice mail	100 percent	100 percent (Automatic – up to 49 percent) (FIPB – beyond 49 percent)	

Source: http://www.rbi.org.in/ (Last accessed on 29/12/2013)

Note: (a) As regards other activities, 100 percent FDI is approved in alcohol distillation and brewing.

[25] FIPB stands for Foreign Investment Promotion Board.

(b) FDI under the automatic route does not require any prior approval either by the Government or the RBI. The investors are only required to notify the concerned regional office of the RBI within 30 days of receipt of inward remittances and file the required documents with that office within 30 days of issuance of shares to foreign investors. Under the approval route, proposals are considered in a time-bound and transparent manner by the FIPB. Approvals of composite proposals involving foreign investment/ foreign technical collaboration are also granted on the recommendations of the FIPB.

Table 1A.2: Some laws and regulations governing the Indian banking sector

Regulation	**Details**
Reserve Bank of India Act, 1934	Governs the Reserve Bank's functions
Banking Regulation Act, 1949	Governs the financial sector
Public Debt Act, 1944/Government Securities Act (Proposed)	Governs government debt market
Securities Contract (Regulation) Act, 1956	Regulates government securities market
Indian Coinage Act, 1906	Governs currency and coins
Foreign Exchange Regulation Act, 1973/Foreign Exchange Management Act, 1999	Governs trade and foreign exchange market
Payment and Settlement Systems Act, 2007	Provides for regulation and supervision of payment systems in India
Acts governing banking operations	
Companies Act, 1956	Governs banks as companies
Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970/1980	Relates to nationalization of banks
Other Acts	
Bankers' Books Evidence Act	
Banking Secrecy Act	
Negotiable Instruments Act, 1881	
State Bank of India Act, 1954	
The Industrial Development Bank (Transfer of Undertaking and Repeal) Act, 2003	
The Industrial Finance Corporation (Transfer of Undertaking and Repeal) Act, 1993	
National Bank for Agriculture and Rural Development Act	
National Housing Bank Act	
Deposit Insurance and Credit Guarantee Corporation Act	

Source: Author's compilation

Table 1A.3: Some laws and regulations governing the Indian pharmaceuticals sector

Regulation	**Details**
The Drugs and Cosmetics Act, 1940	Regulates the import, manufacture, distribution and sale of drugs
The Pharmacy Act, 1948	Regulates the profession of pharmacy
The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954	Provides to control the advertisements regarding drugs and prohibits the advertising of remedies alleged to possess magic qualities
The Narcotic Drugs and Psychotropic Substances Act, 1985	Concerned with control and regulation of operations relating to narcotic drugs and psychotropic substances
The Medicinal and Toilet Preparations (Excise Duties) Act, 1956	Provides for the levy and collection of duties of excise on medicinal and toilet preparations
The Drugs Price Control Order (DPCO), 1995	This is an order issued by the Government of India under the Essential Commodities Act, 1955, to regulate the prices of drugs. The Order provides the list of price controlled drugs, procedures for fixation of prices of drugs, method of implementation of prices fixed by Government and penalties for contravention of provisions among other things. For the purpose of implementing provisions of DPCO, powers of the Government have been vested in the National Pharmaceutical Pricing Authority (NPPA).
Other regulations	
The Industries (Development and Regulation) Act, 1951	
The Trade and Merchandise Marks Act, 1958	
The Indian Patent and Design Act, 1970	
Factories Act	

Source: Authors' compilation

Table 2A: US FDI Outflows to India (US$ million)

		2006	2007	2008	2009	2010	2011	2012
All Industries Total		1834	3915	4310	2470	3069	2023	4116
Mining		-8	145	(D)	118	185	(D)	(D)
Utilities		n.s.	n.s.	n.s.	n.s	n.s	n.s	n.s
Manufacturing	Total Manufacturing	398	577	827	75	193	224	656
	Food	-2	-1	-49	15	-41	8	7
	Chemicals	76	375	171	-97	-28	-239	597
	Primary and fabricated metals	(D)	(D)	(D)	-1	10	14	3
	Machinery	54	160	111	145	187	147	1
	Computers and electronic products	68	-55	193	81	31	-37	-50
	Electrical equipment, appliances, and components	85	36	-77	-131	120	88	74
	Transportation equipment	(D)	(D)	410	-29	-146	105	-18
	Other manufacturing	(D)	(D)	(D)	93	60	138	43
Wholesale trade		133	66	248	93	201	149	33
Information		287	1749	570	71	300	328	559
Depository institutions		102	190	(D)	(D)	(D)	(D)	(D)
Finance (except depository institutions) and insurance		202	543	1081	688	210	68	356
Professional, scientific, and technical services		748	356	874	1041	1525	1230	1596
Holding companies (nonbank)		30	-10	-84	23	35	(D)	(D)
Other industries		-58	299	(D)	(D)	(D)	(D)	(D)

Note: (1) US Direct Investment Abroad, financial outflows without current cost adjustment

(2) (D) indicates that the data in the cell have been suppressed to avoid disclosure of data of individual companies.

Prior to 2006, income is presented net of U.S. and foreign withholding taxes. Beginning with 2006, income is presented gross of U.S. and foreign withholding taxes.

Source: U.S. BEA

Table 3A: Summary of literature

Paper	Year of publication	Sample/ Setting	Period of study	Impact of FDI
Growth				
Blomstrom and Kokko	1994	Sweden	1994	
Balasubramanyam et al.	1996	46 developing countries	1970-85	Positive
Boresztein et al.	1998	69 developing countries	1970-89	Positive
Noormamode	2008	58 countries	1980-2004	No significant effect
Ford et al.	2008	48 USA states	1978-97	Positive
Adams	2009	Sub-Saharan Africa	1990-03	Negative
Badeji and Abayomi	2011	Nigeria	1976-2006	Negative
Temiz and Gokmen	2014	Turkey	1992-07	No significant effect
Poverty				
Kashin	2010	Russia	1998-08	Positive
Tambunan	2004	Indonesia	1970-03	Mixed
Labour				
Sharma and Gani	2004	Middle and low-income countries	1975-99	Positive
Tomohara and Takii	2011	Indonesia	1989-96	Positive
Liu and Nunnemkemp	2011	Taiwan	2006	Negative
Tsou et al.	2013	China	1984-2004	Negative
OECD-ILO	2008	Three developed and four emerging economies	1997-05	Mixed
Suyanto and Selim	2012	Indonesia	1988-00	Positive
Waldkirch	2010	Mexico	1994-05	Negative
Others				
Kolstad and Villanger	2008			
Djankov and Hoekman	1999	Czech Republic	1992-96	Positive
Haddad and Harrison	1993	Morocco	1985-89	Positive
Aitken and Harrison	1999	Mexico, Venezuela and U.S	Mexico: 1984-89, Venezuela: 1977-89, U.S: 1987	Positive
R&D				
Garcia et al.	2013	Spain	1990-02	Mixed
Exports				
Tadesse and Shukralla	2013	131 countries	1984-04	Positive

Table 4A: Snapshot of survey in India

Sector	Cities covered	Number of companies/ industry associations interviewed
Banking and finance	Bangalore, Hyderabad, Mumbai	6
ICT	Bangalore, Delhi/ NCR, Hyderabad.	8
Healthcare/ Pharmaceuticals	Bangalore, Delhi, Mumbai	6
FMCG	Delhi	3
Consulting	Delhi, Mumbai, Hyderabad	6
Others Biotechnology Chemicals Auto-components	Delhi, Mumbai	11
Total		40

Source: Authors' compilation based on primary survey

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