Intrafirm transactions and tax haven linkages: Evidence from Indian manufacturing*

Swati Verma[a]

Abstract

This study aims to assess the pattern and prevalence of intrafirm activities in foreign exchange transactions of foreign affiliates in the manufacturing sector in India. The related-party foreign transactions of selected foreign affiliates are analysed for two years, and the shares of financial payments directed to tax haven locations are identified to appraise the vulnerability of these outflow transactions to potential risk of corporate tax avoidance. A majority of foreign exchange earnings and expense transactions were found to be conducted within firms. The major part of intrafirm payments for the key expenditure types was made to various tax haven locations having different levels of tax avoidance risk. Close to half of all expense payments were traced to tax havens, with several firms reporting predominant shares of intrafirm import, financial or services payments linked to certain significant tax havens. The data indicate active involvement of foreign affiliates in India in the use of tax havens for foreign expense transfers, which could be motivated by tax avoidance aims. This tendency is noted to be high for specific channels such as services, interest payments and other miscellaneous transactions, suggesting that these channels may be used for transfer mispricing and tax avoidance strategies by foreign-affiliated firms.

Keywords: corporate tax, foreign direct investment, foreign affiliate, intrafirm trade, intrafirm transaction, multinational corporation, manufacturing sector, tax avoidance, tax haven

JEL classification codes: F14, F21, F23, H25, H26

* Received: 10 February 2023 – Revised: 16 August 2023 – Accepted: 16 August 2023

This study is a part of a research project titled, "Understanding FDI-linked trade through related party transactions: A study of manufacturing foreign subsidiaries in India", funded by the Indian Council of Social Science Research, which was conducted at the Institute for Studies in Industrial Development (ISID) and completed in 2019.

The author is thankful to Prof. K. S. Chalapati Rao, Prof. K. V. K. Ranganathan and Dr. Anjali Tandon at ISID for their immensely valuable suggestions on various aspects of the paper. The author is very thankful to Dr. Markus Meinzer, Director, Financial Secrecy and Governance, Tax Justice Network, for his valuable suggestions on an earlier draft of the paper. The author is grateful to the editors and two anonymous reviewers for their helpful comments and suggestions. The author remains solely responsible for any errors that remain.

[a] Institute for Studies in Industrial Development, New Delhi, India (swati.eco.jnu@gmail.com).

1. Introduction

The global production and trade operations of multinational corporations (MNCs) are largely characterized by within-firm transactions between their affiliated branch entities operating in various countries. The flow of resources comprises goods, technology, and financial as well as a range of services transactions. Disappointingly, in the case of several countries including India, the customs statistics for such trade are mostly lacking (Dowlah, 2018). Even so, the significance of this phenomenon in current international trade has been highlighted by various macro- and firm-level studies covering selected regions and time periods.

A notable volume of recent global literature has shown evidence of how the intrafirm transactions of large MNCs are routed through tax havens or low-tax locations through transfer mispricing, which is frequently undertaken to avoid taxes in home or host countries of foreign investment and to minimize their total global tax liability. The central role of tax havens as distinct locations that facilitate such activities as tax avoidance through profit shifting by means of their low corporate tax rates, financial secrecy, minimal regulation or other incentives has been underlined in various contemporary research studies. This process puts the developing world at risk of losing much-needed capital as revenue resources at the hands of a handful of global corporations.

India is presently one of the largest and most significant emerging economies. It has been one of the leading recipients of FDI among the developing economies over the past three decades and was among the most buoyant recipients of FDI in Asia in 2022.[1] It is poised to be a leading attractive destination for investment in the next decade, surpassing other emerging markets, according to an IMF (2023) forecast.[2]

It is worth noting that India had one of the highest corporate tax rates in the world until 2021.[3] As such, MNCs operating there have been highly susceptible to shifting profit out of the economy to jurisdictions that offer low corporate tax rates or other incentives such as financial secrecy, minimal regulations and others that may facilitate tax avoidance. Since such factors are commonly present in tax haven jurisdictions, the value of intrafirm transactions involving outflows of payments to low-tax locations

[1] An increase of 10 per cent in FDI inflows was observed for India in 2022 compared with 2021 (UNCTAD, 2023).

[2] Sumit Poddar, "India: The unstoppable investment destination of next decade", *The Economics Times*, 30 June 2023.

[3] India had a statutory corporate tax rate of 48.3 per cent in 2018 and 2020, the highest among the 94 and 109 jurisdictions, respectively, covered by the Corporate Tax Statistics of the Organisation for Economic Co-operation and Development (OECD, 2019 and 2020). Since 2021, the rate has been 25 per cent (OECD, 2021).

or tax havens is likely to be high for MNC-linked foreign affiliates located in India. The risk level for corporate tax avoidance in the country of the related party is likely to influence the flow of these intrafirm transaction payments positively.

Against this backdrop, it is important to understand to what extent cross-border transactions of foreign affiliates located in India are associated with the undesirable practice of tax haven use by MNCs for the specific purpose of global corporate tax avoidance or evasion. An appraisal of the possible extent of resource loss or even the susceptibility to resource losses through such channels is crucial in the contemporary Indian context and needs deeper investigation.

Interestingly, some studies focusing on India have found substantial losses of gross assets by the economy through trade mispricing (Kar, 2010; Kar and Spanjers, 2015), and a few others have found evidence of profit shifting by MNC-affiliated firms (Janský and Prats, 2013). Yet, the pattern of cross-border transactions of MNC-linked firms, particularly those linked to locations with lower corporate tax rates and tax havens, remains largely unexplored in the Indian context, mainly owing to data insufficiency and complexities present in identifying and analysing numerous intrafirm foreign transactions by foreign-affiliated firms. The present study attempts to address this research gap.

The study has two main objectives. First, it aims to assess the traceable extent and prevalence of intrafirm transactions in total foreign exchange transactions for some main transaction channels of foreign affiliates operating in the manufacturing sector of India, in the presence of various data limitations. The related-party foreign transactions covering trade, financial, services and other miscellaneous transfers are analysed for a selected set of manufacturing foreign affiliates, mainly unlisted subsidiary firms, over two years (2014/15 and 2015/16).

Second, the study attempts to explore the extent of tax haven use in such transactions, mainly expenses, to appraise the vulnerability of such transactions to tax avoidance risk. For this, the shares of foreign exchange payments in the main intrafirm transaction channels made by foreign affiliates that are specifically directed to related parties located in tax haven jurisdictions are evaluated. The country of related party for every reported intrafirm foreign transaction is identified, and the potential risk level of corporate tax avoidance associated with the country, as estimated by the 2019 Corporate Tax Haven Index (CTHI) (Tax Justice Network, 2019), is assessed.

The study contributes to an understanding of the prevalence of intrafirm transactions and the tendency for tax haven use in various types of foreign exchange expense transactions of MNC-linked foreign affiliates of any developing economy. Deeper insight is gained into the role that tax havens have come to play in international capital flows in trade and other transaction channels in contemporary times.

The susceptibility of foreign exchange resource transfers, mainly outflows, to potential corporate tax avoidance conduct by MNC-linked firms is highlighted in the Indian context, which has significant implications for formulating effective policies to address any abusive tax practices by such firms.

Section 2 presents a brief survey of relevant literature on transfer pricing and intrafirm transactions and provides a review of some specific studies that focus on India. Section 3 describes the methodology and data sources used in this study. Section 4 presents the findings on the pattern of intrafirm transactions by the sample of foreign affiliates over the two study years. The findings on their intrafirm transactions with tax havens are discussed in section 5. Section 6 concludes the study.

2. Review of studies on intrafirm transactions and transfer pricing

Some recent estimates indicate that the extent of intrafirm trade within MNC networks in global trade of goods and services is about 33 per cent, and that 80 per cent of global trade is linked to the international production networks of MNCs (UNCTAD, 2013). Other rough estimates indicate that the figures for intrafirm trade stand somewhere between 30 and 70 per cent of global trade. Earlier extrapolation of trade data for Japan and the United States indicated that more than 60 per cent of global trade is conducted within MNCs (OECD, 2002).

A host of studies confirm the high prevalence of intrafirm trade in trade by MNCs or foreign-affiliated firms, especially in high-technology subsectors. Helleiner (1981) found that 48.4 per cent of all United States imports were from related parties, the proportion being relatively higher for manufactured products, at 53.6 per cent, than for primary products and semi-manufactured products. Zeile (1997) found that 36 per cent of exports and 43 per cent of imports by United States MNCs in 1994 occurred within firms, the shares being particularly high in the motor vehicle and machinery industries. Studies by Buckley and Casson (1976), Buckley and Pearce (1979), and Siddharthan and Kumar (1990) also found that intrafirm trade was highest in high-technology industries in the United States.

Bernard et al. (2010) studied industries by three-digit NAICS (North American Industry Classification System) codes in the United States in 2000 and found that at least half of imports in some high-technology manufacturing subsectors took place within firms. Irarrazabal et al. (2013) found that in 2004 in the manufacturing sector 33 per cent and 53 per cent of United States exports and imports, respectively, occurred within firms. Country-by-country reporting data of the United States Internal Revenue Service (IRS, 2018) shows that in 2016 one third of trade by

United States MNCs occurred within firms. The intrafirm trade for these MNCs is estimated to have grown at roughly 6 per cent a year from 2010 to 2014, which was much faster than the growth of trade between unrelated parties (Csilla and Ohnsorge, 2017).[4]

For Germany and the United States, 80 per cent of technology flows in 1995 were found to be within firms (UNCTAD, 1997). Focusing on Chinese firms, Hung and Chow (1997) found a quite strong tendency for intrafirm trade among a large majority of export-oriented foreign-affiliated enterprises. For Korean firms, Yun-Jong (2008) found that shares rose for both intrafirm exports and intrafirm imports over the 2000–2006 period.

A range of recent studies provide evidence that the susceptibility of intrafirm transfers to mispricing practices and profit shifting to no- or low-tax locations for tax avoidance purposes, referred to as base erosion and profit shifting (i.e. BEPS), is extremely high. Research undertaken since 2013 confirms the potential magnitude of the problem, with estimates indicating annual losses of anywhere from 4 to 10 per cent of global revenues from corporate income taxes (OECD, 2015). According to the OECD report, developing countries are the worst affected by this profit shifting.

The scope for transfer mispricing is being increasingly shaped by the emergence of jurisdictions such as offshore financial centres and tax havens that facilitate tax evasion conduct by corporations. These jurisdictions provide special advantages such as financial secrecy, minimal regulation, negligible taxes on profits and low monitoring of domestic companies (Sikka and Willmott, 2010). Mainly, tax havens facilitate profit-shifting activities by MNCs, from high-tax to low-tax locations (Eden, 2009), by offering low taxation rates on corporate profits and high levels of secrecy. Some corporations prefer to create offshore branches in single or multiple tax haven jurisdictions so as to park their transaction funds in shell or non-existent entities.

Several studies have shown evidence of how companies markedly use tax haven locations to transfer profits to avoid corporate taxes, through mostly intrafirm transfers. Indeed, nearly three decades ago Hines and Rice (1994) found that 31 per cent of net profits of United States MNCs were located in tax havens. Nearly two decades ago, about half of world trade apparently passed through offshore financial centres, accounting for about 3 per cent of global gross domestic product (Christensen et al., 2005). Baker (2005) observed that about 200,000 companies

[4] For additional discussion, see Nick Shaxson, "Over a third of world trade happens inside multinational corporations,", Tax Justice Network Blog, 9 April 2019, www.taxjustice.net/2019/04/09/over-a-third-or-more-of-world-trade-happens-inside-multinational-corporations.

are formed in tax havens each year; the cumulative numbers could be higher than 3 million. More recent studies have made similar observations. In a significant work, Zucman (2015) found that the amount of wealth hidden in tax havens was substantial, accounting for at least 8 per cent of global financial assets, equivalent to $7.6 trillion. Cobham and Janský (2019) used survey data on international operations of multinational groups headquartered in the United States to show major misalignments of profit, a disproportionate share of total profits being captured by the small number of "profit havens". Also, in examining a firm-level data set, Ahmed et al. (2020) found a strong positive association between tax haven use and foreign direct investment (FDI) into countries characterized by low levels of economic development and extreme levels of capital flight.

Various studies focusing on trade data have noted evidence of transfer mispricing. Analysing United States data, Hines (1999) and Newlon (2000) found evidence of profit shifting through transfer-pricing manipulation by corporations. Clausing (2003) found significant evidence of tax-motivated transfer pricing in monthly data on United States intrafirm international trade prices between 1997 and 1999. Controlling for other variables affecting trade prices, the study found that as country tax rates were lower, United States intrafirm export prices were lower and United States intrafirm import prices were higher.

Vicard (2015) and Davies et al. (2018) analysed trade data for French firms and Cristea and Nguyen (2016) for Danish firms, and each found evidence for transfer-pricing manipulation. A number of studies have found evidence of misinvoicing in export and import prices (Baker, 2005; Cuddington, 1986; Zdanowicz et al., 1999).

Transfers of high-value intangibles are especially prone to transfer mispricing as they are difficult to value. Two types of intrafirm transfers, namely cost-sharing arrangements and services transactions, have been pointed out by United States tax authorities as key sources of transfer pricing abuse (GAO, 2008). Hebous and Johannesen (2015) found evidence of German MNCs shifting profits to tax havens through services transactions. Similarly, Janský and Kokes (2016) observed profit shifting from Czechia to European tax havens through debt financing.

Some studies have investigated the link between corporate tax rate and income or profit reporting by companies. Harris et al. (1993) found the presence of affiliates in low-tax countries to be associated with lower tax liabilities for United States MNCs. Grubert (1998) found a negative relation between reported subsidiary income and the statutory corporate tax rate in the host country. Chang (2013) found evidence of extensive income shifting by foreign subsidiaries in China. Foreign firms with high home tax rates reported higher profits, while those with low home tax rates reported lower profits, even while enjoying the same special tax rates in the same economic zone.

The evidence on the extent of intrafirm transactions, transfer mispricing and profit shifting by MNC-affiliated companies at the firm level is much more limited for India. However, some recent research studies have highlighted the possible scale of resource loss through illicit financial flows due to trade mispricing and tax evasion conduct. A study by Global Financial Integrity (GFI) estimated that the Government of India lost gross assets worth US$462 billion over the 1948–2008 period through tax evasion, crime and corruption, in which trade mispricing was a widely used technique (Kar, 2010). Over the 2004–2013 period, GFI estimated that the amount of illicit financial outflows was about $505 billion (Kar and Spanjers, 2015). For 2016, the GFI report estimated that the Government had lost US$14.1 billion, about 5.9 per cent of total revenue collection, due to trade misinvoicing (GFI, 2019). Some studies, such as Biswas and Marjit (2005), have found evidence of misreporting of trade data by Indian traders over the 1960–1998 period.

Among the very few studies examining intrafirm trade data in India, a study by ISID (2002) analysed the country's import consignments in 1994–1995 and found that one third of imports by 77 foreign affiliates occurred within firms. Certain instances of transfer mispricing for specific products were also identified in the study. A few recent studies have also highlighted the preference towards within-group transactions by Indian companies. A study of the country's 500 largest listed companies conducted by *The Hindu Business Line* (Acharya, 2014) found that more than 460 engaged in related-party deals in one form or another in 2012–2013, with about 158 reporting high-value annual dealings (above Rs. 10 billion). Both foreign MNCs and domestic companies showed a strong tendency towards such transactions. Royalty payments to promoter entities were dubiously high, particularly for multinationals.

In a significant study that focused on MNC linkages with tax havens, Janský and Prats (2013) analysed financial and ownership data for about 1,500 MNCs in India and found evidence of profit shifting among them. They found that MNCs with tax haven links reported 1.5 per cent lower profits and paid 30.3 per cent less in taxes per unit of profit than MNCs with no such links.

These India-specific studies highlight the possible prevalence of intrafirm trade among MNC-linked firms. However, the various tangible and intangible channels of intrafirm cross-border transactions of foreign affiliates in India and their links to tax havens or vulnerability to tax avoidance practices such as profit shifting remain largely unexplored, particularly at the firm level. These related-party transactions are often used by MNCs to shift profits from one country to another.[5] In view of the high susceptibility of developing countries to losing financial resources through

[5] Alex Cobham, "Could the World Trade Organisation see a challenge to tax havenry?", Tax Justice Network, Blog, 4 July 2018, https://taxjustice.net/2018/07/04/why-wto-tax-havens.

such tax practices by global corporations, as highlighted by various studies, much sharper scrutiny is required of the cross-border trade, and services and financial transactions that foreign-affiliated companies conduct within their multinational networks. To what extent MNE affiliates located in a developing and emerging economy such as India engage in intrafirm transactions or are connected to tax havens, and hence are vulnerable to profit-shifting conduct, is a crucial question that needs investigation.

Such deeper research is restricted by issues such as data insufficiency and complications in analysis. In many companies' corporate financial disclosures, the details of foreign transactions and related-party transactions are frequently underreported, ambiguously reported or even unreported. Various transaction types are often clubbed together, and the layout for disclosure details is not uniform across companies or years. A large number of foreign-affiliated companies in India remain unlisted,[6] and their corporate disclosures are often insufficient. Also, the financial reporting of related-party transactions before 2011 used a text format that was inadequate; subsequently an XBRL format of reporting that is more structured was introduced.[7]

Owing to the lack of a comprehensive and precise database on foreign transactions of FDI-invested companies in the public domain, the flow of foreign exchange through intrafirm transactions is difficult to estimate or evaluate from the perspective of tax differentials on corporate profit in various foreign locations of related parties. The present study attempts to address this research gap.

3. Data sources and methodology

The study analyses a set of 109 foreign-affiliated Indian firms in the manufacturing sector over the two study years, 2014/15 and 2015/16, covering mainly large or medium-scale foreign subsidiaries and unlisted firms. The foreign affiliates were identified from databases such as the Investment Map of the International Trade Centre and the ProwessIQ database of the Centre for Monitoring Indian Economy (CMIE), both of which provide information on companies that had any inward FDI flows in recent years. Each of the selected sample firms reported at least one type of intrafirm transaction and a total turnover higher than Rs. 2 billion in 2015/16.

[6] About 99 per cent (17,648 companies) of all "inward investment" FDI companies covered in the Census on Foreign Liabilities and Assets of Indian Direct Investment Companies in 2017/18 were unlisted (RBI, 2019).

[7] The new XBRL (eXtensible Business Reporting Language) format has fixed layouts for disclosing the details of related party transaction and location of related party, whereas in the former text format, location was not mentioned in many instances.

In the absence of any particular database on the operations or financial data of FDI-affiliated firms in India, the identification of FDI-affiliated manufacturing firms is difficult. For this purpose, three sources of information were used: the Investment Map,[8] the company statistics available at the website of the Ministry of Corporate Affairs (MCA)[9] and the ProwessIQ database of CMIE.[10]

The website of the Investment Map provides names of companies in India that had any inward FDI flows in a given recent year. From this database, the names of about 1,800 foreign affiliates operating in the manufacturing sector (in 10 broad categories) in India were identified. These names were individually searched on the MCA website to obtain information on their corporate identification number (CIN) and paid-up capital in the most recent reported year. After excluding small firms (paid-up capital of less than Rs. 100 million), 609 firms were selected. Further examination of the five-digit ROC (Registrar of Companies) industry code – part of the CIN – was done to identify manufacturing firms (two-digit ROC code of 15–37) specifically, and 440 firms were identified.

The ProwessIQ database of CMIE provides information on the audited annual financial statements of firms listed on the BSE/NSE stock exchange index in India. It was additionally used to identify 120 manufacturing firms that had FDI (a share of foreign corporate bodies and institutions greater than or equal to 10 per cent in total shareholding), were operating in the manufacturing sector (as per the ROC code filter from CIN) and had paid-up capital of at least Rs. 100 million. About 23 such firms were identified from various other web sources. These three lists were combined, and 583 foreign-affiliated manufacturing firms were identified (430 unlisted, 153 listed).

The audited annual financial statements of these 583 firms were procured from the MCA website, which provides financial statements and other company documents for all registered companies in India for various years, available in XBRL format.[11] As the data were not available for various unlisted firms for a longer period, the sample firms were studied for only two recently reported years, namely 2014/15 and 2015/16. Further examination of the financial statements revealed that foreign transactions or related-party transactions were either not reported or substantially underreported for 159 firms, which were dropped. From the remaining firms, a final sample of 109 manufacturing firms was selected for this study; each firm had

[8] International Trade Centre, www.investmentmap.org (accessed 9 October 2017).

[9] "View company or LLP master data" under "Master Data" on the MCA Services portal, http://www.mca.gov.in (accessed between 8 November 2017 and 25 December 2018).

[10] Versions 1.81 and 1.90, https://prowessiq.cmie.com.

[11] Companies incorporated under the Companies Act, 1956 in India are required to e-file various documents each year with the Registrar of Companies (ROC) (under MCA Services), namely a balance sheet, profit and loss account, annual return (forms 20B and 21A) and compliance certificate. Financial statements are available to the public from the MCA Services portal (https://www.mca.gov.in/mcafoportal/viewPublicDocumentsFilter.do).

reported at least one type of intrafirm transaction and was a large or medium-sized foreign affiliate having a total turnover higher than Rs. 2 billion in 2015/16.

Each firm was mapped to an industrial group on the basis of the two-digit Harmonized System code of the principal product (contributing the highest turnover) in 2015/16, as disclosed by firms in their annual financial statements. Harmonized System codes are divided into 98 chapters, representing various industries, on the basis of these first two digits. The sample firms were classified in 12 broad manufacturing industry groups. Some industries in different Harmonized System chapters with similar kind of products or with low number of firms were clubbed together.

The information on related-party foreign transactions of firms was obtained from their annual financial statements, where related-party transaction disclosures are reported under a defined set of transaction types (see annex table A1) for each related party separately.[12] The country of the related party is mentioned for each transaction in these disclosures, and every related party that engaged in any transaction with the firm in the reported year is covered on a separate sheet on which all transactions with it are listed. This specific feature of the data set makes it possible to estimate the approximate extent of intrafirm foreign transactions in total foreign transactions of a given category, with extensive coverage of transactions undertaken in a year by a firm. A wide range of "material" services or miscellaneous transactions, though not all, can be identified. This comprehensive data set has not often been used in previous studies focusing on intrafirm foreign transactions of foreign affiliates in India. The few studies on intrafirm trade or trade mispricing in India (e.g. Biswas and Marjit, 2005; GFI, 2019; ISID, 2002) have mostly used the customs trade database or have referred only to the related-party transaction disclosures in the annual reports of companies (e.g. Acharya, 2014).

Disappointingly, for certain transactions (mostly services or miscellaneous), the individual transaction value could not always be identified due to being clubbed together with other similar transactions, non-reporting or unclear reporting. Transactions that were not covered under the "material" category also remained unreported. These issues may have led to an underestimation of intrafirm transaction values for certain sample firms, and only an approximate estimate of intrafirm transaction shares could be derived.[13]

[12] Under Accounting Standard 18, reporting of related party transaction disclosures for each "material" transaction (those in excess of 10 per cent of total related party transaction of the same type) in the "notes to accounts" section of annual reports have been mandatory for companies since 4 January 2004. Each such transaction is required to be disclosed individually with information on the value and type of transaction and the name and country of the related party.

[13] In instances where the intrafirm transaction aggregate was significantly higher than the total reported foreign exchange expenses, the latter values were revised for the study and intrafirm transaction shares were considered as 100 per cent.

For calculating the share of intrafirm transaction value in the total foreign exchange transaction value of a firm for a given transaction type, the aggregate of such transactions with any related party located outside India that was reported in related-party transaction disclosures was matched with the disclosures on total foreign exchange transaction values under diverse types reported by the firm separately in annual financial statements. Owing to dissimilarities in categories of transaction types under which foreign exchange transactions and related-party transactions are disclosed, and non-uniformity in coverage of transaction types across firms or years, only certain broad transaction types are evaluated and certain transaction types are clubbed together (annex table A1). The five main intrafirm foreign exchange transaction types that were considered are export of goods, export of services or other earnings, import of goods, royalty or technical fee payments, and payments for services or other miscellaneous expenses.[14] Interest transactions in foreign exchange are mostly reported as a part of miscellaneous transactions, i.e. "Others", and these payments were evaluated separately for only the cases where they were mentioned distinctly. Overall, about 80 types of technology-linked payments, 150 varieties of services-linked or other miscellaneous expenses, and 50 types of services-linked or other earnings types were identified.

To capture transactions within the related global corporate entities, only related parties such as holding companies, ultimate holding companies, fellow subsidiaries, joint ventures, promoters, subsidiaries and associates were considered. Individual foreign promoters and key management personnel were excluded.

The total number of related-party foreign transactions conducted by these firms that were traceable as distinct transactions over the two study years was 5,517.[15] Of these, about 3,316 intrafirm transactions involving payments or outflows were evaluated separately, and the share of transactions of these types that were linked to a related party located in a tax haven jurisdiction were estimated.

A tax haven jurisdiction or low-tax location was identified using two sources of information. The first is the 2019 Corporate Tax Haven Index (CTHI) (Tax Justice Network, 2019). It covered 64 jurisdictions and considered two measures for ranking corporate tax havens, namely the Haven Score, reflecting how aggressively each jurisdiction uses tax cuts, loopholes, secrecy and other mechanisms to attract multinational activity, and the Global Scale Weight, reflecting the countries' level of cross-border activity.[16] The corporate tax Haven Score is assembled from

[14] Dividend transfers, which are mainly conducted with related parties, were not considered.

[15] The information on name, type and country of related party, and type and value of transaction was collected for each related party transaction, involving manual data compilation for about 22,167 values.

[16] For the ranking and scores of the 64 tax havens in the 2019 CTHI, see https://cthi.taxjustice.net/en/2-uncategorised/2-view-2019-results.

20 indicators focusing on means used by MNCs to escape taxes; it measures the potential risk for a jurisdiction to become a profit-shifting destination. The two scores are combined to create a final CTHI score for ranking the jurisdictions. The 10 economies with the highest CTHI scores are identified as the top tax havens. These 10 tax jurisdictions account for about 52 per cent of the world's corporate tax avoidance risks.

In addition to the complete list of 64 tax havens covered by the 2019 CTHI in its Haven Score, this study specifically considered the top 30 (accounting for 85 per cent of the world's corporate tax avoidance risk) to evaluate the transfers made to locations associated with a relatively higher risk of tax avoidance or evasion.

The second index used for identifying tax havens is the list of the world's 15 most significant corporate tax havens published by Oxfam (Berkhout, 2016), which assessed the extent to which a country uses the most damaging tax policies, such as zero corporate tax, and unfair tax incentives.[17] The 15 tax havens covered in this list include the top 10 in the 2019 CTHI (Tax Justice Network, 2019).

4. Pattern of intrafirm transaction by foreign-affiliated firms

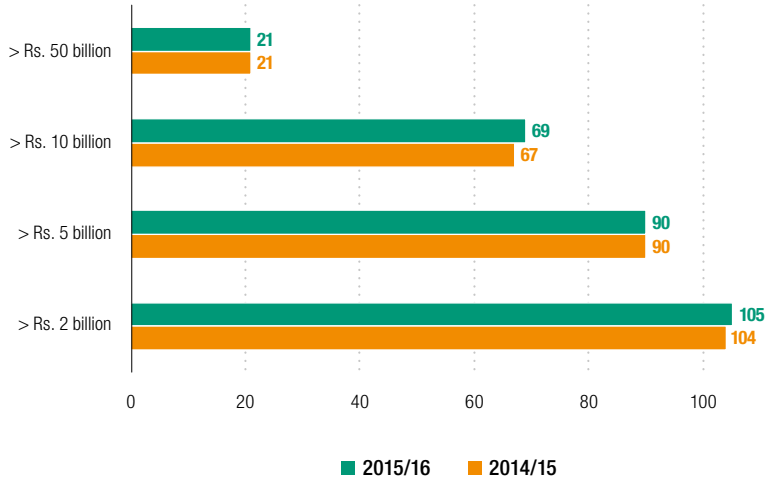
The sample of 109 FDI manufacturing firms is described in figures 1 and 2. The total turnover of these firms was Rs. 4.7 trillion in 2015/16 and Rs. 4.3 trillion in 2014/15. The sample comprises mainly large firms with turnover higher than Rs 2 billion, although some firms were very large, with turnover higher than Rs. 5 billion (figure 1). The majority of the sample firms, about 82, were unlisted. All but three were foreign subsidiaries, and more than half were wholly owned subsidiaries (figure 2). The sample firms were negative net foreign exchange earners in aggregate in both study years, with net foreign exchange losses of about Rs. 969 billion and net export losses of about Rs. 794 billion in 2015/16.

Table 1 shows that the majority of the sample firms reporting foreign exchange earnings or expenses of different types engaged in intrafirm foreign transactions. The highest number of related-party foreign transactions were for the import of goods, while royalty or technical fee payments and interest payments were reported by a smaller number of firms. Overall, 5,517 (2,738 in 2014/15 and 2,779 in 2015/16) related-party foreign transactions by sample firms were traced.

More than two thirds of the total transactions were found to be within firms in both study years (figure 3). The majority of the foreign exchange earnings, through

[17] In order: Bermuda, Cayman Islands, the Netherlands, Switzerland, Singapore, Ireland, Luxembourg, Curaçao, Hong Kong (China), Cyprus, the Bahamas, Jersey, Barbados, Mauritius and British Virgin Islands.

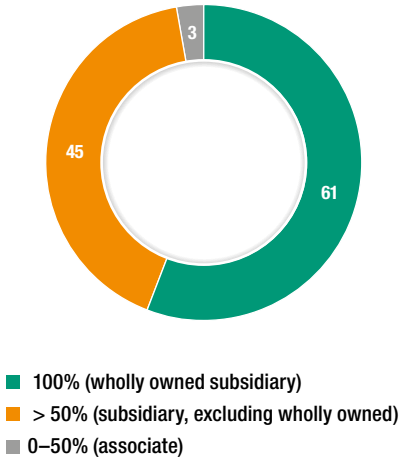
Figure 1. Total revenue for sample firms by number of firms



Source: Author's compilation, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

Figure 2. Distribution of sample firms by shares held by foreign promoters

(Percentage)



Source: Author's calculations, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

Table 1. Reporting of intrafirm foreign transactions by sample firms

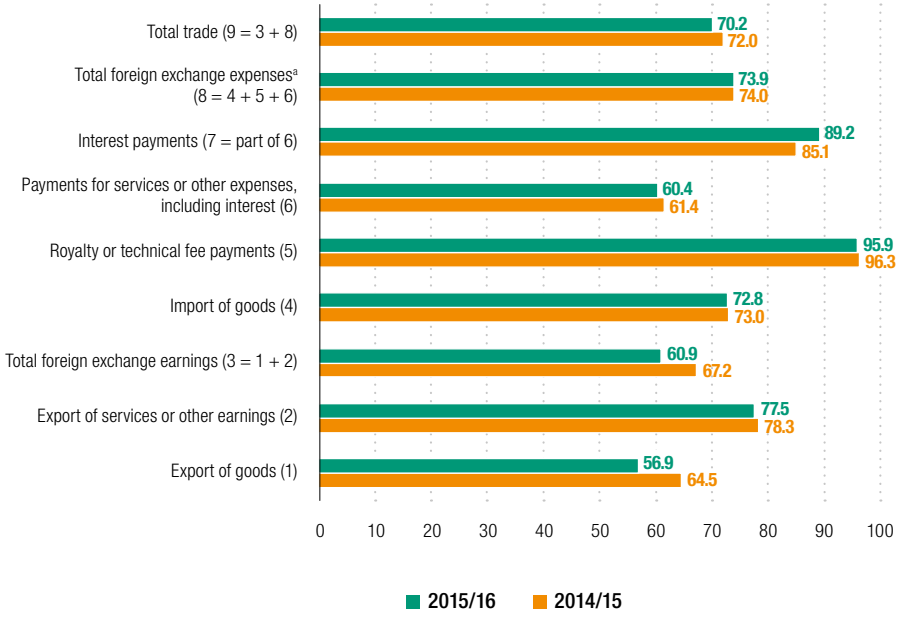
Type of foreign exchange transaction	2014/15			2015/16		
	Number of firms reporting a transaction	Number of firms reporting intrafirm transactions (1)	Total number of intrafirm transactions by firms in (1)	Number of firms reporting a transaction	Number of firms reporting intrafirm transactions (2)	Total number of intrafirm transactions by firms in (2)
Export of goods (1)	101	97	586	102	99	621
Export of services or other earnings (2)	90	89	528	90	84	540
Total foreign exchange earnings (3 = 1 + 2)	**191**	**186**	**1 114**	**192**	**183**	**1 161**
Import of goods (4)	109	108	894	109	109	899
Royalty or technical fee payments (5)	87	77	132	87	77	139
Payments for services or other expenses, including interest (6)	109	102	598	109	101	580
Interest payments (7 = part of 6)	46	33	39	44	31	35
Total foreign exchange expenses (8= 4 + 5 + 6)	**305**	**287**	**1 624**	**305**	**287**	**1 618**
Total foreign transactions (9 = 3 + 8)	..	..	**2 738**	..	..	**2 779**

Source: Author's calculations, based on companies› annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).
Note: Transaction numbers in parentheses from annex table A1.

export of goods, export of services or other earnings, and total earnings, were also within firms. Nearly three fourths of the import of goods were from related parties. The intrafirm share in payments of royalty and technical fees and interest payments were quite high as well, while the shares for services or other expenses were about 60 per cent. Overall, nearly three fourths of the foreign exchange expenses could be traced to related parties.

The observed findings are broadly similar to the pattern noted in some previous studies focused on the share of intrafirm trade in either overall trade or trade among MNEs in other countries, which found a high prevalence of intrafirm trade, particularly for affiliates in high-technology manufacturing subsectors (e.g. Helleiner, 1981; Buckley and Pearce, 1979; Siddharthan and Kumar, 1990; Zeile, 1997). In fact, the observed intrafirm transaction shares of imports and exports of goods,

Figure 3. Shares of intrafirm transaction value in total foreign exchange transaction value of sample firms (Percentage)



Source: Author's calculations, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).
Note: Transaction numbers in parentheses from annex table A1.
[a] Excludes dividend payments of Rs. 49.6 billion in 2014/15 and Rs. 43.5 billion in 2015/16.

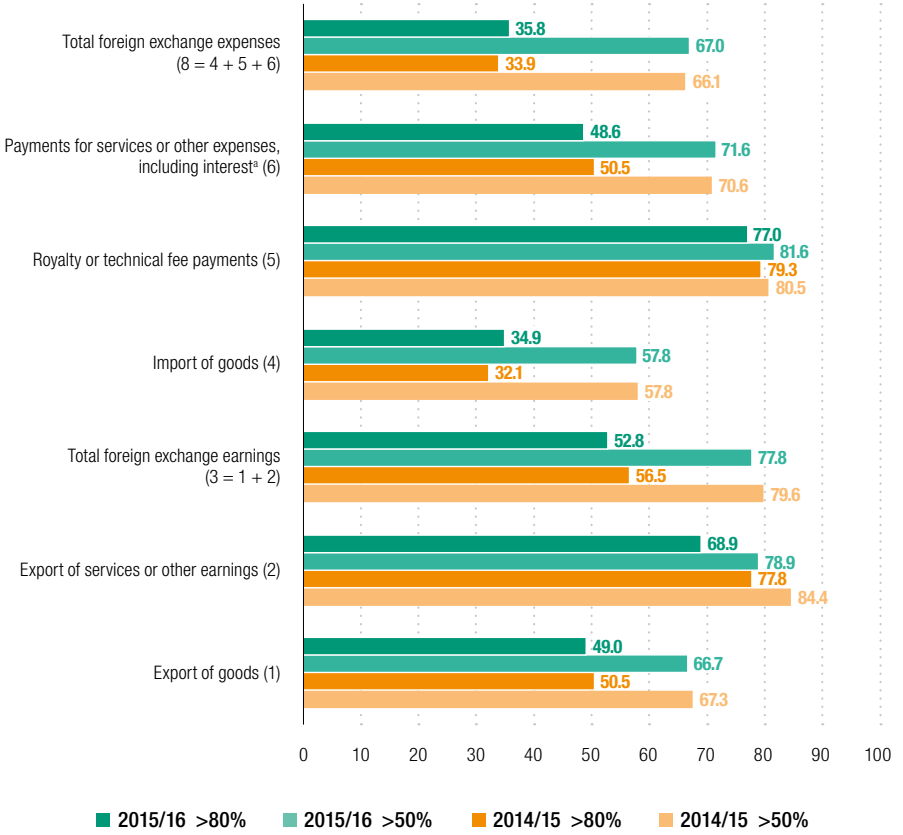
imports of technology and total transactions are mostly higher for the sample firms than the shares found in certain other studies that focus on overall intrafirm trade in goods and technology flows in other countries.

In the specific context of India, the observed shares of intrafirm import transactions for the sampled foreign affiliates are significantly higher than the shares estimated by ISID (2002). Acharya (2014) found that royalty payments to promoter entities were high, and the present findings also highlight intensive involvement of foreign affiliates in intrafirm trade for these payments, which were mostly made to holding companies.

For both total foreign exchange earnings and expenses, a majority of the transaction shares were found to occur within firms for two thirds or more of the sample firms (figure 4). Nearly 60 percent of the sample firms reported that the majority of goods imports occurred within the firm. More than two thirds reported that for all other

earnings and expense types covering goods and services transactions, the majority of transactions occurred within the firm. Also, 49 per cent or more of the sample firms engaged intensively (a share of 80 per cent or more) in intrafirm transactions for various foreign exchange earning types and for payments for royalty or technical fees and services or other expenses. Involvement in related-party transactions was significant for most of the sample firms when different transaction routes were analysed.

Figure 4. Shares of reporting sample firms with significant intrafirm transaction share in total transactions (Percentage)



Source: Author's calculations, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

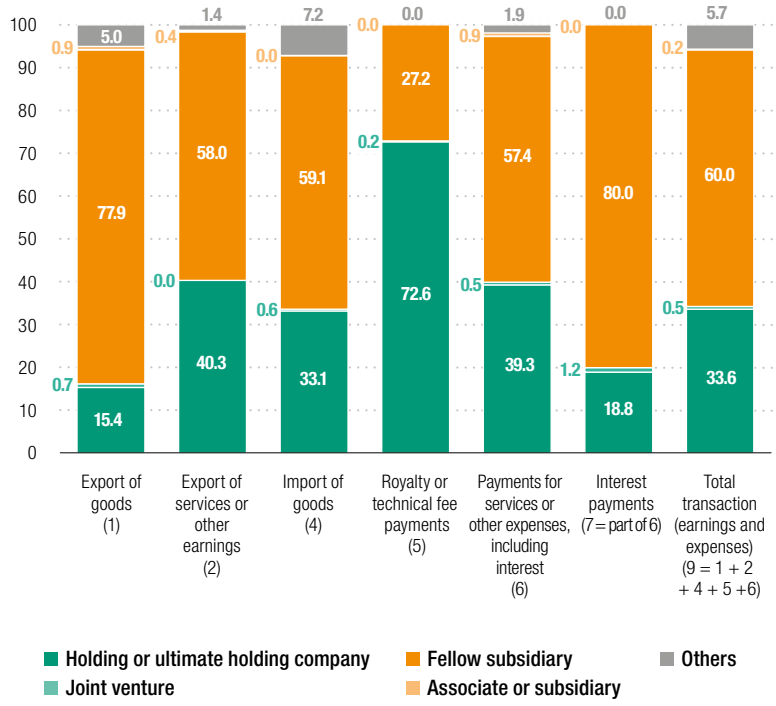
Note: Transaction numbers in parentheses from annex table A1. Includes only firms reporting such transactions.

[a] Interest payments are not shown separately because of the very low number of transactions.

Only one third of overall intrafirm transactions were conducted with holding companies; a majority were conducted with fellow subsidiaries (figure 5). Whereas payments for royalty or technical fees were largely made to parent companies, the other payments (import of goods, services, other expenses, interest) and earnings (export of goods and services) primarily involved fellow subsidiaries and network companies under common control.

Table 2 indicates the intrafirm transaction shares in 2015/16 for some main transaction types across the 12 manufacturing industry groups. More than half of the exports of goods occurred within firms in eight manufacturing industries, with shares exceeding two thirds in most cases, whereas they were about half for the remaining industries. Also, a majority of the imports of goods occurred within firms

Figure 5. Intrafirm transactions by type of related party, as share of total intrafirm transaction value, 2015/16 (Percentage)



Source: Author's calculations, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

Note: Transaction numbers in parentheses from annex table A1.

in eight manufacturing industries (covering 80 per cent of sample firms); the shares were particularly high for some high-technology industries. In every industry except for pharmaceuticals and rubber and plastic, royalty and technical fee payments were found to be predominantly within firms.

Particularly for imports of goods, the high prevalence of intrafirm transactions in high-technology sectors has been observed in various studies (e.g. Bernard et al., 2010; Irarrazabal et al., 2013). A similar pattern is noted for the sample firms in most of the high-technology subsectors (transport, machinery, electrical equipment, chemicals and so on). In most subsectors the data suggest significant involvement of foreign-affiliated firms in the global production chain of their parent MNC networks as buyers of inputs, finished goods or technology assets, or as suppliers of goods.

Table 2. Intrafirm transaction value as share of total transaction value, by industry group, 2015/16

Industry group	Harmonized System 2-digit chapter codes	Number of companies	Export of goods (Percentage)	Import of goods (Percentage)	Royalty or technical fee payments (Percentage)
Base metals and products	72–74, 82–83	4	56.3	83.7	96.3
Chemicals or allied industries	28–29, 31–36, 38	16	77.9	59.0	99.8
Diversified activity[a]	99	5	97.9	94.2	100.0
Electrical machinery and equipment, electronics	85	10	46.2	78.8	93.3
Instruments and accessories[b]	90–92	5	64.2	78.0	93.6
Machinery and mechanical appliances	84	24	72.6	64.5	86.3
Mineral stone and glass	25, 27, 68–70	3	47.5	20.7	92.8
Other manufacturing[c]	42, 48, 57, 61, 64, 94, 96	8	71.3	34.9	99.9
Pharmaceuticals	30	7	49.9	35.4	6.0
Rubber and plastic	39–40	3	97.1	59.3	27.5
Vegetable products, edible oils, foodstuffs	11, 13, 15, 17–19, 21–24	5	56.4	37.0	96.6
Vehicles and transport equipment	86–87	19	42.0	82.5	97.0

Source: Author's calculations, based on companies› annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

[a] Firms engaged in manufacturing, having trading or services (Harmonized System code 99) as main activities.

[b] Optical, photographic, precision, medical and surgical instruments or apparatus, clocks and watches, musical instruments.

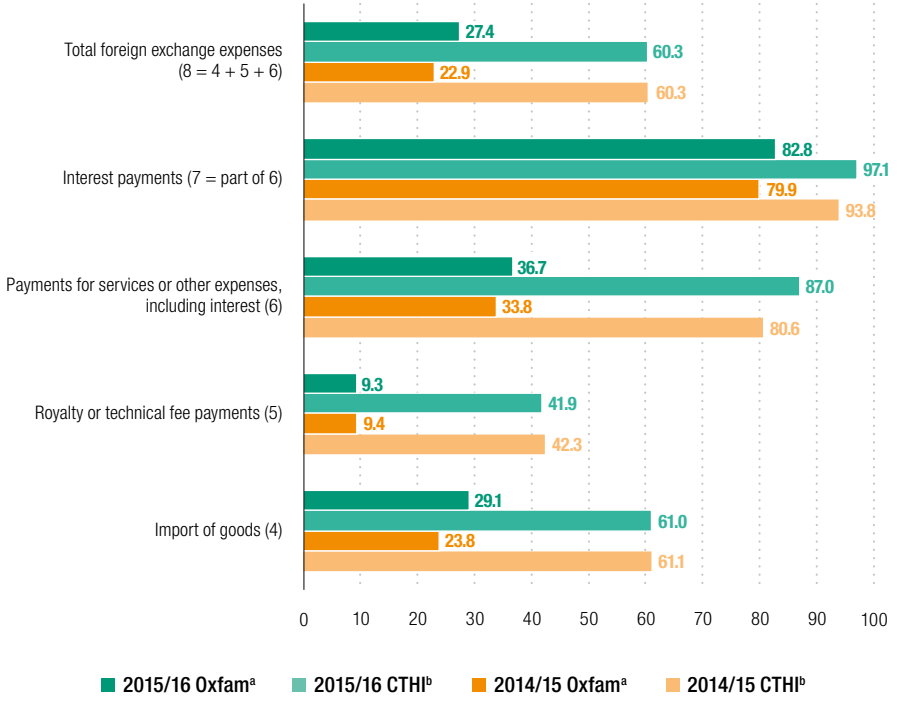
[c] Leather, paper, carpet, apparel or clothing, footwear, furniture, miscellaneous manufacturing goods.

5. Intrafirm transactions with tax havens by foreign-affiliated firms

The intrafirm pattern of transactions conducted by sample firms with related parties located in tax havens was further evaluated to assess in particular the outflows of foreign exchange to tax havens on account of various intrafirm transfers. The analysis looked at about 3,316 intrafirm transactions, covering some key payment channels, that firms conducted over the two study years.

A majority of the payments for intrafirm import of goods and the total intrafirm foreign exchange expenses were directed to tax havens included in the 2019 CTHI (Tax Justice Network, 2019), as shown in figure 6. The shares of payments for

Figure 6. Intrafirm payment transactions with tax havens, by share of total intrafirm foreign transaction value (Percentage)



Source: Author's calculations, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

Note: Transaction numbers in parentheses from annex table A1.

[a] Based on the 15 tax havens in Berkhout (2016).

[b] Based on the 64 tax havens in Tax Justice Network (2019).

services or other expenses and interest payments made to these tax havens were high, whereas the shares of royalty and technical fee payments were less than half. Considering payments not linked to merchandise (i.e. royalty or technical fees, services or other expenses including interest) together reveals that a majority (55 per cent) of them were indeed made to these tax havens. More than one third of services or other expenses and a slightly lower share (23–30 per cent) of payments for intrafirm import of goods and total intrafirm foreign exchange expenses could be traced to related parties located in the 15 significant tax havens in the Oxfam list (Berkhout, 2016). Intrafirm interest transfers were predominantly made to these same tax havens.

The intrafirm transaction payments made to tax havens were further assessed as a share of the value of all foreign payment transactions (figure 7). Less than half of the total payments for imports, royalty and technical fees, and foreign exchange expenses and at least half of the payments for total services or other expenses were made to tax havens in the 2019 CTHI (Tax Justice Network, 2019). For interest payments, the share of total outflows to tax havens was very high. Varying shares of these outflows could also be traced to the Oxfam list (Berkhout, 2016). In 2015/16, about one fifth of all outflow transactions could be traced to these tax havens.

Various cases of foreign-affiliated firms with very high shares or values of intrafirm payments for import of goods, royalty or technical fees, interest and services or other miscellaneous expenses in foreign exchange made to the 15 significant tax havens in the Oxfam list are presented in annex tables A2 and A3. Instances of multiple payments made to related parties located in the same or different tax havens by a foreign-affiliated firm were noted.

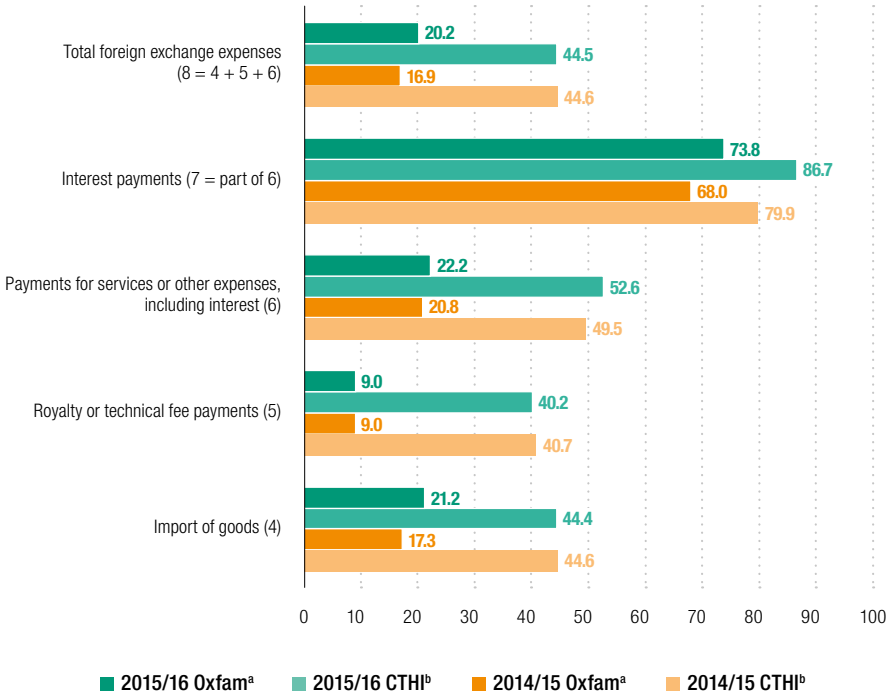
The use of tax haven locations for parking profits or for routing trade flows through goods, services or financial transaction channels mainly for profit-shifting purposes has been indicated by some earlier studies, as discussed in section 2. The findings of the present study highlight a similar notable tendency for tax haven use by MNC-linked affiliates in India to some extent, although the objective of profit shifting behind such conduct is neither empirically investigated or established in this study.

Payments for management fees, cost-sharing arrangements, debt financing and a range of services and miscellaneous transactions – frequently involving the transfer of an intangible asset – are some of the transfer routes that have high vulnerability to transfer pricing abuse.[18] Against this backdrop, findings such as

[18] In OECD (2013), Actions 4, 8 and 10 specifically focused on designing rules to prevent base erosion through some high-risk transactions such as interest expense, financial transactions, intangibles, management fees and head office expenses.

about half of total payments for services or miscellaneous transactions and four fifths of payments for total interest transactions being directly linked to tax havens, or various traceable cases of foreign affiliates having high tax haven use in specific transaction channels such as services, interest or other miscellaneous expenses, are quite suggestive of such channels (such as services or intangible asset-related transfers, debt financing and the like) being potentially used for tax avoidance by the foreign affiliates. As noted earlier, close to half of the total payments for import of goods by the sample firms could be traced to tax havens; various individual firms made payments for their imports exclusively to these locations. This suggests that trade mispricing could be another channel for tax avoidance by firms.

Figure 7. Intrafirm payment transactions with tax havens, by share of total payment transaction value in foreign exchange (Percentage)



Source: Author's calculations, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).
Note: Transaction numbers in parentheses from annex table A1.
[a] Based on the 15 tax havens in Berkhout (2016).
[b] Based on the 64 corporate tax havens in Tax Justice Network (2019).

The top 15 economies to which the intrafirm payments in various key outflow channels were made by sample firms in 2015/16 were identified and ranked. The transactions were assessed in terms of both value of payments and frequency of transactions (tables 3 and 4). These 15 economies account for a predominant part of the intrafirm transaction values in each of the outflow channels. In the total value of intrafirm payments made by different transaction types, these 15 economies accounted for 94.8 per cent of goods imports, 92.17 per cent of services or other expenses, 99.39 per cent of royalty and technical fees, 100 per cent of interest, and 93.7 per cent of total intrafirm foreign exchange expenses. All 64 tax havens by Haven Score in the 2019 CTHI (Tax Justice Network, 2019) were specifically identified and marked in each ranking in the two tables, and the top 30 distinguished from the others.

Table 3. Top 15 economies linked by intrafirm transactions, by value of transactions

	Import of goods	Services or other expenses	Royalty or technical fee payments	Interest payments	Total foreign exchange expenses
1	Republic of Korea	United States	Japan	**Luxembourg**	Republic of Korea
2	**Singapore**	**Luxembourg**	Republic of Korea	**Mauritius**	Japan
3	Germany	Germany	United Kingdom	United Kingdom	**Singapore**
4	**Hong Kong (China)**	Japan	United States	**Netherlands**[a]	Germany
5	Japan	**Singapore**	**Switzerland**	**Belgium**	**Hong Kong (China)**
6	Finland	**Netherlands**[a]	Finland	**Cyprus**	United States
7	**United Arab Emirates**	**Switzerland**	Germany	Germany	Finland
8	United States	**Mauritius**	France	Japan	**United Arab Emirates**
9	China	United Kingdom	**Netherlands**[a]	**Switzerland**	China
10	United Kingdom	China	China	**Singapore**	United Kingdom
11	**Switzerland**	Sweden	Denmark	Italy	**Switzerland**
12	Viet Nam	Czechia	Australia	France	**Netherlands**[a]
13	France	France	Sweden	Republic of Korea	France
14	**Netherlands**[a]	Finland	**Luxembourg**	Australia	Viet Nam
15	Taiwan Province of China	**Belgium**	**Singapore**	United States	Taiwan Province of China

Source: Author's calculations, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

Note: Using the Haven Score in Tax Justice Network (2019), shading indicates economies ranked 1–64 and bold type indicates economies ranked 1–30.

[a] Excludes the other three countries in the kingdom.

Table 4. Top 15 economies linked by intrafirm transactions, by number of transactions

	Import of goods	Services or other expenses	Royalty or technical fee payments	Interest payments	Total foreign exchange expenses
1	China	United States	United States	Japan	United States
2	United States	Germany	Germany	**Netherlands**[a]	Germany
3	Germany	Japan	Japan	Germany	China
4	Japan	**Singapore**	Republic of Korea	**Luxembourg**	Japan
5	**Singapore**	United Kingdom	**Switzerland**	**Singapore**	**Singapore**
6	Republic of Korea	China	United Kingdom	United Kingdom	Republic of Korea
7	Thailand	Republic of Korea	China	Australia	United Kingdom
8	**Switzerland**	**Netherlands**[a]	Italy	**Belgium**	**Switzerland**
9	Italy	**Switzerland**	Australia	**Cyprus**	Italy
10	France	Italy	France	France	Thailand
11	United Kingdom	Sweden	**Netherlands**[a]	Italy	France
12	**Belgium**	France	Sweden	Republic of Korea	**Netherlands**[a]
13	**Hong Kong (China)**	Finland	Czech Republic	**Mauritius**	**Belgium**
14	Indonesia	Thailand	Denmark	**Switzerland**	**Hong Kong (China)**
15	**Netherlands**[a]	Canada	**Singapore**	United States	Sweden

Source: Author's calculations, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

Note: Using the Haven Score in Tax Justice Network (2019), shading indicates economies ranked 1–64 and bold type indicates economies ranked 1–30.

[a] Excludes the other three countries in the kingdom.

The 64 tax havens in the 2019 CTHI (by Haven Score) account for at least 11 of the 15 positions in each table, covering different transaction channels, in terms of both value of transfers and number of transactions conducted. This indicates that these intrafirm payments were mostly made to tax haven countries that are associated with some level of tax avoidance risk. Some of the top 30 tax havens in the CTHI list (by Haven Score) are also present in these tables (at least three positions across all transaction types and as many as seven for some), which shows that a certain fraction of such transfers was made to jurisdictions with a high risk of corporate tax avoidance. The number of non-tax haven countries in each of the tables is quite low.

6. Conclusions and policy implications

A close investigation of the foreign transaction pattern in recent years of a selected set of large foreign-affiliated manufacturing firms in India revealed that a major part of their merchandise trade, services and other miscellaneous transfers and technology- or interest-linked payments involved foreign related-party transactions. A majority of the firms had intrafirm foreign transaction shares greater than 50 per cent for nearly all transaction types, and various firms were found to engage intensively in intrafirm transactions for certain transaction types. The majority of transactions occurred within firms. The shares were particularly high in some high-technology industries for goods imports and technology-linked payments, showing a preference to buy inputs and technology from entities in the parent MNC's network in those industries.

A major part of the intrafirm payments for goods imports, non-merchandise trade expenses and overall foreign exchange expenses could be traced to the tax havens in the 2019 CTHI (Tax Justice Network, 2019), associated with different levels of tax avoidance risk. Some parts of these outflows were found to be directed to the 15 significant tax havens in the Oxfam list, associated with a relatively high risk of tax avoidance. When the total transaction values involving outflows are analysed, close to half of the transfers were made to corporate tax havens and about one fifth could be traced to the 15 significant tax havens. The tax havens in the 2019 CTHI were the foremost locations to which intrafirm payments of key transfer types were made, in terms of both aggregate transfer value and frequency of transactions. In particular, several instances were noted of firms making substantial shares of payments for intrafirm expenses through different channels to one of the 15 significant tax havens.

These findings indicate the involvement, to varying degrees, of foreign-affiliated firms of India in tax haven use in their cross-border outflow transactions, most of which were conducted within the firms. This involvement could be motivated by tax avoidance or evasion purposes, given the corporate tax avoidance risk associated with the tax haven jurisdictions. However, a deeper empirical investigation is essential for inferring such motivations.

The study finds evidence that intrafirm interest payments and services or other miscellaneous payments by foreign-affiliated firms were predominantly made to tax haven locations. This could indicate that such expense routes are potentially being used for tax avoidance strategies by foreign-affiliated firms in India, apart from the merchandise trade channel. Global evidence has indicated that trade mispricing is a route frequently used for tax avoidance and illegal transfer of resources by corporations worldwide. However, evidence is rather limited for means of payments such as services, interest and miscellaneous expenses being used with such motivations, particularly in developing economies.

At the same time, such expense routes are usually of diverse forms and variety, particularly when conducted within MNC networks. They may involve substantial resource transfers under complex contract terms, may entail multiple transactions with the same or diverse parties, may be clubbed together with other transactions as part of a single deal and frequently involve intangible asset or services transfers for which a precise economic valuation is difficult. These features make tax audits of their fair transfer pricing very difficult and complex for revenue authorities globally, primarily because identifying the distinct transaction and finding an appropriate comparable arms-length market transaction to assess the possible extent of mispricing is challenging. The susceptibility of these transfer channels to mispricing is fairly high in the presence of limited means for precise tax assessment. In India, several tax assessments related to royalty payments and a range of services payments (management consultancy, software development, advertising and marketing, intragroup services and so on) have been disputed legally over recent decades, and several of these disputes have been about issues of arms-length comparability.

In scenarios where it is challenging to conduct identification, valuation and tax audits of a range of services and miscellaneous transactions to check any possible abuse by means of corporate tax evasion strategies, any engagement of foreign-affiliated firms with tax haven locations through intrafirm transaction channels raises policy concerns for India. Given the increasingly expanding production and trade activities of MNCs across the globe and their rapidly evolving intrafirm transactions in goods and services across networks and global value chains, the challenge of ensuring a fair tax appraisal of these cross-border resource transfers is immense and rising, mostly in terms of complexities.

For enhanced accountability of an MNC's global financial operations, transparency in disclosures of its financial accounts and beneficial ownership of network companies is crucial. Exposure to tax havens in financial and bank accounts, and in trade-related operations involving direct goods, services or asset transfers within network entities needs precise identification and adequate public disclosure. This will be essential to tackle corporate tax malpractices that frequently exploit such channels.

To achieve this objective, the host economies of MNCs need to develop efficient and stringent standards for disclosure of corporate financial accounts, wherein every transaction with any tax haven is reported accurately, identified adequately, and fairly valued and audited. In India, the current corporate disclosure norms do not sufficiently cover every type of service, financial or miscellaneous foreign transaction, whether conducted intrafirm or with unrelated entities, and several of them remain unidentified. Merchandise trade data are not disclosed for every single transaction and are reported only in aggregate terms in financial statements. The reporting quality is frequently insufficient for unlisted firms, and the majority of foreign-affiliated firms are presently unlisted.

Clearly, to check the possible drain of capital through corporate tax avoidance, any resource-constrained developing economy needs to ensure the transparent and adequate sharing of financial accounts and trade data in the public domain by corporate entities, particularly by foreign-affiliated firms.

References

Acharya, Bhavana (2014). "All in the family," *The Hindu Business Line*, 7 April.

Ahmed, Ali, Chris Jones and Yama Temouri (2020). "The relationship between MNE tax haven use and FDI into developing economies characterized by capital flight", *Transnational Corporations*, 27(2), pp. 1–30.

Baker, Raymond W. (2005). *Capitalism's Achilles Heel: Dirty Money and How to Renew the Free-Market System* (Hoboken, New Jersey: John Wiley & Sons).

Berkhout, Esmé (2016). "Tax battles: The dangerous global race to the bottom on corporate tax", *Oxfam Policy Paper Summary*, 12 December (London: Oxfam International).

Bernard, Andrew B., J. Bradford Jensen, Stephen J. Redding and Peter K. Schott (2010). "Intra-firm trade and product contractibility", *American Economic Review*, 100(2), pp. 444–448.

Biswas, Amit K., and Sugata Marjit (2005). "Mis-invoicing and trade policy", *Journal of Policy Reform*, 8(3), pp. 189–205.

Buckley, Peter J., and Mark C. Casson (1976). *The Future of the Multinational Enterprise* (London: Palgrave Macmillan).

Buckley, Peter J., and Robert D. Pearce (1979). "Overseas production and exporting by the world's largest enterprises: A study in Sourcing Policy", *Journal of International Business Studies*, 10(1), pp. 9–20.

Chan, Koon Hung, and Lynne Chow (1997). "International transfer pricing for business operations in China: Inducements, regulation and practice", *Journal of Business Finance and Accounting*, 24(9–10), pp. 1269–1289.

Chang, Sea-Jin (2013). *Multinational Firms in China: Entry Strategies, Competition and Firm Performance* (Oxford: Oxford University Press).

Christensen, John, Pete Coleman and Sony Kapoor (2005). "Tax avoidance, tax competition and globalisation: Making tax justice a focus for global activism," in Jorma Penttinen, Ville-Pekka Sorsa and Matti Ylönen, eds., *More Taxes! Promoting Strategies for Global Taxation* (Helsinki: Association for the Taxation of Financial Transactions and Citizen's Action).

Clausing, Kimberly A. (2003). "Tax-motivated transfer pricing and US intra-firm trade prices", *Journal of Public Economics*, 87(9–10), pp. 2207–2223.

Cobham, Alex, and Petr Janský (2019). "Measuring misalignment: The location of US multinationals' economic activity versus the location of their profits", *Development Policy Review*, 37(1), pp. 91–110.

Cristea, Anca D., and Daniel X. Nguyen (2016). "Transfer pricing by multinational firms: New evidence from foreign firm ownerships", *American Economic Journal: Economic Policy*, 8(3), pp. 170–202.

Cuddington, John T. (1986). *Capital Flight: Estimates. Issues and Explanations* (Princeton: Princeton University Press).

Davies, Ronald B., Julien Martin, Mathieu Parenti and Farid Toubal (2018). "Knocking on tax haven's door: Multinational firms and transfer pricing", *The Review of Economics and Statistics*, 100(1), pp. 120–134.

Dowlah, Caf (2018). *Transformations of Global Prosperity: How Foreign Investment, Multinationals, and Value Chains are Remaking Modern Economy* (New York: Palgrave Macmillan).

Eden, Lorraine (2009). "Taxes, transfer pricing and the multinational enterprise", in Alan M. Rugman, ed., *The Oxford Handbook of International Business*, 2nd ed. (Oxford: Oxford University Press), pp. 557–590.

GAO (United States Government Accountability Office) (2008). "Cayman Islands: Business and tax advantages attract U.S. persons and enforcement challenges exist", Report to the Chairman and Ranking Member, Committee on Finance, United States Senate, 24 July (Washington, D.C.: GAO).

GFI (Global Financial Integrity) (2019). "India: Potential revenue losses associated with trade misinvoicing", June (Washington, D.C.: GFI).

Grubert, Harry (1998). "Another look at the low taxable income of foreign-controlled companies in the United States," *Proceedings: Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*, 91, pp. 157–175.

Harris, David, Randall Morck, Joel Slemrod and Bernard Yeung (1993). "Income shifting in U.S. multinational corporations", in Alberto Giovannini, R. Glenn Hubbard and Joel Slemrod, eds., *Studies in International Taxation* (Chicago: University of Chicago Press), pp. 277–307.

Hebous, Shafik, and Niels Johannesen (2015). "At your service! The role of tax havens in international trade with services", CESifo Working Paper, No. 5414 (Munich: Center for Economic Studies and Ifo Institute).

Helleiner, Gerald K. (1981). "Intra-firm trade and the developing countries: An assessment of the data", in Robin Murray, ed., *Multinationals Beyond the Market* (Brighton, United Kingdom: Harvester).

Hines, James R. (1999). "Lessons from behavioral responses to international taxation", *National Tax Journal*, 52(2), pp. 305–322.

Hines, James R., and Eric M Rice (1994). "Fiscal paradise: Foreign tax havens and American business", *Quarterly Journal of Economics*, 109(1), pp. 149–182.

IMF (International Monetary Fund) (2023). "Overview: The global recovery is slowing amid widening divergences among economic sectors and regions", *World Economic Outlook Update*, July. www.imf.org/en/Publications/WEO/Issues/2023/07/10/world-economic-outlook-update-july-2023.

Irarrazabal, Alfonso, Andreas Moxnes and Luca David Opromolla (2013). "The margins of multinational production and the role of intrafirm trade", *Journal of Political Economy*, 121(1), pp. 74–126.

IRS (United States, Internal Revenue Service) (2018). "Country-by-country report: Tax jurisdiction information", Tax Statistics, 19 December. www.irs.gov/statistics/soi-tax-stats-country-by-country-report.

ISID (Institute for Studies in Industrial Development) (2002). "India's external trade during the nineties: Some aspects – An analysis of customs house and company data", Project report for the Planning Commission, Government of India, 15 November. https://isid.org.in/pdf/study_exttrd_nov2002.pdf.

Janský, Petr, and Alex Prats (2013). "Multinational corporations and the profit-shifting lure of tax havens", Christian Aid Occasional Paper, No. 9. Christian Aid. www-staging.christianaid.ie/sites/default/files/2017-08/multinational-corporations-profit-sharing-lure-tax-havens-march-2013.pdf.

Janský, Petr, and Ondrej Kokes (2016). "Profit-shifting from Czech multinational companies to European tax havens", *Applied Economics Letters*, 23(16), pp.1130–1133.

Kar, Dev (2010). *The Drivers and Dynamics of Illicit Financial Flows from India: 1948–2008* (Washington, D.C.: Global Financial Integrity).

Kar, Dev, and Joseph Spanjers (2015). *Illicit Financial Flows from Developing Countries: 2004–2013* (Washington, D.C.: Global Financial Integrity).

Lakatos, Csilla, and Franziska Ohnsorge (2017). "Arm's-length trade: A source of post-crisis trade weakness", Policy Research Working Paper, No. 8144, July (Washington, D.C.: World Bank Group).

Newlon, Timothy S. (2000). "Transfer pricing and income shifting in integrating economies", in Sijbren Cnossen, ed., *Taxing Capital Income in the European Union: Issues and Options for Reform* (Oxford: Oxford University Press), pp. 214–242.

OECD (Organisation for Economic Co-operation and Development) (2002). "Intra-industry and intra-firm trade and the internationalisation of production", *OECD Economic Outlook*, No. 71. https://doi.org/10.1787/data-00095-en.

_____ (2013). *Action Plan on Base Erosion and Profit Shifting* (Paris: OECD Publishing).

_____ (2015). *Measuring and Monitoring BEPS, Action 11 – 2015 Final Report* (Paris: OECD Publishing).

_____ (2019). *Corporate Tax Statistics*, 1st ed. www.oecd.org/tax/tax-policy/corporate-tax-statistics-database-first-edition.pdf.

_____ (2020). *Corporate Tax Statistics*, 2nd ed. www.oecd.org/tax/tax-policy/corporate-tax-statistics-second-edition.pdf.

_____ (2021). *Corporate Tax Statistics*, 3rd ed. www.oecd.org/tax/tax-policy/corporate-tax-statistics-third-edition.pdf.

RBI (Reserve Bank of India) (2019). "Census on foreign liabilities and assets of Indian direct investment companies, 2017-18", Press releases, 28 January, https://rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=46123.

Siddharthan, Natteri S., and Nagesh Kumar (1990). "The determinants of inter-industry variations in the proportion of intra-firm trade: The behaviour of US multinationals", *Weltwirtschaftliches Archiv*, 126, pp. 581–591.

Sikka, Prem, and Hugh Willmott (2010). "The dark side of transfer pricing: Its role in tax avoidance and wealth retentiveness", *Critical Perspectives on Accounting*, 21(4), pp. 342–356.

Tax Justice Network (2019). Corporate Tax Haven Index – 2019 Results. https://cthi.taxjustice.net/en/2-uncategorised/2-view-2019-results.

UNCTAD (United Nations Conference on Trade and Development) (1997). *World Investment Report 1997: Transnational Corporations, Market Structure and Competition Policy* (New York and Geneva: United Nations).

_____ (2013). *World Investment Report: Global Value Chains: Investment and Trade for Development* (New York and Geneva: United Nations).

_____ (2023). *World Investment Report: Investing in Sustainable Energy for All* (Geneva: United Nations).

Vicard, Vincent (2015). "Profit shifting through transfer pricing: Evidence from French firm level trade data", Working Paper, No. 555 (Paris: Banque de France).

Yun-Jong, Jang (2008). "Current status of intra-firm trade among Korean enterprises and implications, industrial economic information", e-Kiet Industrial Economic Information, vol. 405, *KIET News Brief*, 30 June (Sejong: Korea Institute for Industrial Economics and Trade).

Zdanowicz John, Simon Pak and Michael Sullivan (1999). "Brazil–United States trade: Capital flight through abnormal pricing", *The International Trade Journal*,13(4), pp. 423–443.

Zeile, William J. (1997). "US intrafirm trade in goods", *Survey of Current Business*, February, pp. 23–38.

Zucman, Gabriel (2015). *The Hidden Wealth of Nations: The Scourge of Tax Havens* (Chicago and London: University of Chicago Press).

Appendix

Annex table A1. Coverage of intrafirm foreign exchange transaction types in study

Transaction types reported in related party transaction disclosures in annual financial statements	Transaction types included in the study	Transaction type number (as used in study)
Revenue from sale of goods	Export of goods	1
Other income	Export of services or other earnings	2
Revenue from services rendered		
Reimbursement of expenses (income)		
	Total foreign exchange earnings	3 (1 + 2)
Purchase of goods	Import of goods	4
Purchase of tangible assets		
Expense from agency arrangement, transfer of R&D cost or license fees[a]	Royalty or technical fee payments	5
Other expenses	Payment for services or other expenses (including interest)	6
Services received		
Reimbursement of expenses (paid)		
Interest paid		
Interest paid (as separate head)[b]	Interest payments (part of 6)	7
	Total foreign exchange expenses	8 (4 + 5 + 6)
Amount payable, receivable or written off	*(Excluded)*	
	Total transaction[c]	9 (3 + 8)

Source: Author's compilation, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

[a] Includes technology-linked payments reported under "other expenses" or "services received" by firms; excluded from the total value of "other expenses" or "services received" for those firms.

[b] Covers interest transactions if mentioned separately, else included in transaction type number 2 or 6.

[c] Dividend transfers excluded from both earnings and expenses.

Annex table A2. Cases of sample firms with a high share of intrafirm import, services or other expense payments to 15 significant tax havens, 2015/16

Name of company	Share of intrafirm payments to significant tax havens in total intrafirm payments (%)	Related-party economy	Value of transaction (Rs. million)
Import of goods			
Lenovo (India)	97.3	Hong Kong (China)	68 801
MCPI	97.7	Singapore	35 480
Syngenta India	100.0	Singapore	7 886
Philips India	99.7	Netherlands,[a] Singapore	7 338
Ricoh India	99.4	Hong Kong (China)	5 558
MSD Pharmaceuticals	100.0	Netherlands,[a] Singapore	4 584
Ineos Styrolution India	87.9	Singapore, Switzerland	4 537
DSM Sinochem Pharmaceuticals India	82.8	Netherlands,[a] Singapore	4 500
Gillette India	88.2	Singapore	3 886
Alcon Laboratories (India)	92.0	Switzerland	3 273
Pfizer	88.7	Ireland, Singapore	2 319
NCR Corporation India	97.0	Hong Kong (China), Ireland	1 648
Givaudan (India)	91.5	Singapore, Switzerland	1 971
Services or other expenses			
ABB India	76.2	Netherlands,[a] Switzerland	2 099[b,c]
Johnson & Johnson	70.5	Singapore	2 030[b]
Philips India	100.0	Netherlands[a]	1 138[b,f]
Hindustan Unilever	98.4	Netherlands,[a] Switzerland	977[d,h]
Procter & Gamble Home Products	79.7	Singapore	630[e,f]
Mondelez India Foods	74.5	Singapore, Switzerland	1 442[d]
Pernod Ricard India	99.1	Hong Kong (China), Mauritius	1 274[b,d]
DSM Sinochem Pharmaceuticals India	88.9	Netherlands[a]	416[b,c]
Syngenta India	93.9	Singapore, Switzerland	240[b,d,g]

Source: Author's calculation, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

Note: Based on the 15 tax havens in Berkhout (2016).

[a] Excludes the other three countries in the kingdom.

[b] Services.

[c] Interest.

[d] Reimbursement.

[e] Business process outsourcing expenses.

[f] Other expense.

[g] Charges for shared services.

[h] Maintenance and support costs for licences and software.

Annex table A3. Cases of sample firms with high intrafirm royalty or technical fees, or interest payments to 15 significant tax havens, 2015/16

Name of company	Related-party economy	Value of transaction (Rs. million)
Royalty or technical fee payments		
ABB India	Switzerland	3 416
Bosch	Netherlands[a]	502[b]
Johnson & Johnson	Singapore	328
Nestle India	Switzerland	3 625[c, d]
Ambuja Cements	Switzerland	903
Givaudan (India)	Switzerland	143[e]
Akzo Nobel India	Netherlands[a]	698
Samsonite South Asia	Luxembourg	431
NCR Corporation India	Ireland	279
Interest payments		
Mylan Laboratories	Luxembourg, Mauritius	7 061
Praxair India	Luxembourg	2 565[f]
ABB India	Netherlands[a]	448
Cosma International (India)	Cyprus, Luxembourg	391
Michelin India	Switzerland	266

Source: Author's compilation, based on companies' annual financial statements, available from the Ministry of Corporate Affairs, India (www.mca.gov.in).

Note: Based on the 15 tax havens in Berkhout (2016).

[a] Excludes the other three countries in the kingdom.

[b] Royalty and technical service.

[c] General licence fees.

[d] Information technology and management information systems expense.

[e] Information technology expense.

[f] Finance cost.