Transfer Pricing: Impact of Taxes and Tariffs in India

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Transfer pricing in an economy is very significant to corporate policy makers, economic policy makers, tax authorities, and regulatory authorities. Transfer pricing manipulation (fixing transfer prices on non-market basis as against arm’s length standard) reduces the total quantum of organization’s tax liability by shifting accounting profits from high tax to low tax jurisdictions. It changes the relative tax burden of the multinational firms in different countries of their operations and reduces worldwide tax payments of the firm.

This paper explores the influence of corporate taxes and product tariffs on reported transfer pricing of Multinational Corporations (MNCs) in India by using the Swenson (2000) model. This study of custom values of import originating from China, France, Germany, Italy, Japan, Singapore, Switzerland, UK, and USA into India reveals that transfer pricing incentives generated by corporate taxes and tariffs provide opportunity for MNCs to manipulate transfer price to maximize profits across world-wide locations of operations and reduce tax liability. The main findings of this paper are:

- The estimates computed by grouping together products of all industries being imported into India from sample countries reveal that TPI coefficients are positive and significant. Overall, positive and significant coefficients of TPI predict that one per cent reduction in corporate tax rates in the home country of the MNC would cause multinational corporations with affiliated transactions to increase reported transfer prices in the range of 0.248 per cent to 0.389 per cent.
- The Generalized Least Square estimates for individual industries display that out of nine industries in the sample, three industries (38, 73, and 84) have a positive and significant co-movement with transfer pricing incentives. In four industries (56, 83, 85, and 90), coefficient of Transfer Pricing Incentive (TPI) is negative but significant. In case of two industries (39 and 82), TPI coefficient is negative but not significant.
- Positive and significant coefficients of TPI predict that one per cent reduction in corporate tax rates in the home country would cause multinational corporations with affiliated transactions to increase reported transfer prices by 1.20 per cent in ‘Miscellaneous Chemical Products’ Industry (Industry 38), 0.175 per cent in the ‘Articles of Iron or Steel’ Industry (Industry 73) and 0.908 per cent in ‘Nuclear Reactors, Boilers, Machinery and Mechanical Appliances; Parts thereof’ Industry (Industry 84).
- In industries where coefficient of TPI is negative and significant, MNCs would like to shift the taxable income of their affiliates to the host country by decreasing their reported transfer price.

The government’s approach should be to reduce corporate tax and tariff rates to bring them at a level comparable with countries across the world which will reduce incentives for the MNCs for shifting of income out of India and increase the tax base for tax authorities. This will also result in an increase in the tax revenue of the country.
Transfer pricing has been attracting considerable attention in recent years, especially after the opening up of the Indian economy in 1990-91. Changes in manufacturing processes, increased data communication, ever enhancing contribution of intangibles and various services have facilitated businesses to operate effectively across nations. While on the one hand, a large number of multinational corporations (MNCs) have come into existence in the Indian shores, many of the Indian companies have also expanded their worldwide operations. As a result, related party trade has grown both in volume and in scope. International transfer pricing is now considered as an important factor in corporate strategic planning and decision making. This is a shift from the past, when transfer pricing was only a subject of interest for the accounting department. The corporate sector now realizes that transfer pricing should be viewed from a company’s perspective – this approach could enhance operational performance, minimize overall tax burden, improve cash flows, reduce legal exposures, and increase earnings.

The study of transfer prices in an economy is of significance to corporate policy makers, economic policy makers, tax authorities, and regulatory authorities. “From a business perspective, there are many dimensions in deciding what to charge for the inter-company exchange of goods or services. Compensation and performance measurement may push in one direction; the demand for simplicity may push in another; and tax considerations may push in a third. Other factors may come into play as well. Governments, through their tax systems, have a vested interest in ensuring that appropriate profits are reported in their jurisdiction. Government concerns are heightened when one of the parties to a related-party transaction is subject to tax at a rate that is considerably less than that applying in the other related party’s country. In addition to tax-rate pressures, other government pressures can be brought to bear on the transfer-pricing decision, including heavy penalties or restrictive measures dealing with related-party transactions” (Turner, 1996).

Deciding intra-group transfer prices is a complex and difficult process. For deciding transfer prices, MNCs have to take into account a wide range of factors, of which tax and tariff are the most important ones. Although, through various tax and economic reforms, countries across the globe have generally reduced corporate tax rates, differences in international tax rates still persist in international fiscal environment. Multinational organizations are inclined to reduce their total tax burden, by practising shift of income from highly taxed countries to lightly taxed countries. Shifting of reported income can be attained by manipulation of transfer prices for international transactions.

**TRANSFER PRICING: MEANING, DEFINITION, AND REGULATIONS IN INDIA**

Transfer prices are the prices at which an enterprise transfers physical goods and intangible property or provides services to an associated enterprise. Transfer Pricing Guidelines issued by Organization for Economic Cooperation and Development (OECD) defines transfer pricing as “payment from one part of a multinational enterprise for goods or services provided by another…” (Williamson 2003). This definition stresses on multinationals, which looks appropriate as more than one-third of the cross-border sale of goods and services worldwide occurs between related enterprises of MNCs.

The internationally agreed standard for setting prices is the “arm’s length principle”. According to this principle, intra-group (related party) transfer prices should be equivalent to those which would be charged between independent persons dealing at arm’s length in otherwise similar circumstances. This principle has been incorporated in Article 9 of OECD’s Model Tax Convention on Income and on Capital. Section 92 of the Income Tax Act 1961 also provides that any income arising from an international transaction or where the international transaction comprises of only an outgoing, the allowance for such expenses or interest arising from the international transaction shall be determined having regard to the arm’s length price.

Transfer pricing has become a matter of great concern for the tax authorities and MNCs in India due to increasing participation of multinational groups in economic activities in the country. Realizing its importance, in November 1999, the government set up an Expert Group under the chairmanship of Mr. Raj Narain to examine the issues relating to transfer pricing. To provide a detailed statutory framework for computation of reasonable, fair, and equitable profits and tax of MNCs in India, the Finance Act, 2001 substituted section 92 with a new section and introduced new sections 92A to 92F in the Incometax Act. The new provisions relate to computa-
tion of income from an international transaction having regard to the arm’s length price; meaning of associated enterprise; meaning of information and documents; and definitions of certain expressions occurring in these sections. The relevant detailed provisions on Transfer Pricing under Income Tax Act 1961 are given in Appendix 1.

REVIEW OF LITERATURE

Transfer pricing as a corporate stratagem, is of relatively recent origin. A limited literature has flowed on the issue of transfer pricing over the last two decades. Few researchers have touched the issue of transfer pricing and their impact on taxes and tariffs but there is no consensus on the magnitude of transfer pricing. Some researchers have conducted primary data surveys to find out the importance of transfer pricing and related issues. Ernst & Young Global Survey of Multinational Corporations (1995) clearly established that transfer pricing was vitally important for MNCs in all surveyed countries and most MNCs were familiar with the concept of Advance Pricing Agreements (APAs), and expected their use to increase in future. The Ernst & Young survey of transfer pricing documentation (1996) concluded that there were lack of documentation requirements and/or lack of meaningful penalties in most countries other than the US. Turner (1996) summarized the transfer pricing guidelines issued by OECD in 1995, provided an overview of the tax rules applying to related party transactions in various countries, and compared those approaches to the ones found in Canada — the alternative approaches for the Canadian tax system for protecting the Canadian tax base, and simplifying and enhancing fairness by ensuring that all businesses shared the cost of providing government services.

Dawson and Miller (2000) studied how the multinational corporations’ transfer prices responded to changes in international corporate effective tax rates and confirmed that profit-maximizing multinational corporations used transfer price to shift profit to the relatively lower-tax country in order to maximize their global after-tax profit, all else equal. Swenson (2000) is an econometric study that found that reported prices increased when the combined effect of taxes and tariffs provided an incentive for firms to overstate their prices. He found that while the results were statistically significant, they were economically small, implying that a 5 per cent decline in foreign tax rates caused the reported price of affiliated firm imports to rise by 0.024 per cent.

Shah (2001) examined transfer pricing regulations in India introduced by The Finance Act 2001. The study stated that the objective of the introduction of transfer pricing regulations in India was to check the manipulation in prices charged and paid in intra-group transactions. It was felt that the assessee would have to review the methods for negotiations in respect of import-export transactions and collect basic data about market prices and other evidence to justify that the prices paid or received in the transactions with associated enterprises are on arm’s length basis. The study concluded that onerous responsibilities have been put on the persons entering into international transactions.

Reeb and Hansen (2003) explored whether income shifting had decreased with increased governmental regulations in recent years and found that international firms continued to shift income during the 1990s to minimize taxes. They also found evidence to suggest that tax minimization schemes were more aggressively pursued in small firms; and firms based in low tax countries were more likely to shift income home than firms in high tax countries were to shift income abroad.

Srivatsan (2004) theoretically examined some economic aspects such as extension of Value Added Tax (VAT) in transfer pricing; bridging of fiscal vs economic tax base; and the multiplier effect of transfer pricing. The study stated that by adopting tax/profit shifts from higher tax jurisdictions to lower tax jurisdictions, the firm could go on building the profits and multiplier concept would hold true for transfer pricing. Further, the multiplier would be limited and dependent on tax rates prevailing in each shift; and the quantum of corpus that is shifted each time. The study concluded that despite all issues and propositions, transfer pricing, no doubt, is a welcome legislation given the winds of change blowing all across nations to protect their tax share in global tax wealth.

Bernard, Jensen and Schott (2006) established that export prices for intra-firm transactions were significantly lower than the prices for the same good sent to an arm’s length customer. Their study found that the price wedge between arm’s-length and intra-firm prices responds to differences in market structure, taxes, and tariffs.
RATIONALE OF STUDY

It is clear from the above-mentioned works that while a few researchers have touched upon the transfer pricing issues, most of the studies have been undertaken outside India and very little has been done in India. Further, the corporate tax rates have been progressively brought down by the Indian Government from 39.55 per cent in 2001 to 33.99 per cent in 2008 to discourage shifting of income out of India by MNCs. Similarly, the weighted average import duty rates in India have been significantly brought down from 30.4 per cent in year 2000-01 to 11 per cent in 2007-08. However, no comprehensive research has been undertaken in India to understand the impact of transfer pricing incentive generated by taxes and tariffs on reported transfer prices of imports in India. Absence of research on topic and continuous reduction in corporate tax and tariff rates sets the stage for this research. In this paper, individual product-level data is used to determine whether transfer pricing incentives generated by taxes and tariffs have played significant and measurable role in deciding the increase/decrease of reported product prices of imports in India.

SOURCE AND NATURE OF DATA

The information for the present study was obtained from secondary sources. The period 2001-08 was chosen for empirical testing since comprehensive transfer pricing regulations were introduced in India by the Finance Act 2001 by way of insertion of Section 92 to Section 92F in the Income Tax Act 1961. The imports originating from China, France, Germany, Italy, Japan, Singapore, Switzerland, UK, and USA were studied since these countries were responsible for a significant share (35%) of Foreign Direct Investment (FDI) in India during the period 2001-08 and 39 per cent of imports in the year 2007-08. The focus was kept on the manufacturing sector, since manufacturing activities generate demand for imported intermediates from their foreign parent firms.

The required secondary data for the analysis was collected from the published sources. The trade data was taken from Export Import Data Bank of Department of Commerce, Ministry of Commerce and Industry, Government of India, collected by Directorate General of Commercial Intelligence and Statistics (DGCI&S), Kolkata and available at the website “http://commerce.nic.in”. The import tariff rates were collected from the website “www.infodriveindia.com” of Infodrive India Ltd. (market leader in providing competitive business intelligence on exports and imports) and the website “www.eximkey.com” of Asis Industries Pvt. Ltd. (comprehensive web site on import and export matters). The year-wise corporate tax rates in different countries were taken from the KPMG’s Corporate and Indirect Tax Rate Survey 2008. The Gross Domestic Product (GDP), population and exchange rates have been taken from the World Economic Outlook (WEO) Database of International Monetary Fund (available at the website “www.imf.org”).

The data set was formulated by selection of those commodities that had been continuously imported from at least six countries (out of the sample of nine countries) during the financial years 2000-2001 to 2007-08. Only those industries from which at least six commodities had been continuously imported were considered for the study. Applying these filtration criteria, finally, nine industries were selected — Miscellaneous Chemical Products; Plastic and Articles thereof; Wadding, Felt and Non-wovens; Special Yarns; Twine, Cordage, Ropes and Cables and Articles thereof; Articles of Iron or Steel; Tools Implements, Cutlery, Spoons and Forks, of Base Metal; Parts thereof of Base Metal; Miscellaneous Articles of Base Metal; Nuclear Reactors, Boilers, Machinery and Mechanical Appliances; Parts thereof; Sound Recorders and Reproducers, Television Image and Sound Recorders and Reproducers, and Parts; Electrical Machinery and Equipment and Parts thereof; and Optical, Photographic Cinematographic Measuring, Checking Precision, Medical or Surgical Inst. and Apparatus Parts and Accessories thereof. Finally, the trade data of 137 commodities were analysed to test the model.

The basic data of corporate tax rates of countries under study and weighted average import duty rates in India is presented in Table 1 and Figure 1. The analysis shows that the average corporate tax rate of countries under study which was 34.87 per cent in 2001 has reduced to 29.91 per cent in 2008. Further, the corporate tax rates in Singapore (25.5%), Switzerland (24.7%), and China (33%) were less than the average of 34.87 per cent and that of...
Table 1: Country-wise Corporate Tax Rates Trend

<table>
<thead>
<tr>
<th>Country</th>
<th>Jan 1, 2001 (%)</th>
<th>Jan 1, 2002 (%)</th>
<th>Jan 1, 2003 (%)</th>
<th>Jan 1, 2004 (%)</th>
<th>Jan 1, 2005 (%)</th>
<th>Jan 1, 2006 (%)</th>
<th>Jan 1, 2007 (%)</th>
<th>Jan 1, 2008 (%)</th>
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<td>33.83</td>
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<td>38.34</td>
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</tr>
<tr>
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<td>38.25</td>
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<td>37.25</td>
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<td>24.5</td>
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<td>20</td>
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<td>36.75</td>
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<td>36.5925</td>
<td>33.66</td>
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<td>Average Tax Rate (Including India)</td>
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<td>29.91</td>
</tr>
<tr>
<td>Weighted Average Import Duty in India</td>
<td>30.4</td>
<td>31.1</td>
<td>25.9</td>
<td>22.1</td>
<td>21.8</td>
<td>18.4</td>
<td>11.8</td>
<td>11</td>
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</tbody>
</table>

Figure 1: Corporate Tax/Tariff Rates Trends
India (39.55%) in 2001. A similar pattern was noticed in 2008 when the corporate tax rates in Singapore (18%), Switzerland (19.2%), Germany (29.51%), UK (28%), and China (25%) were less than the average of 29.91 per cent and India (33.99%). The weighted average import duty rates in India have shown a declining trend substantially reducing from 30.4 per cent in 2001 to 21.8 per cent in 2005 and further to 11 per cent in 2008. The difference in corporate tax rates as noticed from the basic data of nine countries under study, the declining trend of import duty rates in India, and the analysis of the characteristics thereof support the need and rationale for conducting this study.

RESEARCH METHODOLOGY
To explore the influence of corporate taxes and product tariffs on reported transfer pricing of MNCs in India, the simple model given by Deborah L. Swenson has been used. The model is tested by using the time series data as well as panel data for the period 2001-2008. Three types of panels were constructed: country-wise panels for individual industries; industry-wise panels combining all countries; and panels for full sample of data with different industries-countries combinations. The regression technique is used and model results are estimated through Generalized Least Square (GLS) method.

The Making of Model based on Swenson’s Model
Generally, it is difficult to measure the effects of tax reforms on transfer prices, since any year to year variation in aggregate data may be due to other macro economic factors rather than changes in taxes and tariffs. In the present research study, this problem has been avoided as the tax effects have been identified by examining commodity-specific transfer prices in a scenario controlling corporate tax incentives and differences in cross-product tariff. Artificially raised transfer prices for various products based on Indian tariff rates result into different cost of shifting income out of India across products. The cross-product tariff variations have been used to distinguish the responsiveness of reported transfer prices to transfer pricing incentives.

The MNC can shift income out of India and to its foreign parent company by reporting the artificially increased prices. In case the tax rate in India is higher than that in the home country of the MNC, artificially raised transfer prices reduce its overall tax payments across globe as taxable income is shifted from India to the low tax parent country of the MNC. However, on the other hand, MNC would be required to pay incremental tariff payments in India on the additional increase in transfer prices.

For a multinational company operating in the home country and having only a single affiliate abroad, financial returns in home and foreign countries are determined by its actual decisions. The firm earns \( p_h \) on its home activities, and \( p_f \) abroad. Like Swenson’s work, it is assumed that the parent firm ships some parts or completed products to its foreign affiliates for assembly and final sale. It is further assumed that firms take their production and sourcing decision on market opportunities and relative production costs. If the firm chooses transfer prices as per the arm’s-length standard, the firm’s real returns would constitute the taxable income on which it pays taxes at home and abroad. However, manipulation of transfer prices by the firm, because of which its reported transfer price \( P^R \) deviates from the arm’s-length price \( P \), results in the firm altering its taxable income at home and abroad. Understatement of transfer prices may be practised by the firm. However, the reported transfer price, which is less than or equal to zero will never be chosen by the firm. Further, like Swenson’s work, it is reasonable to assume that the income of affiliate subsidiary is sufficient enough to avail the tax benefit of transfer-price manipulation. Thus over or under statement of transfer pricing is represented by a transfer-pricing margin:

\[
\delta_{hf} = (P^R - P)
\]  

(1.1)

Positive value of \( \delta_{hf} \) indicates that the parent firm charges its subsidiary a price higher than the arm’s length price \( P \) for inputs. The transfer pricing decisions influence the firm’s earnings in a number of ways. The transfer pricing margin \( \delta_{hf} \) represents per unit price overstatement.

2 The model used by Swenson incorporates the features from Horst (1971), Eden (1986) and Hines and Rice (1994), with some different assumptions. Horst argued that firm’s transfer pricing decisions are constrained because customer arbitrage may arise if the multinational sets one price at home, and another abroad. In contrast, Swenson did not focus on these firm limitations and instead assumed that international markets are segmented by informational barriers or transactions costs, and that firms prevent such customer arbitrage by using policies such as warranties that were valid only in the location of sale.

3 Arm’s Length Standard (ALS) means that firms charge their subsidiaries at the same price they would charge an unrelated party.
Hence, quantum of shifted income needs to be computed on the volume of intra-firm imports $M$ from the parent firm to its subsidiary. Taxable income of the parent firm in the home country increases by $\delta_{hf}^* M$ due to higher transfer prices and reduces taxable income of the subsidiary by an equivalent amount. On the other hand, a higher transfer price increases tariff payments by subsidiary in the foreign country. The higher transfer price results in a decline in taxable income of the firm in foreign country by the amount equivalent to its tariff payment, i.e., $TAR_f^* \delta_{hf}^* M$, where $TAR_f$ is the rate of tariff in foreign country.

In case the firms manipulate transfer prices, they are likely to face a number of costs, e.g., expenses involved in hiring of consultants for advice on transfer price manipulation and penalties which may be imposed by government authorities, when they identify the manipulation of transfer prices by the firm. Hence, two penalty parameters, $a_h$ & $a_f$, have been introduced representing costs and penalties incurred at home and in foreign country respectively. The amount of these penalties may be small but are definitely positive. Further, like Swenson, it has been assumed that penalty faced by the firm rises linearly with the volume of intra-firm imports, and that the penalty rises quadratically with magnitude of the reported price deviation. In other words, detection by tax authorities is unlikely for small misstatements, but the probability of detection is high against increased transfer pricing margin.

A multinational chooses its transfer price margin $\delta_{hp}$ for maximization of its overall income $E$, which is the total of after-tax value of firm’s incomes at home and the after-tax value of incomes of its foreign affiliate.

\[
\max_{\delta} E = (1-t_h) \left[ p_h + \delta_{hp} M + \frac{a_h}{2} \frac{M(\delta_{hp})^2}{P} \right] + (1-t_f) \left[ p_f - (1+TAR_f) \delta_{hp} M - \frac{a_f}{2} \frac{M(\delta_{hp})^2}{P} \right]
\] (1.2)

The income/profit reported in the home country is represented in the first set of terms in [1]. The home country rate of taxation $t_h$ will be applicable on these profits. On the other hand, the affiliate profits reported in the foreign country is represented in the second set of terms in [1] on which tax rate $t_f$ will apply.

Maximization of income (taking first derivative w.r.t. $\delta_{hp}$ and putting it equal to zero) shows that these firms select the transfer pricing margin:

\[
\delta_{hp} = \frac{[(t_f - t_h) - TAR_f(1-t_h)]P}{a_h (1-t_f) + a_f (1-t_f)}
\] (1.3)

On rewriting the expression and using the definition of the transfer pricing margin, $\delta_{hp}$ the resulting reported transfer price by the firm is:

\[
p^{\text{reported}} = p \left[ 1 + \frac{(t_f - t_h) - TAR_f(1-t_f)}{a_h (1-t_f) + a_f (1-t_f)} \right]
\] (1.4)

where,

- $t_h$ => Home country rate of taxation
- $t_f$ => Foreign host country rate of taxation
- $TAR_f$ => Tariff rate in foreign host country
- $a_h$ => Costs and penalties incurred at home country
- $a_f$ => Costs and penalties incurred at foreign country

The reported transfer price in the above formula is equal to arm’s length price $P$, plus a margin. The overstatement or understatement of transfer prices by firms with respect to arms-length price depends on the quantum of tariffs and tax differentials across countries. Effectively, the firm makes a comparison of benefit in shifting income out of the foreign host country. The decision of shifting income is dependent on the difference in the tax rates of two countries i.e., $(t_f - t_h)$ with after-tax cost of tariffs i.e. $TAR_f(1-t_f)$, which is the price of shifting income out of the foreign host country. When the after-tax tariff cost is lesser than the gain in tax benefits (due to relocating income to home country where tax rate is low); the firm selects to overstate the transfer prices.

4 It is assumed that the physical quantity of intra-firm shipments is determined by real factors, such as production costs at home and abroad, and that the volume of intra-firm shipments is not affected by transfer pricing incentives. Further, it is assumed that transfer pricing affects only real transactions between the parent and its affiliate, or in other words, that firms do not record phantom intra-firm transactions on their corporate income tax returns.

5 In this study, $t_f$ is the corporate tax rate in India, as the activities of multinational firms with Indian subsidiaries have been examined.
incentive (TPI); $TPI = [t_f - t_h] - TAR_f (1-t_f)$ which is composite of tax and tariff components. Transfer pricing incentive defines the magnitude of rise or fall in multinational’s income, when the firm overstates its transfer price by one rupee. The firm can enhance its overall income across the world by overstating its transfer prices, in case TPI is positive. For example, in case, transfer pricing incentive is 0.15, it implies that the firm’s total income across the world will rise by 15 paisa against transfer price overstatement of one rupee. On the other hand, the firm will raise its income by understating its reported transfer prices, if TPI is negative. When the tax rates are identical in home and foreign country, and tariffs are not levied, TPI may be zero (0) in such cases. The firm will have no benefit in shifting income to, or out of the host foreign country in case TPI is zero. Though the tax rates and tariffs determine the direction (over- or under-statement) of transfer price manipulation by the firm, the quantum of transfer price over- or under-statement is derived by the penalties which may be faced by the firm on detection of transfer pricing manipulation. In case the chances of detection and penalties are high (as represented by high values of $a_h$ and $a_f$), the responsiveness of price manipulation by the firm will be less.

Thus, the model depicts that reported transfer prices are a function of comparable arm’s-length price, costs and penalties of avoidance, and a transfer pricing margin consisting of corporate tax rates in home and foreign country and applicable tariffs in the foreign country. In another form, the reported price of a firm can be represented as a function of comparable arm’s length price $P_i$, and a function of over- or under-statement of product price that depends on transfer pricing incentive (TPI) as well as on penalties or costs of avoidance. The model implies that transfer price overstatement will increase with increase in transfer pricing incentive.

$$p_{it}^R = P_{it} \times f(TPI_{it}; a)$$

where,

$p_{it}^R$ => Reported transfer price of product “i” at “t” time period.

$P_{it}$ => Arms-length price of product “i” at “t” time period.

$TPI_{it}$ => Transfer pricing incentive of product “i” at “t” time period.

$a$ => Penalties or costs of transfer pricing.

Though the transfer-pricing hypothesis is straightforward, there is little empirical evidence to quantify the economic importance of this method of income shifting in firm activities. Hence, the prices of India’s imports originating from China, France, Germany, Italy, Japan, Singapore, Switzerland, UK, and USA have been studied. Though reported prices for individual firm’s intra-firm product sales is ideal, the reported product prices by country have been studied in the absence of the availability of reported prices for individual firm’s intra-firm product sales. The fundamental price variable in the data set is based on trade data taken from Export Import Data Bank of Department of Commerce, Ministry of Commerce and Industry, Government of India, collected by Directorate General of Commercial Intelligence and Statistics (DGCI&S), Kolkata. While the data do not report prices, they do report the annual value of imports for each commodity code (classified as per ITC (HS)) by country, and the corresponding annual quantities of these imports. Hence, reported prices have been constructed with the help of annual value of imports in India for each product by the formula:

$$p_{ic}^R = \frac{\text{Custom’s value of product } i \text{ imported to country } c}{\text{Quantity of product } i \text{ imported from country } c}$$

(1.6)

To formally investigate the basic argument that transfer prices selected by profit maximizing MNCs should rise along with TPI, regression analysis has been used. To examine this hypothesis, the following estimating equation is formed:

$$P_{ict}^R = \alpha + \beta_1 \text{Transfer Pricing Incentive}_{ict} (TPI) + \beta_2 (GDP/CAP)_{ct} + \lambda + \epsilon$$

(1.7)

In the above estimating equation, the reported transfer price $P_{ict}^R$ is the dependent variable. The subscripts on the TPI are $i$ for product, $c$ for country, and $t$ for year. The variable of interest is Transfer Pricing Incentive (TPI) coefficient, which tests for the presence of changes in price related to tax incentives. The variable $(GDP/CAP)_{ct}$, which is per capita gross domestic product of country is included to control measurable cross-country quality differences. To control other systematic cross-country differences, such as unmeasured quality differences, international differences in market structure or physical or cultural distance; we have included a set of coun-
try dummy variables $\lambda$. Further, to control heteroskedasticity, all variables (including country dummies) in the estimating equation have been transformed by dividing the regressor and independent variables by the square root of average reported prices.

We estimated the equation through E-Views software by stacking data on (i) commodity basis to compute country-wise regression results for individual industries; (ii) country basis to compute industry-wise consolidated regression results for all countries collectively; and (iii) country basis to compute full sample regression results.

In the estimating equation (1.7), coefficient $\beta_1$ is tested for the presence of price changes related to tax incentives at 1 per cent, 5 per cent, and 10 per cent level of significance.

**EMPIRICAL EVIDENCE OF TRANSFER PRICING IN INDIA**

The results have been classified into three categories:

1) Country-wise Regression Results for Individual Industries
2) Industry-wise Consolidated Regression Results for All Countries
3) Full Sample Regression Results

**Country-wise Regression Results for Individual Industries**

To see whether industry responses differ meaningfully for different countries, the basic estimating equation is applied to individual products, to estimate TPI coefficient for products grouped industry by industry considering the individual countries separately. For this analysis, it is assumed that the treatment of products within an industry is more similar for individual country than the treatment of products across all countries taken together for a particular industry. The country-wise estimates of the model are computed for each of the industries (38, 39, 56, 73, 82, 83, 84, 85, and 90).

The results in Table 2 reveal that the coefficients of TPI have positive sign for China and the US, which implies that multinationals headquartered in these countries will seek to remove taxable income from India by increasing their reported transfer price (of commodities from industry 38 being exported to India) by 2.743 per cent and 0.321 per cent when home corporate tax rates fall by one per cent in China and the US respectively. The coefficients of TPI are negative though significant for France, Germany, and Japan which implies that the MNCs would like to reduce their taxable income in the home country by decreasing their reported price. A five per cent increase in corporate tax rates in the home country will encourage MNCs to decrease the reported prices by 2.45 per cent, 2.02 per cent, and 6.1 per cent in France, Germany, and Japan respectively.

For Industry 39 (results given in Table 2), TPI coefficients have positive sign in China, France, and Singapore, and negative in other countries. This implies that multinationals headquartered in France and Singapore will try to remove taxable income from India by increasing its reported transfer price (of commodities from industry 39 being exported to India) by 0.559 per cent and 0.26 per cent when home corporate tax rates fall by 5 per cent in France and Singapore respectively. Coefficients of TPI are negative for Germany, Italy, and the US which implies that a five per cent increase in corporate tax rates in the home country will encourage MNCs to decrease the reported prices by 0.311 per cent, 0.865 per cent, and 0.432 per cent respectively.

**Table 2: Country-wise Regression Results of Model for Individual Industries**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Ind Variable</th>
<th>China</th>
<th>France</th>
<th>Germany</th>
<th>Italy</th>
<th>Japan</th>
<th>Singapore</th>
<th>Switzerland</th>
<th>UK</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPI</td>
<td>6340.044*</td>
<td>-805.5723*</td>
<td>-332.5068*</td>
<td>-1498.969*</td>
<td>-5.558223</td>
<td>312.0516**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(9.751708)</td>
<td>(-3.039540)</td>
<td>(-5.558223)</td>
<td>(-5.724387)</td>
<td>(-0.0272390)</td>
<td>(2.465522)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP/CAP</td>
<td>-0.018564*</td>
<td>0.0003984*</td>
<td>0.000103*</td>
<td>0.000444*</td>
<td>5.724916</td>
<td>5.62E-05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(-9.344431)</td>
<td>(5.658634)</td>
<td>(5.805317)</td>
<td>(5.724916)</td>
<td>(1.022930)</td>
<td>(1.308341)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.5322469</td>
<td>0.5352322</td>
<td>0.733521</td>
<td>0.462018</td>
<td>0.527091</td>
<td>0.412151</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elasticity (e)</td>
<td>-2.742775</td>
<td>0.489562</td>
<td>0.403772</td>
<td>1.219125</td>
<td>0.031975</td>
<td>-0.32063</td>
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<td></td>
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</tr>
</tbody>
</table>

*contd...*
### Table 2...

<table>
<thead>
<tr>
<th>Industry</th>
<th>Ind Variable</th>
<th>China</th>
<th>France</th>
<th>Germany</th>
<th>Italy</th>
<th>Japan</th>
<th>Singapore</th>
<th>Switzerland</th>
<th>UK</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic and Articles thereof (39)</td>
<td>TPI</td>
<td>5.906045</td>
<td>108.9477*</td>
<td>-82.0709*</td>
<td>-123.6008*</td>
<td>98.82375*</td>
<td>-0.749285</td>
<td>-63.72184*</td>
<td>-0.052466</td>
<td>-4.463687</td>
</tr>
<tr>
<td>GDP/CAP</td>
<td>-0.00024%</td>
<td>-2.75E-05*</td>
<td>4.08E-05*</td>
<td>7.65E-05*</td>
<td>-1.07E-05</td>
<td>8.69E-06</td>
<td>0.000159*</td>
<td>0.055614*</td>
<td>0.172985*</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.786320</td>
<td>0.594775</td>
<td>0.792791</td>
<td>0.744520</td>
<td>0.591416</td>
<td>0.772117</td>
<td>0.740640</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Elasticity (e)</td>
<td>-0.00916</td>
<td>-0.1117</td>
<td>0.062297</td>
<td>0.17297</td>
<td>-0.05201</td>
<td>0.00064</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wadding, Felt and Non-wovens;</td>
<td>TPI</td>
<td>-86.24403**</td>
<td>-636.6296*</td>
<td>-510.6318*</td>
<td>-248.7353**</td>
<td>-204.3771**</td>
<td>326.8191**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Articles of Iron or Steel (73)</td>
<td>TPI</td>
<td>-31.17053</td>
<td>-143.4056**</td>
<td>-683.5251*</td>
<td>189.3109*</td>
<td>0.102013*</td>
<td>441.6898*</td>
<td>201.7863*</td>
<td>-21.40083</td>
<td>318.2616*</td>
</tr>
<tr>
<td>Spacials Yarns; Twine, Cordage, Ropes and</td>
<td>GDP/CAP</td>
<td>-0.000408**</td>
<td>-2.14E-05</td>
<td>0.000151*</td>
<td>-4.62E-05*</td>
<td>-0.000228*</td>
<td>-5.16E-05*</td>
<td>-6.27E-05*</td>
<td>-3.00E-05**</td>
<td>-4.42E-05**</td>
</tr>
<tr>
<td>Cables and Articles thereof (56)</td>
<td>R²</td>
<td>0.778500</td>
<td>0.320026</td>
<td>0.136644</td>
<td>0.534539</td>
<td>0.375958</td>
<td>0.516592</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elasticity (e)</td>
<td>0.12329</td>
<td>0.28373</td>
<td>0.483801</td>
<td>0.267499</td>
<td>0.35154</td>
<td>-0.40728</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forks, of Base Metal; Parts thereof of</td>
<td>GDP/CAP</td>
<td>-0.000608</td>
<td>-0.000514*</td>
<td>2.98E-05*</td>
<td>0.0001655*</td>
<td>0.0003844*</td>
<td>-9.790000*</td>
<td>-0.000186*</td>
<td>-0.000150**</td>
<td>-0.000396*</td>
</tr>
<tr>
<td>Base Metal (82)</td>
<td>R²</td>
<td>0.264600</td>
<td>0.208417</td>
<td>0.486608</td>
<td>0.219006</td>
<td>0.409349</td>
<td>0.395612</td>
<td>0.333127</td>
<td>0.337394</td>
<td></td>
</tr>
<tr>
<td>Elasticity (e)</td>
<td>-0.0079</td>
<td>-0.01802</td>
<td>-0.05887</td>
<td>-0.02718</td>
<td>-0.00794</td>
<td>0.000056</td>
<td>0.000018</td>
<td>0.008671</td>
<td>0.001545</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Articles of Base Metal (83)</td>
<td>TPI</td>
<td>-924.0565</td>
<td>74.6772</td>
<td>-534.457*</td>
<td>-219.72190*</td>
<td>105.71229*</td>
<td>-622.2950*</td>
<td>20.41403</td>
<td>-652.4098*</td>
<td>-532.7444*</td>
</tr>
<tr>
<td>Mechanical Appliances; Parts thereof of</td>
<td>GDP/CAP</td>
<td>-0.001122</td>
<td>7.28E-05*</td>
<td>-5.6200</td>
<td>0.000394***</td>
<td>-0.000126</td>
<td>-6.29E-06</td>
<td>0.0001400</td>
<td>0.000012**</td>
<td>0.000931**</td>
</tr>
<tr>
<td>Nuclear Reactors, Boilers, Machinery and</td>
<td>R²</td>
<td>0.130732</td>
<td>0.330492</td>
<td>0.543312</td>
<td>0.235473</td>
<td>0.759170</td>
<td>0.497786</td>
<td>0.240640</td>
<td>0.451093</td>
<td>0.400206</td>
</tr>
<tr>
<td>Electrical Machinery and Equipment and</td>
<td>Elasticity (e)</td>
<td>0.644997</td>
<td>-0.03809</td>
<td>0.327216</td>
<td>1.087466</td>
<td>-0.6231</td>
<td>0.164085</td>
<td>-0.00397</td>
<td>0.191546</td>
<td>0.245849</td>
</tr>
<tr>
<td>Mechanical Appliances; Parts thereof of</td>
<td>TPI</td>
<td>66192.93*</td>
<td>-154607.0*</td>
<td>5013.32*</td>
<td>263205.2*</td>
<td>-54363.73*</td>
<td>-321909.04*</td>
<td>-138630.56*</td>
<td>-100869.8*</td>
<td>71725.23*</td>
</tr>
<tr>
<td>Mechanical Appliances; Parts thereof of</td>
<td>GDP/CAP</td>
<td>-0.20711**</td>
<td>0.494698**</td>
<td>0.028515*</td>
<td>-0.087930*</td>
<td>0.239945*</td>
<td>0.020869*</td>
<td>0.005900</td>
<td>-0.029321*</td>
<td>-0.020986*</td>
</tr>
<tr>
<td>Electrical Machinery and Equipment and</td>
<td>R²</td>
<td>0.70152</td>
<td>0.446607</td>
<td>0.694940</td>
<td>0.252195</td>
<td>0.587326</td>
<td>0.549585</td>
<td>0.315543</td>
<td>0.683022</td>
<td>0.654270</td>
</tr>
<tr>
<td>Mechanical Appliances; Parts thereof of</td>
<td>Elasticity (e)</td>
<td>-0.57252</td>
<td>0.489324</td>
<td>-0.2568</td>
<td>1.65321</td>
<td>0.247849</td>
<td>0.166357</td>
<td>0.324494</td>
<td>0.39185</td>
<td>-0.83819</td>
</tr>
<tr>
<td>Optical Photographic Cinematographic</td>
<td>TPI</td>
<td>-35.16620</td>
<td>-1735.05*</td>
<td>2846.92∗</td>
<td>-1661.241*</td>
<td>-6218.562*</td>
<td>-2966.407*</td>
<td>131.750</td>
<td>-2984.657*</td>
<td>-754.639*</td>
</tr>
<tr>
<td>Measuring, Checking Precision, Medical or</td>
<td>GDP/CAP</td>
<td>-0.00099**</td>
<td>0.002836*</td>
<td>0.001244*</td>
<td>-0.000891*</td>
<td>0.003120</td>
<td>-7.45E-05</td>
<td>0.008662*</td>
<td>0.005034*</td>
<td>-0.005015*</td>
</tr>
<tr>
<td>Apparatus and Accessories thereof (90)</td>
<td>R²</td>
<td>0.652740</td>
<td>0.404538</td>
<td>0.296530</td>
<td>0.459517</td>
<td>0.287177</td>
<td>0.262523</td>
<td>0.202089</td>
<td>0.460728</td>
<td>0.490694</td>
</tr>
<tr>
<td>Elasticity (e)</td>
<td>0.01175</td>
<td>0.483254</td>
<td>-0.1811</td>
<td>0.099656</td>
<td>0.429553</td>
<td>0.107674</td>
<td>0.015367</td>
<td>0.095632</td>
<td>0.196582</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- i) T values in parentheses.
- ii) Estimates marked as *, **, and *** are significant at 1%, 5% and 10% level of significance respectively.

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**TRANSFER PRICING: IMPACT OF TAXES AND TARIFFS IN INDIA**

38
The estimated results for industry 56 reveal that a multinational headquartered in the US will seek to remove taxable income from India by increasing its reported transfer price (of commodities from industry 56 being exported to India) by 0.40728 per cent when home (US) corporate tax rates fall by 1 per cent. For countries other than the US, the coefficient of TPI is negative though significant, which implies that the MNCs would like to reduce their taxable income in home country by decreasing their reported price. A five per cent increase in the corporate tax rates in the home country would encourage the MNCs to decrease the reported prices by 0.61 per cent, 1.42 per cent, 2.42 per cent, 1.34 per cent, and 0.68 per cent in their home countries China, France, Germany, Italy, and the UK respectively.

A 5 per cent fall in corporate tax rates in the parent country of the MNC will encourage it to increase its reported price by 0.944 per cent, 0.649 per cent, 0.995 per cent, 0.450 per cent, and 1.60 per cent in Italy, Japan, Singapore, Switzerland, and the US respectively to maximize its worldwide profits through import transactions in Industry 73 (Table 2). However, a five per cent increase in corporate tax rates in the home country will encourage the MNCs to decrease the reported prices by 0.55 per cent, and 3.47 per cent in France and Germany respectively.

The results for industry 82 show that coefficients of TPI have a positive sign for China, France, Germany, Italy, Japan, and Switzerland and negative in other countries. The coefficient of TPI is positive and significant for Germany and Italy which means that a 5 per cent fall in corporate tax rates in the home country will encourage an MNC to increase its reported price by 0.294 per cent and 0.136 per cent respectively to maximize its worldwide profits. The coefficient of TPI in China, France, Japan, and Switzerland is positive but insignificant which implies that a decrease in corporate tax rates in the home country will not encourage firms to increase their reported transfer price for commodities in industry 82.

The coefficient of TPI in industry 83 is positive and significant only for Japan which implies that a 5 per cent fall in the corporate tax rates in Japan will encourage MNCs to increase their reported transfer price by 3.116 per cent to maximize its worldwide profits. The coefficients of TPI are negative and significant for Germany, Italy, Singapore, the UK, and the US, which implies that the MNCs would like to reduce their taxable income in the home country by decreasing their reported transfer prices. A five per cent increase in corporate tax rates in the home country will encourage MNCs to decrease the reported prices by 1.636 per cent, 5.437 per cent, 0.82 per cent, 0.958 per cent, and 1.30 per cent in Germany, Italy, Singapore, the UK, and the US respectively. The coefficient of TPI in China is negative and insignificant which implies that an increase in the home corporate tax rates will not encourage firms to decrease their reported transfer price for commodities in industry 83.

The country-wise GLS estimates for industry 84 reveal that coefficients of TPI are positive and significant for China, Germany, Italy, and the US, while negative and significant for the rest of the countries. This implies that multinationals headquartered in China, Germany, Italy, and the US would seek to remove taxable income from India by increasing their reported transfer prices (of commodities from industry 84 being exported to India) by 3.55 per cent, 3.475 per cent, 1.261 per cent, and 3.271 per cent respectively when the home corporate tax rates fall by 5 per cent.

For France, Italy, Japan, Singapore, the UK, and the US, the coefficients of TPI are negative and significant in industry 85 (Table 2) which implies that MNCs would like to reduce their taxable income in the home country by decreasing their reported transfer prices. A five per cent increase in corporate tax rates in the home country will encourage MNCs to decrease the reported prices by 2.416 per cent, 0.498 per cent, 2.147 per cent, 0.538 per cent, 0.48 per cent, and 0.843 per cent in France, Italy, Japan, Singapore, the UK, and the US respectively.

The estimates for industry 90 reveal that a five per cent increase in corporate tax rates in the home country will encourage the MNCs to decrease their reported prices by 5.553 per cent, 1.94 per cent, 4.77 per cent, 1.59 per cent, 1.335 per cent, and 0.919 per cent in France, Italy, Japan, Singapore, UK, and US respectively. The coefficients of TPI are positive but insignificant for China, Germany, and Switzerland; therefore MNCs do not see any incentive to increase their reported transfer price of products from industry 90, in case the corporate tax rates fall in the home country.

Overall we can say that the empirical tests support our hypothesis that reported transfer pricing decision of
MNCs is influenced by transfer pricing incentives (TPI) for products in all the industries in the sample.

**Industry-wise Consolidated Regression Results for All Countries**

With an objective to check whether industry responses differ meaningfully, the basic estimating equation is applied to individual products to estimate TPI coefficient for products grouped industry by industry taking all countries together. For this analysis, it is assumed that the treatment of products within an industry is more similar than the treatment of products across all industries. The estimates of the model are computed for each of the industries (38, 39, 56, 73, 82, 83, 84, 85, and 90). The responses of the reported transfer prices with respect to changes in transfer pricing incentives, by industries are given in Table 3.

The GLS estimate for individual industries display that out of nine industries in the sample, three industries (38, 73, and 84) have a positive and significant co-movement with transfer pricing incentives. In four industries (56, 83, 85, and 90), the coefficients of Transfer Pricing Incentive (TPI) is negative but significant. In case of two industries (39 and 82), TPI coefficient is negative but not significant. Positive and significant coefficients of TPI predict that one per cent reduction in corporate tax rates in the home country would cause multinational corporations with affiliated transactions to increase their reported transfer prices by 1.20 per cent in ‘Miscellaneous Chemical Products’ Industry (Industry 38), 0.175 per cent in the ‘Articles of Iron or Steel’ Industry (Industry 73), and 0.908 per cent in ‘Nuclear Reactors, Boilers, Machinery, and Mechanical Appliances; Parts thereof’ Industry (Industry 84).

In industries where the coefficient of TPI is negative and significant, MNCs would like to shift the taxable income of their affiliates to the host country by decreasing their reported transfer prices. One per cent increase in the home corporate tax rates would encourage the MNCs to decrease their reported prices by 0.231 per cent in ‘Wadding, Felt and Non-woven; Special Yarns; Twine, Cordage, Ropes and Cables; and Articles thereof’ Industry (Industry 56), 0.227 per cent in ‘Miscellaneous Articles of Base Metal’ (Industry 83), 0.468 per cent in

**Table 3: Industry-wise Consolidated Regression Results for All Countries**

<table>
<thead>
<tr>
<th>Industry</th>
<th>TPI</th>
<th>GDP/CAP</th>
<th>$R^2$</th>
<th>Elasticity(e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscellaneous Chemical Products (38)</td>
<td>1685.524*</td>
<td>-0.000101***</td>
<td>0.097344</td>
<td>-1.206067</td>
</tr>
<tr>
<td>Plastic and Articles thereof (39)</td>
<td>-18.38429</td>
<td>3.55E-05*</td>
<td>0.031871</td>
<td>0.020629</td>
</tr>
<tr>
<td>Wadding, Felt and Non-wovens; Spacial Yarns; Twine, Cordage, Ropes and Cables and Articles thereof (56)</td>
<td>-257.9396*</td>
<td>7.08E-05*</td>
<td>0.143196</td>
<td>0.23119</td>
</tr>
<tr>
<td>Articles of Iron or Steel (73)</td>
<td>207.4315*</td>
<td>-5.02E-05*</td>
<td>0.058835</td>
<td>-0.17541</td>
</tr>
<tr>
<td>Tools Implements, Cutlery, Spoons and Forks, of Base Metal; Parts thereof of Base Metal (82)</td>
<td>-16.56451</td>
<td>2.11E-05 (0.744134)</td>
<td>0.054326</td>
<td>0.005649</td>
</tr>
<tr>
<td>Miscellaneous Articles of Base Metal (83)</td>
<td>-503.9287*</td>
<td>9.79E-05*</td>
<td>0.059118</td>
<td>0.22689</td>
</tr>
<tr>
<td>Nuclear Reactors, Boilers, Machinery and Mechanical Appliances; Parts thereof (84)</td>
<td>184371.1*</td>
<td>0.001428 (0.272274)</td>
<td>0.009833</td>
<td>-0.90756</td>
</tr>
<tr>
<td>Electrical Machinery and Equipment and Parts thereof; Sound Recorders and Reproducers, Television Image and Sound Recorders and Reproducers, and Parts (85)</td>
<td>-9701.775*</td>
<td>0.003041* (7.023583)</td>
<td>0.017372</td>
<td>0.468472</td>
</tr>
<tr>
<td>Optical, Photographic Cinematographic Measuring, Checking Precision, Medical or Surgical Inst. and Apparatus Parts and Accessories thereof (90)</td>
<td>-27674.05*</td>
<td>-0.004249* (-3.916625)</td>
<td>0.040539</td>
<td>0.645377</td>
</tr>
</tbody>
</table>

**Notes:**

i) T values in parentheses)
ii) Estimates marked as *, **, and *** are significant at 1%, 5% and 10% level of significance respectively.
Electrical Machinery and Equipment and Parts Thereof; Sound Recorders and Reproducers; Television Image and Sound Recorders and Reproducers; and Parts’ Industry (Industry 85) and 0.645 per cent in ‘Optical, Photographic Cinematographic Measuring, Checking Precision, Medical or Surgical Instruments, and Apparatus Parts and Accessories thereof’ Industry (Industry 90).

Possibly, differences in the implied degree of transfer price manipulation are related to industry differences. These differences may be due to the importance of intangible assets in different industries, because products which rely most heavily on intangible assets are less likely to have comparable arms-length standard transactions that provide bases for their transfer prices. In other words, if comparables transactions are scant or non-existent, the MNC is likely to have greater potential discretion in choosing its transfer price. Though results hint at the importance of intangible assets at industry level, it is difficult to measure intangible assets. In addition, even within industries, there is likely to be great heterogeneity across products in the degree of intangible intensity. While the presence of intangible assets may increase the scope for transfer pricing manipulation, this aspect is not within the scope of the present research.

The coefficients of country dummies are significant for most of the industry-country combinations showing the positive impact of the country on the reported price across industries.

### Full Sample Regression Results

To check the hypothesis for the full sample data, the basic estimating equation was applied to estimate the TPI coefficient by grouping together products of all industries being imported to India from countries selected in our sample. The regression results of the full sample for different industries-countries combinations are given in Table 4.

In all industries-countries combinations of the full sample, the TPI coefficients are positive and significant. The positive and significant coefficients on transfer pricing incentive variables support the model predictions regarding MNC responses to the changing transfer pricing incentives. Positive and significant coefficients of TPI predict that one per cent reduction in corporate tax rates in the home country of MNC would cause multinational corporations with affiliated transactions to increase the reported transfer prices in the range of 0.248 per cent to 0.389 per cent. In other words, a 5 per cent fall in home corporate tax rates in the parent country of the MNC will encourage it to increase its reported price in the range of 1.24 per cent to 1.945 per cent. The coefficients of country dummies are significant for most of the cases showing a positive impact of the country on the reported price across the full sample.

Though the coefficients are precisely estimated, they are economically small. This may be because the full set of data includes unaffiliated trade as well as trade trans-

<table>
<thead>
<tr>
<th>Full Sample</th>
<th>TPI</th>
<th>GDP/CAP</th>
<th>Observations</th>
<th>$R^2$</th>
<th>Elasticity(e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Industries (73,82,83,84,85,90)</td>
<td>21510.94* (6.727477)</td>
<td>0.001278 (0.654230)</td>
<td>7,848</td>
<td>0.002594</td>
<td>-0.25787</td>
</tr>
<tr>
<td>7 Industries (38,73,82,83,84,85,90)</td>
<td>22800.05* (4.627249)</td>
<td>0.005626*** (1.666881)</td>
<td>5,520</td>
<td>0.002526</td>
<td>-0.30474</td>
</tr>
<tr>
<td>7 Industries (39,73,82,83,84,85,90)</td>
<td>17375.45* (4.525946)</td>
<td>0.003816 (1.636723)</td>
<td>5,832</td>
<td>0.003300</td>
<td>-0.24839</td>
</tr>
<tr>
<td>8 Industries (39,56,73,82,83,84,85,90)</td>
<td>24270.54* (5.993283)</td>
<td>-0.001484 (-0.606031)</td>
<td>6,288</td>
<td>0.002557</td>
<td>-0.3891</td>
</tr>
<tr>
<td>9 Industries (38,39,56,73,82,83,84,85,90)</td>
<td>20179.38* (4.375152)</td>
<td>0.003151 (1.134951)</td>
<td>5,480</td>
<td>0.002694</td>
<td>-0.32937</td>
</tr>
</tbody>
</table>

**Notes:**

i) $T$ values in parentheses()

ii) Estimates marked as *, **, and *** are significant at 1%, 5% and 10% level of significance respectively.
acted between the multinational parents and their affiliates. The affiliated and unaffiliated trade cannot be separated, since it is quite impossible that prices charged for unaffiliated trade will be different from the arms' length standard, or that there will be any correlation of the same with changes in transfer pricing incentives.

The estimates of transfer pricing responsiveness are lower possibly for two reasons as mentioned by Swenson. First, in case there is any omitted variable bias because of correlation between the transfer pricing incentive and the costs associated with transfer pricing (not included in our model specification), then the transfer pricing incentive coefficient will be biased downward. If transfer pricing cost variable is included in the model, then its coefficient should have been negative; and any covariance between TPI and cost of transfer pricing manipulation is likely to be positive. This means that the overall bias results in an underestimation of the actual transfer pricing responsiveness. If we imagine that MNCs are likely to pay the consultants to assist them in transfer prices manipulation in case transfer pricing incentive is abnormally large, a positive covariance between TPI and cost of transfer pricing manipulation is expected. As good product-level measures for costs of transfer price manipulation do not exist, it is not possible to determine whether this omitted variable bias is present or not.

The second reason for lower transfer pricing incentive coefficient may be the use of statutory tax rates, rather than marginal tax rates in calculating TPI, since it is not possible to measure the marginal tax rates that apply to products in the sample of this study. Thus, if the marginal tax rates and statutory tax rates are different, then transfer pricing incentives are computed with some error in this study, which will result in a downward bias to the estimated transfer pricing incentives.

CONCLUSION AND POLICY IMPLICATIONS

In this paper, the reported transfer prices have been studied for a set of commodities (from industries 38, 39, 56, 73, 82, 83, 84, 85, and 90) that had been continuously imported from at least six countries (out of the sample of nine countries, i.e., China, France, Germany, Italy, Japan, Singapore, Switzerland, the UK, and the US) during the financial years 2000-2001 to 2007-08 to India. The corporate tax rate differential across countries and customs duty variations across products encourage multinational corporations to manipulate transfer prices on international transactions between affiliated firms with the motive of shifting taxable income from high tax jurisdiction to low tax jurisdiction. The estimates of the data studied establish that reported transfer prices rise when transfer price incentive (i.e., combined effects of corporate tax rates and custom duties) is positive and significant. On the other hand, negative and significant transfer pricing incentive resulted in a fall in the reported transfer prices. The TPI coefficient for products grouped by industry taking all countries together reveal that the MNCs increased the reported transfer prices of commodities imported from industries 38, 73, and 84 while they decreased reported transfer prices of commodities imported from industries 56, 83, 85, and 90 depending upon the decrease/increase in the tax rates.

The positive and significant coefficients of TPI for the full sample predict that one per cent reduction in corporate tax rates in the home country of MNC would cause multinational corporations with affiliated transactions to increase the reported transfer prices in the range of 0.248 per cent to 0.389 per cent. The results are statically significant but economically small may be because shifting of income through over/under statement of transfer prices for the physically moved goods is costlier than the other methods of income shifting.

The findings and results of the present work are in sync with the work of other researchers. The empirical results of the present study establishing the relationship between transfer pricing incentives and reported transfer prices (TPI decides the movements, i.e., increase/decrease in reported price) have also been supported by the results of the work done by Swenson (2000) and Dawson and Miller (2000). The empirical results of our study establishing the relationship between transfer pricing incentives, taxes, tariffs, and reported transfer prices identify the industries/countries most prone to transfer pricing manipulation. This may facilitate the tax authorities in protection of their tax base in India. On the basis of the present study, it may be concluded that the reported transfer prices change with the change in transfer pricing incentives. It provides opportunity for MNCs to manipulate their transfer price to maximize profits across world-wide locations of operations and reduce tax liability.
Based upon the results and findings of this study, we are offering certain operational suggestions/recommendations to the Government and other Statutory and Regulatory Bodies in India to improve their transfer pricing practices. It is hoped that the regulatory authorities would enhance tax base and reduce tax evasion resulting from transfer pricing manipulation by implementation of the following recommendations:

• Devise means to encourage compliance on transfer pricing issues rather than relying on the penalty policy to save time and resources that are wasted in audits and adjustments.

• Reduce corporate tax and tariff rates to bring them at a comparable level with countries across the world which will reduce the incentive to MNCs for shifting of income out of India and increase the tax base for tax authorities. This will also result in an increase in the tax revenue of the country.

• Ensure that regulatory authorities engage in information exchange with competent authorities abroad which will facilitate in assessing tax liabilities of multinational corporations.

SCOPE FOR FURTHER RESEARCH

Though the scope for further research in the area of transfer pricing is very wide in India, the following areas appear to be most promising:

• Observations of the present work are based on a small number of companies. Specific requirements of various sectors, e.g., manufacturing, trading, and services have not been considered. This study may therefore be extended to cover the specific needs of the different sectors.

• The reported product prices by country have been studied in the absence of the availability of the reported prices for individual firm’s intra-firm product sales. Another study can be carried out on the reported prices for individual firm’s intra-firm product sales to compute more accurate evidences of the impact of transfer pricing incentives on reported prices.

• Though the benefits of transfer price manipulation are attenuated by potential costs of shifting, impact of the same is not studied in the present work. Hence, the study can be extended to cover costs of shifting income to find more authentic evidences of transfer pricing manipulation and its impact on tax revenues of the country.

• The presence of intangible assets may increase the scope for transfer pricing across industries. A more elaborate exercise covering the impact of intangible assets on transfer pricing manipulation may yield fruitful results.

Appendix I: Provisions on Transfer Pricing under Income Tax Act

Prior to the introduction of transfer pricing provisions in the Finance Act, 2001, Section 92 of the Income-tax Act provided that where a business was carried on between a resident and a non-resident and it appeared to the assessing officer that, due to close connection between them, the transactions between them were so arranged that the resident had no profit or had less than reasonable profit, the assessing officer could estimate reasonable profit in the hands of the resident. Rules 10 and 11 explained the manner in which income from transactions with non-residents should be computed. These provisions were not found to be very effective and, therefore, replaced by the new provisions that came into effect from 1st April 2001 corresponding to the assessment year 2002-03. Currently, the tax laws on transfer pricing in India are contained in Section 40A(2), Sections 92-92F, Section 271, 271AA, 271BA, and 271G of the Income Tax Act 1961 and Rule 10 to 10E of the Income Tax Rules.

Section 92 provides that any income arising from an ‘international transaction’ shall be computed having regard to “the arm’s length price”. The Section further provides that in an international transaction between two or more ‘associated enterprises’ when there is a mutual agreement or arrangement for the allocation or apportionment of any contribution, any cost or expenses in connection with a benefit, service or facility provided to any one or more of such enterprises, the allocation of cost, expenses, etc. shall be determined having regard to arm’s length price of such benefit, service or facility. Similarly, the price received for exports and amounts received for serv-
ices rendered to associated enterprise should be determined on the basis of arm’s length price. The assessing officer will have wide powers to determine what an arm’s length price for such transactions is and make adjustments for computation of income. The provisions, however, would not be applicable in a case where application of arm’s length price results in decrease in the overall tax incidence in India with respect to the parties involved in international transaction.

Section 92A provides meaning of the expression associated enterprises. The enterprises are considered associated enterprises if one enterprise is controlled by the other or both enterprises are controlled by a common third person. The concept of control adopted in the legislation extends not only to control through holding shares or voting power or the power to appoint the management of an enterprise, but also through debt, blood relationships, and control over various components of business activity performed by the taxpayer such as control over raw materials, sales and intangibles.

**International Transaction** has been defined under Section 92B as a transaction, which is to be read with the definition of transactions given in section 92F. An international transaction is essentially a cross border transaction between associated enterprises in any sort of property, whether tangible or intangible, or in the provision of services, lending of money etc. Sub-section (2), of section 92B extends scope of the definition of international transaction by providing that a transaction entered into with an unrelated person shall be deemed to be a transaction with an associated enterprise, if there exists a prior agreement in relation to the transaction between such other person and the associated enterprise, or terms of relevant transaction are determined by the associated enterprise.

Arm’s length price is defined in Section 92F(ii) to mean price which is applied or proposed to be applied in a transaction between persons other than associated enterprises in un-controlled conditions. Section 92C provides the method for determining arm’s length price and factors which needs to be considered for applicability or non-applicability of a particular method in a given situation. Section 92C provides that the arm’s length price in relation to an international transaction shall be determined by any of the following methods, being the most appropriate method, having regard to the nature of transaction or class of transaction or class of associated persons or functions performed by such persons or such other relevant factors as the Board may prescribe:

- comparable uncontrolled price method
- resale price method
- cost plus method
- profit split method
- transactional net margin method
- such other methods as may be prescribed by the Board. So far no other method has been prescribed.

The taxpayer can select the most appropriate method to be applied to any given transaction, but such selection has to be made taking into account the factors prescribed in the Rules 10A to 10C. With a view to allow a degree of flexibility in adopting an arm’s length price the proviso to sub-section (2) of section 92C provides that where most appropriate method results in more than one price, a price which differs from the arithmetical mean by an amount not exceeding five percent of such mean may be taken to be the arm’s length price, at the option of the assesses.

Rule 10B further provides that an uncontrolled transaction shall be comparable to an international transaction if none of the differences between the transactions being comparable or the enterprises entering into such transactions are likely to materially affect the price or cost charged or paid in, or the profit arising from such transactions in the open market, or reasonably accurate adjustments can be made to eliminate the material effects of such differences. Further, the data to be used for the above comparison should relate to the financial year in which the international transaction has been entered into. It is also provided that similar data relating to earlier two years can also be used for comparison if such data is relevant for the purpose.

According to Section 92D, every person who has undertaken an international transaction shall keep and maintain such information and documents as specified by rules made by Central Board for Direct Taxes (CBDT). The Board has also been empowered to specify the period for which the information and documents are required to be retained. The documentation has been prescribed under Rule 10D. The documentation should be available with the assessee by specified date defined in section 92F and should be retained for a period of 8 years.

As per Rule 10D (1), taxpayers are required to maintain certain documents which are mandatory. Such documents include i) description of the group e.g. ownership structure and description of business and industry); ii) description of international transactions, iii) descrip-
The primary onus is on the taxpayer to determine an arm’s length price in accordance with the rules, and to substantiate same with the prescribed documentation. If the data used for determining arm’s length price is reliable and correct there can be no intervention by the Assessing Officer (AO). Section 92C(3) and (4) gives power to the assessing officer to determine arm’s length price under certain circumstances and also empowers the assessing officer to re-compute total income of the assessee having regard to arm’s length price determined by him.

To avoid the unnecessary hardship in implementation of transfer pricing regulations, CBDT issued a Circular No. 12 of 2001 dated 23-8-2001, which provides that the assessing officer shall not make any adjustment to the arm’s length price determined by tax-payer, if such price is up to 5% less or up to 5% more than the price determined by Assessing Officer. In such cases price declared by the taxpayer may be accepted.

All tax assessments are to be completed within three years from the end of financial year but in case tax authority is of the opinion that income has escaped assessment, an assessment may be reopened within seven years from the end of the fiscal year.

According to Section 271AA, if any person who has entered into an international transaction fails to keep and maintain any such information and documents as specified under section 92D, the AO or Commissioner of Income Tax (Appeals) may levy a penalty of a sum equal to 2% of the value of international transaction entered into by such person.

If due diligence effort to determine the arm’s-length price has not been made by the taxpayer, then 100 per cent to 300 per cent of incremental tax on transfer pricing adjustment may be levied by the tax officer as provided under Section 271(1). Penalties can be avoided if due effort is made to determine the arm’s-length price and the same is demonstrated through proper documentation and timely submission of it to the tax authorities during assessment proceedings. Section 271BA provides that if any person fails to furnish a report from an accountant as required by section 92E, the AO may levy a penalty of Rs. one lakh.

REFERENCES


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