Investment and agency motives of corporate philanthropy: Evidence from Anti-Dumping Initiations

Shantanu Banerjee, Swarnodeep Homroy and Aurélie Slechten

Lancaster University, United Kingdom

Abstract

We investigate the investment and agency motives of corporate philanthropy by examining firms' response to changes in customer profile. Anti-dumping initiations on Chinese products increase export demand for competing Indian firms. We find that Indian firms increase philanthropic expenses if customer preference for philanthropy is high in the geography of the export-demand shock. However capital investments and R&D increases due to such demand shocks, irrespective of its country of origin. Collectively, our results provide empirical evidence in favour of investment motives of corporate philanthropy. We use the ex-ante differences in managerial entrenchment to further disentangle the motives of corporate philanthropy. (*JEL* M14, G32).

Key Words: Corporate philanthropy, Firm investment, Managerial entrenchment, Anti-dumping initiations.

Acknowledgement: We thank Sudipto Dasgupta, Mohamed Ghaly, Maitreesh Ghatak, Ian Gregory-Smith, Colin Green, and Maurizio Zanardi for their suggestions on previous versions of this paper. We are also grateful for comments from the participants at Lancaster University Economics and Finance seminar series, Royal Economic Society Annual Conference 2016, Work, Pension and Employment Group Annual Conference, 2015.

* Corresponding author: Banerjee Lancaster University, Lancaster, LA1 4YX.

Email: s.banerjee@lancaster.ac.uk;

Homroy: Lancaster University, LA1 4YX, United Kingdom. Email: s.homroy@lancaster.ac.uk;

Slechten: Lancaster University, LA1 4YX,

United Kingdom. Email: a.slechten@lancaster.ac.uk

I. Introduction

This paper examines the investment and agency motives of corporate philanthropy. Firm spending on philanthropic causes has increased significantly over the last decade. For example, average philanthropic spending by United States (US) and United Kingdom (UK) companies in the Fortune Global 500 list is $15.2 billion a year (Financial Times, 2014).[1] There are two competing views of corporate philanthropy. First, the stakeholder view argues that corporate giving enhances a firm's image to customers and other stakeholders. Corporate philanthropy is therefore part of a firm's profit maximization strategy. A second approach identifies corporate giving as pure form of corporate expenditure and a manifestation of moral hazard towards shareholders (Kitzmueller and Shimshack, 2012). Given the difference in terms of welfare implications of these two competing views, it is important to understand why firms voluntarily bear the costs associated with philanthropy.

Image motivations of prosocial behaviour is well established (Ariely, Bracha, and Meier, 2009). Through charitable donations, firms make an investment, the benefits of which will accrue in the long term (Brown, Helland, and Smith, 2006; Porter and van Linde, 1995). These investment may aim at increasing demand for products or building customer loyalty (Albuquerque, Koskinen, and Zhang, 2017). From that standpoint, the growth in corporate philanthropy is driven by customer preference for corporate social responsibility, which varies across countries. Arora and Gangopadhyay (1995) show that consumer preference for corporate philanthropy is correlated with purchasing power of consumers. This might explain why corporate philanthropy in the emerging economies is in a nascent stage: India and China's ranks of 106 and 144 in the World Giving Index, while US is ranked 2nd, UK 6th and the Netherlands 7th. The benefits of these philanthropic investments may also include attracting and retaining high skilled employees (Greening and Turban, 2000), charging higher rent for buildings (Eichholtz, Kok and Quigley, 2010), and insuring from regulatory monitoring (Baron, 2001; Maxwell, Lyon, and Hackett, 2000). Regardless of the precise channel, these papers suggest investment motives of philanthropic expenses.

On the other hand, such expenses may also reflect agency costs arising out of managerial entrenchment (Masulis and Reza, 2014; Tirole, 2001). Since it is difficult to measure the financial returns to corporate giving, it is hard to identify if such expenses are due to personal preference of managers (reputational concerns or warm-glow effect of giving), and a detriment to shareholder value maximization. If so, entrenched managers will only exacerbate such costs (Ferrell, Liang, and Renneboog, 2016).

Against this backdrop, the objective of this paper is to examine whether corporate philanthropy is an investment strategy or reflects agency cost arising out of managerial entrenchment. Several studies examine the effect of corporate philanthropy on firm performance (see Margolis (2009) for a meta-analysis of this literature), but it is hard to draw causal evidence of performance effect of corporate philanthropy due to endogenous associations. In a related paper Masulis and Reza (2014) focus on the association between corporate philanthropy and the private preference of the CEO, and the channels through which corporate giving affects firm value. They show that corporate giving to sources closely linked to the CEO is value-reducing for the firm, which is consistent with the agency motive of corporate philanthropy. Our paper analyses how corporate philanthropy is affected by an exogenous change in exposure to consumer preference generated through anti-dumping initiations on products from a competing exporting country. Our findings contribute to the literature by providing clean evidence on the investment motive of corporate philanthropy.

We use a sample of top five hundred Indian listed firms for the period 2006–2013: 36% of the large firms are affiliates of business groups with concentrated shareholding and 53% of the firms have dispersed shareholding.[2] Our use of Indian data is motivated by two important considerations. First, Indian firms face low domestic customer preference for corporate philanthropy, and high customer preference from some of the export destinations like the US and the European Union (EU). For example, according to a report by Bain and Company (2015), individual and institutional charitable donations form 0.6% of India's GDP. In comparison, the same for the US, UK and China are 2.2%, 1.3%, and 0.1%, respectively.

The variation in the source of the export shocks allows us to examine the impact on corporate giving of variation in customer preference.

Second, Indian firms vary in corporate holding structure: business group affiliates with controlling stakeholding, and firms with dispersed shareholding compete in most industry classifications. This is important because coexistence of firms with different ownership structures gives us an *ex-ante* measure of managerial entrenchment. There are some stylised results on corporate giving in business group firms. Khanna and Palepu (2002), and Bertrand, Mehta and Mullainathan (2002) suggest that charitable donations of group affiliates can reflect agency costs and can lead to rent-seeking by controlling shareholders in the form of private benefits. At the same time, controlling stakeholding and related temporal dimensions of profit can ease the participation constraint of business group firms in corporate philanthropy (Bénabou and Tirole, 2010). Notwithstanding the motives, business group affiliates can access the internal capital market which makes financing of long term investments relatively easier (Khanna and Yafeh, 2005). This is particularly important in emerging economies as absence of adequate legal protection makes it difficult for firms to raise external capital (La-Porta, Lopez-de-Salines, and Shleifer, 1999). Therefore, corporate philanthropy of group affiliates can also reflect better access to investment financing (Masulis, Pham and Zein, 2011; Gopalan, Nanda, and Seru, 2007).

Our investigation begins with comparison of charitable donations of business group affiliates and unaffiliated firms with dispersed shareholding. We find that business group affiliates donate more to charitable causes compared to unaffiliated firms. However, from this result, we can not disentangle the agency-cost and the investment hypotheses.

In an attempt to disentangle these two competing hypotheses, we need an exogenous shock to either managerial entrenchment or investment opportunity, but that does not affect corporate giving directly. We analyse the change in corporate philanthropy of Indian firms in response to anti-dumping initiations on competing Chinese products by the US and the EU. Anti-dumping is a form of trade barrier whereby an importing country (e.g. the US and

the EU) can unilaterally impose anti-dumping duties on products exported by firm(s) from another country (e.g. China) when there is evidence that these exporting firm(s) is charging lower price for its exports than for its domestic sales, and that it is injuring the interests of the domestic producers in the importing country. Anti-dumping duties are aimed to increase the price of imported products, with the consequent implication of lowering the competitiveness of the products of an exporting firm in the importing country. It is a commonly used countervailing measure. Vandenbussche and Zanardi (2008) show that number of countries using anti-dumping has doubled between 1980 and 2003, with Australia, Canada, the EU, New Zealand, and the US historically being the largest users of this form of trade barrier.[3]

The theoretical underpinning of our quasi-natural experiment is the following. Indian and Chinese firms compete in the export market. Anti-dumping initiations on Chinese products makes products of Indian firms more competitive in the export market, and increases the exposure of the Indian firms to customers with higher preference for corporate philanthropy, i.e. US and the EU (Bown and Porto, 2010; Kitzmueller and Shimshak, 2011). For example, before 2004 Chinese exports of polyethylene tetraphthalate (thermoplastic polymer resin commonly known as PET) products was 150% more than that of India. Following an anti-dumping petition filed against Chinese PET products by US manufacturers in 2004, Indian exports of PET products to the US overtook that of China's, and by 2008 Indian exports was thrice that of Chinese exports. This illustrates how anti-dumping can adversely (positively) affect exports for the affected (competing) countries.

As such export market shocks from the US and the EU also exposes the Indian firms to customers with, on average, higher preference for corporate philanthropy. Therefore, if firms use charitable donations as an investment to cater to customer preference, we would expect corporate giving of both business group affiliates and unaffiliated firms to increase. Given the higher investment opportunity, both group affiliates and stand-alone firms increase corporate philanthropy, presumably to cater to customer preferences. On the other hand, if charitable donations largely reflect agency motives, managers with lower entrenchment possibilities

will increase charitable donations in favourable demand conditions (Jensen, 1986) From that standpoint, we expect firms with dispersed shareholding to increase charitable donations more than the group affiliates. We use a triple difference estimator in our empirical analyses, and find that both types of firms increase their charitable donations when US and EU initiate anti-dumping duties against competing Chinese products, and the increase in corporate philanthropy is marginally more for group affiliates.

We further investigate how charitable donations of Indian firms change when anti-dumping measures are initiated on Chinese products by India's other large trading partners, excluding the US and the EU. Customers from these export markets are likely to be less sensitive to corporate philanthropy than that of US and EU (Arora and Gangopadhyay, 1995). But if donations reflect agency cost, then irrespective of customer preference in the export destinations, managers will increase corporate philanthropy in response to the positive demand shock. For every year, we identify the top five trading partners of India (other than the US, EU, and China) and aggregate anti-dumping initiations on Chinese firms by these countries.[4] We find no significant increase in charitable donations from either types of firms in response to anti-dumping initiations from these set of countries on Chinese products. Both group affiliates, and stand-alone firms seem to react not merely to increased demand, but to the potential returns of charitable donations. When the demand conditions are likely to be better in countries with higher customer preference for philanthropy (US and the EU), they increase charitable donations but do not when anti-dumping against Chinese products are initiated from other major exporters. These results are consistent with an investment motive for corporate philanthropy.

One further concern is that the above results could be driven by the relative importance of the US and the EU as export markets of Indian products. To address this we examine whether other investments of Indian firms vary by the origin of the anti-dumping initiation on Chinese products. Our results suggest that both business group affiliates and unaffiliated firms increase capital expenditure, and R&D in response to anti-dumping initiations on

Chinese products, regardless of the origin of the export-shock. If export-shock from non-US, non-EU countries were weak, we would expect to see no change in these investments as well. These results corroborate the investment-motive of corporate philanthropy: both types of firms increase capital expenditure and R&D irrespective of the source of the positive demand shock. These investments are likely reactions to meet the additional demand, but are uncorrelated with customer preference. In contrast, firms only increase charitable donations when they expect to benefit from customer preference for such expenses. While our evidence is supportive of the investment motives of corporate philanthropy, it is possible that corporate giving can partially reflect managerial entrenchment in the absence of a demand shock.

The rest of the paper proceeds as follows: section II presents our empirical motivation, in sections III and IV we discuss the data and the empirical results, and section V concludes.

II. Institutional background and empirical motivation

A. Institutional Background

The institutional framework for corporate governance in India dates back to 1875 with the establishment of the Bombay Stock Exchange. The Companies Act of 1956 governs the activities of listed firms in India, which has subsequently been replaced by the Companies Act of 2013. Since the liberalization of the economy in 1991, Indian firms are increasingly reliant on external sources of finance and the role of government has decreased. A shift has taken place away from the traditional interventionist approach and toward a more Anglo-American style of governance. Similar in spirit to the 2002 Sarbanes-Oxley Act, the Securities and Exchange Board of India (SEBI) in 2001 implemented Clause 49 for all firms listed in the BSE 200 index and subsequently to all listed firms. Clause 49 lays down a range of governance imperatives for listed firms, from board composition to independence of audit committee, to enhanced disclosure norms.

Dispersed shareholding pattern is not the only form of corporate holding in India. About 16% of the firms listed in BSE are controlled by the government (federal and state), and

three of the top six Indian firms in 2014 are one of these public sector firms. About a third of the listed firms have diversified shareholding and professional managers. Diversified business groups, mostly having a family-centric controlling stake, dominate the Indian private sector.

A common characteristic of these business groups is the presence and influence of promoters. The term is commonly used to mean controlling stakeholder, which can be an individual or a family. Promoters collectively hold about 54% of the shares in business group firms. Consequently, tunneling of assets can be a source of inefficiency and loss of profitability. Bertrand, Mehta, and Mullainathan (2002) find evidence that controlling stakeholders in business group used their entrenched positions to benefit at the expense of minority shareholders. However, Khanna and Palepu (2000) find that affiliate firms of diversified business groups outperform stand-alone firms in the same industry.

Although Indian business groups share some characteristics of the pyramidal structures in Japanese keiretsu, several key differences makes them unique. Similar to keiretsu, individual firms within an Indian business group are legally separate entities, they are primarily responsible to their own shareholders, and their accounts are audited separately. However, unlike in keiretsu, in which the affiliate firms are connected and coordinated through a common group-specific bank, firms within an Indian business group are coordinated by interlocked boards and by members of the promoter family, similar to the holding structure of Korean chaebols (Khanna and Palepu, 2000). A typical Indian business group has dozens of firms with complex cross-holdings. The complexity of cross-holdings makes computing the conventional cash flow rights and voting rights measures difficult.

Indian industrial organization allows us to compare different ownership structures within the same institutional framework and macroeconomic structure. There is a combination of dispersed shareholding, such as in the US and the UK, and an insider-dominated structure, such as in China and Japan. About 36% of the largest Indian firms are parts of diversified family-owned business groups, 16% are controlled by the state, and about 53% are Anglo-American style firms with dispersed equity shareholding and outside investors. Moreover,

market and non-market institutions in India are relatively stable, allowing for results that are comparable with extant corporate social responsibility and corporate governance literature, which is based predominantly on evidence from US and UK firms (Sarkar and Sarkar, 2000). The presence of stand-alone firms with dispersed shareholding and South Korean chaebol -type business group affiliates with complex cross-holdings within the same regulatory and accounting framework allows us to overcome many shortcomings of the cross-sectional comparisons of the first-generation studies on socially responsible firms. At the same time, India's financial system bears resemblance to many emerging markets (Gopalan and Gormley, 2013), which makes our results comparable to the empirical evidence on corporate governance of other emerging economies.

B. Agency vs Investment motives

Business group affiliates, often controlled by a family through cross-holdings are common in the industrial organization of the emerging economies. The strategic choices and financial outcomes for family firms are well documented (Shleifer and Vishny, 1997). Social investments of firms can be viewed as a long-term investment, trading off current profitability with long-term sustainability. Group affiliates with controlling shareholding, and intergenerational stakeholding can invest more in charitable donations as long term investments. For example, Oh, Chang, and Martynov (2011) find that long-term shareholders are more likely to drive corporate philanthropy in South Korean firms. At the same time, investment financing can be relatively easier for group affiliates because of the access to internal capital markets (Masulis, et al. 2011; Gopalan, et al. 2007). Therefore, on balance, business group affiliates may be more willing and able to invest in corporate philanthropy for long term reputation building.

On the other hand, firm preference for charitable donations is likely to depend the ability of manager to use corporate donations and other charitable activities for private benefits. Masulis and Reza (2014) show that CEOs donate to philanthropic causes that

they are closely related to. This, they argue, is indicative of the agency motive of such charitable donations. As such, corporate philanthropy can reflect agency problems in the firms (see Baron, 2008),and managerial entrenchment are likely to be associated with firm ownership structure. For example, a family firm with concentrated ownership can have more discretion in spending if the managers are themselves part of the family. Managers in dispersed shareholding firms, on the other hand, are likely to have lower discretion to spend on corporate philanthropy (Narayanan, 1985). Therefore, corporate philanthropy of business group affiliates can reflect agency cost. Our empirical analysis is designed to disentangle the agency and investment motives of corporate philanthropy by using exogenous demand shocks in the export markets.

III. Data and Key Variables

A. Sample

A major challenge to research on corporate strategy in emerging economies is availability of reliable and consistent data. India has a mature capital market with internationally comparable financial information and industry classifications. The main source of our data is Prowess, maintained by the Centre for Monitoring the Indian Economy (CMIE). The sample period is from 2006 to 2013. Although data on Indian firms are available before that, the coverage and the consistency of the data are better 2006 onward. For example, Siegel and Choudhury (2012) note that historical Prowess data had survivor bias, which is corrected for in later years. Additionally, the Indian Companies Act of 2013 mandates that firms spend a minimum of 2% of the average net profit made during the three immediately preceding financial years on CSR . By limiting our sample period up to 2013, we minimize potential confounding effects of the enforcement of this act from April 1, 2014. Our sample consists of the top five hundred listed firms on the BSE, which represent over 95% of the total market capitalization. We identify firms that has been listed at least once in BSE 500 within our sample period. Firms that are delisted from the BSE during the sample period are dropped

from the sample. We also exclude all publicly owned and foreign-owned cross-listed firms. These firms lend themselves poorly to comparison in our context.[5] We also exclude firm-year observations with missing data on ownership, as well as firm performance measures. Our final sample is an unbalanced panel of 677 firms with 4,143 firm-year observations. Table 1 presents the summary statistics on firm and board characteristics and philanthropic expenses. All monetary values are winsorized at 1% levels and expressed terms of US$ as of year 2000.

[Insert Table 1 around here]

Ownership Measures.—Our measure of ownership category is business group affiliation. Group affiliates are likely to be characterised by concentrated shareholding, cross holdings of equity, greater access to internal capital market, and potentially higher control of the promoter family. This classification is consistent with the measures used in the literature on emerging market finance (Khanna and Palepu, 1999; Bertrand, Mehta, Mullainathan, 2002; Siegel and Choudhury, 2012).

Prowess provides information to accurately identify the shareholders who control a firm either directly through their own shareholding, or indirectly through cross-holdings. We create a variable, $\%Shareholding - Promoters$ which combines the direct shareholding by promoters and the proportion of shares held by persons acting in concert with the controlling shareholders. It is a measure of direct and indirect control of a firm by the promoters. Of the 677 firms in our sample, 267 (39.44%) are group affiliates and 410 (60.56%) are stand-alone firms with dispersed shareholding. Group affiliates are more likely to have a member of the promoter family as the CEO. Throughout this paper, the top executive of the firm is denoted as the CEO. However, "managing director" and "chief executive officer" are interchangeably used as job titles for the top executive in India. Prowess identifies the top executive of each firm throughout the sample period but does not provide information on whether the CEO is a member of the founding family. This information is hand-collected from various filings (annual reports, statutory filings with the stock exchange, etc.) of each individual firm to

construct the variable $\text{Promoter} - CEO$. We also control for institutional shareholding by the percentage of equity shares held by financial institutions such as mutual funds, banks, insurance companies, and venture capital funds ($\%Shareholding - Institution$).

Corporate Philanthropy.—We measure corporate philanthropy (CP) by the annual charitable donations and investments on social infrastructure of firms. Firms report expenses in corporate social responsibility (CSR) initiatives to the Securities and Exchange Board of India as part of their financial filings. CSR includes spending on charitable donations, building and maintenance of public services (parks, primary schools, etc.). This allows us to examine the actual philanthropic expenses, and not a binary measure. We use the log of the linear addition of charitable donations[6] and expenditure on social and community infrastructures as our dependent variable. CP is zero in 38% of the firm-year observations. The median philanthropic spending is $21,235. An average firm spends about 3% of its total profits on CP.

Anti-Dumping.—We investigate the agency and investment motives of corporate philanthropy by using anti-dumping (AD) investigations targeted at competing Chinese exports of our sample firms. The data on anti-dumping is obtained from the World Bank's Global Anti-Dumping database which provides information on all anti-dumping petitions initiated by each country. Importing countries can choose to initiate an anti-dumping case against a product, a firm, or all firms in a given industry from a particular exporting country. This can initially lead to a primary anti-dumping measure. Once dumping, and damage to the domestic industry are established, a final anti-dumping measure is imposed on the goods under investigation. We use anti-dumping initiations and not the imposed measure because these anti-dumping measures vary widely and are not always comparable.[7] These measures are generally in effect for a three to five-year period. Anti-dumping measures are designed to make the imported goods less competitive in the importing country. Therefore such penalties, irrespective of the severity, is likely to be an adverse demand shock to the exporting firms and positive demand shock to competing products from other countries (Bown and

Porto, 2010).

We employ the following selection algorithm to identify Indian firms affected by anti-dumping initiations on Chinese products. We collate information on anti-dumping initiations against Chinese products by United States, and the European Union from 2003-2013.[8] Together, 24% of Indian exports go to the US and EU. We match the Chinese products under anti-dumping investigation to products sold by our sample of Indian firms. We then generate a binary measure $Anti-dumping-US/EU_{it-1}$ for Indian firms who export those products to the US and the EU which are subject to anti-dumping investigation for Chinese exporters. This gives us the 'treatment' group of firms who are exposed to the positive demand shock. Within the sample period, we have 73 events of anti-dumping initiations from the US and the EU on Chinese products which are also exported by Indian firms to the US and the EU. This gives us 722 firm-year observations of affected Indian firms in the post-anti-dumping periods.

Next, we identify anti-dumping initiations on Chinese products from India's other large export partners (excluding US, EU and China). To do that, we look at the top 5 export destinations of Indian products for every year of the sample period. These countries are United Arab Emirates (UAE), Brazil, Mexico, South Africa, and Argentina. Together they account for 17% of Indian exports. We use this to construct a binary measure $Anti-dumping-Others_{it-1}$ which gives us the treatment group of firms who are exposed to positive demand shock from non-US/EU export destinations.[9] Within the sample period, we have 41 events of anti-dumping investigations from these countries on Chinese products. These give us 281 firm-year observations on affected Indian firms in the post-anti-dumping periods.

[Insert Table 2 around here]

Control Variables.—A range of firm- and board-level characteristics mitigates omitted variable bias. We use accounting information from stand-alone annual financial statements reported in Prowess, cross-checked with information collected from Datastream using a string-matching algorithm by firms' names.[10] A firm's performance is measured by returns

on assets (ROA), and we control for firm size using natural log of sales[11]. Information on board size and the number of independent directors is collected from Prowess. Following Clause 49 of SEBI, the mean proportion of independent directors on the board is expected to be at least 50% for all firms. We also control for the export intensity of a firm. Another strand of research suggests that institutional ownership is positively associated with social responsibility (Shleifer and Vishny, 1997; Sethi, 2005; Siegl and Vitaliano, 2007). Therefore, we control for the proportion of shares held by institutional investors.

In panel A of table 3, we compare the key variables for firms with different ownership structure. Columns 1 and 2 present the mean values of key variables for group affiliates and stand-alone firms, respectively and Column 3 reports the difference in means The mean CP for group affiliates is \$16,810; for stand-alone firms, \$10,066. The mean is affected by the fact that about 30% of concentrated shareholding firm-years and about 40% of dispersed shareholding firm-years have no charitable donations. Group affiliates are on average larger than widely held firms in terms of sales revenue and total assets. However, no statistically significant difference in performance seems to exist between business group firms and widely held private stand-alone firms. Also, no statistically significant differences are evident in board-level characteristics. In panel B of table 3, we compare the characteristics of firms for firm-years with and without philanthropic expenses. Firms with charitable donations are, on average, bigger in terms of total assets, have higher profits, have a higher proportion of exports to sales, and have higher shareholding of promoters and institutions. No significant difference emerges in the size and the proportion of independent directors on the board.

[Insert Table 3 around here]

IV. Empirical Results

The central focus of our empirical analysis is to examine the investment and agency motives of corporate philanthropy. In this section, we consider the econometric issues and present the results for our baseline models and robustness tests.

A. Univariate Analyses

Export orientation and corporate philanthropy.—One important observation from the univariate analyses is that corporate philanthropy is higher in export-oriented firms. Since our exogenous shocks originate from the export markets of Indian products, we investigate the relationship between export orientation of firms and corporate philanthropy more closely using propensity score matching. To compare CP of business group affiliates and widely-held firms with similar characteristics, we match firms on sales, ROA, MTBV for each industry and year. We use nearest neighbourhood, radius, kernel, and Mahalanobis distance matching methods.

[Insert Table 4 around here]

The results are presented in table 4 for subsamples of firms with high (above the 75th percentile) and low exports (below the 25th percentile). In both the subsamples, the difference in CP are positive and statistically significant at 5% level. However, the difference in outcomes is much larger in the subsample of firms with low exports. The difference in CP of business group affiliates and firms with dispersed holding is mitigated by exports. We have checked that the smaller difference in outcomes for the high-exports subsample stems from higher CP of widely-held firms with high export-orientation.

Anti-dumping initiation and corporate philanthropy.—Higher philanthropic expenses of business group firms can be explained by both agency and investment motives. Ex-ante, business group promoters are likely to have more control over their firms, which would magnify the agency cost. At the same time the investment motives could also be stronger for group affiliates due to longer planning horizon, which can be financed more easily through access to the internal capital markets.

A robust way to disentangle the two motives is to use an exogenous shock to the possible motives of corporate philanthropy, but does not affect the ownership structure. In this paper, we use anti-dumping measures against competing Chinese products of our sample firms as an

exogenous demand shock. There is no plausible reason to expect that anti-dumping initiation on Chinese firms by an importing country to be affected by Indian firms. Our empirical design relies on the impact of export-driven demand shocks on philanthropic expenses. In particular, our design relies on the evidence that trade barriers imposed against one exporter increases market access to other exporting countries (Bown and Porto, 2010).

For that design to be appropriate, we need to ensure that additional necessary conditions are satisfied. First, anti-dumping as a trade barrier needs to have a significant effect on exports. Second, anti-dumping initiation on Chinese products need to affect the competing Indian exports. Vandenbussche and Zanardi (2010) show that anti-dumping measures depress imports from the targeted country significantly. Bown and Porto (2010) show that Indian steel manufacturers benefited in the forms of exports and profits when US and the EU imposed safeguard trade barriers on Chinese steel imports. They also show that Indian steel manufacturers expanded existing capacity in response to this positive trade shock. We use an anecdote from our data to highlight this point. PET-products exported by Chinese firms were brought under anti-dumping investigations in 2004 by US. As shown in figure 1, Chinese exports of PET-products were double that of Indian exports in the pre-2004 period. After 2004, Indian exports of PET to US overtakes Chinese exports, and becomes twice that of Chinese exports by 2008. This example highlights the impact of anti-dumping on trade, and the deflection of trade to competing exporters.

[Insert Figure 1 around here]

In table 5, we present a triple difference estimate of the effect of anti-dumping initiations on competing Chinese products from US and the EU on exports of group affiliates and unaffiliated firms. We find that exports increase significantly in the post-anti-dumping periods for both type of firms, but the difference in the increase is not statistically significant. To quantify, exports (as percentage of sales) of Indian firms increase by about 4% following anti-dumping initiations on competing Chinese products by US and the EU. Similar result holds for anti-dumping initiations on competing Chinese products from other large export

geographies, where exports of Indian firms increase by about 5.6%. This suggests that the anti-dumping shock has statistically significant effect on exports through which it can affect discretionary expenses of Indian firms.

[Insert Table 5 around here]

Third, anti-dumping needs to be among the preference set of trade barriers that the importing countries choose from. United States and the European Union account for about half of the global anti-dumping petitions filed (Moore and Zanardi, 2009). Zanardi (2006) shows that developing countries like Brazil and Argentina are increasingly using anti-dumping as trade barrier. Finally, Indian exports to the countries that initiate anti-dumping petitions against Chinese products needs to be substantial. Exports to the US and EU comprise about 24% of India's overall exports. The non-US, non-EU countries chosen for the analyses are the other top 5 export destinations of Indian products, and comprise 17% of overall exports.

Having satisfied these necessary conditions, we compare the CP of group affiliates and dispersed shareholding firms, before and after they are affected by anti-dumping initiations on Chinese products [12]. In effect, this gives us the triple difference in mean CP. In table 6 we present the difference in 3-year moving averages of CP for periods before and after periods of anti-dumping. Unconditionally, there are statistically significant differences in CP across the two types of firms. In periods after anti-dumping, both types of firms increase CP (these increases are also statistically significant at 1%-level). The difference in CP across group affiliates and unaffiliated firms persist after anti-dumping, but the difference-in-difference is statistically not significant at conventional levels.

To quantify, Indian firms increase philanthropic expenses by about 1.1% (on a baseline of 3% of profits) following anti-dumping investigations on competing Chinese products by US and the EU. This translates to approximately US$ 372,000. Although we can't draw any definite inferences from this, an agency motive would have meant that unaffiliated firms increase CP more than group affiliates after anti-dumping. In times of increased demand,

managers of all firms, particularly ones with constraints on discretionary expenses, would increase such expenses if the main reason for doing so is private benefits of managers. Business group affiliates would have weaker reasons to increase CP as they could have been seeking the agency rents even before the positive export-shock. Therefore, we treat this result as preliminary evidence for the investment motives of corporate philanthropy. We examine these competing hypotheses using multivariate analyses in the following section.

[Insert Table 6 around here]

B. Multivariate Analyses

From the univariate analyses it seems that without controlling for any firm-level characteristics, business group affiliates spend more on corporate philanthropy than widely-held firms but both types of firms increase these expenses when there is a positive demand shock from the US and EU. In this section, we extend the univariate analyses by controlling for a range of factors, and alternate explanations. We regress annual CP expenses on an indicator for business group affiliates, and on controls for firm and board characteristics (size, performance, board size, proportion of independent directors, etc.) in column 1 of table 7. All results are for the pooled sample, with year and industry controls and robust standard errors, clustered at firm levels. The main variable of interest is the *Business Group* indicator, which has a positive and statistically significant coefficient, indicating that group affiliates have higher corporate philanthropy than unaffiliated firms in our sample. This can be driven by both higher entrenchment through control, and by investment motives with an aim to build long term reputation, financed through internal capital market.

Next, we attempt to disentangle the investment and agency motives using export shocks to Indian firms originating from anti-dumping initiations against Chinese products from the US and the EU. These results are presented in column 2, where the main variables of interest are the indicator $Anti-dumping-US/EU_{it-1}$ and the interaction term, $Anti-dumping-US/EU_{it-1}$

$*Business\ Group$. anti-dumping shocks have a positive and statistically significant effect on CP, and the interaction of $Anti-dumping-US/EU_{it-1}*Business\ Group$ is positive and only marginally significant at 10% level. Therefore, it seems that Indian firms in general spend more in charitable donations when anti-dumping on Chinese products increase export market access. We also see marginally significant evidence of group affiliates spending more on CP in times of more favourable export-market conditions. If corporate philanthropy was driven purely by agency motives, group affiliates need not necessarily have increased their charitable donations during better export-demand conditions. Managers of business group firms may have been optimally extracting rents through corporate philanthropy even before the export shock. On the other hand, because group affiliates have better access to investment financing through internal capital markets, it is plausible that they can scale up their philanthropic expenses relatively easily when there is better access to export markets with higher customer preference for corporate philanthropy. This evidence provides further support for the investment motive of corporate philanthropy. However, it can not be definitively ruled out from this test that the positive coefficient on $Anti-dumping-US/EU_{it-1}*Business\ Group$ is driven mainly by agency motives.

[Insert Table 7 around here]

As the next step to understand the motives of corporate behavior, we examine philanthropic expenses of business group affiliates and unaffiliated firms around events of anti-dumping initiation on Chinese products by India's other major export destinations. Customer preference for corporate philanthropy in India's other large export destinations are, on average, lower than that of US and the EU. Therefore, if the increase in corporate philanthropy of Indian firms in reaction to anti-dumping on Chinese products from US and EU were driven by the investment motives of catering to customer preferences of the export market, such motives will be weaker in this test. We present this result in column 3. We find no statistically significant association of $Anti-dumping-Others_{it-1}$ with CP of either business group affiliates or widely held firms. This result strengthen the evidence

of investment motives of corporate philanthropy. If corporate philanthropy reflects agency cost, and managers increase consumption of private benefits of corporate philanthropy when the firm's investment financing are easier, we will expect to see an increase in CP irrespective of the source of the anti-dumping initiations on Chinese products. That all firms seem to systematically differ in their adjustment of corporate philanthropy to the origin of the export-market shock indicates that such spending is aimed to cater to the demands of the prospective customers.

The results reported in columns 1-3 are cross sectional estimates of firms that are affected by anti-dumping initiations on Chinese products with respect to firms that are not. In columns 4 and 5, we present within-firm estimates of CP adjustments following anti-dumping shocks. For these specifications, we cannot use the *Business Group* indicator as group affiliation is time-persistent. Therefore these estimates compare within-firm spells before and after exposure to the export shock. From columns 2 and 4, we find that firms increase CP in the periods when they are exposed to positive export-demand shock from the US and the EU and columns 3 and 5 show that there is no significant change in CP when similar export shocks originate from other large export destinations. The interaction term, $Anti-dumping-US/EU_{it-1} * Business\ Group$ is positive and marginally significant which is exactly opposite to the agency motive prediction that managers with low entrenchment will increase value destroying discretionary spending when expected cash flow rise. This is consistent with the argument that business group firms are is a better position to take advantage of relatively risky projects and long term investment opportunities as they are able to use the internal capital market to finance them.

C. Alternate Explanations and Robustness tests

In the previous section, we provide evidence that anti-dumping initiations on Chinese exports from US and the EU are associated with increase in philanthropic expenses by Indian firms, particularly for business group affiliates. However, neither business group affiliates nor

stand-alone firms increase corporate philanthropy when anti-dumping petitions are initiated against Chinese exports by India's other large trading partners. In this section, we summarise a battery of robustness tests to rule out alternative explanations.

First, it is possible that the increase in corporate philanthropy in reaction to positive export-shocks from the US and the EU is not related to customer preference for corporate philanthropy, but because trade shocks from US and EU are significantly stronger than export shocks from other markets. Therefore it is plausible that firms adjust corporate philanthropy in reaction to the magnitude of the shock rather than the nature of it. In addition, if India's other major export partners are not heavy users of anti-dumping, then the insignificant results for CP will be an artefact of low power of these tests rather than any underlying economic reason. We approach this issue by examining how firms adjust other investments that are likely to be affected by positive demand-shocks. Bown and Porto (2010) show that Indian firms expand capacity in reaction to trade safeguard against Chinese steel products. We estimate the change in capital expenditure (Capex), and research and development expenditure (R&D) for Indian firms in reaction to anti-dumping initiations on Chinese exports by US and EU, and by other large export-destinations of Indian products. The results are presented in table 8.

[Insert Table 8 around here]

In columns 1 and 2, we present the results for Capex and R&D of Indian firms when Chinese exports are under anti-dumping investigation from US and the EU, and in columns 3 and 4 results when Chinese exports are under anti-dumping investigation from India's other large export destinations. We find that anti-dumping is associated with increase in both Capex and R&D, irrespective of the source of the anti-dumping initiation on Chinese products. Additionally, group affiliates increase their Capex and R&D more than unaffiliated firms when faced with positive export demand shock. This result suggests that firms expand capacity, and increase R&D in reaction to positive export-market shock, irrespective of the source of the anti-dumping initiation but they increase CP only when the shock originates in

US or EU. This indicates a strategic investment motive rather than weak shocks from these markets. Also, if the statistically insignificant association of CP with anti-dumping shocks from non-US, non-EU export destinations were due to low power of the test, we will expect that to affect the regressions with Capex and R&D as well.

Second, it is possible that the effect of anti-dumping shocks on corporate philanthropy is driven idiosyncratically by individual countries within the groups we use. Therefore, we run our basic specifications separately for the US and the EU, and Brazil (the heaviest anti-dumping users in the other export destinations) and rest of the exporting destinations. The results presented in table 9 shows that our baseline results hold in these specifications. Of particular interest is the comparison of the effects on corporate philanthropy of anti-dumping initiations from EU and Brazil which are similar in export-market size. Whilst anti-dumping initiations from EU on Chinese exports increase philanthropic expenses of Indian firms, such effects are absent for anti-dumping initiations on Chinese exports from Brazil.

[Insert Table 9 around here]

We also examine effects on Capex and R&D of anti-dumping initiations on competing Chinese products by different export destinations separately. The results are present in table 10, and shows that Indian firms increase Capex and R&D in response to anti-dumping initiations on Chinese products, irrespective of the source of the anti-dumping initiation. If we compare similar sized export markets for Indian products like the EU and Brazil, in this case we find similar increases in Capex and R&D of Indian firms. These results are supportive of the investment motives of corporate philanthropy.

[Insert Table 10 around here]

We do a battery of robustness tests. These results are omitted in the interest of brevity, and are available in an online appendix. To begin with, we examine a subsample of cases where anti-dumping initiation on Chinese products have led to final anti-dumping duties

being imposed. All our results hold for these subsamples. Next, we check for mean-reversion in corporate philanthropy after anti-dumping duties are revoked. This is a smaller sample compared to our main specifications given the shorter time-series of our sample. However, we see no significant decrease in CP in periods after the anti-dumping duties have been revoked, or when the anti-dumping initiation did not lead to a anti-dumping duty. This is consistent with Vandenbussche and Zanardi (2010) who show hysteresis effect of anti-dumping measures on imports.

Further, it is possible that institutional shareholding drives corporate philanthropy (Smith, 1996; Shleifer and Vishny, 1997). From table II, institutional shareholding is higher in group affiliates compared to widely held firms. To attenuate this concern, in our baseline specifications, we control for institutional shareholding. Further, we partition the data for firms with high (greater than p75) and low (lesser than p25) institutional ownership. Increases in CP in response to demand shocks are not significantly different between the two groups.

It is plausible that differences in the product market brand image can be furnished as another alternate explanation of our results. Firms selling consumer goods, and more visible brands may have higher corporate philanthropy (Servaes and Tamaro, 2013) compared to firms producing intermediate goods. If the product category and the ownership structure are correlated, then our baseline results may be an artefact of the industry classifications. In our baseline specifications, we use a set of industry dummies to control for this possibility. Further, we test the difference in means of CP for firms producing consumer goods, and firms producing intermediate goods based on the main product category of the firm recorded in Prowess. This difference is not statistically significant at conventional levels. This is consistent with anecdotal evidence suggesting that CP of Indian firms producing intermediate goods have not been insignificant (e.g. Tata Steel, Reliance Petrochemicals, etc.).

Finally, we test for the robustness of our results to estimation techniques because not all firms in our sample engage in corporate philanthropy. Using a censored dependent variable is

likely to underestimate the parameter estimates. We check for the robustness of our baseline results using Tobit regressions. The ordinary least squares (OLS) estimates are likely to be biased only in the censored region. Therefore, we compare the Tobit results with the OLS estimates for the subsample of firms with non-zero CP, and it does not seem that our baseline results are affected by the choice of estimation technique.

V. Concluding Remarks

In this paper, we examine the agency and investment motives of corporate philanthropy. We find that exporting firms, and business group affiliates have higher philanthropic expenses. In response to a positive export-demand shock when competing Chinese exports are subject to anti-dumping investigation, both group affiliates and unaffiliated firms increase corporate philanthropy when the shocks originate from the US and EU where average customer preference for corporate philanthropy is relatively higher. However, neither types of firm increase philanthropic expenses when the shocks originate from other export destinations. If corporate philanthropy was mainly driven by agency motives, we would expect increased spending on corporate philanthropy irrespective of the origin of the shock and relatively stronger effects for unaffiliated firms.

These shocks are economically meaningful, and they are persistent. On average, Indian firms increase corporate philanthropy by 1.1% (on the baseline average of 3% of profits) in response to anti-dumping initiation on competing Chinese products by US and the EU, and this persists even if the anti-dumping duties initiations do not lead to duties being imposed, or after the anti-dumping duties are revoked. To quantify, 1% of average profits of Indian firms is equal to US$ 372,000.

In contrast, both types of firms increase capital expenditure and R&D in response to export market shocks, irrespective of the origin of the anti-dumping initiation against competing Chinese products. In reaction to the demand-shock, firms invest in capacity expansion and new product development. On average export (as percentage of sales) of affected Indian

firms increase by about 4% following anti-dumping initiations on Chinese products by US and the EU, and by 5.6% following similar shocks from other major export markets. The results clearly suggest evidence of investment motives of corporate philanthropy.invest in capacity expansion and R&D when there is a positive export-demand shock from any export destinations but they increase philanthropic expenses only when such activities are likely to cater to customer preference. These results are important because there are no conclusive empirical evidence on the investment motives of corporate philanthropy.

It is important to highlight some of the limitations of our results, and what our paper does not do. We have no information on the destination of the philanthropic expenses of Indian firms within our sample period. Such data are likely to be available in the near future following the 2013 regulation of mandatory corporate social expenses in India. Also, our results do not establish that business group affiliates are more altruistic. Whilst our results show that firms seem to strategically invest in corporate philanthropy following a positive shock to export-demand, it is plausible that in the absence of a shock philanthropic expenses partially reflect other objectives like private benefits and planning horizon of managers.

REFERENCES

Albuquerque, R.A., Koskinen, Y., and Zhang, C. (2017) Corporate Social Responsibility and Firm Risk: Theory and Empirical Evidence. European Corporate Governance Institute (ECGI) - Finance Working Paper No. 359/2013. Available at SSRN: https://ssrn.com/abstract=1961971 or http://dx.doi.org/10.2139/ssrn.1961971

Ariely, Dan, Anat Bracha, and Stephan Meier. "Motivation and monetary doing good or doing well." Image in Incentives Behaving Prosocially. *The American Economic Review* 99.1 (2009): 544-555.

Arora, Seema, and Shubhashis Gangopadhyay. "Toward a theoretical model of voluntary overcompliance." *Journal of Economic Behavior & Organization* 28.3 (1995): 289-309.

Baron, David P. "Private politics, corporate social responsibility, and integrated strategy." *Journal of Economics & Management Strategy* 10.1 (2001): 7-45.

Baron, David P. "Managerial contracting and corporate social responsibility." *Journal of Public Economics* 92.1 (2008): 268-288.

Baumol, W. J. (1991) *Perfect Markets and Easy Virtue: Business Ethics and the Invisible Hand*. Basil Blackwell, Oxford, UK.

Bénabou, Roland, and Jean Tirole. "Individual and corporate social responsibility." *Economica* 77.305 (2010): 1-19.

Berger, Philip G., and Eli Ofek. "Diversification's effect on firm value." *Journal of financial economics* 37.1 (1995): 39-65.

Bertrand, Marianne, Paras Mehta, and Sendhil Mullainathan. "Ferreting out tunneling: An application to Indian business groups." *The Quarterly Journal of Economics* 117.1 (2002): 121-148.

Bown, Chad P. (2016) "Global anti-dumping Database," *The World Bank*, June, available at http://econ.worldbank.org/ttbd/gad/

Bown, Chad & Porto, Guido (2010). "Exporters in Developing Countries: Adjustment to Foreign Market Access after a Trade Policy Shock," Papers 88, *World Trade Institute*.

Brown, William O., Eric Helland, and Janet Kiholm Smith. "Corporate philanthropic practices." *Journal of Corporate Finance* 12.5 (2006): 855-877.

Eichholtz, Piet, Nils Kok, and John M. Quigley. "Doing well by doing good? Green office buildings." *The American Economic Review* 100.5 (2010): 2492-2509.

Ferrell, Allen, Hao Liang, and Luc Renneboog. "Socially responsible firms." *Journal of Financial Economics* 122.3 (2016): 585-606.

Financial Times (2014) Fortune 500 companies spend more than $15bn on corporate responsibility. October 12.

Gopalan, Radhakrishnan, and Todd A. Gormley. "Do public equity markets matter in emerging economies? Evidence from India." *Review of Finance* 17.5 (2012): 1571-1615.

Gopalan, Radhakrishnan, Vikram Nanda, and Amit Seru. "Affiliated firms and financial support: Evidence from Indian business groups." *Journal of Financial Economics* 86.3 (2007): 759-795.

Jensen, Michael C. "Agency costs of free cash flow, corporate finance, and takeovers." *The American Economic Review* 76.2 (1986): 323-329.

Khanna, Tarun, and Krishna Palepu. "Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups." *The Journal of Finance* 55.2 (2000): 867-891.

Khanna, Tarun, and Yishay Yafeh. "Business groups in emerging markets: Paragons or parasites?." *Journal of Economic Literature* 45.2 (2007): 331-372.

Kitzmueller, Markus, and Jay Shimshack. "Economic perspectives on corporate social responsibility." *Journal of Economic Literature* 50.1 (2012): 51-84.

Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer. "Corporate ownership around the world." *The Journal of Finance* 54.2 (1999): 471-517.

Margolis, Joshua D., Hillary Anger Elfenbein, and James P. Walsh. "Does it pay to be good... and does it matter? A meta-analysis of the relationship between corporate social and financial performance." (2009). Available at SSRN: https://ssrn.com/abstract=1866371 or http://dx.doi.org/10.2139/ssrn.1866371

Masulis, Ronald W., and Syed Walid Reza. "Agency problems of corporate philanthropy." *The Review of Financial Studies* 28.2 (2014): 592-636.

Masulis, Ronald W., Peter Kien Pham, and Jason Zein. "Family business groups around the world: Financing advantages, control motivations, and organizational choices." *The Review of Financial Studies* 24.11 (2011): 3556-3600.

Maxwell, John W., Thomas P. Lyon, and Steven C. Hackett. "Self-regulation and social welfare: The political economy of corporate environmentalism." *The Journal of Law and Economics* 43.2 (2000): 583-618.

Moore, Michael O., and Maurizio Zanardi. "Does anti-dumping use contribute to trade liberalization in developing countries?." *Canadian Journal of Economics/Revue canadienne d'économique* 42.2 (2009): 469-495.

Narayanan, M. P. "Managerial incentives for short-term results." *The Journal of Finance* 40.5 (1985): 1469-1484.

Oh, Won Yong, Young Kyun Chang, and Aleksey Martynov. "The effect of ownership structure on corporate social responsibility: Empirical evidence from Korea." *Journal of Business Ethics* 104.2 (2011): 283-297.

Porter, Michael E., and Claas Van der Linde. "Toward a new conception of the environment-competitiveness relationship." *The Journal of Economic Perspectives* 9.4 (1995): 97-118.

Sarkar, Jayati, and Subrata Sarkar. "Large shareholder activism in corporate governance in developing countries: Evidence from India." *International Review of Finance* 1.3 (2000): 161-194.

Servaes, Henri, and Ane Tamayo. "The impact of corporate social responsibility on firm value: The role of customer awareness." *Management Science* 59.5 (2013): 1045-1061.

Shleifer, Andrei, and Robert W. Vishny. "A survey of corporate governance." *The Journal of Finance* 52.2 (1997): 737-783.

Siegel, Jordan, and Prithwiraj Choudhury. "A reexamination of tunneling and business groups: New data and new methods." *The Review of Financial Studies* 25.6 (2012): 1763-1798.

Siegel, Donald S., and Donald F. Vitaliano. "An empirical analysis of the strategic use of corporate social responsibility." *Journal of Economics & Management Strategy* 16.3 (2007): 773-792.

Smith, Michael P. "Shareholder activism by institutional investors: Evidence from CalPERS." *The Journal of Finance* 51.1 (1996): 227-252.

Tirole, Jean. "Corporate Governance". *Econometrica*, 69.1 (2001): 1–35

Turban, Daniel B., and Daniel W. Greening. "Corporate social performance and organizational attractiveness to prospective employees." *Academy of Management Journal* 40.3 (1997): 658-672.

Vandenbussche, Hylke, and Maurizio Zanardi. "The chilling trade effects of anti-dumping proliferation." *European Economic Review* 54.6 (2010): 760-777.

Vandenbussche, Hylke, and Maurizio Zanardi. "What explains the proliferation of anti-dumping laws?." *Economic Policy* 23.53 (2008): 94-138.

Zanardi, Maurizio. "Anti-dumping: A problem in international trade." *European Journal of Political Economy* 22.3 (2006): 591-617.

Notes

[1]The growth in philanthropic causes can also be partially attributed to growth in socially responsible investment funds which is estimated to total $6.5 trillion in the US and 237.9 billion euros in the European Union (EU) in 2013.

[2]The rest 11% of Indian listed firms are owned and controlled by the government. These firms are not included in our final sample.

[3]Australia, Canada, and New Zealand are not among the large export destinations of India and hence we do not use anti-dumping by these countries on competing Chinese products.

[4]These countries include UAE, Saudi-Arabia, Brazil, South Africa, Argentina and Japan.

[5]For example, CEOs or Managing Directors of public sector firms are fixed term bureaucratic appointments and the pay is contingent on tenure and rank.

[6]Donations do not include donation to election funds or other political donations.

[7]For example, AD penalties can be in the form of ad-valorem tax, minimum import price, quotas, etc. The economic effects of these penalties are not straightforward to compare.

[8]In cases where anti-dumping sanctions are imposed on an industry or a product that affects more than one firms, we use the industry classification from Prowess to encode the anti-dumping indicator for all the affected firms.

[9]There are 12 instances of Chinese products being simulatneously subjected to AD investigations by US/EU and India's other major export destination. We drop these observations to focus only on non-overlapping shocks.

[10]In cases where the data from the two sources did not match exactly, we keep the financial data from Prowess.

[11]We also check the robustness of our estimates with alternate measures of firm performance (Tobin's Q approximated by MTBV) and firm size (total assets).

[12]For this analysis, we use a subset of exporting firms.

TABLE 1- DESCRIPTIVE STATISTICS OF KEY VARIABLES

This table presents the descriptive statistics of the key variables used in the empirical analysis. All monetary values are in constant 2000 US$.

Variables	N	Mean	p10	p50	p90	Std. Dev.
ROA	4,143	0.083	0.0006	0.077	0.207	0.1110
MTBV	4,143	1.419	0.006	2.360	5.278	2.542
Sales (/1,000)	4,143	522.592	21.401	166.457	976.148	2229.181
Total Assets (/1,000)	4,143	77.121	57.100	84.452	594.113	264.824
Exports/Sales (%)	4,143	22.538	0.000	7.361	76.090	42.663
%Shareholding-Promoters	4,143	41.577	25.186	51.122	74.235	20.847
%Shareholding-Institutions	4,143	17.806	0.600	15.199	37.113	14.4962
Promoter CEO	4,143	0.375	0	0	1	0.484
Board Size	4,143	9.949	6.000	9.000	13.000	3.328
% Independent Directors	4,143	51.799	16.181	33.333	50.000	70.000
Corporate Philanthropy	3,762	15.668	0	21.235	85.714	89.177

TABLE 2- ANTI-DUMPING INITIATIONS BY INDIA'S MAJOR TRADING PARTNERS. In this table we present the number of AD initiations on China and India by India's large export destinations, and the mean of Indian exports to each of these countries over the sample period 2006 - 2013.

Countries	Indian Exports ('000,00 US$)	AD Initiations	AD Initiations-China	AD Initiations-India
USA	2,863,25.30	445	116	28
EU	2,5769.28	288	94	20
Argentina	4012.81	218	71	11
Brazil	4,1006.48	316	83	16
Mexico	1,2302.43	100	48	03
South Africa	3,6747.16	99	28	12

TABLE 3 - UNIVARIATE COMPARISONS OF MEANS
We compare performance, size, board characteristics, and corporate philanthropy of business group affiliates and unaffiliated firms. Group affiliates, on average, are larger, make more in charitable donations, but no statistically significant difference exists in other firm and board characteristics. All vari- In panel B we compare firms with and without Corporate Philanthropy (CP) All variables are winsorized at 1% levels.***, **, and * denotes significance at 1%, 5% and 10% levels, respectively.

Panel A			
Variables	Group Affiliates	Unaffiliated Standalones	Difference
%Shareholding-Institutions	19.652	15.967	3.685**
ROA	0.080	0.089	-0.009
MTBV	1.532	1.501	0.031
EPS	0.462	0.605	-0.143
Sales (/1,000)	697.781	404.465	293.316***
Total Assets (/1,000)	114.964	51.611	63.353**
Export/Sales (%)	20.781	23.723	-2.942
Board Size	10.137	9.195	0.222
% Independent Directors	51.020	51.764	-0.744
Corporate Philanthropy	19.180	8.675	10.505***
Panel B			
Variables	Mean-*No CP*	Mean-*CP*	Difference
Return on Assets	0.080	0.086	-0.006
MTBV	1.553	1.780	-0.227
EPS	0.513	0.558	-0.045
Sales (/1,000)	667.104	650.722	16.372
Total Assets (/1,000)	91.030	68.940	22.09**
%Shareholding-Promoters	19.551	49.854	-30.303**
%Shareholding-Institutions	16.705	18.518	-1.813**
Exports/Sales (%)	17.660	21.924	-4.264**
Board Size	9.548	10.210	-0.662
% Independent Directors	50.656	50.892	-0.236

FIGURE 1- ANTI-DUMPING AND TRADE DEFLECTION

This figure presents the time-series variation of Indian and Chinese exports of PET products to US before and after anti-dumping initiations on Chinese exp -orts in the year 2004. Post-2004, Indian exports of PET to US overtakes that of China's and becomes twice as large by 2008.

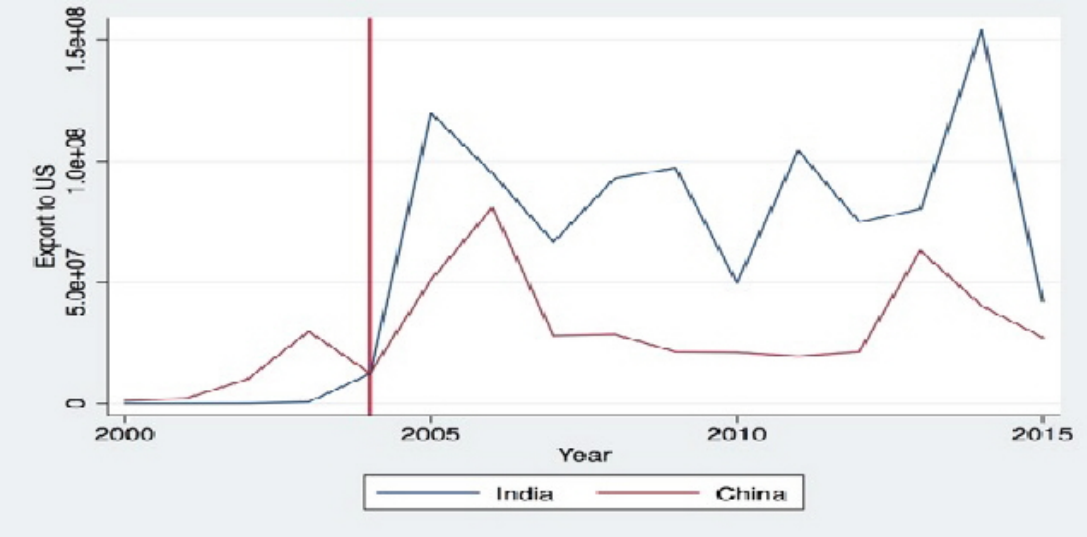

TABLE 4 - PROPENSITY SCORE MATCHING MODELS
We match business group affiliates with stand-alone firms with dispersed shareholding using nearest neighbourhood (Panel A), radius =0.1 (Panel B), Gaussian kernel (Panel C), and Mahalanobis (Panel D) matching metho--ds. The variables used in the matching are firm size, firm performance, market-to-book ratio for each industry and year. Firms are split into sub-sam mples of high and low exports as percentage of sales. ***,**, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent Variable: *Difference in Corporate Philanthropy*	
	Firms with high exports	Firms with low exports
Panel A: Nearest Neighborhood Match		
Average Treatment to Treated	3.42**	10.19**
No. of Observations	2,129	2,017
Panel B: Radius Match (0.1)		
Average Treatment to Treated	15.27**	18.60**
No. of Observations	2,110	2,003
Panel C: Kernel Matching		
Average Treatment to Treated	9.72**	15.71**
No. of Observations	2,132	2,008
Panel D: Mahalanobis Distance Matching		
Average Treatment to Treated	9.20**	15.08*
No. of Observations	1,962	1,998

TABLE 5 - EFFECT ON ANTI-DUMPING ON EXPORTS

In this table we present univariate results of the differential impact of anti-dump -ing penalties on exports. We compare the 3-year moving average of exports for group affiliates and firms with dispersed shareholding, in periods before and after anti-dumping initiation on competing Chinese products by the US and the EU. ***, **, and * denotes significance at 1%, 5% and 10% levels, respectively.

	Anti-Dumping	Firm Type		Difference
		Concentrated	Dispersed	
Before Anti-Dumping	Yes	21.65	25.41	-3.76***
	No	20.23	23.77	-3.54***
After Anti-Dumping	Yes	25.98	28.57	-2.59**
	No	21.67	24.81	-3.14***
After-Before	Yes	4.33***	3.16***	1.17
	No	1.44	1.04	0.40

TABLE 6- EFFECT OF ANTI-DUMPING ON CORPORATE PHILANTHROPY

In this table we present univariate results of the differential impact of anti-dump -ing penalties on CP. We compare the 3-year moving average of CP for business group affiliates and firms with dispersed shareholding, in periods before and after anti-dumping initiation on competing Chinese products by the US and the EU. ***, **, and * denote significance at 1%, 5%, and 10% levels, respectively.

	Anti-Dumping	Firm Type		Difference
		Concentrated	Dispersed	
Before Anti-Dumping	Yes	3.69	2.68	1.01***
	No	3.55	2.58	0.97***
After Anti-Dumping	Yes	3.86	2.81	1.05***
	No	3.57	2.59	0.98***
After-Before	Yes	0.17**	0.13**	0.04
	No	0.02	0.01	0.01

TABLE 7- ANTI-DUMPING, GROUP AFFILIATION AND CP

In this table we present the results for the effect of anti-dumping initiations on Chinese exports on CP of Indian firms who compete in the product market. The dependent var -iable is Ln(CP) in all specifications. Robust standard errors clustered at firm levels are in brackets. ****, **, and * indicate significance at the 1%, 5% and 10% levels, respectively.

	Dependent Variable: Ln(CP)				
	(1)	(2)	(3)	(4)	(5)
Anti-Dumping-US/EU$_{it-1}$		0.692***		0.937***	
		(0.106)		(0.082)	
Anti-Dumping-Others$_{it-1}$			-0.0244		-0.074
			(0.133)		(0.124)
Business Group		0.190***	0.128**		
		(0.052)	(0.060)		
Anti-Dumping-US/EU$_{it-1}$*		0.477*		0.386*	
Business Group		(0.250)		(0.197)	
Anti-Dumping-Others$_{it-1}$*			0.285		0.249
Business Group			(0.208)		(0.216)
Ln(Sales)	0.486***	0.311***	0.519***	0.168***	0.231***
	(0.035)	(0.025)	(0.042)	(0.0220)	(0.030)
ROA	0.390***	0.296***	0.472***	0.477**	0.724**
	(0.045)	(0.011)	(0.069)	(0.178)	(0.265)
% Shareholding-	0.002**	0.002**	0.005**	0.005**	0.004**
Promoters$_{it}$	(0.0010	(0.001)	(0.002)	(0.002)	(0.002)
Board Size	0.087***	0.087***	0.075***	0.004	0.015
	(0.013)	(0.013)	(0.010)	(0.007)	(0.012)
% Independent Directors	0.001	0.001	-0.004	0.002*	0.005**
	(0.003)	(0.003)	(0.005)	(0.001)	(0.002)
Promoter CEO	0.024	0.024	0.118**	0.024	0.033
	(0.037)	(0.037)	(0.047)	(0.047)	(0.084)
%Shareholding-Institutions	0.017	0.017	0.019	0.007***	0.009**
	(0.013)	(0.013)	(0.016)	(0.001)	(0.004)
Export / Sales (%)	0.002*	0.002*	-0.004	0.003*	0.000
	(0.001)	(0.001)	(0.004)	(0.002)	(0.000)
Year Dummies	Yes	Yes	Yes	No	No
Industry Dummies	Yes	Yes	Yes	No	No
Firm fixed effects	No	No	No	Yes	Yes
Constant	-3.085***	-3.417***	-5.99**	-0.293**	-0.843**
	(0.330)	(0.299)	(2.41)	(0.132)	(0.034)
Observations	3,762	3,762	3,762		3,762
Adjusted-R^2	0.388	0.314	0.307	0.245	0.211

TABLE 8- EFFECT OF AD ON CAPEX AND R&D

In this table we present the results for the effect of anti-dumping initiations on Chinese products on other firm investments viz. CapeEx and R&D. In panel A we present the results for AD initiations from US and the EU, and in panel B we present results for AD initiations from other major export destination of Indian products. Robust standard errors clustered at firm level are in brackets.***,**, and *indicate significance at the 1%, 5% and 10% level, respectively.

	Anti-Dumping-US/EU		Anti-Dumping-Others	
	Panel A		Panel B	
	CapEX	R&D	CapEX	R&D
	(1)	(2)	(3)	(4)
Anti-Dumping-US/EU$_{it-1}$	0.575***	0.300**		
	(0.147)	(0.132)		
Anti-Dumping-Others$_{it-1}$			0.362**	0.219**
			(0.156)	(0.105)
Business Group	0.063**	0.008	0.060**	0.010
	(0.030)	(0.006)	(0.029)	(0.006)
Anti-Dumping-US/EU$_{it-1}$*	0.014**	0.002*		
Business Group	(0.005)	(0.001)		
Anti-Dumping-Others$_{it-1}$*			0.012**	0.002*
Business Group			(0.006)	(0.001)
Control Variables	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes
Constant	-3.413***	-3.049**	-3.417***	-5.990**
	(0.299)	(0.433)	(0.2999)	(2.41)
Observations	3,762	1,582	3,762	1,582
Adjusted-R^2	0.314	0.307	0.290	0.261

TABLE 9- EFFECTS ON AD OF CP FROM DIFFERENT COUNTRIES

In this table we present the results for effect on CP of anti-dumping initiations on competing Chinese exports from different export destinations. In panel A we present results separately for the US and the EU, and in panel B we presen -t the results for Brazil and the rest of India's large export destinations separa -ately. Robust standard errors clustered at firm level are in the brackets. ***, **, and * denotes significance at the 1%, 5% and 10% level, respectively.

	Dependent Variable: Ln(CP)			
	Panel A		Panel B	
	US	EU	Brazil	Rest
	(1)	(2)	(3)	(4)
Anti-Dumping-US/EU$_{it-1}$	0.710***	0.583***		
	(0.234)	(0.209)		
Anti-Dumping-Others$_{it-1}$			-0.038	0.022
			(0.141)	(0.098)
Business Group	0.163***	0.211***	0.120***	0.125***
	(0.069)	(0.083)	(0.041)	(0.056)
Anti-Dumping-US/EU$_{it-1}$*	0.484*	0.473*		
Business Group	(0.249)	(0.246)		
Anti-Dumping-Others$_{it-1}$*			0.277	0.289
Business Group			(0.224)	(0.230)
Control Variables	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes
Observations	3,762	3,762	3,762	3,762
Adjusted-R^2	0.303	0.292	0.290	0.275

TABLE 10- EFFECTS ON CAPEX AND R&D OF AD FROM DIFFERENT COUNTRIES

n this table we present the results for effect on CP of anti-dumping initiations on Capex and R&D. In panel A we pres -ent the baseline results for the US and the EU separately, and in Panel B we present the results for Brazil and India's other large export destinations. The dependent variables are mentioned at the top of each columns. Robust standard errors clustered at firm-level are in the brackets. ***, **, and * denotes significance at the 1%, 5%, and 10% levels, respectively.

	Panel A				Panel B			
	US		EU		Brazil		Rest	
	CapEx	R&D	CapEx	R&D	CapEx	R&D	CapEx	R&D
Anti-Dumping-US/EU$_{it-1}$	0.512***	0.328**	0.591**	0.286***				
	(0.234)	(0.155)	(0.253)	(0.117)				
Anti-Dumping-Others$_{it-1}$					0.344**	0.200**	0.378**	0.239**
					(0.156)	(0.099)	(0.146))	(0.111)
Business Group	0.070**	0.062**	0.005	0.007	0.060**	0.009	0.012**	0.014
	(0.031)	(0.023)	(0.004)	(0.006)	(0.021)	(0.006)	(0.006)	(0.008)
Anti-Dumping-US/EU$_{it-1}$*	0.018**	0.003*	0.013*	0.002*				
Business Group	(0.009)	(0.002)	(0.006)	(0.001)				
Anti-Dumping-Others$_{it-1}$*					0.015**	0.001	0.011**	0.003**
Business Group					(0.004)	(0.001)	(0.004)	(0.001)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,762	3,762	3,762	3,762	3,762	3,762	3,762	3,762