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## **Abstract**

This paper examines relationships between producer concentration, firm ownership, and employee compensation in Vietnam's manufacturing enterprises in 2000, 2002, and 2004. Simple calculations indicate that multinational corporations (MNCs) paid the highest compensation followed by state-owned enterprises (SOEs) and finally by private firms. After controlling for the effects of producer concentration and other technical determinants of compensation levels (e.g., factor intensity, scale, labor quality), compensation differentials are greatly reduced. MNCs still paid an average of about one-third to one-half more than private firms while SOE-private differentials became very small or negative. These differentials varied markedly among industry groups, however. The relationship between producer concentration and compensation levels was usually positive in samples of all manufacturing firms but negative in about half of the eight industry groups examined. Cross section estimates also indicate that larger MNC and SOE presence was associated with higher compensation in private firms in 2002 and 2004, suggesting positive spillovers from both SOEs and MNCs in these two years. However, fixed effects panel estimates, which examine the question of how SOE and MNC presence affected changes in private firm compensation over time, suggest that compensation in private firms tended to fall relatively rapidly in industries where SOE presence was large and producer concentration high, while MNC presence had no significant effect.

**Keywords:** producer concentration, ownership, multinational corporations, state-owned enterprises, Vietnam, Enterprise Law, wages

**JEL Categories:** D24, F23, K22, L11, L32, L33, O53

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## **1. Introduction**

There is a growing literature indicating that multinational corporations (MNCs) tend to pay higher wages or total compensation than local firms or plants in developing economies such as Indonesia (Lipsey and Sjöholm 2004a, 2006), Thailand (Ramstetter 2004; Matsuoka-Movshuk and Movshuk 2006), as well as Mexico and Venezuela (Aitken et al 1996). State-owned enterprises (SOEs) have also played a very important role in Vietnam and activity by locally-owned private firms has grown exceedingly rapidly since the implementation of the initial Enterprise Law in 2000. Vietnam is also a transition economy with laws and regulations which have forced MNCs and SOEs to pay relatively high wages both before and after the Enterprise Law's enactment. However, ownership patterns are changing rapidly and characteristics of MNCs and SOEs differ markedly from those of private firms. It is thus of interest to analyze the extent of compensation differentials among ownership groups in Vietnam and their relationships to other firm-level characteristics thought to affect compensation levels. These analyses have recently become feasible using firm-level data from Vietnam's recent enterprise surveys and the first purpose of this paper is thus to examine the nature of wage differentials among MNCs, SOEs, and private firms in Vietnam's manufacturing industries and how they have changed since the implementation of the Enterprise Law.

The aforementioned studies of Indonesia and Thailand also found that wages in local plants tended to be positively related to the extent of MNC presence in an industry. In other words, they found evidence of positive wage spillovers, in addition to wage differentials. Similarly, the second purpose of this paper is also to investigate whether the degree of MNC or SOE presence in

Vietnam's manufacturing industries is related to the wage levels in private firms.

Partially as a result of the large changes in Vietnam's enterprise landscape in recent years, there has also been a marked reduction in producer concentration in many manufacturing industries after 2000. Correspondingly, the third purpose of this paper is to highlight relationships between the level of producer concentration and compensation differentials or spillovers. The paper also highlights how the relationship between compensation levels and concentration differs among industry groups.

This paper begins with a brief review of the literature analyzing wage differentials among groups of firms (Section 2). This section also emphasizes how ownership-related wage differentials are reinforced by labor policies in the Vietnamese case. The paper then describes the data in some detail while reviewing the patterns observed in wage and compensation differentials, ownership shares, and related variables (Section 3). Analyses of compensation differentials (Section 4) and compensation spillovers (Section 5) are then performed after accounting for the influences of other firm- and industry-characteristics thought to affect compensation levels. As indicated above, particular attention is devoted to analyzing the relationship between the extent of producer concentration in an industry and compensation levels. Finally, some concluding remarks are offered (Section 6).

## **2. Wage Differentials, Ownership, and Spillovers**

The aforementioned studies of manufacturing plants in Indonesia (Lipsey and Sjöholm 2004a, 2004b, 2006) are perhaps the most sophisticated studies of wage differentials and spillovers available

because they were able to account for the influences of labor quality in some detail, as well as other firm-level characteristics related to wages.<sup>1</sup> Although not a focal point of their analysis, Lipsey and Sjöholm's (2004a, Tables 4-5) finding that SOE plants tended to pay higher wages than locally-owned private firms is of particular importance in this context. On the other hand, they did not test for spillovers from SOEs to private firms.

The peculiar nature of MNCs is a major reason that analysis of spillovers is usually focused on MNCs rather than on other ownership groups. MNCs are often distinguished from non-MNCs by analyzing what characteristics allow them to become multinationals in the first place. For example, many theorists (e.g. Dunning 1988, 1993; Hymer 1960; Markusen 1991) argue that MNCs' tendency to possess firm-specific assets, especially intangible assets related to production techniques and processes, marketing networks, and/or management ability, in relatively large amounts is a crucial distinguishing characteristic that allows a firm to become a multinational.<sup>2</sup> The possession of these assets is in turn thought to make MNCs more efficient than non-MNCs. A related trait is that MNCs also tend to be relatively technology- and human-capital-intensive compared to non-MNCs. MNCs thus tend to pay relatively high wages because they demand relatively skilled workers and because

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<sup>1</sup> Lipsey and Sjöholm distinguish four types of labor by educational achievement and estimate separate equations for both white and blue collar workers. On the other hand, the aforementioned studies of Thailand, for example, are not able to distinguish labor by educational or skill level, though they are able to distinguish blue and white collar workers (Matsuoka-Movshuk and Movshuk 2006, Ramstetter 2004). Similarly regressions for Venezuela and Mexico are also in Aitken et al (1996) do not control for worker education levels.

<sup>2</sup> Other theorists (e.g., Buckley and Casson 1992; Casson 1987; Rugman 1980, 1985) dispute this view, asserting that internalization is the sole necessary condition for a firm to become a MNC, and that the possession of firm-specific assets is a sufficient but not a necessary condition for a firm to become a MNC. However, all agree that MNCs tend to possess these assets in relatively large amounts.

their workers are often more efficient than in non-MNCs which do not have access to the MNCs' intangible assets.

On the supply side, workers may be relatively reluctant to work for MNCs and demand a premium for working in a less familiar MNC environment. A related consideration is the fact that developing economies such as Vietnam, Indonesia, and Thailand often face limited supplies of the skilled workers that MNCs often seek to hire. As a result, labor turnover is often extremely high, especially for middle- or top-level managers and technical personnel, and MNCs may pay relatively high wages as a means of reducing turnover and related training and/or adaptation costs.<sup>3</sup> The findings of Lipsey and Sjöholm (2004a, 2004b, 2006) discussed above are particularly important in this context because they suggest that MNCs continue to pay a wage premium even after labor quality is controlled for in some detail. Although the influence of labor quality may not have been completely controlled for, the persistence of substantial wage differentials even after accounting for various levels of labor quality suggests that MNCs probably pay a premium above and beyond what is required to compensate for differences in labor quality.

In the Vietnamese case, it is also important to note that economic policies reinforce the tendency for MNCs to pay higher wages than private firms in particular (McCarty 1999, Brassard 2004). Perhaps the most important policies in this regard are those requiring MNCs and SOEs to pay relatively high minimum wages and provide more comprehensive access to social security and other

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<sup>3</sup> In addition to explicit training costs, firms often incur implicit adaptation costs when labor turnover is high because it takes workers time to understand new jobs and perform them efficiently. Moreover these costs probably increase with the complexity of the job.

non-wage forms of compensation than private firms. Moreover, MNCs are often required to pay more compensation per employee than SOEs, and wholly-foreign MNCs must pay more than joint ventures involving MNCs. SOE wages are also largely controlled by the state and tend to be set above market levels for most workers.

In addition to being relatively efficient compared to non-MNCs, MNCs are often asserted to influence the performance of non-MNCs through several channels. For example, MNCs will often purchase inputs from local suppliers or subcontract certain production lines to local firms. Especially in developing countries such as Vietnam, the local supplier base is often relatively weak and the MNC must teach its local partners how to guarantee proper quality control, creating a technological spillover to the local firm involved. Labor mobility is a second avenue of spillovers from MNCs to local firms. As indicated above, labor mobility is often rather high in Southeast Asia's developing economies for example, especially among relatively skilled workers. Local firms can and do headhunt such talent from MNCs. One also hears stories of other MNC workers who quit an MNC to start up a locally-owned firm which produce goods and/or services which compete with MNC products and/or serve as inputs for their former MNC employers. The entry of MNCs can also increase the level of competition in a local market, forcing local firms to increase their efforts to become more efficient.

The empirical analysis of spillovers has generated varied results, with some researchers emphasizing the mixed evidence regarding such spillovers. For example, the review by Görg and Greenaway 2003, p. 7) emphasizes results of six studies for manufacturing industries in Venezuela,

Spain, the Czech Republic, Bulgaria, and Romania which suggest that productivity spillovers were negative in these economies. They also point to another 11 studies suggesting that productivity spillovers were statistically insignificant in a wide range of economies and emphasize that spillovers have generally been negative or negligible in transition economies such as Vietnam. On the other hand, there is growing evidence consistent with the existence of positive wage and productivity spillovers in Indonesia (e.g., Lipsey and Sjöholm 2004b, 2005, 2006; Takii 2006) and Thailand (Matsuoka-Movshuk and Movshuk 2006, Kohpaiboon 2006, Ramstetter 2006), though the evidence for Thailand is considerably weaker than evidence for Indonesia.<sup>4</sup>

Comparisons of SOEs and other firm types are considerably different than comparisons of MNCs and non-MNCs. Economists often emphasize that the primary difference between SOEs and non-SOEs is the existence of a relatively weak profit motive in SOEs. This in turn leads to expectations that SOE managers are less motivated to foster efficiency in their firm's operations than non-SOEs and that SOEs will thus tend to be more inefficient than non-SOEs. However, previous industry-level evidence from Vietnam's industrial survey of 1998 data suggests SOEs generally had higher labor productivity and wage levels than local plants but lower levels than MNCs (Phan and Ramstetter 2004, pp. 390-391). On the surface this evidence would appear to contradict expectations

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<sup>4</sup> The reason the Thai evidence is considered to be weaker is because the results are obtained from simple cross sections which are more likely to have simultaneity problems, which result because MNCs may be attracted to high productivity or high wage industries. Fortunately we have panel data for Vietnam, which should make it easier to address the simultaneity problem by focusing on changes over time (fixed effects estimates). Note that Kohpaiboon's study also attempts to account for this simultaneity by using an instrumental variable estimator. However, it is often difficult to find appropriate instruments the use of panel data (which are not available for Thailand, but are available for Indonesia) is the more common method of reducing the risk of running into this problem.



that SOEs are relatively inefficient but there are several reasons to avoid jumping to conclusions on the basis of this evidence. First, this comparison of labor productivity and labor compensation does not account for any other influences on productivity or wage differentials. Second, it does not account for the influence of firm-level characteristics. Accounting for either of these (or other) factors could easily reverse this result.

On the other hand, the aforementioned finding of relatively high wages in Indonesia's SOEs is more difficult to explain away because the aforementioned influences are controlled for in some detail. Results from Vu (2003) which suggest that Vietnam's SOEs "recorded a rather high level of technical efficiency, as well as a moderate improvement in technical efficiency between 1997 and 1998" (p. 87) are also more difficult to reconcile with expectations that SOEs will generally be more inefficient than non-SOEs. Several surveys of the empirical literature (e.g., Aharoni 2000; Megginson and Netter 2001, and Stretton and Orchard 1994) also highlight a number of cases in which SOE do not appear to be less profitable and/or less efficient than private firms, while two of Northeast Asia's most efficient steel firms in the 1990s were a SOE (Taiwan's China Steel) and a former SOE which was recently privatized (Korea's Pohang Steel, Ramstetter and Movshuk 2005).

Thus, the extent to which SOEs are more or less efficient than non-SOEs would appear to be an empirical matter. Similarly, although we are unaware of any previous studies trying to evaluate the extent of spillovers from SOEs, it is interesting to see if SOE presence is correlated with wages in local private firms. This evaluation is of particular interest because Vietnamese policy makers have often emphasized how SOEs should play leading roles in industry and that private firms should seek

to cooperate with SOEs (Vu 2005, pp. 304-306).

### **3. Ownership Patterns, Compensation and Wage Differentials, and Related Indicators**

In January 2000, Vietnam implemented a new Enterprise Law that removed many of the legal and regulatory barriers previously faced by locally-owned private businesses.<sup>5</sup> Partially as a result of this change, employment of private manufacturing firms with positive employment, sales, labor compensation, and fixed assets more than doubled from between 2000 and 2004, to reach 15,363 in 2004.<sup>6</sup> About half of these private manufacturers were small, although the number of medium-large private firms with 20 or more employees increased even more rapidly, 2.3-fold to reach 7,743 in 2004. In contrast, the vast majority of MNCs (91-93 percent) and SOEs (98-99 percent) in manufacturing were medium-large firms. Their numbers were much smaller but the number of medium-large manufacturing MNCs increased rapidly in 2000-2004 (2.2-fold to 2,092 in the latter year), while the number of medium-large manufacturing SOEs declined (20 percent to 1,229 in the latter year). In the following analyses, we focus on comparisons among medium-large firms because comparisons among ownership groups are likely to be distorted if smaller, predominately private firms are included.<sup>7</sup>

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<sup>5</sup> See Phan and Ramstetter (2007, pp. 3-8) for details on the Vietnam's Enterprise Law and related reforms.

<sup>6</sup> See Appendix Tables 8a-8h for details on the number of firms, including comparisons with official compilations. These data are compilations General Statistics Office (various years b) and differ from official compilations (General Statistics Office, various years a) primarily because we dropped some duplicates (see Ramstetter and Phan 2007, Appendix A) and firms reporting zero employment, sales, labor compensation, and fixed assets. In addition, our data sets may not be identical to those used when compiling official publications, though we have no way of verifying this.

<sup>7</sup> Although we have also obtained data for 2005 and present them in the Appendix Tables as

The decline in the number of SOEs reflects efforts to privatize and consolidate a number of SOEs, but employment and sales continued to grow among SOEs in 2000-2004 (Table 1). The growth of employment was very slow (6 percent) but sales increased much more rapidly (88 percent). However, SOE shares of total employment (46 percent in 2000 and 27 percent in 2004) and total sales (40 and 29 percent, respectively) both fell markedly. Correspondingly, employment and sales both grew much more rapidly in private firms (2.3- and 3.9-fold, respectively) and their shares of both activities grew substantially (from 31 to 38 percent of employment and from 17 to 27 percent of sales). MNC shares of employment also increased rapidly (from 23 to 34 percent, respectively) but MNC shares of sales changed very little (from 43 to 44 percent).

There is a very large variation in ownership shares among manufacturing industries, but a similar trend toward decreased shares of SOEs and increased shares of private firms and MNCs is observed. For example, SOEs accounted two-fifths of total employment or more in 16 of the 27 industries listed in Table 1 in 2000, but in only nine industries in 2004. Moreover, SOE employment shares fell by 10 percentage points or more in 18 of the 27 industries as the trend toward lower SOE shares was widespread. Meanwhile, employment shares exceeded two-fifths in eight industries for private firms in 2000 and nine industries in 2004, while employment shares increased more than 10 percentage points in 11 industries. MNC shares were also larger than two-fifths in six industries in

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available, we limit detailed comparisons to 2000, 2002, and 2004, primarily because important variables on the number of science and technology workers are only available for these years. In addition, this section focuses on data for 2000 and 2004 to conserve space, though the regression analysis in the following section will also consider 2002. Please also note that we obtained the 2005 data before official compilations became available and our version of the 2005 data has far more duplicates and apparent errors than data for other years (see Ramstetter and Phan 2007, Appendix A).

2000 and eight in 2004, while there were 10 industries in which MNC shares increased more than 10 percentage points.

In 2004, SOEs had large employment shares of two-fifths or more in four so-called key industries (chemicals, non-metallic mineral products, basic metals, and general machinery), three other industries in which state interests are often high (e.g., beverages [including alcohol], tobacco, and publishing), and two others (textiles and rubber; calculated from Table 1). As often observed in Asian economies, MNC shares were high in five machinery industries (office and computing machinery, electrical machinery, radio, television, and communication machinery, precision machinery, motor vehicles) where MNCs are thought to possess firm-specific assets that give them competitive advantages. MNC shares were also high in five other industries using more standardized technologies (apparel, leather, footwear, furniture, and miscellaneous manufacturing). Private shares were then in food, wood, paper, petroleum products, plastics, non-metallic mineral products, fabricated metals, furniture, and recycling.<sup>8</sup>

In addition to the large changes in ownership structure, simple calculations suggest large changes in wage differentials among ownership between 2000 and 2004. For example, in 2000, if the mean total compensation per worker is calculated for all manufacturing firms, MNCs paid by far the

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<sup>8</sup> As reflected in the aggregate shares cited above, MNC shares of industry sales were large in a much larger number of industries (16 in both 2000 and 2004), while shares of SOEs and private shares were large in fewer industries (11 in 2000 and five in 2004 for SOEs, three in 2000 and seven in 2004). However, similar to trends in employment shares, private shares of industry sales increased more than 10 percent points in a relatively large number of industries (8) while SOE shares also fell more than 10 percent points in many industries (10).

most, 173 more than private firms and 95 percent more than SOEs (Table 2).<sup>9</sup> However, by 2004 these compensation differentials fell markedly to 92 percent and 22 percent, respectively. On the other hand, the differential between SOEs and private firms increased slightly from 40 percent to 57 percent. Wage payments accounted for the vast majority of total compensation, but non-wage compensation was higher in SOEs (4 percent in both years) than in private firms (1-2 percent) and MNCs (2 percent). However, the size of non-wage compensation was small and wage differentials were not substantially different from compensation differentials when all manufacturing firms are averaged.<sup>10</sup> This pattern is fairly consistent across industries as well; wages never accounted for less than 91 percent of total compensation in private firms, 93 percent in SOEs, and 95 percent in MNCs in the 27 industries listed in Table 2.

There was a much larger variation in compensation and wage differentials across industries, however. For example, MNC-private compensation differentials ranged from 49 to 895 percent in 2000 and from 19 to 948 percent in 2004 (Table 2). There was less pronounced but still substantial variation across industries for other (MNC-SOE and SOE-private) differentials as well.<sup>11</sup> Despite this variation, there was still a very strong tendency for total compensation and wages to be highest in MNCs, followed by SOEs, and then private firms, and for these differentials to diminish over time.

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<sup>9</sup> Table 2 contains data on both total compensation and wages per worker. The analytical focus in this paper is on the more comprehensive measure of total compensation.

<sup>10</sup> For wages, MNC-SOE differentials were slightly larger (99 percent in 2000 and 25 percent in 2004) while SOE-private differentials were slightly smaller (36 and 53 percent, respectively) and MNC-SOE differentials were almost identical (172 percent and 91 percent, respectively).

<sup>11</sup> MNC-SOE differentials varied between -7 and 213 percent in 2000 and between -26 and 309 percent in 2004, while SOE-private differentials varied between -10 and 338 percent in 2000 and between -16 and 221 percent in 2004.

There was no industry in which MNCs paid lower compensation than private firms and MNC-private differentials were 100 percent or larger in 20 of 25 industries for which comparisons were possible in 2000 and 9 of 26 in 2004. MNCs also paid higher compensation than SOEs in the vast majority of industries (23 of 24 in 2000 and 19 of 25 in 2004) and MNC-SOE differentials were 50 percent or larger in three-fourths of the industries (18) in 2000 but only one-third (8) in 2004. Meanwhile, SOE-private differentials were also positive in the vast majority of industries and the number of industries with differentials of 50 percent or larger increased from one-fourth of 24 industries in 2000 to 48 percent of 25 industries in 2004.

Thus both the industry-level data and the aggregate data suggest that (1) MNCs pay the highest compensation and differentials between MNCs and other firms (private firms or SOEs) have diminished over time and (2) SOEs also pay more than private firms but SOE-private differentials have widened somewhat. However, these simple comparisons ignore the fact that other firm characteristics such as capital intensity, size, and labor quality can affect wage differentials. For example, there was a very strong tendency for MNCs to use more fixed assets per worker than private firms or SOEs. By this measure, capital intensity for MNCs was on average 10 times higher than private firms in 2000 and 6.6 times higher than SOEs (Table 3). Similar to trends in wage differentials, these capital intensity differentials fell over time to 4.3 times and 2.2 times, respectively, in 2004. In contrast, SOE-private differentials increased some, from 1.5 times to 2.0 times. As with compensation per worker there was also wide inter-industry variation in capital intensity, but there the strong tendency to be more for MNCs to be the most capital intensive, followed by SOEs, is also

observed among the industries listed in Table 3.<sup>12</sup> As might be expected similar patterns were also observed in sales per worker.<sup>13</sup>

SOEs and MNCs were also much larger than private firms, even when comparisons are limited to medium-large firms. Size differentials increased some over time as employment per firm increased in SOEs and MNCs but declined slightly in private firms (Table 3). As a result, SOE-private size differentials rose from an average of 3.3 to 4.4 and MNC-private differentials increased from 2.6 to 3.3. Meanwhile, SOE-MNC differentials fell slightly on average from 0.8 to 0.7. Here again large SOE-private and MNC-private differentials were common despite a wide variation in size differentials across industries. For example, SOEs were 2 times or more larger than private firms in 21 of 24 industries in 2000 and 22 of 25 in 2004, while MNC-private differentials were 2 times or more in 17 of 25 industries in 2000 and 23 of 26 in 2004. MNCs were also smaller than SOEs in 19 of 24 industries in 2000 and 19 of 25 in 2004.

The only measures of labor quality that are available suggest somewhat more varied patterns, however (Table 4). For example, shares of science and technology workers in total employment were largest for MNCs in 2000 (15 percent), followed by SOEs (11 percent) and private firms (6.0

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<sup>12</sup> For example, capital intensity was two times or more the level in private firms in 24 of 25 industries in 2000 and 24 of 26 in 2004. MNC-SOE differentials were also 2 times or more in 22 of 24 and 17 of 25 industries, respectively. SOEs had higher capital intensity than private firms in 17 of 24 and 21 of 24 industries, respectively.

<sup>13</sup> Differentials in sales per worker were smaller, however, declining from an average of 3.1 times to 2.4 times for MNC-private differentials and from 3.2 times to 1.8 times for MNC-SOE differentials, while SOE-private differentials increased from 1.0 to 1.3 times (Appendix Tables 3v, 3w, 3x). Sales (including both purchases of intermediate goods and value added) per worker is generally considered and a poorer measure of labor productivity than value added per worker, but value added data are not available in this data set.

percent), but SOEs had the largest share in 2004 (13 percent), followed by MNCs (11 percent), and private firms (6.7 percent). The share of female workers in the total was also highest in MNCs in both years (46 percent in 2000 and 51 percent in 2004). This suggests lower worker quality in MNCs because female workers are often less educated or trained than their male counterparts. There is also a tendency to pay female workers less than their male counterparts even after these differences are accounted for (Liu 2004).

#### **4. Compensation Differentials after Accounting for Firm and Industry Characteristics**

As indicated toward the end of the previous section, compensation or wage differentials can result from related differences in firm characteristics such as capital intensity and size, in addition to labor quality. In this section, the focus is thus on estimating total compensation equations that account for these related factors. In addition, the effects of producer concentration on compensation differentials are investigated by adding either the 4-firm concentration ratio or the Herfindahl index for 25 of the 27 industries listed in Tables 1-4 to compensation equations.<sup>14</sup> Other industry-specific effects are first accounted for by including intercept dummies for seven of eight industry groups. These groups are defined to include industries in which multi-product firms are likely to compete with other firms in the same group.<sup>15</sup> Coefficients on dummy variables for MNCs and SOEs then

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<sup>14</sup> Two industries, printing and publishing and petroleum products were omitted from the regression analysis because they have special characteristics that make them very different from the other manufacturing industries studied. Because the concentration variables are defined using a more detailed industrial classification than industry dummies (see note 15 below) it is possible that the coefficients on the concentration variables may also pick up other industry-related effects.

<sup>15</sup> The eight groups are (1) food, beverages, and tobacco, (2) textiles, apparel, leather, and footwear,



reveal whether any ownership-related compensation differentials remain after accounting for these various firm- and industry-group characteristics. The basic equations to be estimated are thus as follows:

$$(1) \ln(CE_{ij}) = a0 + a1[\ln(KE_{ij})] + a2[\ln(E_{ij})] + a3(ES_{ij}) + a4(EF_{ij}) + a5(DS_{ij}) + a6(DM_{ij}) + a7(C4_j) + a8(DI_k)$$

$$(2) \ln(CE_{ij}) = b0 + b1[\ln(KE_{ij})] + b2[\ln(E_{ij})] + b3(ES_{ij}) + b4(EF_{ij}) + b5(DS_{ij}) + b6(DM_{ij}) + b7(HF_j) + b8(DI_k)$$

where

$C4_j$ =4-firm concentration ratio of industry j (percent)

$CE_{ij}$ =compensation per employee in firm i of industry j (million dong, 2000 prices)

$DI_k$ =a vector of dummy variables for industry group k

$DM_{ij}$ =dummy variable for MNC firm i in industry j

$DS_{ij}$ =dummy variable for SOE firm i in industry j

$E_{ij}$ =firm size, measured as the number of employees in firm i of industry j

$EF_{ij}$ =share of female workers in total employment of firm i of industry j (percent)

$ES_{ij}$ =share of science and technology workers in total employment of firm i of industry j (percent)

$HF_j$ =Herfindahl index for industry j (percent)

$KE_{ij}$ =fixed assets per employee in firm i, industry j (million dong, 2000 prices)

The coefficients on capital intensity ( $a1$  or  $b1$ ), firm size ( $a2$  or  $b2$ ), and the share of science and technology workers ( $a3$  or  $b3$ ) are expected to be positive as these variables reflect higher labor productivity or greater use of highly skilled labor. In contrast, the sign of the coefficient on the share of female workers ( $a4$  or  $b4$ ) is likely to be negative because female workers are likely to have less training than their male counterparts and because previous studies suggest discrimination in favor of

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(3) wood, paper, and furniture, (4) chemicals, rubber, and plastics, (5) non-metallic mineral products, basic metals, and metal products, (6) machinery (general machinery, office and computing machinery, electrical machinery, radio, television & communication machinery, and precision machinery), (7) motor vehicles and other transportation equipment, and (8) miscellaneous manufacturing and recycling (the control group). Industry dummies are often defined in greater detail but this is impossible here because the concentration variables are generally defined at the 2-digit level (4 of the 23 2-digit categories are disaggregated into two components each to make a total of 27 industries) of Vietnam's Standard Industry Classification (VSIC) as in Tables 1-4. More detailed definitions of industry dummies (e.g., the 3-digit classification) were also tried but did not work because of excessively high correlations with the concentration variables.

male workers. The sign of the coefficient on the concentration variable ( $a7$  or  $b7$ ) should be positive to the extent that marginal value product of labor is higher in highly concentrated industries than in less concentrated ones, but many other factors such as competition in labor markets and labor mobility among industries may overwhelm this factor. The sign of this coefficient is thus indeterminate *a priori*. Finally, if SOEs and MNCs pay a wage premium after accounting for these factors as expected, signs of coefficients on dummy variables for SOEs and MNCs ( $a5$  or  $b5$  and  $a6$  or  $b6$ ) should be positive and significant.

Although equations (1) and (2) some of the differences among industry groups, it is also likely that they impose an unrealistic assumption that all slope coefficients are equal for all industry groups. One way to relax this assumption is to estimate the following equations for the eight industry groups identified by dummy variables in equations (1) and (2), as follows:

$$(3) \ln(CE_{ij}) = c0 + c1[\ln(KE_{ij})] + c2[\ln(E_{ij})] + c3(ES_{ij}) + c4(EF_{ij}) + c5(DS_{ij}) + c6(DM_{ij}) + c7(C4_j)$$

$$(4) \ln(CE_{ij}) = d0 + d1[\ln(KE_{ij})] + d2[\ln(E_{ij})] + d3(ES_{ij}) + d4(EF_{ij}) + d5(DS_{ij}) + d6(DM_{ij}) + d7(HF_j)$$

where all variables are defined as in equations (1) and (2) above.

Although estimation of equations (3) and (4) is expected to reveal some substantial differences in coefficient values among industry groups, the expected signs of corresponding coefficients are the same as in equations (1) and (2).

Equations (1) to (2) are best estimated in simple cross sections for 2000, 2002, 2004 and the coefficients on the ownership and concentration variables, as well as samples sizes and goodness-of-fit measures, are reported in Table 5.<sup>16</sup> Although cross section estimates fail to take

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<sup>16</sup> Estimation is limited to these three years because data on scientific and technological workers is not available for other years.

advantage of the panel properties of these data, they provide the most reliable estimates of wage differentials obtainable from the available data and are best suited to answer the question of which type of firm pays relatively high compensation at a given point in time.<sup>17</sup>

The major results of these estimates are generally in line with the expectations outlined above (Table 5). Coefficients on capital intensity, size, and the share of science and technology workers were positive, while coefficients on the female share of employment were negative in all equations for all of the samples examined (see Appendix Tables 5a, 5b for these details). Moreover, as noted in Table 5, these coefficients were almost always highly significant at the 1 percent level or better. The only exceptions were in the motor vehicles and other transportation equipment group, where all coefficients were still significant at the standard 5 percent level or better, and in the small heterogeneous group of miscellaneous manufacturing and recycling, where coefficients on the share of science and technology workers in 2002 and on size in 2004 were not significant at standard levels. R-squared varied between a minimum of 0.13 and a maximum of 0.44, which is typical for large cross sections such as these, and F-tests always reject the null that slope coefficients are zero at the 1 percent level or better. Thus, cross section estimates of equations (1) to (4) appear to be useful for

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<sup>17</sup> It is also possible and potentially interesting to estimate equations (1) to (4) in three panels for 2000-2002, 2002-2004, and 2000-2002-2004, and attempts were made to do this. However, it is impossible to obtain meaningful fixed effects estimates in this case because relatively few (124) firms changed ownership between 2000 and 2002 or between 2002 and 2004. Moreover, of these firms, only two were MNCs, one which changed from being an MNC in 2000 to a private firm in 2002 and then changed back to an MNC in 2004, and another which changed from being an MNC in 2000 to a private firm in 2002 and 2004. Correspondingly, it is impossible to conduct meaningful Hausman tests of whether fixed effects or random effects specifications are best when equations include the MNC dummy and the program used (Stata v9) failed to estimate the coefficient on the MNC dummy in almost all of the industry group samples examined.

examining compensation differentials and the effect of producer concentration on compensation.

The most conspicuous result emerging from Table 5 suggests that MNCs do indeed pay higher compensation even after accounting for related firm-level characteristics, as well as differences among industry groups. Coefficients on the MNC dummy are positive and highly significant (at the 1 percent level or better) in all equations and samples for which estimates are performed. The estimates of this coefficient (and most others) are also very similar regardless of the concentration measure used but they do vary over time and among industry groups. In the equation for all manufacturing, for example, the coefficient on the MNC dummy declined from 0.49-0.50 in 2000 to 0.44 in 2002 and 0.38 in 2004. There was a wide variation across industries, however, with relatively large differentials (minimum of 0.40 or more) in food, etc., chemicals, etc., non-metallic mineral products, etc., machinery, and motor vehicles, etc., and relatively small differentials (maximum of 0.30 or less) in textiles, etc., and wood, etc. In addition, differentials tended to be largest in 2002, not 2004, when estimating equations for the eight industry-groups and variation over time was relatively small. For example the averages of coefficients from these groups varied between 0.42 and 0.46 if unweighted and between 0.39 and 0.42 if weighted by the number of observations in each sample. All of these differentials are much smaller than corresponding differentials in Table 2, however. This suggests that a large part of those differentials are indeed related to firm-level characteristics and labor quality. It also suggests that use of more complete measures of labor quality might further reduce the differentials observed. The results also suggest that large declines in compensation differentials observed between 2000 and 2004 in Table 2 and the smaller declines observed in the estimates for

manufacturing firms combined largely disappear if differences among industry groups are accounted for.

The regression results also contrast sharply with the data in Table 2 by suggesting that SOE-private differentials were negative and significant at standard levels in many cases. For example, in the estimates for all manufacturing combined, the SOE-private differential was -0.10 in 2000, negligible (insignificant) in 2002, and 0.06 in 2004. When estimates for industry groups were performed and years the coefficient on the SOE dummy was negative and significant in 16 of the 54 samples examined but positive and significant in another. Negative differentials were common in food., etc. (2002 and 2004), textiles, etc. (all years), and wood, etc. (2000 and 2002) while positive differentials were often observed in chemicals, etc. (all years), machinery (2002 and 2004), and motor vehicles, etc. (all years). However, even at the industry level SOE-private differentials varied more over time than MNC-private differentials. Thus, the regression analysis suggests that large portions of the SOE-private compensation differentials observed in Table 2, resulted from the fact that SOEs had other characteristics leading to relatively high compensation such as relatively high capital intensity and large size, and that these characteristics were so overwhelming as to result in negative differentials once they were accounted for.

The coefficients on producer concentration were often insignificant at standard levels suggesting little relationship between these measures of competition and compensation levels. In the equation for all manufacturing, for example, the coefficient on the 4-firm concentration ratio was positive and significant in both 2000 and 2004 and the coefficient on the Herfindahl index was

significant in 2004, but others were not significant. However, results from industry groups again differ markedly, with food, etc. (2000 and 2002) being the only group for which higher concentration had a significant and positive effect on compensation. In contrast the relationship between producer concentration and compensation was always negative in three of the industry groups examined (textiles, etc., wood, etc., and motor vehicles, etc.), as well as in 5 of 6 samples for non-metallic mineral products, etc. (all years for the Herfindahl, 2000 and 2002 for the 4-firm concentration ratio).

## 5. Compensation Spillovers to Private Firms

In addition to paying higher wages than their local counterparts, MNCs are also thought to influence compensation and wage levels in local plants through spillovers as described above. Also as described above, SOEs are purported to play a leading role in Vietnamese industry so it is interesting to see if evidence is consistent with the existence of similar spillovers originating in SOEs as well. The extent of compensation spillovers to private firms is thus examined by estimating equations similar to (1) and (2) in samples of private firms, and then including SOE and MNC shares of industry employment as independent variables in equations (5) to (8) below:

$$(5) \ln(CE_{ij}) = e0 + e1[\ln(KE_{ij})] + e2[\ln(E_{ij})] + e3(ES_{ij}) + e4(EF_{ij}) + e5(SSH_j) + e6(MSH_j) + e7(C4_j) + e8(DI_k)$$

$$(6) \ln(CE_{ij}) = f0 + f1[\ln(KE_{ij})] + f2[\ln(E_{ij})] + f3(ES_{ij}) + f4(EF_{ij}) + f5(SSH_j) + f6(MSH_j) + f7(HF_j) + f8(DI_k)$$

where

$MSH_j$  = the MNC share in the employment of industry j (percent)

$SSH_j$  = the SOE share in the employment of industry j (percent)

all other variables as defined in equations (1)-(2) above

Following the usual practice, these equations are estimated in samples of all manufacturing industries

and equations similar to (3) and (4) are not estimated here. This failure to account for inter-industry-group in variation in spillover effects is one of the limits imposed by the commonly used methodology but there is no practical alternative we are aware of. Signs on the basic controls (capital intensity, size, the share of science and technology workers, the share of female workers are expected to be the same as in the estimates of equations (1) to (4). If coefficients on the MNC or SOE shares are positive, they are then interpreted as evidence that greater MNC or SOE presence in an industry leads to higher compensation in private firms in that industry, or positive compensation spillovers. Such spillovers may also be negative.

Cross section results (Table 6) suggest that spillovers from MNCs and SOEs were both negligible (insignificant) in 2000, but positive and significant in 2002 and 2004. Although coefficients on all control variables were of the expected sign and highly significant at the 1 percent level or better, the explanatory power of these equations, which are estimated for private firms only, was quite a bit lower than for the wage-differential equations which were estimated in samples including MNCs and SOEs and described in the previous section (Appendix Table 6). Although these results may seem like reasonable descriptions of the relationship between wages in local firms and SOE or MNC presence at a given point in time, there is a potential for simultaneity to result in inconsistent estimates because MNCs and SOEs may be attracted to high wage industries.

Fixed effects panel estimates (Table 7) measure how private firm compensation changes over time after controlling for so-called unobserved firm-specific characteristics, in addition to the observable characteristics specified in equations (5) and (6). In many ways, these panel estimates are

more appropriate for examining spillovers, because they focus more on the question of whether larger MNC or SOE presence leads to increases or decreases of compensation in private firms over time rather than on the cross section question of whether compensation in private firms is related to the size of MNC or SOE presence. By focusing on changes in wages rather wage levels, they are also less likely to be affected by simultaneity.

Given the different focus of the questions posed by fixed effects estimates, it is perhaps not surprising that fixed effects results differ from the cross section results in several respects.<sup>18</sup> First, of the coefficients on the four control variables, only the capital intensity coefficient is consistently significant at standard levels (5 percent or better) and these coefficients are positive as expected. Coefficients on the share of scientific and technological workers are also positive and significant at standard levels for 3-year sample and weakly significant at the 10 percent level or better for the 2002-2004 sample, but is insignificant in the 2000-2002 sample. Coefficients on size and the female share are never significant and often have signs that contradict expectations. Second, the MNC share coefficient is never significant at standard levels and is weakly significant in only one of the equations in the 3-year sample. Thus, these estimates suggest compensations spillovers from MNCs were not very strong. Third, on the other hand, the SOE share coefficients are highly significant in all specifications, but they are negative, suggesting larger SOE presence leads to lower compensation in private firms. Fourth, coefficients on the concentration variable are highly significant and negative in

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<sup>18</sup> Random effects models were also estimated and Hausman tests performed to get an indication of which specification was more appropriate. These tests all indicate that the fixed effects formulation should be preferred.



two of the three samples (2002-2004 and the 3-year sample), indicating that private firms pay more in less concentrated industries, at least in recent years.

The major results obtained from panel estimates thus contrast starkly with the cross section results. This is perhaps not surprising given the differences in the questions posed by the two modes of analysis but there are also a large number of potential problems in the panel analysis that do not exist in the cross sections. Perhaps the largest problem results from the fact that a number of firms entered manufacturing or changed industries in Vietnamese manufacturing over this period (Phan and Ramstetter 2007). Thus, panels covering even a short two-year period become highly unbalanced which complicates estimation and interpretation. Second, to facilitate panel estimates, fixed assets and compensation were both deflated using sector-specific producer price indices, but classifications used in the producer price data and the firm data do not match exactly and it is not clear that this is the best index to deflate these variables by.<sup>19</sup> Third, there are potentially important problems with the firm codes in these data, which can make the panels one can create of limited reliability. For example, there were several apparent duplicates and many of the duplicate entries apparently referred to different branches of the same firm (Ramstetter and Phan 2007, Appendix). On the other hand, both the cross sections and the panels have potential simultaneity problems, and these problems are potentially more severe in the cross sections. Dealing with such problems is a major task for future research but is quite complicated when using these data sets.<sup>20</sup>

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<sup>19</sup> For labor compensation, one might arguably prefer to use the consumer price index as a deflator, but this would imply a high degree of inter-industry labor mobility that may be unrealistic. For fixed assets, one would clearly prefer a capital goods deflator but this is not available.

<sup>20</sup> The major problem is the inability to identify proper instruments. The inability to identify such

## 6. Conclusion

The results of this paper first suggest that both MNCs and SOEs paid their workers higher wages and total compensation than private firms. If other related firm- and industry-level characteristics are not controlled for, MNC-private differentials were largest but declined over time while SOE-private differentials were smaller but increased over time. Second, more rigorous analysis suggests that compensation differentials were much smaller after controlling for a number of related firm- and industry-level characteristics. Indeed, the influence of related factors was so large that SOE-private differentials were negative in 2000 after the controls were considered, but they were significantly positive in the 2004 sample. Likewise MNC-private differentials were always significantly positive and declined somewhat overtime, though considering the controls suggests the rate of decline was slower than indicated by descriptive statistics. Third, estimates for all manufacturing suggest that producer concentration was positively related to compensation levels, but that this relationship was not always significant depending on the year or measure of concentration used. Fourth, more detailed analysis suggests that the results regarding SOE-private differentials varied greatly among industry groups while the effects of producer concentration on compensation levels were actually negative in about half of the industry-groups and rarely positive. MNC-private differentials also differed greatly across industries, although they were positive and significant in all industry-groups. The results regarding MNC-private differentials are thus consistent with evidence from previous studies of other Southeast Asian economies and with expectations created by instruments is a major reason that most previous studies of wage differentials have usually relied on single-equation estimation techniques.

Vietnam's policy of requiring MNCs and SOEs to pay relatively high wages. On the other hand, the results regarding SOE-private differentials are perhaps surprising because they suggest that SOEs often do not pay relatively high wages once controls such as capital intensity or firm size are considered.

The paper also examined the possibility that SOEs and MNCs generated spillovers that affected compensation levels in Vietnam's rapidly growing private sector. The first attempt was made in simple cross sections and suggested little effect of SOE or MNC presence on local firm compensation in 2000, but that larger SOE and MNC presence both led to higher compensation in private firms in 2002 and 2004. On the other hand, fixed effects panel estimates suggested that MNC presence did not have a strong effect on changes in private firm compensation during the period studied. Moreover, the fixed effects evidence suggests that increases in private firm compensation tended to be relatively low in industries with large SOE presence or high producer concentration. This in turn suggests that further efforts to spur competition and privatization of SOEs are likely to result in relatively rapid growth of worker incomes in Vietnamese manufacturing.

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Table 1: Employment and Sales of Medium-Large Firms by Industry and Owner

Industry	Employment (thousands)						Sales (trillion dong)					
	SOEs		Private		MNCs		SOEs		Private		MNCs	
	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004
Manufacturing	716.70	756.99	475.30	1,074.1	354.74	961.41	93.99	176.84	41.24	161.75	101.52	264.55
Food products	115.23	111.75	76.85	186.05	27.41	54.66	25.89	35.37	14.84	50.96	15.21	35.96
Beverages	16.06	16.13	4.17	12.36	7.61	5.84	3.01	7.76	0.47	2.00	3.76	7.06
Tobacco	11.59	13.95	0.15	0.15	0.33	0.42	5.02	12.92	0.01	0.04	0.07	0.09
Textiles	71.99	67.11	25.53	54.25	23.83	43.79	6.06	8.81	1.70	5.52	5.13	9.86
Apparel	110.77	124.78	71.43	169.79	44.87	194.71	5.47	9.91	1.96	7.05	3.97	12.17
Leather	3.82	4.69	9.93	13.66	9.74	29.73	0.10	0.16	0.20	0.85	0.58	2.55
Footwear	67.70	63.95	101.67	136.62	102.42	266.73	2.45	2.32	2.32	4.54	8.64	22.20
Wood products	18.46	15.60	31.84	69.19	9.51	16.47	1.60	1.94	1.49	4.44	1.01	2.98
Paper products	14.77	15.03	16.36	33.25	4.14	9.36	4.07	3.51	2.16	6.88	0.88	3.34
Publishing	20.29	24.70	1.40	7.09	0.29	2.20	3.77	7.92	0.17	1.26	0.04	0.23
Petroleum products	0.00	0.12	0.46	0.47	0.34	0.36	0.00	0.09	0.27	0.61	0.64	0.97
Chemicals	44.18	40.74	10.98	26.16	8.86	16.81	8.98	14.47	1.93	7.84	7.32	22.20
Rubber products	10.95	19.25	2.28	5.74	5.21	9.18	1.37	3.60	0.33	2.05	0.78	2.19
Plastics	5.72	6.68	15.64	37.10	9.89	23.84	1.21	3.80	2.83	10.19	2.45	7.60
Non-metallic mineral products	76.93	92.67	34.89	96.80	10.60	21.58	10.67	21.80	2.37	10.44	5.53	10.31
Basic metals	23.01	21.44	3.26	11.70	1.96	5.24	2.85	9.43	1.03	9.31	4.26	9.44
Fabricated metals	24.06	23.41	13.05	50.80	10.90	27.79	1.70	3.34	1.87	12.74	3.39	9.55
General machinery	21.02	22.21	4.09	18.72	5.26	10.87	1.78	3.05	0.47	3.64	2.19	6.33
Office & computing machinery	0.00	0.00	0.00	0.30	3.06	5.56	0.00	0.00	0.00	0.17	8.49	9.79
Electrical machinery	14.04	13.08	4.13	9.36	20.71	42.45	2.17	10.60	0.89	4.01	4.21	14.09
Radio, television & commun. mach.	7.22	5.59	1.42	4.07	7.85	19.46	1.48	1.80	0.18	1.32	5.58	13.82
Precision machinery	1.83	1.38	2.51	3.82	2.42	7.43	0.10	0.14	0.18	0.47	0.76	2.07
Motor vehicles	7.51	10.82	2.33	6.13	5.04	15.89	0.81	3.56	0.50	1.49	4.85	21.16
Other transport equipment	24.21	31.38	5.87	19.19	9.41	29.80	3.02	8.04	1.25	4.69	9.29	26.51
Furniture	4.41	9.33	25.05	84.50	10.46	62.00	0.33	2.17	1.23	7.40	0.59	7.41
Miscellaneous manufacturing	0.95	1.22	9.97	16.08	12.62	39.26	0.04	0.33	0.60	1.69	1.88	4.67
Recycling	0.00	0.00	0.07	0.77	0.00	0.00	0.00	0.00	0.02	0.16	0.00	0.00

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Table 2: Mean Total Compensation and Wages per Worker in Medium-Large Firms by Industry and Owner (million dong)

Industry	Total compensation						Wages					
	SOEs		Private		MNCs		SOEs		Private		MNCs	
	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004
Manufacturing, firm mean	10.23	16.99	7.30	10.81	19.90	20.77	9.77	16.31	7.16	10.69	19.49	20.41
Manufacturing, 27-industry mean	10.76	18.31	7.65	12.00	22.44	27.32	10.33	17.63	7.49	11.82	22.10	26.94
Food products	8.46	12.13	6.74	9.49	18.24	21.79	8.00	11.76	6.56	9.37	17.91	21.38
Beverages	8.80	17.05	7.36	10.59	25.90	38.29	8.51	16.55	7.17	10.35	25.77	37.47
Tobacco	21.53	35.30	4.91	11.01	20.00	44.20	20.53	32.84	4.48	10.53	19.67	43.26
Textiles	8.06	12.44	5.14	8.65	13.99	16.09	7.82	11.99	5.09	8.53	13.25	15.69
Apparel	6.92	10.93	7.48	10.92	12.96	13.59	6.70	10.50	7.41	10.82	12.63	13.29
Leather	10.68	12.20	7.53	11.35	11.25	16.03	10.29	11.81	7.15	11.27	11.06	15.81
Footwear	6.07	9.70	6.78	9.36	13.10	13.86	5.87	9.45	6.69	9.24	12.95	13.65
Wood products	7.18	10.19	5.92	8.33	9.77	15.26	6.82	9.99	5.87	8.28	9.70	14.93
Paper products	10.31	14.31	8.02	11.73	17.37	18.81	9.92	14.09	7.83	11.55	17.00	18.55
Publishing	15.45	24.23	7.84	13.19	21.25	19.47	14.49	22.65	7.78	13.05	21.25	19.62
Petroleum products	-	32.30	9.09	12.60	90.39	132.10	-	30.63	8.98	12.37	89.99	131.68
Chemicals	13.37	23.33	9.70	14.57	33.44	41.44	12.90	22.23	9.39	14.30	32.64	40.81
Rubber products	12.69	18.41	9.00	13.66	18.32	16.32	12.23	17.55	8.87	13.51	18.17	15.95
Plastics	13.29	22.41	8.78	11.29	17.88	20.91	12.92	21.90	8.50	11.17	17.56	20.71
Non-metallic mineral products	9.07	16.07	6.71	10.32	26.09	24.04	8.67	15.54	6.63	10.21	25.67	23.80
Basic metals	9.70	19.88	7.55	12.61	30.77	33.49	9.46	19.58	7.53	12.49	30.12	33.05
Fabricated metals	9.40	15.22	7.84	11.63	22.90	23.95	8.89	14.81	7.72	11.54	22.02	23.57
General machinery	9.41	15.49	9.38	12.96	22.52	23.99	9.07	14.78	9.26	12.76	22.41	23.47
Office & computing machinery	-	-	-	19.30	12.53	30.73	-	-	-	18.49	12.29	30.48
Electrical machinery	15.31	30.98	9.33	13.21	23.49	23.18	14.73	30.02	8.98	12.95	23.24	22.74
Radio, television & commun. mach.	15.58	20.85	11.23	16.35	25.36	29.16	14.53	19.90	11.07	16.06	24.87	28.88
Precision machinery	10.56	12.36	10.13	14.66	22.24	20.49	10.06	11.93	9.94	14.29	21.68	20.05
Motor vehicles	9.22	20.02	7.06	11.44	22.79	23.19	8.95	19.00	7.03	11.37	22.54	22.42
Other transport equipment	11.67	17.22	7.70	13.07	21.73	20.40	11.33	16.71	7.58	13.04	21.39	19.92
Furniture	6.48	18.86	7.19	10.30	10.72	13.98	6.35	18.60	7.10	10.24	10.54	13.87
Miscellaneous manufacturing	9.10	15.88	7.25	10.52	18.46	15.53	8.86	15.83	7.06	10.46	18.16	15.31
Recycling	-	-	3.09	10.89	-	-	-	-	3.09	10.88	-	-

Note: Samples include firms reporting positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)



Table 3: Fixed Assets per Worker and Workers per Firm in Medium-Large Firms by Industry and Owner

Industry	Fixed Assets per Worker (million dong)						Workers per Firm (number)					
	SOEs		Private		MNCs		SOEs		Private		MNCs	
	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004
Manufacturing, firm mean	46.65	89.82	30.40	45.81	308.68	194.64	466	616	143	139	368	460
Manufacturing, 27-industry mean	41.79	84.11	32.99	63.53	338.23	335.66	492	633	143	137	390	418
Food products	57.05	95.83	29.37	46.87	282.72	230.48	559	650	138	165	249	305
Beverages	77.34	81.94	80.39	79.34	542.11	507.83	191	304	60	75	272	201
Tobacco	44.13	67.62	39.53	57.50	433.13	2,340	681	872	149	48	167	139
Textiles	80.64	159.95	30.50	60.51	168.35	194.86	973	1,137	141	143	378	332
Apparel	14.53	16.84	13.99	17.47	65.64	49.25	998	1,522	243	226	482	614
Leather	36.10	42.89	5.98	12.45	32.91	119.74	636	669	310	224	513	607
Footwear	14.23	21.46	19.20	37.24	42.72	56.15	1,612	1,827	1,070	955	2,498	2,838
Wood products	19.41	63.46	16.99	22.72	75.68	63.52	303	411	112	106	232	217
Paper products	47.00	138.86	35.38	68.62	322.29	235.18	379	518	70	75	180	173
Publishing	47.63	79.96	36.20	42.32	52.82	138.98	124	160	61	44	72	105
Petroleum products	-	133.71	56.33	99.78	1,052	1,035	0	122	57	79	171	179
Chemicals	35.94	243.80	38.81	52.87	551.97	335.41	451	558	93	89	120	128
Rubber products	29.37	70.94	45.92	51.04	212.48	159.66	644	1,203	63	77	237	235
Plastics	80.42	120.98	78.37	87.88	279.07	284.53	260	318	88	93	183	194
Non-metallic mineral products	61.36	93.16	29.82	42.55	873.42	397.68	353	527	87	112	216	266
Basic metals	43.21	66.72	39.18	90.72	713.83	402.47	1,095	1,340	57	68	163	201
Fabricated metals	39.78	74.97	33.53	39.74	418.94	262.72	267	372	63	72	130	166
General machinery	25.41	51.49	26.85	43.55	355.21	198.30	296	383	59	84	202	194
Office & computing machinery	-	-	-	345.58	329.47	466.51	-	-	0	75	1,532	927
Electrical machinery	37.99	67.95	52.91	79.04	335.55	296.33	561	523	72	74	460	537
Radio, television & commun. mach.	62.32	62.35	20.73	54.31	308.53	196.79	241	294	74	92	280	405
Precision machinery	33.40	111.56	30.84	41.05	207.70	163.09	228	230	157	212	186	338
Motor vehicles	26.75	55.58	19.66	39.41	595.87	272.70	209	451	52	63	194	256
Other transport equipment	45.18	81.34	15.48	73.63	293.55	177.90	310	475	68	112	277	359
Furniture	32.80	38.80	12.16	23.83	86.41	59.50	276	549	131	168	455	569
Miscellaneous manufacturing	11.09	60.52	20.60	31.33	161.28	82.04	159	405	169	121	280	378
Recycling	-	-	29.14	74.10	-	-	-	-	65	45	-	-

Note: Samples include firms reporting positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Table 4: Mean Shares of Female Workers and Science & Technology Workers in Total Employment in Medium-Large Sample Firms by Industry and Owner (percent)

Industry	Female workers						Science & technology workers					
	SOEs		Private		MNCs		SOEs		Private		MNCs	
	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004	2000	2004
Manufacturing, firm mean	43.12	41.81	41.64	40.71	46.01	51.28	10.99	12.95	5.95	6.73	14.82	10.79
Manufacturing, 27-industry mean	41.87	40.06	38.75	36.23	44.52	46.31	10.95	14.15	8.09	9.98	18.05	13.92
Food products	51.98	51.92	39.76	44.64	42.22	46.51	8.80	10.64	3.85	5.03	17.75	15.11
Beverages	39.62	42.15	32.53	29.80	30.57	37.82	13.08	12.89	10.23	11.07	17.72	25.53
Tobacco	56.64	48.05	69.13	42.16	50.37	52.33	10.39	9.81	5.37	9.48	8.33	28.58
Textiles	67.52	62.99	69.51	65.92	65.85	62.96	6.43	9.28	4.28	5.81	5.31	6.73
Apparel	80.61	81.56	77.91	75.70	81.36	80.99	3.88	2.93	4.64	4.67	3.71	3.99
Leather	65.46	70.35	73.82	70.24	75.75	75.61	3.67	5.01	2.54	3.51	1.93	7.76
Footwear	75.63	75.60	69.35	68.97	70.71	74.51	3.43	2.01	4.64	3.99	2.40	3.27
Wood products	31.41	32.99	42.62	43.29	38.38	40.79	9.68	8.81	3.36	3.25	6.64	6.18
Paper products	38.27	36.45	31.11	32.43	44.49	40.91	8.80	8.15	6.76	6.53	9.83	9.21
Publishing	42.25	43.66	44.16	40.53	43.21	43.06	19.87	25.31	11.18	15.68	56.00	12.26
Petroleum products	-	23.77	20.17	13.37	24.03	19.88	-	50.00	9.58	14.10	58.82	33.29
Chemicals	43.11	36.64	41.47	36.28	32.42	33.86	16.26	19.35	13.03	14.82	31.96	22.70
Rubber products	37.20	38.07	28.75	29.45	47.80	48.90	11.64	8.48	5.59	8.44	7.91	7.15
Plastics	42.70	36.75	36.96	37.83	39.02	46.09	12.71	14.14	8.37	8.27	12.48	10.01
Non-metallic mineral products	36.82	32.22	41.88	36.25	28.38	26.97	7.55	9.70	3.16	3.58	16.71	14.55
Basic metals	23.67	18.41	11.90	14.46	13.03	18.98	9.59	13.06	3.36	6.41	20.97	18.08
Fabricated metals	24.70	21.60	19.66	18.71	23.73	30.89	11.24	15.12	9.07	8.70	18.47	14.19
General machinery	23.86	22.67	15.71	17.72	30.45	31.50	11.66	10.92	16.96	13.77	24.86	17.60
Office & computing machinery	-	-	-	26.09	57.84	44.31	-	-	-	44.47	23.73	21.59
Electrical machinery	31.82	30.05	26.57	24.24	42.55	52.87	13.09	20.71	11.52	15.71	19.27	15.47
Radio, television & commun. mach.	36.84	37.93	38.11	38.03	55.85	52.94	25.63	25.01	22.55	16.32	21.80	19.30
Precision machinery	30.35	36.59	30.09	29.51	51.80	61.34	12.66	24.17	27.02	15.41	23.08	15.79
Motor vehicles	19.68	19.40	12.54	16.15	28.02	32.39	12.67	13.43	4.48	9.09	27.94	12.00
Other transport equipment	21.25	18.87	14.37	17.80	33.62	38.10	12.42	12.82	7.29	9.14	14.45	9.80
Furniture	30.56	36.29	31.44	36.17	44.20	45.83	8.86	8.16	4.50	4.45	6.41	4.74
Miscellaneous manufacturing	53.04	46.59	51.04	52.48	61.94	63.82	8.74	13.75	6.87	6.47	10.76	6.96
Recycling	-	-	36.92	19.89	-	-	-	-	0.00	1.39	-	-

Note: Samples include firms reporting positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Table 5: Coefficients on SOE, MNC, and Concentration Variables, Sample Size, and R-squared for Estimates of Equations (1) to (4) in Cross Sections

Independent variable, item	2000				2002				2004			
	Eq. (1) or (3)		Eq. (2) or (4)		Eq. (1) or (3)		Eq. (2) or (4)		Eq. (1) or (3)		Eq. (2) or (4)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
Manufacturing combined (equations (1) and (2))												
$DS_{ij}$	-0.0985	0.00	-0.0953	0.00	0.0228	0.29	0.0234	0.28	0.0573	0.01	0.0587	0.01
$DM_{ij}$	0.4972	0.00	0.4943	0.00	0.4367	0.00	0.4367	0.00	0.3773	0.00	0.3765	0.00
$C4_j, HF_j$	0.0029	0.00	0.0048	0.37	0.0008	0.28	0.0004	0.92	0.0024	0.00	0.0086	0.01
Observ.	5,620	-	5,620	-	7,841	-	7,841	-	10,563	-	10,563	-
R <sup>2</sup>	0.351	-	0.350	-	0.302	-	0.302	-	0.248	-	0.248	-
Food, beverages, and tobacco (equations (3) & (4), VSIC 151-154, 155, 16)												
$DS_{ij}$	-0.0898	0.06	-0.0864	0.07	-0.0949	0.02	-0.0939	0.03	-0.1275	0.00	-0.1295	0.00
$DM_{ij}$	0.5606	0.00	0.5620	0.00	0.6322	0.00	0.6333	0.00	0.5276	0.00	0.5277	0.00
$C4_j, HF_j$	0.0084	0.00	0.0385	0.00	0.0038	0.00	0.0176	0.00	-0.0002	0.82	-0.0002	0.96
Observ.	1,501	-	1,501	-	1,759	-	1,759	-	2,083	-	2,083	-
R <sup>2</sup>	0.342	-	0.343	-	0.333	-	0.333	-	0.277	-	0.277	-
Textiles, apparel, leather, and footwear (equations (3) & (4), VSIC 17, 18, 19)												
$DS_{ij}$	-0.2552	0.00	-0.2548	0.00	-0.2348	0.00	-0.2338	0.00	-0.2143	0.00	-0.2136	0.00
$DM_{ij}$	0.2744	0.00	0.2762	0.00	0.2641	0.00	0.2650	0.00	0.2770	0.00	0.2781	0.00
$C4_j, HF_j$	-0.0086	0.00	-0.0363	0.00	-0.0067	0.00	-0.0282	0.00	-0.0071	0.00	-0.0294	0.00
Observ.	3,651	-	3,651	-	3,762	-	3,762	-	3,894	-	3,894	-
R <sup>2</sup>	0.142	-	0.139	-	0.132	-	0.130	-	0.140	-	0.138	-
Wood, paper, furniture (equations (3) & (4), VSIC 20, 21, 361)												
$DS_{ij}$	-0.1947	0.00	-0.2061	0.00	-0.1330	0.01	-0.1327	0.01	-0.0924	0.09	-0.0968	0.08
$DM_{ij}$	0.2015	0.00	0.2060	0.00	0.2879	0.00	0.2924	0.00	0.2872	0.00	0.2932	0.00
$C4_j, HF_j$	-0.0069	0.00	-0.0219	0.00	-0.0033	0.00	-0.0189	0.00	-0.0064	0.00	-0.0283	0.00
Observ.	2,826	-	2,826	-	2,990	-	2,990	-	3,183	-	3,183	-
R <sup>2</sup>	0.190	-	0.187	-	0.185	-	0.186	-	0.175	-	0.176	-
Chemicals, rubber, plastics (equations (3) & (4), VSIC 24, 251, 252)												
$DS_{ij}$	0.1343	0.00	0.1355	0.00	0.1801	0.00	0.1803	0.00	0.1976	0.00	0.1949	0.00
$DM_{ij}$	0.4447	0.00	0.4458	0.00	0.4397	0.00	0.4398	0.00	0.5062	0.00	0.5040	0.00
$C4_j, HF_j$	-0.0009	0.57	-0.0071	0.43	-0.0014	0.36	-0.0079	0.38	-0.0040	0.01	-0.0164	0.07
Observ.	1,811	-	1,811	-	1,893	-	1,893	-	2,014	-	2,014	-
R <sup>2</sup>	0.269	-	0.269	-	0.274	-	0.274	-	0.265	-	0.264	-

Table 5 (continued)

Independent variable, statistic	2000				2002				2004			
	Eq. (1) or (3)		Eq. (2) or (4)		Eq. (1) or (3)		Eq. (2) or (4)		Eq. (1) or (3)		Eq. (2) or (4)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
Non-metallic mineral products, basic metals, metal products (equations (3) & (4), VSIC 26, 27, 28)												
$DS_{ij}$	-0.1244	0.00	-0.1273	0.00	-0.0292	0.41	-0.0287	0.42	-0.0270	0.45	-0.0263	0.46
$DM_{ij}$	0.5171	0.00	0.5230	0.00	0.5176	0.00	0.5214	0.00	0.4614	0.00	0.4619	0.00
$C4_j, HF_j$	-0.0046	0.00	-0.0227	0.00	-0.0027	0.01	-0.0127	0.05	-0.0017	0.12	-0.0127	0.05
Observ.	3,026	-	3,026	-	3,225	-	3,225	-	3,463	-	3,463	-
$R^2$	0.322	-	0.321	-	0.310	-	0.310	-	0.273	-	0.273	-
Machinery (equations (3) & (4), general machinery [29], office and computing machinery [30], electrical machinery [31], radio, television & communication machinery [32], and precision machinery [33])												
$DS_{ij}$	0.0017	0.98	-0.0093	0.89	0.1234	0.03	0.1135	0.05	0.1640	0.01	0.1568	0.01
$DM_{ij}$	0.4798	0.00	0.4773	0.00	0.5221	0.00	0.5202	0.00	0.5298	0.00	0.5295	0.00
$C4_j, HF_j$	-0.0030	0.13	-0.0058	0.05	0.0016	0.38	-0.0036	0.23	-0.0007	0.73	-0.0050	0.08
Observ.	1,105	-	1,105	-	1,188	-	1,188	-	1,274	-	1,274	-
$R^2$	0.313	-	0.315	-	0.302	-	0.302	-	0.292	-	0.294	-
Motor vehicles, other transportation equipment (equations (3) & (4), VSIC 34, 35)												
$DS_{ij}$	0.2115	0.00	0.2325	0.00	0.2352	0.00	0.2402	0.00	0.2871	0.00	0.2943	0.00
$DM_{ij}$	0.4490	0.00	0.4665	0.00	0.4454	0.00	0.4492	0.00	0.4778	0.00	0.4894	0.00
$C4_j, HF_j$	-0.0364	0.00	-0.0761	0.00	-0.0342	0.00	-0.0737	0.00	-0.0344	0.00	-0.0825	0.00
Observ.	887	-	887	-	937	-	937	-	960	-	960	-
$R^2$	0.269	-	0.275	-	0.276	-	0.278	-	0.269	-	0.270	-
Miscellaneous manufacturing, recycling (equations (3) & (4), VSIC 369, 37)												
$DS_{ij}$	0.4063	0.02	0.3976	0.02	0.2843	0.40	0.2814	0.40	-0.0179	0.95	-0.0151	0.95
$DM_{ij}$	0.5355	0.00	0.5219	0.00	0.5718	0.00	0.5689	0.00	0.3178	0.00	0.3200	0.00
$C4_j, HF_j$	-0.0006	0.93	-0.0104	0.12	-0.0045	0.47	-0.0134	0.07	-0.0065	0.07	-0.0194	0.00
Observ.	135	-	135	-	186	-	186	-	259	-	259	-
$R^2$	0.440	-	0.443	-	0.312	-	0.315	-	0.301	-	0.304	-

Note: see Appendix Tables 5a (Equations (1) and (2) for manufacturing) and 5b (equations (3) and (4) for industry groups) for coefficients on other independent variables and F-tests of the hypothesis that all coefficients are zero; coefficients on the four other independent variables were of the expected signs and significant at the 1 percent level or better in almost all of the 54 samples; exceptions were in motor vehicles and other transportation equipment (significant at 5 percent or better in all samples) and miscellaneous manufacturing and recycling (significant at 5 percent or better except for science and technology worker share in 2002 and size in 2004); all tests were conducted using heteroskedasticity-consistent standard errors; F-tests rejected the null of zero slopes at the 1 percent level or better in all 54 samples

Table 6: Major Results of Estimating Equations (5) and (6) in Cross Sections

Independent variable, statistic	2000				2002				2004			
	Equation (5)		Equation (6)		Equation (5)		Equation (6)		Equation (5)		Equation (6)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
$\ln(KE_{ij})$	0.1120	0.00	0.1123	0.00	0.0720	0.00	0.0712	0.00	0.0697	0.00	0.0699	0.00
$\ln(E_{ij})$	0.2030	0.00	0.2035	0.00	0.1530	0.00	0.1523	0.00	0.1355	0.00	0.1355	0.00
$ES_{ij}$	0.0113	0.00	0.0112	0.00	0.0092	0.00	0.0093	0.00	0.0119	0.00	0.0119	0.00
$EF_{ij}$	-0.0043	0.00	-0.0043	0.00	-0.0042	0.00	-0.0042	0.00	-0.0038	0.00	-0.0038	0.00
$SSH_j$	-0.0014	0.45	-0.0009	0.63	0.0038	0.00	0.0031	0.01	0.0023	0.03	0.0026	0.01
$MSH_j$	-0.0014	0.64	-0.0008	0.80	0.0077	0.00	0.0069	0.00	0.0044	0.00	0.0046	0.00
$C4_j, HF_j$	0.0025	0.09	0.0092	0.19	-0.0030	0.01	-0.0077	0.10	0.0001	0.93	-0.0023	0.52
Constant	0.6237	0.00	0.6197	0.00	0.7100	0.00	0.6974	0.00	1.2714	0.00	1.2677	0.00
Observ.	3,287	-	3,287	-	5,163	-	5,163	-	7,430	-	7,430	-
R <sup>2</sup>	0.158	-	0.158	-	0.151	-	0.151	-	0.129	-	0.129	-
F	42.83	0.00	42.89	0.00	63.55	0.00	63.04	0.00	76.36	0.00	76.57	0.00

Note: See Appendix Table 6 for full results including coefficients on industry group dummies.

Table 7: Major Results of Estimating Equations (5) and (6) in Fixed Effects Panels

Independent variable, statistic	2000-2002				2002-2004				2000-2002-2004			
	Equation (5)		Equation (6)		Equation (5)		Equation (6)		Equation (5)		Equation (6)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
$\ln(KE_{ij})$	0.1303	0.00	0.1301	0.00	0.1172	0.00	0.1168	0.00	0.1297	0.00	0.1303	0.00
$\ln(E_{ij})$	-0.0233	0.67	-0.0238	0.66	-0.0402	0.29	-0.0403	0.28	-0.0077	0.78	-0.0062	0.82
$ES_{ij}$	0.0014	0.53	0.0014	0.52	0.0026	0.09	0.0026	0.08	0.0023	0.05	0.0023	0.05
$EF_{ij}$	-0.0015	0.45	-0.0015	0.45	0.0012	0.33	0.0011	0.35	0.0003	0.73	0.0004	0.71
$SSH_j$	-0.0173	0.00	-0.0177	0.00	-0.0158	0.00	-0.0169	0.00	-0.0146	0.00	-0.0156	0.00
$MSH_j$	-0.0010	0.81	-0.0014	0.72	0.0030	0.46	0.0024	0.55	0.0040	0.10	0.0035	0.15
$C4_j, HF_j$	0.0005	0.86	0.0057	0.59	-0.0114	0.00	-0.0445	0.00	-0.0071	0.00	-0.0246	0.00
Constant	1.9234	0.00	1.9439	0.00	2.0776	0.00	1.9761	0.00	1.7980	0.00	1.7180	0.00
Observ.	8,450	-	8,450	-	12,593	-	12,593	-	15,880	-	15,880	-
Groups	6,521	-	6,521	-	8,988	-	8,988	-	10,265	-	10,265	-
R <sup>2</sup> -within	0.139	-	0.139	-	0.131	-	0.131	-	0.162	-	0.161	-
R <sup>2</sup> -betw.	0.036	-	0.036	-	0.024	-	0.026	-	0.061	-	0.064	-
R <sup>2</sup> -overall	0.041	-	0.041	-	0.029	-	0.031	-	0.068	-	0.071	-
F	9.06	0.00	9.03	0.00	15.42	0.00	15.85	0.00	37.63	0.00	37.80	0.00
Hausman	73.03	0.00	73.24	0.00	153.58	0.00	156.32	0.00	185.10	0.00	184.69	0.00

Note: See Appendix Table 7 for full results including coefficients on industry group dummies.

Appendix Table 1a: Employment of All Firms by Industry (thousands)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	3,481.43	3,868.15	4,591.68	5,074.60	5,619.49	5,922.55
01 to 05-Agriculture, fishery, forestry	263.60	261.37	264.16	249.26	254.10	257.03
10 to 41-Mining, manufacturing, utilities	1,809.45	1,992.25	2,422.69	2,789.21	3,135.91	3,260.78
10 to 14-Mining	151.41	128.26	155.27	162.18	164.19	177.80
11-Oil & gas	6.81	6.29	7.04	6.84	7.95	8.17
15 to 37-Manufacturing	1,586.05	1,786.65	2,185.17	2,540.25	2,868.75	3,059.34
151 to 154-Food products	233.22	259.60	306.39	333.33	366.69	383.76
155-Beverages	32.48	33.60	36.36	43.04	41.44	38.53
16-Tobacco	12.12	13.41	13.36	14.15	14.54	14.60
17-Textiles	122.19	137.54	150.65	164.71	167.45	186.84
18-Apparel	227.76	250.73	352.26	431.67	491.54	502.99
191-Leather	23.54	24.35	30.82	39.78	48.46	49.23
192-Footwear	271.93	306.03	363.51	431.72	467.71	498.45
20-Wood products	62.98	66.07	82.16	88.26	107.40	110.20
21-Paper	36.28	39.77	47.47	52.29	60.40	69.20
22-Publishing	22.68	25.94	30.39	32.90	39.01	42.81
23-Petroleum products	0.81	0.86	1.11	0.83	0.99	1.17
24-Chemicals	65.14	67.19	74.79	78.73	86.67	87.45
251-Rubber products	18.80	19.45	24.68	27.35	34.81	27.81
252-Plastics	32.27	39.67	52.72	62.61	71.24	83.64
26-Non-metallic mineral products	127.04	148.18	173.16	196.22	215.96	218.97
27-Basic metals	28.47	29.39	32.93	37.05	39.53	42.71
28-Fabricated metals	50.50	54.89	73.23	87.84	112.02	126.79
29-General machinery	31.00	42.31	41.50	49.08	53.99	53.32
30-Office & computing machinery	3.08	2.33	3.60	4.49	6.01	11.15
31-Electrical machinery	39.24	43.54	53.97	62.96	65.99	79.12
32-Radio, television & communication	16.63	15.74	19.82	24.76	29.82	34.63
33-Precision machinery	6.83	9.38	10.26	11.56	12.90	11.19
34-Motor vehicles	15.54	19.98	28.21	29.03	33.98	36.56
35-Other transport equipment	40.15	48.39	61.67	69.90	81.74	88.73
361-Furniture	41.30	61.29	85.77	122.81	159.79	197.47
36 less 361-Miscellaneous manufact.	24.01	26.79	33.99	42.54	57.72	60.73
37-Recycling	0.09	0.24	0.39	0.65	0.95	1.32
40 to 41-Utilities	71.99	77.34	82.25	86.78	102.96	23.64
45-Construction	521.52	618.71	783.86	839.74	909.18	964.12
50 to 52-Trade	349.11	378.33	446.07	471.24	519.89	600.94
55 to 99-Services	537.75	617.48	674.90	725.16	800.43	839.68
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	3,537.00	3,933.23	4,657.80	5,175.09	5,770.20	-
01 to 05-Agriculture, fishery, forestry	267.25	263.42	265.81	252.13	256.11	-
10 to 41-Mining, manufacturing, utilities	1,822.74	2,005.77	2,440.67	2,806.98	3,161.91	-
45-Construction	529.35	627.59	799.00	861.79	939.19	-
50 to 52-Trade	368.90	402.99	463.04	503.67	575.45	-
55 to 99-Services	548.76	633.46	689.28	750.52	837.55	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 1b: Employment of SOEs by Industry (thousands)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	2,084.22	2,110.97	2,254.71	2,251.75	2,241.88	1,924.28
01 to 05-Agriculture, fishery, forestry	224.05	220.46	219.35	211.56	211.60	212.47
10 to 41-Mining, manufacturing, utilities	888.96	865.64	934.80	961.58	950.14	769.72
10 to 14-Mining	100.90	93.92	107.87	104.54	101.90	113.80
11-Oil & gas	0.82	0.89	0.96	0.00	1.60	1.34
15 to 37-Manufacturing	717.04	696.36	746.16	772.46	757.19	633.93
151 to 154-Food products	115.28	107.40	120.13	115.26	111.76	90.05
155-Beverages	16.11	15.59	15.77	19.54	16.15	13.27
16-Tobacco	11.59	13.05	13.06	13.64	13.95	13.95
17-Textiles	72.02	75.24	76.11	76.09	67.11	62.76
18-Apparel	110.79	101.61	115.93	125.46	124.78	97.42
191-Leather	3.82	2.16	3.78	5.30	4.69	1.81
192-Footwear	67.72	65.92	64.02	69.29	63.95	43.90
20-Wood products	18.47	17.77	16.91	15.10	15.61	14.49
21-Paper	14.77	12.37	13.57	13.08	15.03	14.95
22-Publishing	20.33	21.41	23.10	22.40	24.79	24.31
23-Petroleum products	0.00	0.00	0.00	0.00	0.12	0.00
24-Chemicals	44.21	40.24	40.92	39.46	40.74	35.59
251-Rubber products	10.95	10.34	13.17	13.26	19.25	9.39
252-Plastics	5.72	6.29	6.78	7.26	6.68	4.23
26-Non-metallic mineral products	76.94	78.46	87.14	93.47	92.67	68.65
27-Basic metals	23.01	21.31	21.37	22.54	21.44	21.52
28-Fabricated metals	24.10	20.43	21.88	23.74	23.45	25.32
29-General machinery	21.02	28.75	25.11	26.53	22.21	18.15
30-Office & computing machinery	0.00	0.00	0.00	0.00	0.00	0.00
31-Electrical machinery	14.04	13.19	14.23	14.83	13.08	13.80
32-Radio, television & communication	7.22	5.19	5.54	5.59	5.59	4.56
33-Precision machinery	1.83	1.30	1.50	1.56	1.38	0.47
34-Motor vehicles	7.56	8.45	10.38	10.55	10.83	9.51
35-Other transport equipment	24.21	25.27	28.66	29.27	31.38	33.42
361-Furniture	4.41	4.08	6.11	7.43	9.33	11.56
36 less 361-Miscellaneous manufact.	0.95	0.56	1.02	1.82	1.22	0.86
37-Recycling	0.00	0.00	0.00	0.00	0.00	0.00
40 to 41-Utilities	71.02	75.36	80.77	84.58	91.05	21.99
45-Construction	390.81	406.31	468.09	464.51	457.96	402.06
50 to 52-Trade	226.05	210.57	208.89	184.63	174.58	145.70
55 to 99-Services	354.36	407.99	423.58	429.47	447.61	394.34
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	2,088.53	2,114.32	2,260.31	2,264.94	2,249.90	-
01 to 05-Agriculture, fishery, forestry	226.35	220.97	219.66	213.42	212.35	-
10 to 41-Mining, manufacturing, utilities	889.13	866.08	936.53	962.67	951.55	-
45-Construction	391.74	407.97	470.13	468.44	458.11	-
50 to 52-Trade	226.77	211.00	209.11	185.95	176.09	-
55 to 99-Services	354.54	408.30	424.88	434.48	451.80	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 1c: Employment of Private Firms by Industry (thousands)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	991.05	1,273.72	1,650.94	1,966.40	2,336.35	2,789.13
01 to 05-Agriculture, fishery, forestry	35.90	36.86	39.78	31.57	34.92	36.88
10 to 41-Mining, manufacturing, utilities	557.49	687.60	855.57	1,030.13	1,213.73	1,364.92
10 to 14-Mining	43.84	27.87	40.16	49.90	54.68	55.78
11-Oil & gas	0.00	0.00	0.00	0.00	0.00	0.00
15 to 37-Manufacturing	513.42	658.47	814.65	978.80	1,147.88	1,308.24
151 to 154-Food products	90.46	119.86	145.93	171.04	199.97	235.68
155-Beverages	8.73	11.22	14.89	17.81	19.42	19.03
16-Tobacco	0.20	0.14	0.04	0.23	0.18	0.23
17-Textiles	26.29	35.03	44.68	50.97	56.50	66.72
18-Apparel	72.11	93.25	115.99	144.98	172.00	189.13
191-Leather	9.98	8.78	9.07	11.93	14.01	17.75
192-Footwear	101.79	119.10	123.94	137.86	137.01	141.92
20-Wood products	34.98	42.91	56.06	61.02	75.23	79.58
21-Paper	17.36	21.61	27.10	30.84	35.94	43.92
22-Publishing	2.03	4.10	6.41	9.20	11.96	15.74
23-Petroleum products	0.46	0.51	0.51	0.49	0.51	0.81
24-Chemicals	11.89	15.92	19.72	24.01	28.78	33.25
251-Rubber products	2.61	3.81	4.50	5.59	6.39	7.39
252-Plastics	16.60	21.80	30.93	35.48	40.58	50.04
26-Non-metallic mineral products	39.44	56.72	69.16	83.82	101.59	127.13
27-Basic metals	3.48	4.88	7.82	10.16	12.82	16.21
28-Fabricated metals	15.41	21.69	33.82	43.59	60.48	66.87
29-General machinery	4.67	9.86	11.89	16.74	20.74	23.93
30-Office & computing machinery	0.02	0.08	0.10	0.28	0.43	0.48
31-Electrical machinery	4.47	5.18	6.69	9.05	10.38	11.80
32-Radio, television & communication	1.54	1.73	3.02	3.63	4.70	4.60
33-Precision machinery	2.57	3.51	3.65	3.93	4.05	2.65
34-Motor vehicles	2.92	4.66	8.11	7.01	7.22	9.08
35-Other transport equipment	6.52	8.41	12.06	14.23	20.50	22.67
361-Furniture	26.43	35.65	47.62	70.31	88.44	105.13
36 less 361-Miscellaneous manufact.	10.37	7.82	10.57	13.95	17.13	15.19
37-Recycling	0.09	0.24	0.39	0.65	0.94	1.31
40 to 41-Utilities	0.24	1.27	0.77	1.43	11.17	0.90
45-Construction	128.14	209.40	310.67	370.43	444.58	556.06
50 to 52-Trade	119.21	163.08	231.62	280.70	338.79	446.54
55 to 99-Services	150.31	176.78	213.30	253.58	304.33	384.74
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	1,040.90	1,329.62	1,706.41	2,049.89	2,475.45	-
01 to 05-Agriculture, fishery, forestry	37.00	38.16	40.71	32.35	36.08	-
10 to 41-Mining, manufacturing, utilities	570.07	696.63	868.10	1,044.34	1,236.77	-
45-Construction	134.79	216.52	323.69	388.26	474.38	-
50 to 52-Trade	138.19	186.91	248.29	311.75	392.01	-
55 to 99-Services	160.86	191.40	225.61	273.19	336.20	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)



Appendix Table 1d: Employment of MNCs by Industry (thousands)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	406.16	483.46	686.03	856.45	1,041.27	1,209.13
01 to 05-Agriculture, fishery, forestry	3.64	4.05	5.03	6.14	7.58	7.69
10 to 41-Mining, manufacturing, utilities	363.01	439.02	632.32	797.50	972.04	1,126.14
10 to 14-Mining	6.68	6.48	7.25	7.74	7.61	8.23
11-Oil & gas	5.99	5.41	6.07	6.84	6.35	6.84
15 to 37-Manufacturing	355.59	431.82	624.37	788.99	963.69	1,117.17
151 to 154-Food products	27.47	32.34	40.33	47.03	54.97	58.03
155-Beverages	7.64	6.79	5.71	5.69	5.88	6.23
16-Tobacco	0.33	0.22	0.26	0.28	0.42	0.42
17-Textiles	23.88	27.27	29.87	37.66	43.84	57.36
18-Apparel	44.87	55.87	120.35	161.24	194.76	216.44
191-Leather	9.74	13.41	17.97	22.55	29.76	29.67
192-Footwear	102.42	121.01	175.55	224.57	266.74	312.63
20-Wood products	9.53	5.39	9.20	12.13	16.56	16.13
21-Paper	4.15	5.80	6.81	8.38	9.43	10.32
22-Publishing	0.32	0.44	0.88	1.30	2.26	2.76
23-Petroleum products	0.34	0.35	0.60	0.34	0.36	0.36
24-Chemicals	9.03	11.03	14.16	15.26	17.15	18.60
251-Rubber products	5.23	5.30	7.01	8.50	9.18	11.03
252-Plastics	9.96	11.58	15.01	19.86	23.99	29.38
26-Non-metallic mineral products	10.66	13.00	16.86	18.92	21.69	23.19
27-Basic metals	1.98	3.20	3.74	4.35	5.27	4.98
28-Fabricated metals	11.00	12.78	17.53	20.50	28.08	34.60
29-General machinery	5.32	3.70	4.50	5.82	11.04	11.23
30-Office & computing machinery	3.06	2.26	3.50	4.20	5.58	10.67
31-Electrical machinery	20.73	25.17	33.05	39.08	42.54	53.52
32-Radio, television & communication	7.87	8.81	11.27	15.55	19.53	25.47
33-Precision machinery	2.44	4.57	5.11	6.07	7.48	8.07
34-Motor vehicles	5.06	6.87	9.71	11.47	15.93	17.98
35-Other transport equipment	9.43	14.71	20.96	26.40	29.86	32.64
361-Furniture	10.46	21.55	32.05	45.07	62.02	80.77
36 less 361-Miscellaneous manufact.	12.69	18.41	22.39	26.78	39.37	44.68
37-Recycling	0.00	0.00	0.00	0.00	0.01	0.01
40 to 41-Utilities	0.74	0.72	0.71	0.76	0.74	0.75
45-Construction	2.58	3.00	5.09	4.80	6.64	6.00
50 to 52-Trade	3.85	4.69	5.56	5.91	6.52	8.69
55 to 99-Services	33.08	32.71	38.02	42.10	48.49	60.60
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	407.57	489.29	691.09	860.26	1,044.85	-
01 to 05-Agriculture, fishery, forestry	3.90	4.28	5.44	6.37	7.68	-
10 to 41-Mining, manufacturing, utilities	363.54	443.06	636.04	799.97	973.59	-
45-Construction	2.83	3.10	5.18	5.10	6.69	-
50 to 52-Trade	3.94	5.08	5.65	5.97	7.35	-
55 to 99-Services	33.36	33.76	38.79	42.85	49.55	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 1e: Employment of Medium-Large Firms by Industry (thousands)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	3,318.53	3,666.86	4,310.27	4,760.66	5,232.10	5,444.67
01 to 05-Agriculture, fishery, forestry	242.71	240.11	244.72	237.22	242.65	245.19
10 to 41-Mining, manufacturing, utilities	1,769.02	1,946.90	2,361.86	2,720.30	3,045.20	3,163.42
10 to 14-Mining	150.48	126.48	152.14	158.50	159.62	172.58
11-Oil & gas	6.81	6.29	7.04	6.84	7.95	8.17
15 to 37-Manufacturing	1,546.74	1,743.56	2,128.19	2,476.23	2,792.51	2,967.92
151 to 154-Food products	219.49	246.74	292.34	319.31	352.46	364.92
155-Beverages	27.84	28.65	30.28	36.62	34.33	33.10
16-Tobacco	12.07	13.38	13.34	14.10	14.51	14.60
17-Textiles	121.35	136.56	148.89	162.81	165.15	184.06
18-Apparel	227.07	249.91	350.71	429.89	489.28	499.60
191-Leather	23.49	24.26	30.64	39.61	48.08	48.81
192-Footwear	271.78	305.82	363.27	431.39	467.29	497.99
20-Wood products	59.80	62.74	77.54	83.16	101.27	102.81
21-Paper	35.27	38.53	45.71	50.06	57.65	65.63
22-Publishing	21.98	24.59	27.77	29.17	33.99	36.67
23-Petroleum products	0.80	0.84	1.06	0.80	0.95	1.15
24-Chemicals	64.02	65.64	72.63	75.92	83.70	83.41
251-Rubber products	18.44	19.21	24.20	26.82	34.17	27.10
252-Plastics	31.25	38.23	50.55	60.18	67.62	79.00
26-Non-metallic mineral products	122.41	143.68	168.68	191.60	211.05	213.54
27-Basic metals	28.22	29.01	32.30	36.27	38.38	41.37
28-Fabricated metals	48.01	51.54	67.36	80.35	102.00	114.47
29-General machinery	30.36	41.45	40.16	47.36	51.80	50.57
30-Office & computing machinery	3.06	2.32	3.54	4.41	5.86	11.07
31-Electrical machinery	38.87	43.08	53.19	62.15	64.88	77.98
32-Radio, television & communication	16.49	15.62	19.56	24.28	29.11	33.95
33-Precision machinery	6.76	9.25	10.08	11.39	12.62	10.90
34-Motor vehicles	14.88	19.24	27.10	28.02	32.83	34.92
35-Other transport equipment	39.49	47.62	60.70	68.81	80.37	87.10
361-Furniture	39.93	59.19	83.04	119.59	155.82	192.59
36 less 361-Miscellaneous manufact.	23.54	26.30	33.28	41.70	56.56	59.49
37-Recycling	0.07	0.17	0.29	0.49	0.77	1.16
40 to 41-Utilities	71.80	76.86	81.52	85.58	93.07	22.92
45-Construction	510.20	601.75	755.85	802.51	862.80	903.78
50 to 52-Trade	284.52	296.69	326.50	338.47	361.45	394.75
55 to 99-Services	512.08	581.41	621.34	662.17	720.00	737.54

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 1f: Employment of Medium-Large SOEs by Industry (thousands)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	2,080.47	2,107.75	2,251.49	2,249.56	2,239.76	1,921.84
01 to 05-Agriculture, fishery, forestry	222.92	219.63	218.46	211.05	211.10	211.93
10 to 41-Mining, manufacturing, utilities	888.57	865.20	934.33	961.29	949.82	769.36
10 to 14-Mining	100.90	93.91	107.84	104.50	101.86	113.75
11-Oil & gas	0.82	0.89	0.96	0.00	1.60	1.34
15 to 37-Manufacturing	716.70	696.04	745.82	772.26	756.99	633.71
151 to 154-Food products	115.23	107.36	120.10	115.25	111.75	90.03
155-Beverages	16.06	15.54	15.68	19.50	16.13	13.26
16-Tobacco	11.59	13.05	13.06	13.64	13.95	13.95
17-Textiles	71.99	75.23	76.07	76.07	67.11	62.72
18-Apparel	110.77	101.61	115.93	125.46	124.78	97.42
191-Leather	3.82	2.16	3.78	5.30	4.69	1.81
192-Footwear	67.70	65.92	64.02	69.29	63.95	43.90
20-Wood products	18.46	17.77	16.89	15.08	15.60	14.49
21-Paper	14.77	12.37	13.57	13.06	15.03	14.95
22-Publishing	20.29	21.30	23.00	22.35	24.70	24.26
23-Petroleum products	0.00	0.00	0.00	0.00	0.12	0.00
24-Chemicals	44.18	40.23	40.90	39.46	40.74	35.59
251-Rubber products	10.95	10.34	13.17	13.26	19.25	9.35
252-Plastics	5.72	6.29	6.78	7.26	6.68	4.23
26-Non-metallic mineral products	76.93	78.42	87.11	93.46	92.67	68.65
27-Basic metals	23.01	21.31	21.37	22.54	21.44	21.52
28-Fabricated metals	24.06	20.43	21.88	23.74	23.41	25.31
29-General machinery	21.02	28.75	25.11	26.52	22.21	18.15
30-Office & computing machinery	0.00	0.00	0.00	0.00	0.00	0.00
31-Electrical machinery	14.04	13.18	14.22	14.83	13.08	13.80
32-Radio, television & communication	7.22	5.19	5.54	5.59	5.59	4.56
33-Precision machinery	1.83	1.30	1.50	1.56	1.38	0.47
34-Motor vehicles	7.51	8.42	10.37	10.53	10.82	9.48
35-Other transport equipment	24.21	25.25	28.64	29.25	31.38	33.40
361-Furniture	4.41	4.07	6.11	7.43	9.33	11.56
36 less 361-Miscellaneous manufact.	0.95	0.56	1.02	1.82	1.22	0.86
37-Recycling	0.00	0.00	0.00	0.00	0.00	0.00
40 to 41-Utilities	70.97	75.25	80.67	84.54	90.97	21.91
45-Construction	390.44	406.20	467.96	464.48	457.91	401.96
50 to 52-Trade	224.95	209.47	207.97	183.95	173.94	144.95
55 to 99-Services	353.58	407.24	422.78	428.79	446.98	393.64

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 1g: Employment of Medium-Large Private Firms by Industry (thousands)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	833.67	1,077.96	1,375.94	1,657.90	1,955.42	2,319.21
01 to 05-Agriculture, fishery, forestry	16.27	16.58	21.43	20.15	24.07	25.77
10 to 41-Mining, manufacturing, utilities	518.29	643.93	796.91	963.36	1,125.64	1,270.86
10 to 14-Mining	42.91	26.11	37.08	46.27	50.18	50.63
11-Oil & gas	0.00	0.00	0.00	0.00	0.00	0.00
15 to 37-Manufacturing	475.30	616.92	759.69	916.82	1,074.10	1,219.97
151 to 154-Food products	76.85	107.25	132.12	157.24	186.05	217.12
155-Beverages	4.17	6.35	8.94	11.51	12.36	13.67
16-Tobacco	0.15	0.11	0.02	0.18	0.15	0.23
17-Textiles	25.53	34.11	43.02	49.08	54.25	64.06
18-Apparel	71.43	92.49	114.50	143.27	169.79	185.79
191-Leather	9.93	8.71	8.89	11.76	13.66	17.33
192-Footwear	101.67	118.89	123.70	137.53	136.62	141.50
20-Wood products	31.84	39.63	51.48	55.97	69.19	72.30
21-Paper	16.36	20.38	25.39	28.64	33.25	40.45
22-Publishing	1.40	2.90	3.94	5.56	7.09	9.72
23-Petroleum products	0.46	0.50	0.48	0.46	0.47	0.79
24-Chemicals	10.98	14.53	17.87	21.55	26.16	29.83
251-Rubber products	2.28	3.59	4.03	5.06	5.74	6.72
252-Plastics	15.64	20.44	28.85	33.19	37.10	45.69
26-Non-metallic mineral products	34.89	52.31	64.77	79.29	96.80	121.84
27-Basic metals	3.26	4.52	7.23	9.41	11.70	14.90
28-Fabricated metals	13.05	18.49	28.14	36.42	50.80	54.90
29-General machinery	4.09	9.02	10.64	15.16	18.72	21.37
30-Office & computing machinery	0.00	0.07	0.04	0.21	0.30	0.41
31-Electrical machinery	4.13	4.74	6.05	8.29	9.36	10.78
32-Radio, television & communication	1.42	1.64	2.77	3.21	4.07	3.97
33-Precision machinery	2.51	3.40	3.53	3.78	3.82	2.41
34-Motor vehicles	2.33	3.97	7.07	6.08	6.13	7.56
35-Other transport equipment	5.87	7.71	11.12	13.21	19.19	21.11
361-Furniture	25.05	33.58	44.89	67.12	84.50	100.28
36 less 361-Miscellaneous manufact.	9.97	7.43	9.94	13.16	16.08	14.11
37-Recycling	0.07	0.17	0.29	0.49	0.77	1.16
40 to 41-Utilities	0.08	0.90	0.14	0.27	1.36	0.26
45-Construction	117.30	192.65	282.92	333.34	398.41	495.91
50 to 52-Trade	55.76	82.64	113.09	148.75	181.20	241.32
55 to 99-Services	126.07	142.17	161.60	192.30	226.10	285.36

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 1h: Employment of Medium-Large MNCs by Industry (thousands)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	404.39	481.15	682.83	853.21	1,036.92	1,203.62
01 to 05-Agriculture, fishery, forestry	3.52	3.91	4.84	6.02	7.48	7.49
10 to 41-Mining, manufacturing, utilities	362.16	437.77	630.62	795.65	969.74	1,123.20
10 to 14-Mining	6.68	6.46	7.23	7.73	7.58	8.20
11-Oil & gas	5.99	5.41	6.07	6.84	6.35	6.84
15 to 37-Manufacturing	354.74	430.60	622.68	787.16	961.41	1,114.25
151 to 154-Food products	27.41	32.13	40.12	46.82	54.66	57.77
155-Beverages	7.61	6.76	5.65	5.61	5.84	6.17
16-Tobacco	0.33	0.22	0.26	0.28	0.42	0.42
17-Textiles	23.83	27.23	29.79	37.65	43.79	57.28
18-Apparel	44.87	55.81	120.29	161.16	194.71	216.39
191-Leather	9.74	13.40	17.97	22.55	29.73	29.67
192-Footwear	102.42	121.01	175.54	224.57	266.73	312.59
20-Wood products	9.51	5.34	9.17	12.11	16.47	16.03
21-Paper	4.14	5.78	6.76	8.37	9.36	10.23
22-Publishing	0.29	0.38	0.83	1.26	2.20	2.69
23-Petroleum products	0.34	0.35	0.59	0.34	0.36	0.36
24-Chemicals	8.86	10.87	13.86	14.92	16.81	18.00
251-Rubber products	5.21	5.29	7.00	8.50	9.18	11.02
252-Plastics	9.89	11.51	14.91	19.74	23.84	29.09
26-Non-metallic mineral products	10.60	12.95	16.81	18.84	21.58	23.04
27-Basic metals	1.96	3.17	3.71	4.32	5.24	4.95
28-Fabricated metals	10.90	12.62	17.34	20.18	27.79	34.26
29-General machinery	5.26	3.68	4.41	5.68	10.87	11.04
30-Office & computing machinery	3.06	2.26	3.49	4.20	5.56	10.65
31-Electrical machinery	20.71	25.16	32.92	39.03	42.45	53.40
32-Radio, television & communication	7.85	8.78	11.25	15.49	19.46	25.43
33-Precision machinery	2.42	4.55	5.05	6.05	7.43	8.02
34-Motor vehicles	5.04	6.85	9.67	11.41	15.89	17.89
35-Other transport equipment	9.41	14.67	20.95	26.34	29.80	32.59
361-Furniture	10.46	21.54	32.05	45.04	62.00	80.75
36 less 361-Miscellaneous manufact.	12.62	18.31	22.31	26.72	39.26	44.51
37-Recycling	0.00	0.00	0.00	0.00	0.00	0.00
40 to 41-Utilities	0.74	0.71	0.71	0.76	0.74	0.75
45-Construction	2.46	2.90	4.98	4.68	6.48	5.91
50 to 52-Trade	3.81	4.58	5.43	5.78	6.30	8.48
55 to 99-Services	32.44	32.00	36.97	41.07	46.92	58.55

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 1i: Sales of All Firms by Industry (trillion dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	787.699	914.950	1,199.60	1,433.71	1,712.44	2,080.40
01 to 05-Agriculture, fishery, forestry	10.360	10.636	11.844	13.324	17.351	20.656
10 to 41-Mining, manufacturing, utilities	314.627	373.467	460.243	578.562	755.306	873.830
10 to 14-Mining	50.404	50.761	57.379	71.681	97.955	130.530
11-Oil & gas	43.182	41.482	45.270	56.991	79.026	103.982
15 to 37-Manufacturing	245.800	300.886	377.065	475.082	620.998	737.131
151 to 154-Food products	62.317	71.065	89.237	101.999	129.294	156.315
155-Beverages	7.618	8.672	12.701	15.535	17.550	20.017
16-Tobacco	5.136	6.405	10.847	12.680	13.080	15.589
17-Textiles	13.067	15.195	17.676	21.384	24.689	35.732
18-Apparel	11.455	12.506	17.442	23.258	29.484	32.057
191-Leather	0.884	1.007	1.164	2.043	3.600	4.119
192-Footwear	13.432	14.739	17.317	23.242	29.152	33.845
20-Wood products	4.407	4.737	6.485	7.126	10.445	12.883
21-Paper	7.254	7.244	8.834	10.742	14.279	18.908
22-Publishing	4.039	5.051	6.593	8.009	10.098	11.953
23-Petroleum products	0.907	1.213	2.013	1.322	1.697	2.128
24-Chemicals	18.422	21.389	26.837	34.123	45.203	54.046
251-Rubber products	2.568	2.796	3.962	5.610	8.245	7.906
252-Plastics	6.747	8.869	11.914	16.035	22.492	26.994
26-Non-metallic mineral products	18.723	34.089	29.678	36.852	42.906	47.535
27-Basic metals	8.196	10.429	15.124	21.531	28.696	34.753
28-Fabricated metals	7.324	9.215	13.524	18.429	27.710	36.578
29-General machinery	4.502	5.911	6.612	9.319	13.375	14.338
30-Office & computing machinery	8.503	6.114	4.009	6.686	9.998	14.362
31-Electrical machinery	7.312	10.824	14.395	19.060	29.077	30.143
32-Radio, television & communication	7.253	8.660	11.274	14.076	17.005	19.744
33-Precision machinery	1.054	1.380	1.687	2.031	2.732	2.419
34-Motor vehicles	6.196	9.590	15.694	22.499	26.283	26.928
35-Other transport equipment	13.709	17.267	20.336	25.868	39.580	45.810
361-Furniture	2.207	3.933	8.587	10.837	17.330	24.533
36 less 361-Miscellaneous manufact.	2.549	2.554	3.085	4.715	6.807	7.302
37-Recycling	0.019	0.030	0.037	0.069	0.190	0.193
40 to 41-Utilities	18.424	21.819	25.799	31.799	36.353	6.169
45-Construction	46.236	60.209	84.894	107.464	107.314	125.034
50 to 52-Trade	325.250	356.585	502.083	561.196	608.755	775.154
55 to 99-Services	91.225	114.054	140.534	173.160	223.714	285.731
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	809.786	936.215	1,212.23	1,456.77	1,750.05	-
01 to 05-Agriculture, fishery, forestry	10.390	10.588	12.071	13.566	18.232	-
10 to 41-Mining, manufacturing, utilities	315.136	373.681	457.975	572.840	742.799	-
45-Construction	46.547	60.406	86.625	113.494	109.621	-
50 to 52-Trade	344.558	375.767	515.029	585.472	646.022	-
55 to 99-Services	93.155	115.773	140.534	171.399	233.372	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 1j: Sales of SOEs by Industry (trillion dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	443.524	480.472	621.876	676.083	727.193	794.493
01 to 05-Agriculture, fishery, forestry	7.338	7.536	8.490	10.145	11.754	14.597
10 to 41-Mining, manufacturing, utilities	119.930	131.290	163.118	186.183	235.959	218.774
10 to 14-Mining	9.346	11.402	14.361	11.930	24.780	34.748
11-Oil & gas	2.877	3.417	4.217	0.000	9.804	13.380
15 to 37-Manufacturing	94.025	100.610	125.289	144.472	176.868	180.317
151 to 154-Food products	25.909	25.619	32.475	32.723	35.369	32.224
155-Beverages	3.017	3.674	5.508	6.719	7.761	9.065
16-Tobacco	5.023	6.307	10.768	12.556	12.922	14.764
17-Textiles	6.063	6.729	7.327	8.091	8.814	10.693
18-Apparel	5.473	5.429	6.914	7.982	9.910	8.953
191-Leather	0.099	0.037	0.126	0.144	0.158	0.096
192-Footwear	2.453	2.146	2.053	2.483	2.321	1.874
20-Wood products	1.600	1.714	1.579	1.510	1.940	2.444
21-Paper	4.069	2.560	2.693	3.158	3.507	4.990
22-Publishing	3.778	4.498	5.636	6.528	7.928	8.852
23-Petroleum products	0.000	0.000	0.000	0.000	0.090	0.000
24-Chemicals	8.987	8.681	10.283	10.855	14.473	18.442
251-Rubber products	1.373	1.410	1.762	2.409	3.598	2.667
252-Plastics	1.213	1.601	1.901	2.524	3.804	1.702
26-Non-metallic mineral products	10.669	12.101	14.671	18.985	21.799	20.248
27-Basic metals	2.852	3.726	4.584	6.196	9.426	9.938
28-Fabricated metals	1.708	1.922	2.092	2.839	3.351	5.360
29-General machinery	1.776	2.783	2.518	2.899	3.048	2.779
30-Office & computing machinery	0.000	0.000	0.000	0.000	0.000	0.000
31-Electrical machinery	2.168	2.543	3.214	4.031	10.599	5.535
32-Radio, television & communication	1.478	1.314	1.852	2.162	1.801	2.373
33-Precision machinery	0.104	0.105	0.124	0.133	0.142	0.066
34-Motor vehicles	0.815	1.037	1.724	3.005	3.564	3.411
35-Other transport equipment	3.025	4.112	4.411	4.845	8.039	10.968
361-Furniture	0.329	0.524	0.990	1.261	2.169	2.544
36 less 361-Miscellaneous manufact.	0.044	0.039	0.083	0.435	0.332	0.329
37-Recycling	0.000	0.000	0.000	0.000	0.000	0.000
40 to 41-Utilities	16.559	19.278	23.468	29.781	34.311	3.709
45-Construction	38.084	44.798	51.738	62.031	62.870	62.794
50 to 52-Trade	209.246	212.713	301.131	297.427	262.614	311.673
55 to 99-Services	68.928	84.136	97.400	120.295	153.997	186.655
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	444.673	482.447	621.172	678.735	724.962	-
01 to 05-Agriculture, fishery, forestry	7.363	7.512	8.709	10.368	12.580	-
10 to 41-Mining, manufacturing, utilities	119.913	131.486	158.890	181.078	224.365	-
45-Construction	38.139	44.969	52.992	66.101	63.647	-
50 to 52-Trade	210.325	213.709	302.804	301.137	266.915	-
55 to 99-Services	68.933	84.771	97.777	120.050	157.455	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 1k: Sales of Private Firms by Industry (trillion dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	183.761	255.202	351.796	462.176	603.576	808.422
01 to 05-Agriculture, fishery, forestry	2.518	2.489	2.495	2.144	3.811	4.439
10 to 41-Mining, manufacturing, utilities	50.619	84.351	98.755	131.874	181.913	241.032
10 to 14-Mining	0.590	1.075	1.704	2.613	3.382	4.541
11-Oil & gas	0.000	0.000	0.000	0.000	0.000	0.000
15 to 37-Manufacturing	50.016	83.110	97.016	129.162	178.299	236.376
151 to 154-Food products	21.186	28.170	35.347	42.173	57.685	80.256
155-Beverages	0.834	1.184	1.753	2.346	2.714	2.732
16-Tobacco	0.039	0.073	0.045	0.092	0.068	0.093
17-Textiles	1.867	2.754	3.683	4.742	6.008	8.580
18-Apparel	2.008	2.923	3.895	5.173	7.366	8.408
191-Leather	0.200	0.352	0.277	0.663	0.890	1.354
192-Footwear	2.327	2.947	3.461	4.005	4.626	4.975
20-Wood products	1.795	2.153	3.376	3.932	5.501	6.863
21-Paper	2.306	3.363	4.350	5.192	7.426	10.029
22-Publishing	0.212	0.485	0.834	1.314	1.925	2.674
23-Petroleum products	0.270	0.503	0.393	0.497	0.636	0.981
24-Chemicals	2.042	3.518	4.502	6.192	8.375	10.155
251-Rubber products	0.408	0.502	1.059	1.546	2.458	2.568
252-Plastics	3.052	4.368	5.797	8.083	11.042	15.799
26-Non-metallic mineral products	2.500	15.209	6.535	8.424	10.748	15.068
27-Basic metals	1.070	1.187	3.442	6.940	9.787	14.949
28-Fabricated metals	2.209	3.637	6.474	9.341	14.603	17.324
29-General machinery	0.529	1.435	2.006	3.270	3.940	4.927
30-Office & computing machinery	0.014	0.056	0.059	0.045	0.208	0.168
31-Electrical machinery	0.928	1.452	1.885	3.005	4.321	5.912
32-Radio, television & communication	0.191	0.503	0.809	0.934	1.370	1.233
33-Precision machinery	0.184	0.253	0.321	0.419	0.499	0.425
34-Motor vehicles	0.526	0.954	0.959	0.950	1.560	2.200
35-Other transport equipment	1.388	2.608	1.784	3.133	4.823	6.412
361-Furniture	1.288	1.954	3.296	5.250	7.752	10.786
36 less 361-Miscellaneous manufact.	0.622	0.539	0.637	1.435	1.784	1.328
37-Recycling	0.019	0.030	0.037	0.069	0.183	0.177
40 to 41-Utilities	0.013	0.166	0.035	0.099	0.232	0.114
45-Construction	7.386	14.692	31.739	43.730	41.840	58.600
50 to 52-Trade	112.241	138.126	193.673	252.944	334.311	443.438
55 to 99-Services	10.998	15.545	25.135	31.484	41.701	60.913
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	203.155	273.879	364.844	485.104	644.087	-
01 to 05-Agriculture, fishery, forestry	2.522	2.465	2.487	2.156	3.848	-
10 to 41-Mining, manufacturing, utilities	51.147	84.367	100.154	132.434	184.013	-
45-Construction	7.624	14.686	32.198	45.509	43.433	-
50 to 52-Trade	130.469	156.145	205.000	273.427	367.044	-
55 to 99-Services	11.393	16.216	25.005	31.578	45.749	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)



Appendix Table 11: Sales of MNCs by Industry (trillion dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	160.414	179.275	225.926	295.448	381.670	477.490
01 to 05-Agriculture, fishery, forestry	0.505	0.611	0.860	1.035	1.786	1.620
10 to 41-Mining, manufacturing, utilities	144.079	157.826	198.370	260.504	337.435	414.025
10 to 14-Mining	40.468	38.284	41.314	57.138	69.794	91.240
11-Oil & gas	40.305	38.065	41.053	56.991	69.222	90.602
15 to 37-Manufacturing	101.759	117.167	154.760	201.448	265.831	320.438
151 to 154-Food products	15.221	17.276	21.415	27.103	36.240	43.836
155-Beverages	3.767	3.814	5.439	6.470	7.075	8.220
16-Tobacco	0.075	0.025	0.034	0.033	0.090	0.732
17-Textiles	5.137	5.713	6.666	8.551	9.867	16.459
18-Apparel	3.975	4.154	6.633	10.103	12.207	14.696
191-Leather	0.584	0.618	0.761	1.236	2.553	2.668
192-Footwear	8.653	9.645	11.803	16.754	22.204	26.996
20-Wood products	1.013	0.870	1.530	1.684	3.005	3.576
21-Paper	0.879	1.322	1.791	2.392	3.346	3.889
22-Publishing	0.048	0.068	0.122	0.167	0.245	0.427
23-Petroleum products	0.637	0.710	1.620	0.826	0.971	1.146
24-Chemicals	7.393	9.190	12.052	17.076	22.355	25.450
251-Rubber products	0.787	0.885	1.141	1.655	2.189	2.671
252-Plastics	2.482	2.900	4.217	5.428	7.646	9.493
26-Non-metallic mineral products	5.553	6.779	8.472	9.444	10.359	12.219
27-Basic metals	4.274	5.517	7.098	8.394	9.483	9.866
28-Fabricated metals	3.406	3.656	4.958	6.249	9.755	13.894
29-General machinery	2.197	1.693	2.088	3.150	6.387	6.632
30-Office & computing machinery	8.488	6.058	3.949	6.641	9.790	14.195
31-Electrical machinery	4.216	6.829	9.296	12.024	14.156	18.696
32-Radio, television & communication	5.584	6.843	8.613	10.981	13.834	16.138
33-Precision machinery	0.766	1.022	1.243	1.479	2.091	1.928
34-Motor vehicles	4.855	7.598	13.011	18.544	21.159	21.317
35-Other transport equipment	9.296	10.548	14.141	17.890	26.718	28.431
361-Furniture	0.589	1.456	4.302	4.326	7.409	11.203
36 less 361-Miscellaneous manufact.	1.883	1.977	2.365	2.845	4.692	5.645
37-Recycling	0.000	0.000	0.000	0.000	0.007	0.016
40 to 41-Utilities	1.852	2.375	2.296	1.919	1.810	2.347
45-Construction	0.767	0.718	1.418	1.703	2.604	3.639
50 to 52-Trade	3.764	5.746	7.279	10.824	11.829	20.043
55 to 99-Services	11.299	14.374	17.999	21.381	28.016	38.163
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	161.957	179.890	226.218	292.932	380.998	-
01 to 05-Agriculture, fishery, forestry	0.506	0.611	0.875	1.041	1.804	-
10 to 41-Mining, manufacturing, utilities	144.076	157.828	198.931	259.328	334.420	-
45-Construction	0.784	0.752	1.435	1.883	2.541	-
50 to 52-Trade	3.764	5.913	7.224	10.908	12.062	-
55 to 99-Services	12.827	14.786	17.753	19.772	30.171	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 1m: Sales of Medium-Large Firms by Industry (trillion dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	707.034	817.164	1,068.64	1,279.83	1,518.00	1,828.36
01 to 05-Agriculture, fishery, forestry	9.269	9.127	10.668	12.549	16.273	19.530
10 to 41-Mining, manufacturing, utilities	305.523	363.891	447.708	565.071	736.870	850.680
10 to 14-Mining	50.355	50.650	57.173	71.399	97.522	129.967
11-Oil & gas	43.182	41.482	45.270	56.991	79.026	103.982
15 to 37-Manufacturing	236.751	291.440	364.766	461.913	603.143	714.581
151 to 154-Food products	55.948	65.089	82.794	96.581	122.288	147.581
155-Beverages	7.239	8.237	12.015	14.949	16.820	19.610
16-Tobacco	5.108	6.368	10.813	12.645	13.056	15.589
17-Textiles	12.892	15.040	17.331	20.973	24.193	34.788
18-Apparel	11.405	12.422	17.285	22.977	29.130	31.582
191-Leather	0.883	0.997	1.145	2.018	3.559	4.063
192-Footwear	13.412	14.726	17.034	23.175	29.060	33.710
20-Wood products	4.100	4.384	5.976	6.299	9.360	11.479
21-Paper	7.106	7.024	8.516	10.270	13.725	18.149
22-Publishing	3.982	4.891	6.346	7.584	9.405	11.087
23-Petroleum products	0.906	1.204	1.997	1.295	1.673	2.127
24-Chemicals	18.232	21.055	26.415	33.470	44.511	53.060
251-Rubber products	2.482	2.774	3.733	5.383	7.842	7.609
252-Plastics	6.490	8.541	11.436	15.405	21.590	25.403
26-Non-metallic mineral products	18.565	33.932	29.453	36.590	42.552	47.081
27-Basic metals	8.138	10.352	15.018	21.265	28.178	34.297
28-Fabricated metals	6.959	8.731	12.696	17.168	25.633	33.783
29-General machinery	4.438	5.820	6.430	9.087	13.015	13.867
30-Office & computing machinery	8.488	6.114	3.999	6.666	9.962	14.319
31-Electrical machinery	7.268	10.678	14.270	18.937	28.705	29.804
32-Radio, television & communication	7.243	8.644	11.243	14.011	16.940	19.674
33-Precision machinery	1.048	1.352	1.656	1.999	2.679	2.366
34-Motor vehicles	6.166	9.527	15.620	22.429	26.204	26.699
35-Other transport equipment	13.570	17.219	20.123	25.635	39.239	45.436
361-Furniture	2.144	3.783	8.347	10.418	16.973	24.088
36 less 361-Miscellaneous manufact.	2.521	2.510	3.046	4.630	6.687	7.179
37-Recycling	0.018	0.026	0.030	0.051	0.162	0.152
40 to 41-Utilities	18.417	21.801	25.769	31.759	36.205	6.132
45-Construction	44.785	58.118	81.160	101.331	100.386	114.744
50 to 52-Trade	259.150	275.681	393.992	435.730	451.922	575.016
55 to 99-Services	88.308	110.347	135.112	165.150	212.553	268.394

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 1n: Sales of Medium-Large SOEs by Industry (trillion dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	442.658	478.899	620.419	675.131	726.568	793.450
01 to 05-Agriculture, fishery, forestry	7.272	7.078	8.395	10.101	11.720	14.566
10 to 41-Mining, manufacturing, utilities	119.894	131.250	162.968	186.028	235.924	218.383
10 to 14-Mining	9.346	11.397	14.359	11.926	24.776	34.743
11-Oil & gas	2.877	3.417	4.217	0.000	9.804	13.380
15 to 37-Manufacturing	93.991	100.580	125.144	144.323	176.842	179.936
151 to 154-Food products	25.892	25.610	32.471	32.722	35.368	32.222
155-Beverages	3.014	3.673	5.503	6.718	7.760	9.063
16-Tobacco	5.023	6.307	10.768	12.556	12.922	14.764
17-Textiles	6.062	6.727	7.205	7.956	8.814	10.367
18-Apparel	5.473	5.429	6.914	7.982	9.910	8.953
191-Leather	0.099	0.037	0.126	0.144	0.158	0.096
192-Footwear	2.452	2.146	2.053	2.483	2.321	1.874
20-Wood products	1.599	1.714	1.578	1.509	1.936	2.444
21-Paper	4.069	2.560	2.693	3.157	3.507	4.990
22-Publishing	3.775	4.482	5.626	6.522	7.918	8.845
23-Petroleum products	0.000	0.000	0.000	0.000	0.090	0.000
24-Chemicals	8.985	8.681	10.282	10.855	14.473	18.440
251-Rubber products	1.373	1.410	1.762	2.409	3.598	2.662
252-Plastics	1.213	1.601	1.901	2.524	3.804	1.702
26-Non-metallic mineral products	10.669	12.101	14.671	18.984	21.799	20.248
27-Basic metals	2.852	3.726	4.584	6.196	9.426	9.938
28-Fabricated metals	1.703	1.922	2.092	2.839	3.343	5.355
29-General machinery	1.776	2.783	2.518	2.897	3.048	2.779
30-Office & computing machinery	0.000	0.000	0.000	0.000	0.000	0.000
31-Electrical machinery	2.168	2.543	3.213	4.031	10.599	5.535
32-Radio, television & communication	1.478	1.314	1.852	2.162	1.801	2.373
33-Precision machinery	0.104	0.105	0.124	0.133	0.142	0.066
34-Motor vehicles	0.812	1.036	1.723	3.004	3.563	3.379
35-Other transport equipment	3.025	4.111	4.411	4.844	8.039	10.967
361-Furniture	0.329	0.523	0.990	1.261	2.169	2.544
36 less 361-Miscellaneous manufact.	0.044	0.039	0.083	0.435	0.332	0.329
37-Recycling	0.000	0.000	0.000	0.000	0.000	0.000
40 to 41-Utilities	16.558	19.273	23.465	29.779	34.306	3.704
45-Construction	38.040	44.779	51.717	62.003	62.853	62.761
50 to 52-Trade	208.590	211.733	300.032	296.815	262.167	311.194
55 to 99-Services	68.862	84.059	97.307	120.185	153.904	186.546

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 1o: Sales of Medium-Large Private Firms by Industry (trillion dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	104.799	159.780	223.511	311.174	412.032	560.000
01 to 05-Agriculture, fishery, forestry	1.506	1.451	1.479	1.480	2.826	3.424
10 to 41-Mining, manufacturing, utilities	41.790	75.207	86.943	119.771	164.797	219.352
10 to 14-Mining	0.541	0.971	1.505	2.341	2.955	3.985
11-Oil & gas	0.000	0.000	0.000	0.000	0.000	0.000
15 to 37-Manufacturing	41.241	74.084	85.430	117.368	161.752	215.286
151 to 154-Food products	14.843	22.240	29.030	37.001	50.956	71.658
155-Beverages	0.467	0.767	1.093	1.784	1.996	2.339
16-Tobacco	0.010	0.037	0.011	0.057	0.043	0.093
17-Textiles	1.695	2.603	3.475	4.467	5.521	7.975
18-Apparel	1.957	2.849	3.750	4.969	7.052	7.944
191-Leather	0.199	0.342	0.258	0.638	0.853	1.298
192-Footwear	2.321	2.935	3.177	3.938	4.537	4.845
20-Wood products	1.488	1.817	2.871	3.110	4.445	5.486
21-Paper	2.159	3.144	4.046	4.722	6.878	9.291
22-Publishing	0.167	0.348	0.604	0.900	1.256	1.834
23-Petroleum products	0.269	0.494	0.377	0.469	0.612	0.980
24-Chemicals	1.926	3.270	4.220	5.742	7.836	9.511
251-Rubber products	0.328	0.481	0.831	1.319	2.054	2.276
252-Plastics	2.829	4.107	5.369	7.502	10.190	14.346
26-Non-metallic mineral products	2.371	15.072	6.340	8.207	10.441	14.662
27-Basic metals	1.029	1.118	3.349	6.722	9.313	14.500
28-Fabricated metals	1.868	3.188	5.692	8.184	12.739	14.694
29-General machinery	0.468	1.360	1.847	3.078	3.636	4.480
30-Office & computing machinery	0.000	0.055	0.051	0.025	0.172	0.140
31-Electrical machinery	0.889	1.308	1.784	2.888	4.013	5.590
32-Radio, television & communication	0.183	0.490	0.779	0.889	1.322	1.171
33-Precision machinery	0.181	0.247	0.313	0.404	0.468	0.387
34-Motor vehicles	0.501	0.896	0.900	0.888	1.485	2.014
35-Other transport equipment	1.251	2.570	1.574	3.042	4.688	6.050
361-Furniture	1.226	1.815	3.055	5.021	7.397	10.341
36 less 361-Miscellaneous manufact.	0.597	0.505	0.604	1.353	1.687	1.227
37-Recycling	0.018	0.026	0.030	0.051	0.162	0.152
40 to 41-Utilities	0.008	0.153	0.008	0.062	0.089	0.081
45-Construction	6.108	12.684	28.100	37.714	35.001	48.416
50 to 52-Trade	46.826	58.245	86.739	128.146	178.074	243.879
55 to 99-Services	8.569	12.193	20.250	24.062	31.333	44.929

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 1p: Sales of Medium-Large MNCs by Industry (trillion dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	159.577	178.485	224.709	293.527	379.405	474.915
01 to 05-Agriculture, fishery, forestry	0.491	0.598	0.794	0.968	1.727	1.540
10 to 41-Mining, manufacturing, utilities	143.839	157.435	197.796	259.273	336.149	412.944
10 to 14-Mining	40.468	38.283	41.309	57.132	69.791	91.238
11-Oil & gas	40.305	38.065	41.053	56.991	69.222	90.602
15 to 37-Manufacturing	101.519	116.777	154.191	200.222	264.548	319.359
151 to 154-Food products	15.212	17.239	21.293	26.858	35.964	43.701
155-Beverages	3.757	3.797	5.418	6.447	7.063	8.208
16-Tobacco	0.075	0.025	0.034	0.033	0.090	0.732
17-Textiles	5.135	5.710	6.650	8.550	9.859	16.446
18-Apparel	3.975	4.144	6.621	10.027	12.168	14.685
191-Leather	0.584	0.618	0.761	1.236	2.549	2.668
192-Footwear	8.639	9.645	11.803	16.754	22.202	26.991
20-Wood products	1.012	0.853	1.528	1.680	2.980	3.549
21-Paper	0.878	1.320	1.777	2.392	3.340	3.867
22-Publishing	0.040	0.060	0.115	0.162	0.232	0.408
23-Petroleum products	0.637	0.710	1.620	0.826	0.971	1.146
24-Chemicals	7.321	9.104	11.913	16.873	22.202	25.110
251-Rubber products	0.782	0.883	1.140	1.655	2.189	2.671
252-Plastics	2.449	2.833	4.166	5.380	7.596	9.356
26-Non-metallic mineral products	5.525	6.760	8.442	9.400	10.311	12.172
27-Basic metals	4.258	5.508	7.084	8.347	9.439	9.859
28-Fabricated metals	3.388	3.620	4.911	6.145	9.551	13.734
29-General machinery	2.194	1.678	2.065	3.112	6.331	6.608
30-Office & computing machinery	8.488	6.058	3.948	6.641	9.790	14.180
31-Electrical machinery	4.212	6.827	9.273	12.018	14.092	18.679
32-Radio, television & communication	5.582	6.840	8.612	10.961	13.817	16.129
33-Precision machinery	0.763	1.000	1.219	1.463	2.069	1.912
34-Motor vehicles	4.852	7.595	12.997	18.537	21.156	21.306
35-Other transport equipment	9.295	10.538	14.139	17.750	26.512	28.418
361-Furniture	0.589	1.445	4.302	4.136	7.408	11.202
36 less 361-Miscellaneous manufact.	1.879	1.966	2.358	2.842	4.668	5.623
37-Recycling	0.000	0.000	0.000	0.000	0.000	0.000
40 to 41-Utilities	1.852	2.375	2.296	1.918	1.809	2.347
45-Construction	0.636	0.655	1.342	1.614	2.532	3.568
50 to 52-Trade	3.734	5.702	7.221	10.769	11.681	19.943
55 to 99-Services	10.877	14.095	17.556	20.903	27.316	36.919

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2a: Mean Total Compensation per Worker of All Firms by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	8.78	9.59	9.89	11.27	12.42	13.62
15-37: Manufacturing, 27-industry mean	11.13	12.47	12.76	13.72	15.36	16.97
151 to 154-Food products	7.16	7.31	8.13	8.96	9.79	11.14
155-Beverages	7.59	8.16	8.47	9.31	9.96	10.78
16-Tobacco	19.01	21.17	24.44	27.67	30.75	38.48
17-Textiles	7.28	8.80	8.35	9.51	10.28	12.72
18-Apparel	8.62	8.83	9.18	12.75	13.75	13.09
191-Leather	8.93	9.97	9.88	11.24	12.69	16.31
192-Footwear	13.94	8.22	8.47	10.22	11.04	12.93
20-Wood products	6.00	6.59	7.02	7.84	8.45	10.62
21-Paper	8.48	9.67	9.70	10.74	12.28	12.75
22-Publishing	12.78	13.21	12.51	14.38	14.24	16.30
23-Petroleum products	23.32	25.01	37.78	30.16	35.65	34.09
24-Chemicals	15.36	16.44	16.10	18.31	20.02	21.28
251-Rubber products	11.91	11.96	11.64	13.15	14.77	15.99
252-Plastics	10.01	12.58	11.58	13.01	13.03	14.29
26-Non-metallic mineral products	7.41	7.79	9.00	10.10	11.09	13.18
27-Basic metals	10.54	11.82	12.22	13.77	15.59	14.08
28-Fabricated metals	9.92	10.97	10.74	12.01	13.07	13.82
29-General machinery	10.75	11.96	12.75	14.35	14.68	16.94
30-Office & computing machinery	13.02	17.07	18.20	16.29	21.86	21.55
31-Electrical machinery	14.07	23.04	14.61	14.93	17.29	20.36
32-Radio, television & communication	17.23	21.83	20.45	18.78	19.62	22.65
33-Precision machinery	13.45	13.54	15.45	17.83	18.39	19.57
34-Motor vehicles	9.83	10.39	11.11	12.99	14.20	16.15
35-Other transport equipment	11.03	11.76	11.48	13.37	16.53	16.85
361-Furniture	7.08	7.97	9.12	8.98	12.71	11.98
36 less 361-Miscellaneous manufact.	11.24	10.88	10.33	12.65	13.11	13.76
37-Recycling	4.48	9.76	5.93	7.25	9.79	16.57

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2b: Mean Total Compensation per Worker of SOEs by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	10.16	11.61	12.80	14.76	16.92	21.17
15-37: Manufacturing, 27-industry mean	10.70	12.09	13.25	15.43	18.25	21.75
151 to 154-Food products	8.42	8.75	9.73	10.61	12.11	16.11
155-Beverages	8.74	9.94	11.23	13.84	16.58	23.72
16-Tobacco	21.53	22.89	26.47	32.42	35.30	39.84
17-Textiles	8.03	8.69	9.43	10.33	12.44	19.75
18-Apparel	6.92	7.12	8.06	9.47	10.93	12.09
191-Leather	10.68	8.11	9.53	10.35	12.20	13.65
192-Footwear	6.01	6.71	7.18	8.16	9.70	10.49
20-Wood products	7.09	7.37	8.59	8.22	10.28	13.24
21-Paper	10.31	12.49	12.33	14.17	14.31	16.24
22-Publishing	15.37	17.05	18.67	21.70	23.76	29.23
23-Petroleum products	-	-	-	-	32.30	-
24-Chemicals	13.14	14.84	17.32	21.46	23.33	30.27
251-Rubber products	12.69	14.59	12.54	14.19	18.41	21.40
252-Plastics	13.29	14.43	16.51	19.42	22.41	21.93
26-Non-metallic mineral products	9.04	10.44	12.13	14.26	16.07	19.10
27-Basic metals	9.70	12.29	14.20	15.61	19.88	19.11
28-Fabricated metals	9.40	11.30	11.71	14.11	15.00	19.17
29-General machinery	9.41	12.58	12.37	14.13	15.49	20.32
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	14.75	20.21	19.59	23.21	30.98	28.06
32-Radio, television & communication	15.58	17.45	19.67	24.65	20.85	28.47
33-Precision machinery	10.56	10.94	11.14	11.97	12.36	23.47
34-Motor vehicles	8.86	11.66	13.58	14.99	19.61	28.38
35-Other transport equipment	11.67	13.18	14.41	15.21	17.22	22.04
361-Furniture	6.48	6.66	8.38	8.64	18.86	17.10
36 less 361-Miscellaneous manufact.	9.10	10.52	13.20	19.16	15.88	28.80
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2c: Mean Total Compensation per Worker of Private Firms by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	6.80	7.75	8.21	9.39	10.58	11.75
15-37: Manufacturing, 27-industry mean	7.76	9.91	9.68	10.83	11.81	13.18
151 to 154-Food products	6.44	6.48	7.15	7.85	8.74	10.14
155-Beverages	6.66	7.11	7.27	8.14	8.80	9.24
16-Tobacco	7.83	15.82	15.48	17.47	11.88	13.90
17-Textiles	5.27	7.54	7.04	8.13	8.78	10.60
18-Apparel	8.02	8.14	8.84	10.70	11.79	12.46
191-Leather	7.41	9.27	8.86	10.06	10.75	14.68
192-Footwear	6.65	7.13	7.52	9.54	9.68	11.76
20-Wood products	5.65	6.16	6.55	7.49	7.98	10.08
21-Paper	7.59	8.84	8.94	10.01	11.67	11.85
22-Publishing	7.08	9.19	9.02	11.83	11.69	13.69
23-Petroleum products	8.41	14.38	14.71	14.75	11.96	17.20
24-Chemicals	9.43	10.48	11.34	12.39	13.34	14.31
251-Rubber products	8.95	10.24	10.66	11.65	13.98	14.14
252-Plastics	7.98	11.13	9.95	11.20	11.28	12.44
26-Non-metallic mineral products	5.76	6.16	7.29	8.27	9.53	11.76
27-Basic metals	7.45	8.23	9.29	11.10	13.18	12.18
28-Fabricated metals	7.24	8.74	9.14	10.39	11.69	12.43
29-General machinery	8.69	9.96	11.31	12.62	12.79	14.95
30-Office & computing machinery	14.00	15.51	15.88	14.23	18.98	20.65
31-Electrical machinery	9.16	19.24	10.99	11.00	12.94	15.99
32-Radio, television & communication	10.52	15.45	12.88	12.20	14.14	15.99
33-Precision machinery	9.23	9.88	11.07	13.90	14.31	15.66
34-Motor vehicles	6.94	8.19	8.46	9.80	10.78	12.82
35-Other transport equipment	8.23	9.64	9.35	11.38	14.89	14.23
361-Furniture	6.85	7.52	8.78	8.45	12.44	11.34
36 less 361-Miscellaneous manufact.	7.48	7.33	7.61	10.54	11.27	11.37
37-Recycling	4.48	9.76	5.93	7.25	9.57	9.86

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)



Appendix Table 2d: Mean Total Compensation per Worker of MNCs by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	21.21	20.07	19.00	21.36	22.32	23.56
15-37: Manufacturing, 27-industry mean	23.53	21.90	22.46	24.10	27.47	33.66
151 to 154-Food products	19.29	19.89	21.41	22.45	22.06	23.36
155-Beverages	24.66	29.84	35.01	33.23	35.19	30.77
16-Tobacco	20.00	15.36	23.61	18.30	44.20	72.18
17-Textiles	14.03	13.67	13.41	14.62	15.91	18.75
18-Apparel	12.96	12.64	10.72	19.45	20.27	15.65
191-Leather	11.25	11.26	11.80	13.80	16.22	20.46
192-Footwear	40.29	12.39	11.40	12.84	14.09	16.00
20-Wood products	9.67	12.73	13.57	12.89	14.84	18.16
21-Paper	17.15	16.98	16.42	17.10	18.40	22.93
22-Publishing	25.07	22.74	21.57	23.01	23.47	26.47
23-Petroleum products	90.39	72.83	83.91	91.80	132.10	118.51
24-Chemicals	32.19	34.79	30.58	36.33	41.93	44.31
251-Rubber products	19.77	15.92	15.01	18.29	15.94	20.77
252-Plastics	18.01	18.72	19.00	20.85	20.83	22.66
26-Non-metallic mineral products	25.76	23.35	24.92	25.11	23.58	26.90
27-Basic metals	30.62	27.46	30.01	33.43	35.31	33.23
28-Fabricated metals	23.13	23.67	22.21	24.26	24.50	24.54
29-General machinery	22.34	21.87	22.13	24.62	24.94	28.06
30-Office & computing machinery	12.53	19.40	22.26	20.42	26.90	22.76
31-Electrical machinery	23.19	32.28	20.06	21.13	24.31	29.65
32-Radio, television & communication	25.38	29.93	29.43	26.23	29.33	32.87
33-Precision machinery	21.43	18.47	22.27	25.07	25.90	25.99
34-Motor vehicles	22.32	19.43	21.05	23.54	21.98	23.50
35-Other transport equipment	20.70	16.06	15.50	18.19	21.55	22.43
361-Furniture	10.72	12.12	12.09	13.27	13.94	16.13
36 less 361-Miscellaneous manufact.	18.80	15.64	14.70	16.44	16.90	17.72
37-Recycling	-	-	-	-	17.18	133.97

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2e: Mean Total Compensation per Worker of Medium-Large Firms by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	10.16	10.92	11.25	12.47	13.38	14.90
15-37: Manufacturing, 27-industry mean	11.81	13.14	14.22	14.96	16.63	17.97
151 to 154-Food products	8.60	9.12	9.76	10.59	11.28	12.67
155-Beverages	10.88	11.67	12.37	13.47	15.25	16.10
16-Tobacco	20.55	21.28	25.54	29.80	33.20	38.48
17-Textiles	7.57	8.78	8.77	9.91	10.77	12.13
18-Apparel	8.38	8.47	9.05	10.86	11.66	12.34
191-Leather	9.10	9.96	10.45	11.61	13.36	14.96
192-Footwear	8.07	8.31	8.64	9.99	10.96	12.11
20-Wood products	6.53	6.76	7.61	8.35	9.11	10.82
21-Paper	9.05	10.07	10.13	10.99	12.60	13.09
22-Publishing	14.65	15.64	16.27	17.97	18.61	21.34
23-Petroleum products	25.35	26.51	50.86	34.24	41.34	42.67
24-Chemicals	17.00	18.71	18.35	21.17	22.94	24.97
251-Rubber products	12.57	12.42	11.90	13.47	15.04	17.25
252-Plastics	11.10	11.92	12.02	13.45	13.89	15.45
26-Non-metallic mineral products	8.90	9.27	10.19	11.31	12.22	13.52
27-Basic metals	11.15	12.83	13.40	15.11	15.69	15.35
28-Fabricated metals	11.54	12.14	12.52	13.81	14.07	16.01
29-General machinery	11.45	12.82	13.49	14.63	15.22	18.18
30-Office & computing machinery	12.53	19.46	16.28	16.70	26.16	17.48
31-Electrical machinery	15.52	21.41	17.02	16.84	18.57	22.85
32-Radio, television & communication	18.06	22.91	22.05	21.62	22.66	26.32
33-Precision machinery	14.48	14.46	16.64	18.01	17.15	18.62
34-Motor vehicles	11.61	11.98	13.21	14.45	16.54	18.91
35-Other transport equipment	11.65	12.45	11.97	13.98	15.82	18.06
361-Furniture	7.50	8.65	8.97	9.73	11.17	12.70
36 less 361-Miscellaneous manufact.	11.94	11.37	10.98	13.50	12.76	14.44
37-Recycling	3.09	5.31	5.48	8.38	10.89	8.27

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2f: Mean Total Compensation per Worker of Medium-Large SOEs by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	10.23	11.67	12.88	14.76	16.99	20.88
15-37: Manufacturing, 27-industry mean	10.76	12.17	13.33	15.45	18.31	21.48
151 to 154-Food products	8.46	8.76	9.76	10.59	12.13	16.07
155-Beverages	8.80	10.18	11.68	14.27	17.05	23.17
16-Tobacco	21.53	22.89	26.47	32.42	35.30	39.84
17-Textiles	8.06	8.75	9.39	10.01	12.44	15.08
18-Apparel	6.92	7.12	8.06	9.47	10.93	12.09
191-Leather	10.68	8.11	9.53	10.35	12.20	13.65
192-Footwear	6.07	6.71	7.18	8.16	9.70	10.49
20-Wood products	7.18	7.37	8.67	8.30	10.19	13.24
21-Paper	10.31	12.49	12.33	14.36	14.31	16.24
22-Publishing	15.45	17.33	18.92	21.82	24.23	29.23
23-Petroleum products	-	-	-	-	32.30	-
24-Chemicals	13.37	14.85	17.42	21.46	23.33	30.45
251-Rubber products	12.69	14.59	12.54	14.19	18.41	21.88
252-Plastics	13.29	14.43	16.51	19.42	22.41	21.93
26-Non-metallic mineral products	9.07	10.58	12.22	14.10	16.07	19.10
27-Basic metals	9.70	12.29	14.20	15.61	19.88	19.11
28-Fabricated metals	9.40	11.30	11.71	14.11	15.22	19.36
29-General machinery	9.41	12.58	12.37	14.04	15.49	20.32
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	15.31	20.77	20.26	23.21	30.98	28.06
32-Radio, television & communication	15.58	17.45	19.67	24.65	20.85	28.47
33-Precision machinery	10.56	10.94	11.14	11.97	12.36	23.47
34-Motor vehicles	9.22	11.95	13.70	15.27	20.02	26.08
35-Other transport equipment	11.67	13.22	14.48	15.29	17.22	22.21
361-Furniture	6.48	6.97	8.38	8.64	18.86	17.10
36 less 361-Miscellaneous manufact.	9.10	10.52	13.20	19.16	15.88	28.80
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2g: Mean Total Compensation per Worker of Medium-Large Private Firms by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	7.30	8.25	8.75	9.89	10.81	12.15
15-37: Manufacturing, 27-industry mean	7.65	9.86	10.60	11.10	12.00	13.38
151 to 154-Food products	6.74	7.28	7.75	8.48	9.49	10.67
155-Beverages	7.36	7.84	8.16	9.27	10.59	10.58
16-Tobacco	4.91	13.05	10.64	18.75	11.01	13.90
17-Textiles	5.14	6.91	7.04	8.08	8.65	9.46
18-Apparel	7.48	7.58	8.55	9.92	10.92	11.32
191-Leather	7.53	9.65	9.47	10.36	11.35	12.74
192-Footwear	6.78	7.15	7.61	8.95	9.36	10.06
20-Wood products	5.92	6.17	6.83	7.81	8.33	9.95
21-Paper	8.02	9.05	9.15	9.94	11.73	12.11
22-Publishing	7.84	9.96	10.70	12.48	13.19	15.12
23-Petroleum products	9.09	13.27	16.12	15.06	12.60	21.00
24-Chemicals	9.70	12.11	12.84	13.13	14.57	16.23
251-Rubber products	9.00	10.59	10.28	11.07	13.66	14.76
252-Plastics	8.78	9.68	9.81	11.28	11.29	13.26
26-Non-metallic mineral products	6.71	7.15	7.99	9.07	10.32	11.61
27-Basic metals	7.55	8.81	9.80	12.08	12.61	12.93
28-Fabricated metals	7.84	9.09	9.91	11.33	11.63	13.84
29-General machinery	9.38	10.92	11.79	12.44	12.96	15.18
30-Office & computing machinery	-	19.51	34.37	12.04	19.30	14.81
31-Electrical machinery	9.33	12.86	12.59	11.87	13.21	17.76
32-Radio, television & communication	11.23	16.66	13.49	13.41	16.35	17.25
33-Precision machinery	10.13	11.58	12.20	12.65	14.66	16.73
34-Motor vehicles	7.06	8.81	9.14	10.10	11.44	13.80
35-Other transport equipment	7.70	9.98	8.82	11.95	13.07	14.67
361-Furniture	7.19	8.09	8.28	9.02	10.30	11.79
36 less 361-Miscellaneous manufact.	7.25	7.18	7.44	10.94	10.52	11.52
37-Recycling	3.09	5.31	5.48	8.38	10.89	8.27

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2h: Mean Total Compensation per Worker of Medium-Large MNCs by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	19.90	19.75	18.70	19.99	20.77	22.59
15-37: Manufacturing, 27-industry mean	22.44	21.78	22.77	23.72	27.32	29.31
151 to 154-Food products	18.24	20.43	20.94	21.91	21.79	23.40
155-Beverages	25.90	30.92	31.12	34.86	38.29	34.36
16-Tobacco	20.00	15.36	23.61	18.30	44.20	72.18
17-Textiles	13.99	14.12	13.76	14.63	16.09	17.97
18-Apparel	12.96	12.32	10.71	13.42	13.59	15.10
191-Leather	11.25	10.55	11.80	13.80	16.03	18.67
192-Footwear	13.10	12.39	11.55	12.84	13.86	15.93
20-Wood products	9.77	11.39	13.32	12.71	15.26	17.22
21-Paper	17.37	17.00	16.90	17.31	18.81	20.71
22-Publishing	21.25	23.24	16.14	20.70	19.47	25.41
23-Petroleum products	90.39	72.83	108.75	91.80	132.10	118.51
24-Chemicals	33.44	33.86	30.42	36.79	41.44	43.04
251-Rubber products	18.32	15.40	15.36	18.29	16.32	20.89
252-Plastics	17.88	18.28	18.64	19.53	20.91	21.28
26-Non-metallic mineral products	26.09	23.81	24.97	25.20	24.04	27.19
27-Basic metals	30.77	27.59	31.17	33.54	33.49	34.80
28-Fabricated metals	22.90	23.09	22.82	24.14	23.95	23.83
29-General machinery	22.52	20.57	22.23	24.21	23.99	28.90
30-Office & computing machinery	12.53	19.40	10.25	20.42	30.73	19.76
31-Electrical machinery	23.49	32.82	22.03	21.78	23.18	29.79
32-Radio, television & communication	25.36	30.17	28.94	26.51	29.16	33.19
33-Precision machinery	22.24	17.73	22.34	24.31	20.49	19.79
34-Motor vehicles	22.79	20.18	22.11	23.02	23.19	24.62
35-Other transport equipment	21.73	16.05	15.59	17.07	20.40	22.37
361-Furniture	10.72	11.85	12.09	13.35	13.98	16.03
36 less 361-Miscellaneous manufact.	18.46	14.93	14.34	16.23	15.53	17.07
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2i: Mean Wage Compensation per Worker of All Firms by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	8.58	9.39	9.73	11.10	12.26	13.44
15-37: Manufacturing, 27-industry mean	10.88	12.20	12.51	13.46	15.10	16.71
151 to 154-Food products	6.98	7.20	8.02	8.85	9.68	11.00
155-Beverages	7.44	8.04	8.37	9.18	9.84	10.59
16-Tobacco	18.22	20.57	23.20	26.37	29.00	37.34
17-Textiles	7.07	8.55	8.18	9.35	10.10	12.57
18-Apparel	8.45	8.65	9.04	12.57	13.58	12.96
191-Leather	8.63	9.76	9.76	11.11	12.55	16.09
192-Footwear	13.82	8.06	8.34	10.02	10.89	12.76
20-Wood products	5.92	6.51	6.95	7.78	8.39	10.52
21-Paper	8.23	9.52	9.53	10.59	12.12	12.63
22-Publishing	12.08	12.75	12.09	13.98	13.89	16.00
23-Petroleum products	23.16	24.44	37.23	29.10	35.30	33.86
24-Chemicals	14.95	16.09	15.72	17.97	19.65	20.86
251-Rubber products	11.75	11.57	11.39	12.91	14.53	15.47
252-Plastics	9.76	12.42	11.38	12.80	12.88	14.13
26-Non-metallic mineral products	7.26	7.61	8.84	9.93	10.94	13.01
27-Basic metals	10.40	11.46	12.06	13.58	15.46	13.94
28-Fabricated metals	9.65	10.71	10.59	11.85	12.97	13.67
29-General machinery	10.59	11.65	12.43	14.09	14.43	16.57
30-Office & computing machinery	12.86	16.95	17.79	16.21	21.63	21.19
31-Electrical machinery	13.78	22.52	14.32	14.74	17.00	19.93
32-Radio, television & communication	16.67	21.25	20.05	18.54	19.34	22.10
33-Precision machinery	13.09	13.21	15.04	17.37	17.92	19.37
34-Motor vehicles	9.69	10.16	10.89	12.83	13.90	15.97
35-Other transport equipment	10.82	11.52	11.28	13.12	16.35	16.67
361-Furniture	7.01	7.86	9.05	8.91	12.66	11.90
36 less 361-Miscellaneous manufact.	11.05	10.68	10.20	12.53	13.00	13.58
37-Recycling	4.48	9.76	5.93	7.25	9.78	16.56

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2j: Mean Wage Compensation per Worker of SOEs by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	9.71	11.14	12.28	14.14	16.24	20.36
15-37: Manufacturing, 27-industry mean	10.27	11.57	12.78	14.84	17.57	21.01
151 to 154-Food products	7.96	8.47	9.29	10.25	11.74	15.53
155-Beverages	8.45	9.56	10.85	13.17	16.11	22.65
16-Tobacco	20.53	22.16	24.99	30.55	32.84	38.50
17-Textiles	7.78	8.31	9.02	9.87	11.99	18.93
18-Apparel	6.70	6.84	7.78	9.13	10.50	11.67
191-Leather	10.29	8.09	9.39	10.24	11.81	13.35
192-Footwear	5.81	6.39	6.92	8.00	9.45	10.09
20-Wood products	6.74	6.94	8.33	7.97	10.09	13.01
21-Paper	9.92	12.12	11.96	13.77	14.09	15.99
22-Publishing	14.42	16.24	17.58	20.26	22.22	27.74
23-Petroleum products	-	-	-	-	30.63	-
24-Chemicals	12.67	14.29	16.49	20.72	22.23	28.93
251-Rubber products	12.23	14.19	12.33	13.76	17.55	20.28
252-Plastics	12.92	13.96	16.36	18.17	21.90	21.52
26-Non-metallic mineral products	8.64	10.06	11.71	13.79	15.54	18.57
27-Basic metals	9.46	11.54	13.49	14.92	19.58	18.34
28-Fabricated metals	8.90	10.82	11.36	13.65	14.61	18.23
29-General machinery	9.07	12.13	11.81	13.59	14.78	19.45
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	14.19	19.37	19.11	22.73	30.02	27.42
32-Radio, television & communication	14.53	16.76	18.99	23.98	19.90	27.21
33-Precision machinery	10.06	10.45	10.72	11.21	11.93	23.01
34-Motor vehicles	8.56	11.22	13.09	14.41	18.64	27.72
35-Other transport equipment	11.33	12.70	13.93	14.48	16.71	21.31
361-Furniture	6.35	6.47	8.29	8.51	18.60	16.89
36 less 361-Miscellaneous manufact.	8.86	8.66	12.92	19.13	15.83	27.94
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2k: Mean Wage Compensation per Worker of Private Firms by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	6.68	7.64	8.11	9.29	10.49	11.64
15-37: Manufacturing, 27-industry mean	7.63	9.76	9.56	10.73	11.69	13.04
151 to 154-Food products	6.30	6.40	7.07	7.77	8.67	10.04
155-Beverages	6.53	7.03	7.21	8.05	8.71	9.12
16-Tobacco	7.72	15.68	15.48	17.44	11.64	13.35
17-Textiles	5.20	7.41	6.95	8.03	8.67	10.53
18-Apparel	7.91	8.02	8.75	10.56	11.70	12.37
191-Leather	7.07	9.07	8.80	9.92	10.67	14.53
192-Footwear	6.57	7.04	7.42	9.47	9.58	11.66
20-Wood products	5.59	6.11	6.50	7.45	7.93	10.00
21-Paper	7.36	8.71	8.81	9.87	11.51	11.75
22-Publishing	6.78	9.04	8.93	11.75	11.61	13.58
23-Petroleum products	8.31	14.05	14.32	14.54	11.79	17.07
24-Chemicals	9.21	10.27	11.16	12.17	13.13	14.08
251-Rubber products	8.85	9.87	10.41	11.54	13.86	13.97
252-Plastics	7.75	11.02	9.78	11.07	11.16	12.28
26-Non-metallic mineral products	5.70	6.08	7.19	8.17	9.44	11.64
27-Basic metals	7.42	8.17	9.22	10.99	13.08	12.09
28-Fabricated metals	7.15	8.55	9.04	10.28	11.63	12.33
29-General machinery	8.61	9.74	11.06	12.52	12.65	14.61
30-Office & computing machinery	14.00	15.51	15.88	14.23	18.73	20.44
31-Electrical machinery	8.93	19.05	10.75	10.87	12.77	15.90
32-Radio, television & communication	10.40	15.01	12.58	12.08	13.99	15.84
33-Precision machinery	9.03	9.64	10.91	13.67	14.08	15.56
34-Motor vehicles	6.88	8.06	8.38	9.75	10.70	12.75
35-Other transport equipment	8.12	9.55	9.25	11.30	14.86	14.18
361-Furniture	6.78	7.41	8.73	8.40	12.39	11.27
36 less 361-Miscellaneous manufact.	7.36	7.22	7.56	10.46	11.22	11.23
37-Recycling	4.48	9.76	5.93	7.25	9.55	9.86

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)



Appendix Table 21: Mean Wage Compensation per Worker of MNCs by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	20.78	19.60	18.66	21.02	21.97	23.15
15-37: Manufacturing, 27-industry mean	23.17	21.39	22.00	23.58	27.11	33.17
151 to 154-Food products	18.71	19.35	21.18	22.16	21.68	22.98
155-Beverages	24.43	29.52	34.42	32.70	34.46	29.96
16-Tobacco	19.67	14.76	21.73	17.95	43.26	71.11
17-Textiles	13.32	13.09	13.13	14.34	15.53	18.48
18-Apparel	12.63	12.37	10.51	19.22	19.94	15.39
191-Leather	11.06	11.01	11.56	13.67	16.01	20.09
192-Footwear	40.15	12.21	11.26	12.40	13.89	15.75
20-Wood products	9.60	12.63	13.39	12.74	14.54	17.78
21-Paper	16.80	16.72	16.03	17.02	18.17	22.72
22-Publishing	24.93	22.64	21.38	22.59	23.68	26.28
23-Petroleum products	89.99	71.17	83.05	87.38	131.68	117.84
24-Chemicals	31.40	34.21	29.87	35.82	41.37	43.45
251-Rubber products	19.63	15.46	14.72	17.71	15.57	19.27
252-Plastics	17.72	18.39	18.63	20.46	20.59	22.47
26-Non-metallic mineral products	25.37	22.28	24.60	24.61	23.36	26.50
27-Basic metals	30.01	26.08	29.69	32.95	34.91	32.89
28-Fabricated metals	22.31	23.18	21.78	23.81	24.15	24.28
29-General machinery	22.25	21.40	21.76	23.79	24.52	27.79
30-Office & computing machinery	12.29	19.11	21.13	20.16	26.71	22.19
31-Electrical machinery	22.94	31.20	19.74	20.91	23.89	28.31
32-Radio, television & communication	24.87	29.30	29.05	25.97	29.01	31.78
33-Precision machinery	20.92	18.11	21.56	24.39	25.07	25.65
34-Motor vehicles	22.07	18.91	20.34	23.22	21.26	23.15
35-Other transport equipment	20.39	15.73	15.32	17.79	21.07	22.16
361-Furniture	10.54	11.99	11.82	13.02	13.83	15.98
36 less 361-Miscellaneous manufact.	18.48	15.38	14.45	16.23	16.68	17.50
37-Recycling	-	-	-	-	17.18	133.79

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2m: Mean Wage Compensation per Worker of Medium-Large Firms by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	9.89	10.65	11.02	12.23	13.15	14.65
15-37: Manufacturing, 27-industry mean	11.52	12.81	13.91	14.62	16.29	17.63
151 to 154-Food products	8.34	8.91	9.56	10.42	11.09	12.46
155-Beverages	10.65	11.39	12.05	13.09	14.88	15.64
16-Tobacco	19.64	20.62	24.11	28.26	31.22	37.34
17-Textiles	7.34	8.52	8.58	9.70	10.55	11.93
18-Apparel	8.23	8.27	8.89	10.68	11.48	12.18
191-Leather	8.79	9.72	10.30	11.47	13.21	14.72
192-Footwear	7.94	8.15	8.51	9.77	10.79	11.93
20-Wood products	6.42	6.65	7.53	8.28	9.03	10.67
21-Paper	8.82	9.90	9.94	10.83	12.40	12.95
22-Publishing	13.82	14.97	15.50	17.11	17.83	20.59
23-Petroleum products	25.18	25.98	50.29	32.92	40.91	42.37
24-Chemicals	16.51	18.28	17.89	20.71	22.45	24.39
251-Rubber products	12.36	12.04	11.71	13.19	14.74	16.58
252-Plastics	10.81	11.73	11.80	13.19	13.74	15.23
26-Non-metallic mineral products	8.69	9.00	9.99	11.08	12.03	13.30
27-Basic metals	10.99	12.38	13.20	14.87	15.51	15.15
28-Fabricated metals	11.16	11.86	12.29	13.54	13.91	15.82
29-General machinery	11.24	12.44	13.12	14.27	14.88	17.89
30-Office & computing machinery	12.29	19.31	16.11	16.55	25.68	16.89
31-Electrical machinery	15.16	20.74	16.62	16.60	18.17	22.40
32-Radio, television & communication	17.44	22.23	21.59	21.31	22.26	25.48
33-Precision machinery	14.09	14.15	16.23	17.59	16.74	18.40
34-Motor vehicles	11.45	11.68	12.90	14.22	16.11	18.63
35-Other transport equipment	11.41	12.15	11.71	13.66	15.58	17.83
361-Furniture	7.39	8.48	8.86	9.63	11.10	12.61
36 less 361-Miscellaneous manufact.	11.70	11.13	10.84	13.34	12.62	14.25
37-Recycling	3.09	5.31	5.48	8.37	10.88	8.25

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2n: Mean Wage Compensation per Worker of Medium-Large SOEs by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	9.77	11.20	12.35	14.13	16.31	20.06
15-37: Manufacturing, 27-industry mean	10.33	11.65	12.85	14.86	17.63	20.73
151 to 154-Food products	8.00	8.47	9.31	10.23	11.76	15.49
155-Beverages	8.51	9.78	11.27	13.57	16.55	22.11
16-Tobacco	20.53	22.16	24.99	30.55	32.84	38.50
17-Textiles	7.82	8.36	8.97	9.54	11.99	14.20
18-Apparel	6.70	6.84	7.78	9.13	10.50	11.67
191-Leather	10.29	8.09	9.39	10.24	11.81	13.35
192-Footwear	5.87	6.39	6.92	8.00	9.45	10.09
20-Wood products	6.82	6.94	8.40	8.05	9.99	13.01
21-Paper	9.92	12.12	11.96	13.96	14.09	15.99
22-Publishing	14.49	16.48	17.80	20.35	22.65	27.71
23-Petroleum products	-	-	-	-	30.63	-
24-Chemicals	12.90	14.30	16.58	20.72	22.23	29.09
251-Rubber products	12.23	14.19	12.33	13.76	17.55	20.64
252-Plastics	12.92	13.96	16.36	18.17	21.90	21.52
26-Non-metallic mineral products	8.67	10.19	11.80	13.62	15.54	18.57
27-Basic metals	9.46	11.54	13.49	14.92	19.58	18.34
28-Fabricated metals	8.89	10.82	11.36	13.65	14.81	18.40
29-General machinery	9.07	12.13	11.81	13.49	14.78	19.45
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	14.73	19.89	19.76	22.73	30.02	27.42
32-Radio, television & communication	14.53	16.76	18.99	23.98	19.90	27.21
33-Precision machinery	10.06	10.45	10.72	11.21	11.93	23.01
34-Motor vehicles	8.95	11.48	13.20	14.69	19.00	25.35
35-Other transport equipment	11.33	12.74	13.99	14.55	16.71	21.47
361-Furniture	6.35	6.76	8.29	8.51	18.60	16.89
36 less 361-Miscellaneous manufact.	8.86	8.66	12.92	19.13	15.83	27.94
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2o: Mean Wage Compensation per Worker of Medium-Large Private Firms by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	7.16	8.10	8.62	9.76	10.69	12.00
15-37: Manufacturing, 27-industry mean	7.49	9.68	10.46	10.97	11.82	13.20
151 to 154-Food products	6.56	7.16	7.61	8.37	9.37	10.53
155-Beverages	7.17	7.67	7.98	9.06	10.35	10.36
16-Tobacco	4.48	12.81	10.64	18.70	10.53	13.35
17-Textiles	5.09	6.81	6.94	7.95	8.53	9.35
18-Apparel	7.41	7.44	8.44	9.79	10.82	11.22
191-Leather	7.15	9.40	9.39	10.22	11.27	12.60
192-Footwear	6.69	7.06	7.52	8.87	9.24	9.94
20-Wood products	5.87	6.11	6.80	7.77	8.28	9.84
21-Paper	7.83	8.91	9.00	9.78	11.55	11.98
22-Publishing	7.78	9.76	10.58	12.34	13.05	14.86
23-Petroleum products	8.98	13.07	15.90	14.77	12.37	20.81
24-Chemicals	9.39	11.82	12.55	12.78	14.30	15.85
251-Rubber products	8.87	10.22	10.13	10.95	13.51	14.62
252-Plastics	8.50	9.55	9.64	11.13	11.17	13.04
26-Non-metallic mineral products	6.63	7.03	7.86	8.94	10.21	11.45
27-Basic metals	7.53	8.74	9.71	11.95	12.49	12.78
28-Fabricated metals	7.72	8.93	9.76	11.14	11.54	13.73
29-General machinery	9.26	10.61	11.50	12.30	12.76	14.98
30-Office & computing machinery	-	19.51	34.37	12.04	18.49	14.40
31-Electrical machinery	8.98	12.60	12.20	11.67	12.95	17.53
32-Radio, television & communication	11.07	15.99	13.08	13.28	16.06	16.93
33-Precision machinery	9.94	11.35	11.93	12.40	14.29	16.53
34-Motor vehicles	7.03	8.66	9.06	10.02	11.37	13.68
35-Other transport equipment	7.58	9.84	8.68	11.85	13.04	14.61
361-Furniture	7.10	7.92	8.20	8.95	10.24	11.71
36 less 361-Miscellaneous manufact.	7.06	7.04	7.39	10.82	10.46	11.40
37-Recycling	3.09	5.31	5.48	8.37	10.88	8.25

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 2p: Mean Wage Compensation per Worker of Medium-Large MNCs by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	19.49	19.26	18.38	19.64	20.41	22.21
15-37: Manufacturing, 27-industry mean	22.10	21.26	22.34	23.19	26.94	28.82
151 to 154-Food products	17.91	19.86	20.70	21.58	21.38	22.99
155-Beverages	25.77	30.59	30.49	34.22	37.47	33.40
16-Tobacco	19.67	14.76	21.73	17.95	43.26	71.11
17-Textiles	13.25	13.52	13.47	14.34	15.69	17.73
18-Apparel	12.63	12.05	10.49	13.19	13.29	14.85
191-Leather	11.06	10.29	11.56	13.67	15.81	18.29
192-Footwear	12.95	12.21	11.41	12.40	13.65	15.70
20-Wood products	9.70	11.28	13.13	12.55	14.93	16.80
21-Paper	17.00	16.75	16.51	17.23	18.55	20.51
22-Publishing	21.25	23.15	15.93	20.48	19.62	25.19
23-Petroleum products	89.99	71.17	107.60	87.38	131.68	117.84
24-Chemicals	32.64	33.29	29.96	36.28	40.81	42.34
251-Rubber products	18.17	15.02	15.06	17.71	15.95	19.36
252-Plastics	17.56	17.95	18.27	19.12	20.71	21.08
26-Non-metallic mineral products	25.67	22.67	24.63	24.66	23.80	26.73
27-Basic metals	30.12	26.08	30.84	33.01	33.05	34.41
28-Fabricated metals	22.02	22.58	22.40	23.66	23.57	23.56
29-General machinery	22.41	20.09	21.92	23.23	23.47	28.71
30-Office & computing machinery	12.29	19.11	10.02	20.16	30.48	19.03
31-Electrical machinery	23.24	31.72	21.65	21.55	22.74	29.01
32-Radio, television & communication	24.87	29.51	28.55	26.23	28.88	32.05
33-Precision machinery	21.68	17.43	21.81	23.87	20.05	19.58
34-Motor vehicles	22.54	19.62	21.41	22.66	22.42	24.24
35-Other transport equipment	21.39	15.70	15.41	16.65	19.92	22.09
361-Furniture	10.54	11.72	11.82	13.09	13.87	15.88
36 less 361-Miscellaneous manufact.	18.16	14.67	14.12	16.01	15.31	16.82
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3a: Mean Fixed Assets per Worker of All Firms by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	70.61	69.35	72.39	71.03	78.00	82.29
15-37: Manufacturing, 27-industry mean	89.82	83.28	86.61	86.54	105.85	128.34
151 to 154-Food products	53.63	61.18	69.39	69.84	74.82	81.51
155-Beverages	88.99	87.13	90.34	93.98	93.20	87.49
16-Tobacco	83.28	61.23	67.75	62.10	363.78	279.65
17-Textiles	79.08	100.60	122.14	105.04	110.65	127.92
18-Apparel	25.93	29.74	27.85	31.23	51.11	34.07
191-Leather	22.55	26.29	28.28	25.19	57.99	47.01
192-Footwear	53.11	26.49	58.86	40.36	63.97	73.56
20-Wood products	26.24	34.41	32.94	35.83	40.85	49.31
21-Paper	58.26	59.49	60.67	66.50	84.97	91.94
22-Publishing	44.56	54.88	53.77	53.74	53.56	54.28
23-Petroleum products	233.37	245.75	353.87	301.65	261.35	217.23
24-Chemicals	174.88	116.31	98.29	124.95	141.74	125.02
251-Rubber products	80.90	77.19	81.85	78.51	87.16	120.06
252-Plastics	123.33	119.54	114.55	109.67	128.86	119.20
26-Non-metallic mineral products	76.77	70.16	72.01	67.37	68.75	76.69
27-Basic metals	133.54	123.22	120.78	150.83	155.20	155.80
28-Fabricated metals	92.14	82.50	88.97	72.31	68.39	75.38
29-General machinery	86.77	72.72	59.97	67.93	63.43	65.81
30-Office & computing machinery	220.89	146.87	101.74	166.31	210.76	751.60
31-Electrical machinery	129.68	130.50	98.81	97.82	125.74	103.37
32-Radio, television & communication	138.00	144.28	144.86	108.88	109.81	108.75
33-Precision machinery	84.48	95.92	97.57	91.35	87.56	71.72
34-Motor vehicles	112.07	87.05	78.40	89.52	93.28	115.97
35-Other transport equipment	76.12	78.32	76.45	76.56	93.70	140.08
361-Furniture	21.03	23.45	43.69	31.53	38.24	44.05
36 less 361-Miscellaneous manufact.	72.91	65.12	60.60	56.29	53.46	61.46
37-Recycling	32.67	28.09	34.16	61.40	75.59	186.17

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3b: Mean Fixed Assets per Worker of SOEs by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	46.66	53.86	61.74	65.74	89.56	106.34
15-37: Manufacturing, 27-industry mean	41.82	48.34	57.07	60.84	84.32	102.70
151 to 154-Food products	56.83	71.95	70.94	83.43	95.62	99.42
155-Beverages	77.24	68.49	76.02	73.55	80.22	109.76
16-Tobacco	44.13	57.12	62.98	63.41	67.62	79.22
17-Textiles	78.92	90.15	97.07	115.33	159.95	190.76
18-Apparel	15.43	15.70	15.24	16.38	16.84	17.45
191-Leather	36.10	7.46	53.01	42.49	42.89	69.28
192-Footwear	15.63	15.81	15.36	16.73	21.46	21.18
20-Wood products	19.22	32.58	27.30	56.93	73.02	152.49
21-Paper	47.00	48.13	60.12	86.83	138.86	133.34
22-Publishing	47.21	59.38	61.54	76.08	77.31	86.29
23-Petroleum products	-	-	-	-	133.71	-
24-Chemicals	35.24	40.43	40.66	51.01	243.80	162.42
251-Rubber products	29.37	30.53	32.98	42.71	70.94	110.10
252-Plastics	80.42	72.43	81.68	90.63	120.98	100.54
26-Non-metallic mineral products	61.10	68.93	101.99	78.81	93.16	120.56
27-Basic metals	43.21	53.78	71.75	57.95	66.72	144.33
28-Fabricated metals	42.35	48.76	58.57	60.36	75.91	118.50
29-General machinery	25.41	31.62	38.39	41.27	51.49	64.85
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	37.58	48.23	57.51	51.68	67.95	76.26
32-Radio, television & communication	62.32	61.46	61.38	66.06	62.35	84.01
33-Precision machinery	33.40	69.17	106.60	97.39	111.56	173.30
34-Motor vehicles	26.61	40.76	47.12	49.59	55.04	112.52
35-Other transport equipment	45.18	54.20	60.50	62.51	81.34	149.56
361-Furniture	32.80	25.71	41.78	34.49	38.80	27.56
36 less 361-Miscellaneous manufact.	11.09	47.26	29.15	44.52	60.52	61.21
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3c: Mean Fixed Assets per Worker of Private Firms by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	39.38	42.99	48.07	49.94	56.56	62.09
15-37: Manufacturing, 27-industry mean	36.63	43.99	50.65	51.65	64.78	79.24
151 to 154-Food products	42.17	48.39	55.58	56.17	61.41	72.30
155-Beverages	70.38	70.56	75.97	83.11	81.35	71.91
16-Tobacco	74.77	78.41	100.10	65.28	165.24	50.18
17-Textiles	45.19	73.35	70.71	74.36	84.11	90.56
18-Apparel	18.83	24.16	19.10	23.66	40.52	30.32
191-Leather	14.82	18.71	25.07	23.77	23.43	31.90
192-Footwear	20.76	27.33	74.55	46.08	75.93	91.96
20-Wood products	23.68	26.21	30.02	30.53	36.05	42.83
21-Paper	40.55	43.38	46.03	56.61	69.85	77.05
22-Publishing	35.98	46.07	40.96	40.02	43.82	42.17
23-Petroleum products	51.35	77.28	106.96	108.83	83.83	99.40
24-Chemicals	36.41	36.69	41.57	66.58	65.03	57.97
251-Rubber products	49.30	49.83	62.40	66.98	67.25	102.57
252-Plastics	79.31	85.48	80.89	75.38	93.21	89.50
26-Non-metallic mineral products	31.91	29.79	32.21	35.63	43.10	53.53
27-Basic metals	56.37	34.35	56.58	90.06	122.81	128.21
28-Fabricated metals	33.24	34.26	44.12	40.35	44.39	49.41
29-General machinery	38.26	34.86	39.93	50.25	41.88	44.88
30-Office & computing machinery	3.74	49.12	29.18	19.11	111.45	426.86
31-Electrical machinery	52.29	70.44	54.58	55.53	66.56	63.86
32-Radio, television & communication	16.92	61.74	74.11	48.67	48.07	61.55
33-Precision machinery	31.08	35.27	34.04	30.64	31.53	37.22
34-Motor vehicles	24.08	25.17	30.37	33.52	41.49	59.47
35-Other transport equipment	20.87	31.44	46.29	49.49	62.85	117.22
361-Furniture	15.57	18.64	32.49	26.30	35.11	39.80
36 less 361-Miscellaneous manufact.	28.44	28.71	29.69	36.17	31.95	44.85
37-Recycling	32.67	28.09	34.16	61.40	76.94	61.90

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)



Appendix Table 3d: Mean Fixed Assets per Worker of MNCs by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	336.64	269.50	246.00	211.18	211.88	209.81
15-37: Manufacturing, 27-industry mean	356.14	291.82	265.16	258.79	331.92	405.60
151 to 154-Food products	277.34	269.25	280.48	239.46	235.32	210.98
155-Beverages	529.32	569.14	515.14	426.33	483.49	406.35
16-Tobacco	433.13	36.35	24.24	17.53	2,340	1,731
17-Textiles	207.12	213.10	361.08	219.70	202.16	248.04
18-Apparel	65.64	60.88	59.49	56.69	90.80	51.03
191-Leather	32.91	40.22	30.14	24.71	120.95	81.06
192-Footwear	172.39	33.36	49.37	41.01	57.30	51.34
20-Wood products	74.65	173.86	89.27	100.76	96.42	113.24
21-Paper	309.76	270.72	229.53	169.47	229.63	269.08
22-Publishing	97.13	148.16	242.05	233.50	154.40	210.66
23-Petroleum products	1,052	1,004	847.69	1,073	1,035	806.36
24-Chemicals	668.73	409.57	316.10	357.95	357.44	357.04
251-Rubber products	206.93	180.79	179.92	135.18	159.66	177.47
252-Plastics	339.27	292.24	300.94	282.68	315.70	265.86
26-Non-metallic mineral products	822.33	653.00	543.83	459.38	383.25	366.57
27-Basic metals	748.40	580.15	575.38	694.43	488.83	485.44
28-Fabricated metals	422.49	385.38	421.04	324.70	266.88	280.80
29-General machinery	427.62	389.19	212.99	200.09	196.23	204.58
30-Office & computing machinery	329.47	293.48	228.70	431.28	409.38	1,149
31-Electrical machinery	331.48	294.06	201.60	202.76	289.12	212.77
32-Radio, television & communication	330.74	264.73	260.27	216.77	236.34	193.23
33-Precision machinery	193.77	172.00	172.17	173.99	166.05	117.60
34-Motor vehicles	574.37	422.10	300.25	305.31	252.88	290.02
35-Other transport equipment	359.39	253.58	209.46	175.25	200.80	208.98
361-Furniture	86.41	63.75	133.11	71.89	61.71	74.94
36 less 361-Miscellaneous manufact.	166.49	114.39	109.99	94.82	97.65	89.62
37-Recycling	-	-	-	-	33.73	2,299

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3e: Mean Fixed Assets per Worker of Medium-Large Firms  
by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	80.74	77.12	73.98	74.33	79.20	83.77
15-37: Manufacturing, 27-industry mean	100.38	93.09	98.68	96.15	119.24	107.38
151 to 154-Food products	67.91	68.60	66.35	74.30	75.19	79.80
155-Beverages	150.02	134.21	138.60	130.62	130.62	174.65
16-Tobacco	82.80	59.94	61.52	59.28	376.16	279.65
17-Textiles	69.48	90.37	88.87	107.48	102.58	101.53
18-Apparel	23.75	23.78	20.48	22.99	26.20	24.05
191-Leather	18.13	15.33	20.65	18.85	58.68	40.12
192-Footwear	23.44	24.87	31.49	29.57	41.76	35.37
20-Wood products	23.59	25.70	25.14	28.58	28.97	42.08
21-Paper	59.21	64.71	64.43	68.03	89.75	92.25
22-Publishing	46.36	59.06	65.14	75.52	65.48	75.70
23-Petroleum products	255.55	296.57	464.92	341.17	311.44	272.14
24-Chemicals	168.79	142.92	115.71	131.71	156.22	153.46
251-Rubber products	91.02	82.08	80.11	78.64	86.63	113.96
252-Plastics	121.22	115.72	109.28	113.13	133.87	125.49
26-Non-metallic mineral products	101.99	92.11	89.67	79.26	76.65	79.67
27-Basic metals	130.07	134.71	129.85	135.87	127.14	127.92
28-Fabricated metals	120.20	101.55	97.66	84.86	82.68	92.11
29-General machinery	77.67	69.42	65.77	68.50	70.79	74.29
30-Office & computing machinery	329.47	177.16	217.31	248.54	418.14	128.99
31-Electrical machinery	150.12	140.81	108.96	111.27	152.48	127.68
32-Radio, television & communication	141.59	156.42	167.97	131.79	117.87	139.16
33-Precision machinery	93.53	111.69	107.79	111.36	108.61	87.91
34-Motor vehicles	162.06	120.21	110.13	107.61	120.62	149.40
35-Other transport equipment	74.63	88.67	84.99	86.69	102.26	127.53
361-Furniture	21.02	23.53	39.84	28.18	30.55	37.99
36 less 361-Miscellaneous manufact.	77.63	65.33	57.54	59.26	54.03	54.94
37-Recycling	29.14	28.02	34.27	62.85	74.10	61.43

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3f: Mean Fixed Assets per Worker of Medium-Large SOEs  
by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	46.65	53.69	61.94	65.29	89.82	102.04
15-37: Manufacturing, 27-industry mean	41.79	48.46	57.25	60.58	84.11	98.39
151 to 154-Food products	57.05	72.07	71.05	83.75	95.83	99.73
155-Beverages	77.34	69.66	77.14	67.13	81.94	109.54
16-Tobacco	44.13	57.12	62.98	63.41	67.62	79.22
17-Textiles	80.64	89.61	98.20	117.05	159.95	115.04
18-Apparel	14.53	15.70	15.24	16.38	16.84	17.45
191-Leather	36.10	7.46	53.01	42.49	42.89	69.28
192-Footwear	14.23	15.81	15.36	16.73	21.46	21.18
20-Wood products	19.41	32.58	27.28	56.88	63.46	152.49
21-Paper	47.00	48.13	60.12	85.52	138.86	133.34
22-Publishing	47.63	56.93	62.06	77.30	79.96	87.89
23-Petroleum products	-	-	-	-	133.71	-
24-Chemicals	35.94	40.62	41.10	51.01	243.80	162.98
251-Rubber products	29.37	30.53	32.98	42.71	70.94	119.88
252-Plastics	80.42	72.43	81.68	90.63	120.98	100.54
26-Non-metallic mineral products	61.36	69.57	102.94	76.49	93.16	120.56
27-Basic metals	43.21	53.78	71.75	57.95	66.72	144.33
28-Fabricated metals	39.78	48.76	58.57	60.36	74.97	119.24
29-General machinery	25.41	31.62	38.39	41.20	51.49	64.85
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	37.99	48.82	57.15	51.68	67.95	76.26
32-Radio, television & communication	62.32	61.46	61.38	66.06	62.35	84.01
33-Precision machinery	33.40	69.17	106.60	97.39	111.56	173.30
34-Motor vehicles	26.75	42.65	47.40	50.19	55.58	70.49
35-Other transport equipment	45.18	54.23	60.60	62.65	81.34	151.13
361-Furniture	32.80	27.14	41.78	34.49	38.80	27.56
36 less 361-Miscellaneous manufact.	11.09	47.26	29.15	44.52	60.52	61.21
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3g: Mean Fixed Assets per Worker of Medium-Large Private Firms by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	30.40	34.25	37.66	41.69	45.81	52.51
15-37: Manufacturing, 27-industry mean	32.99	41.60	47.99	47.09	63.53	60.30
151 to 154-Food products	29.37	33.08	35.32	43.57	46.87	56.70
155-Beverages	80.39	69.39	74.40	93.22	79.34	139.46
16-Tobacco	39.53	85.66	72.55	49.75	57.50	50.18
17-Textiles	30.50	51.14	50.94	61.39	60.51	64.72
18-Apparel	13.99	16.37	15.62	17.28	17.47	17.96
191-Leather	5.98	8.76	8.91	12.13	12.45	12.70
192-Footwear	19.20	24.53	28.81	27.14	37.24	29.50
20-Wood products	16.99	15.90	18.03	19.77	22.72	29.16
21-Paper	35.38	43.76	47.53	53.67	68.62	76.06
22-Publishing	36.20	64.04	51.56	54.08	42.32	51.04
23-Petroleum products	56.33	94.48	72.92	97.25	99.78	119.51
24-Chemicals	38.81	33.54	40.53	47.20	52.87	64.66
251-Rubber products	45.92	50.57	56.39	58.85	51.04	78.76
252-Plastics	78.37	80.81	76.44	72.60	87.88	80.84
26-Non-metallic mineral products	29.82	32.05	32.92	37.47	42.55	47.56
27-Basic metals	39.18	35.34	61.12	74.83	90.72	104.92
28-Fabricated metals	33.53	32.39	39.91	37.95	39.74	44.85
29-General machinery	26.85	31.64	38.58	45.13	43.55	45.06
30-Office & computing machinery	-	60.83	117.42	20.12	345.58	59.62
31-Electrical machinery	52.91	51.50	53.02	59.36	79.04	80.44
32-Radio, television & communication	20.73	57.47	117.67	53.61	54.31	83.59
33-Precision machinery	30.84	35.65	32.17	32.12	41.05	40.58
34-Motor vehicles	19.66	23.95	34.18	32.59	39.41	52.16
35-Other transport equipment	15.48	28.07	42.30	56.36	73.63	76.69
361-Furniture	12.16	15.25	18.20	19.52	23.83	29.29
36 less 361-Miscellaneous manufact.	20.60	19.05	24.08	31.60	31.33	30.64
37-Recycling	29.14	28.02	34.27	62.85	74.10	61.43

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3h: Mean Fixed Assets per Worker of Medium-Large MNCs by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	308.68	261.25	214.32	195.44	194.64	191.46
15-37: Manufacturing, 27-industry mean	338.23	283.90	261.03	251.26	335.66	286.01
151 to 154-Food products	282.72	271.25	231.70	226.41	230.48	215.21
155-Beverages	542.11	584.48	550.06	478.13	507.83	422.45
16-Tobacco	433.13	36.35	24.24	17.53	2,340	1,731
17-Textiles	168.35	203.06	199.28	219.38	194.86	187.49
18-Apparel	65.64	53.32	34.58	37.92	49.25	41.45
191-Leather	32.91	25.03	30.14	24.71	119.74	81.06
192-Footwear	42.72	33.36	46.46	41.01	56.15	48.93
20-Wood products	75.68	107.12	84.67	78.93	63.52	106.68
21-Paper	322.29	279.19	218.00	172.25	235.18	223.55
22-Publishing	52.82	72.82	220.62	219.10	138.98	185.64
23-Petroleum products	1,052	1,004	1,118	1,073	1,035	806.36
24-Chemicals	551.97	432.65	334.42	350.50	335.41	357.41
251-Rubber products	212.48	176.15	160.22	135.18	159.66	175.28
252-Plastics	279.07	243.08	234.58	254.11	284.53	262.40
26-Non-metallic mineral products	873.42	687.96	569.11	470.55	397.68	386.17
27-Basic metals	713.83	564.26	528.97	580.52	402.47	322.71
28-Fabricated metals	418.94	376.25	331.89	290.67	262.72	270.45
29-General machinery	355.21	311.27	221.90	201.33	198.30	199.72
30-Office & computing machinery	329.47	293.48	250.60	431.28	466.51	188.46
31-Electrical machinery	335.55	299.22	210.45	202.40	296.33	221.14
32-Radio, television & communication	308.53	276.81	253.59	222.36	196.79	199.48
33-Precision machinery	207.70	179.38	172.48	180.64	163.09	122.97
34-Motor vehicles	595.87	445.30	323.36	290.66	272.70	312.53
35-Other transport equipment	293.55	256.86	212.75	173.29	177.90	215.32
361-Furniture	86.41	63.89	133.11	68.88	59.50	73.86
36 less 361-Miscellaneous manufact.	161.28	105.06	91.23	91.99	82.04	78.50
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3i: Mean Employment per Firm of All Firms by Industry (number)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	156	158	154	159	152	141
15-37: Manufacturing, 27-industry mean	249	224	214	221	211	213
151 to 154-Food products	88	101	106	113	117	98
155-Beverages	41	40	38	42	37	44
16-Tobacco	527	516	581	566	582	608
17-Textiles	312	306	252	247	211	193
18-Apparel	407	376	383	385	357	341
191-Leather	386	358	335	386	325	300
192-Footwear	1,431	1,444	1,431	1,593	1,499	1,457
20-Wood products	86	82	79	78	77	70
21-Paper	96	89	88	81	78	76
22-Publishing	87	73	58	48	44	41
23-Petroleum products	73	78	93	83	90	98
24-Chemicals	162	145	128	112	108	93
251-Rubber products	172	168	169	171	182	138
252-Plastics	92	89	84	88	81	76
26-Non-metallic mineral products	116	129	136	146	139	128
27-Basic metals	252	193	155	148	128	107
28-Fabricated metals	83	71	62	61	59	55
29-General machinery	135	140	111	108	101	90
30-Office & computing machinery	1,028	466	327	299	273	531
31-Electrical machinery	244	241	233	233	199	224
32-Radio, television & communication	187	183	172	179	175	190
33-Precision machinery	159	191	174	186	182	136
34-Motor vehicles	91	100	107	115	117	105
35-Other transport equipment	154	162	172	173	182	175
361-Furniture	118	121	131	145	159	158
36 less 361-Miscellaneous manufact.	154	174	146	146	160	168
37-Recycling	30	24	28	25	28	36

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3j: Mean Employment per Firm of SOEs by Industry (number)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	458	495	531	591	608	592
15-37: Manufacturing, 27-industry mean	485	537	562	621	630	624
151 to 154-Food products	549	607	622	633	646	556
155-Beverages	183	188	207	310	288	340
16-Tobacco	681	687	725	802	872	872
17-Textiles	948	1,060	1,136	1,189	1,137	1,141
18-Apparel	989	986	1,148	1,349	1,522	1,597
191-Leather	636	1,080	756	884	669	362
192-Footwear	1,575	1,648	1,642	1,732	1,827	1,514
20-Wood products	298	301	297	343	400	467
21-Paper	379	375	424	396	518	623
22-Publishing	122	129	135	144	154	164
23-Petroleum products	0	0	0	0	122	0
24-Chemicals	438	468	481	506	558	556
251-Rubber products	644	862	941	1,020	1,203	939
252-Plastics	260	262	271	330	318	249
26-Non-metallic mineral products	351	424	474	519	527	505
27-Basic metals	1,095	1,015	1,018	1,127	1,340	1,196
28-Fabricated metals	262	292	313	396	355	415
29-General machinery	296	359	359	384	383	403
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	540	549	569	645	523	552
32-Radio, television & communication	241	247	264	279	294	285
33-Precision machinery	228	186	215	223	230	118
34-Motor vehicles	189	282	371	422	433	453
35-Other transport equipment	310	320	363	407	475	514
361-Furniture	276	292	407	495	549	723
36 less 361-Miscellaneous manufact.	159	281	341	364	405	432
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3k: Mean Employment per Firm of Private Firms by Industry (number)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	68	76	73	77	75	73
15-37: Manufacturing, 27-industry mean	100	101	91	95	89	85
151 to 154-Food products	39	53	57	66	72	67
155-Beverages	13	16	17	19	19	24
16-Tobacco	49	24	11	33	29	46
17-Textiles	106	117	103	106	95	92
18-Apparel	203	212	190	193	178	170
191-Leather	277	214	162	184	154	158
192-Footwear	969	953	832	867	757	676
20-Wood products	56	61	60	60	59	55
21-Paper	55	56	58	54	53	53
22-Publishing	23	23	19	18	17	18
23-Petroleum products	52	57	64	61	64	81
24-Chemicals	56	57	52	50	51	48
251-Rubber products	38	49	43	48	47	51
252-Plastics	62	63	61	62	56	56
26-Non-metallic mineral products	48	63	68	77	79	86
27-Basic metals	44	46	47	50	48	46
28-Fabricated metals	36	36	35	35	37	33
29-General machinery	36	52	45	51	51	50
30-Office & computing machinery	19	26	14	28	31	40
31-Electrical machinery	50	49	48	53	47	50
32-Radio, television & communication	53	58	60	51	48	43
33-Precision machinery	122	159	126	123	104	53
34-Motor vehicles	28	33	42	39	37	36
35-Other transport equipment	45	51	55	56	69	66
361-Furniture	85	81	83	95	101	97
36 less 361-Miscellaneous manufact.	105	90	74	74	71	66
37-Recycling	30	24	28	25	29	37

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)



Appendix Table 31: Mean Employment per Firm of MNCs by Industry (number)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	345	345	386	408	420	433
15-37: Manufacturing, 27-industry mean	376	365	372	403	372	408
151 to 154-Food products	237	249	246	248	269	261
155-Beverages	247	243	184	167	178	168
16-Tobacco	167	222	262	279	139	139
17-Textiles	362	345	308	314	320	302
18-Apparel	482	447	584	586	597	719
191-Leather	513	536	580	705	583	631
192-Footwear	2,439	2,575	2,660	3,119	2,779	3,035
20-Wood products	227	128	174	181	200	173
21-Paper	173	187	170	178	160	161
22-Publishing	53	49	58	68	81	79
23-Petroleum products	171	174	150	170	179	178
24-Chemicals	103	113	120	106	107	101
251-Rubber products	218	204	260	274	229	245
252-Plastics	169	154	160	173	176	160
26-Non-metallic mineral products	197	206	231	231	238	244
27-Basic metals	152	133	150	167	182	166
28-Fabricated metals	122	123	135	134	149	152
29-General machinery	171	112	105	102	158	158
30-Office & computing machinery	1,532	1,128	876	841	697	1,185
31-Electrical machinery	451	494	479	508	489	588
32-Radio, television & communication	262	252	256	331	368	424
33-Precision machinery	174	228	222	264	288	288
34-Motor vehicles	187	229	221	234	231	231
35-Other transport equipment	255	267	355	338	339	326
361-Furniture	455	414	458	490	559	546
36 less 361-Miscellaneous manufact.	249	283	257	276	342	344
37-Recycling	0	0	0	0	11	7

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3m: Mean Employment per Firm of Medium-Large Firms by Industry (number)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	266	259	260	263	252	243
15-37: Manufacturing, 27-industry mean	321	283	299	294	292	294
151 to 154-Food products	252	260	256	251	238	216
155-Beverages	153	144	148	155	140	150
16-Tobacco	603	582	667	671	660	608
17-Textiles	382	376	342	330	290	269
18-Apparel	456	424	451	453	425	440
191-Leather	412	411	414	450	411	390
192-Footwear	1,527	1,552	1,566	1,797	1,718	1,705
20-Wood products	155	138	139	133	132	126
21-Paper	119	112	118	110	109	110
22-Publishing	116	113	110	104	101	98
23-Petroleum products	80	94	133	99	106	127
24-Chemicals	221	210	193	177	168	158
251-Rubber products	246	209	240	244	263	207
252-Plastics	123	121	119	123	124	120
26-Non-metallic mineral products	183	190	193	203	189	176
27-Basic metals	314	240	207	195	179	148
28-Fabricated metals	126	110	109	109	109	106
29-General machinery	183	187	159	159	153	150
30-Office & computing machinery	1,532	581	884	490	586	851
31-Electrical machinery	306	312	322	317	282	320
32-Radio, television & communication	214	211	215	253	262	283
33-Precision machinery	183	237	229	242	274	206
34-Motor vehicles	139	150	171	176	179	180
35-Other transport equipment	198	207	229	227	250	242
361-Furniture	174	186	214	222	248	249
36 less 361-Miscellaneous manufact.	214	241	207	204	236	254
37-Recycling	65	43	42	44	45	53

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3n: Mean Employment per Firm of Medium-Large SOEs by Industry (number)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	466	503	540	598	616	602
15-37: Manufacturing, 27-industry mean	492	542	567	625	633	641
151 to 154-Food products	559	613	629	637	650	563
155-Beverages	191	197	227	325	304	349
16-Tobacco	681	687	725	802	872	872
17-Textiles	973	1,075	1,170	1,208	1,137	1,230
18-Apparel	998	986	1,148	1,349	1,522	1,597
191-Leather	636	1,080	756	884	669	362
192-Footwear	1,612	1,648	1,642	1,732	1,827	1,514
20-Wood products	303	301	302	351	411	467
21-Paper	379	375	424	408	518	623
22-Publishing	124	134	139	147	160	168
23-Petroleum products	0	0	0	0	122	0
24-Chemicals	451	473	487	506	558	565
251-Rubber products	644	862	941	1,020	1,203	1,169
252-Plastics	260	262	271	330	318	249
26-Non-metallic mineral products	353	431	479	522	527	505
27-Basic metals	1,095	1,015	1,018	1,127	1,340	1,196
28-Fabricated metals	267	292	313	396	372	422
29-General machinery	296	359	359	390	383	403
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	561	573	593	645	523	552
32-Radio, television & communication	241	247	264	279	294	285
33-Precision machinery	228	186	215	223	230	118
34-Motor vehicles	209	301	384	439	451	499
35-Other transport equipment	310	324	367	412	475	522
361-Furniture	276	313	407	495	549	723
36 less 361-Miscellaneous manufact.	159	281	341	364	405	432
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3n: Mean Employment per Firm of Medium-Large Private Firms by Industry (number)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	143	147	143	144	139	138
15-37: Manufacturing, 27-industry mean	143	141	136	142	137	133
151 to 154-Food products	138	162	164	171	165	163
155-Beverages	60	67	82	77	75	91
16-Tobacco	149	36	22	61	48	46
17-Textiles	141	157	153	158	143	142
18-Apparel	243	253	241	243	226	238
191-Leather	310	264	234	235	224	234
192-Footwear	1,070	1,081	966	1,074	955	868
20-Wood products	112	111	114	108	106	103
21-Paper	70	73	79	76	75	78
22-Publishing	61	54	51	49	44	48
23-Petroleum products	57	71	95	76	79	113
24-Chemicals	93	102	91	93	89	91
251-Rubber products	63	65	66	77	77	85
252-Plastics	88	92	92	92	93	95
26-Non-metallic mineral products	87	101	104	115	112	122
27-Basic metals	57	58	64	66	68	63
28-Fabricated metals	63	60	65	66	72	67
29-General machinery	59	81	73	83	84	91
30-Office & computing machinery	-	34	43	52	75	69
31-Electrical machinery	72	73	73	82	74	79
32-Radio, television & communication	74	82	99	97	92	84
33-Precision machinery	157	262	208	210	212	96
34-Motor vehicles	52	55	78	67	63	72
35-Other transport equipment	68	77	86	84	112	106
361-Furniture	131	132	148	155	168	164
36 less 361-Miscellaneous manufact.	169	152	127	122	121	123
37-Recycling	65	43	42	44	45	53

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3p: Mean Employment per Firm of Medium-Large MNCs by Industry (number)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	368	373	420	441	460	477
15-37: Manufacturing, 27-industry mean	390	379	403	418	418	460
151 to 154-Food products	249	284	277	272	305	292
155-Beverages	272	270	209	208	201	199
16-Tobacco	167	222	262	279	139	139
17-Textiles	378	358	335	316	332	316
18-Apparel	482	465	598	606	614	736
191-Leather	513	558	580	705	607	645
192-Footwear	2,498	2,575	2,701	3,119	2,838	3,126
20-Wood products	232	140	180	189	217	193
21-Paper	180	193	188	182	173	180
22-Publishing	72	76	83	84	105	93
23-Petroleum products	171	174	195	170	179	178
24-Chemicals	120	129	144	126	128	129
251-Rubber products	237	211	269	274	235	251
252-Plastics	183	167	171	184	194	180
26-Non-metallic mineral products	216	219	247	251	266	274
27-Basic metals	163	144	168	188	201	190
28-Fabricated metals	130	139	151	155	166	170
29-General machinery	202	123	119	124	194	194
30-Office & computing machinery	1,532	1,128	1,164	841	927	1,522
31-Electrical machinery	460	503	568	542	537	651
32-Radio, television & communication	280	266	268	360	405	446
33-Precision machinery	186	239	253	275	338	334
34-Motor vehicles	194	245	242	259	256	256
35-Other transport equipment	277	282	361	356	359	340
361-Furniture	455	422	458	506	569	553
36 less 361-Miscellaneous manufact.	280	316	279	294	378	380
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3q: Mean Sales per Worker of All Firms by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	203.70	228.51	208.07	206.79	233.13	253.88
15-37: Manufacturing, 27-industry mean	246.26	262.99	261.72	274.12	305.07	326.24
151 to 154-Food products	393.12	409.33	393.58	350.84	421.73	443.71
155-Beverages	96.68	117.01	147.93	121.72	127.04	113.74
16-Tobacco	431.59	554.61	969.34	879.46	793.70	1,129
17-Textiles	129.39	131.68	132.37	150.35	161.96	191.00
18-Apparel	47.47	49.72	53.74	80.05	74.78	76.27
191-Leather	42.22	57.07	59.85	76.77	89.33	111.28
192-Footwear	67.46	45.06	127.86	72.15	125.33	88.26
20-Wood products	82.88	85.42	95.18	121.74	132.21	154.48
21-Paper	134.70	153.74	177.93	193.27	207.95	235.32
22-Publishing	126.71	134.76	129.38	139.09	153.18	166.99
23-Petroleum products	734.87	997.10	1,047	1,150	1,224	1,243
24-Chemicals	291.04	313.87	312.99	375.17	385.35	411.13
251-Rubber products	167.94	152.34	260.65	273.30	398.02	412.65
252-Plastics	224.57	244.14	217.56	247.91	303.90	339.61
26-Non-metallic mineral products	68.23	286.96	85.46	96.56	106.11	122.22
27-Basic metals	462.12	355.99	420.53	514.74	626.57	575.47
28-Fabricated metals	170.20	173.73	183.95	200.56	223.71	244.49
29-General machinery	149.19	140.39	168.22	175.09	191.08	203.40
30-Office & computing machinery	1,287	914.28	383.44	424.21	489.19	530.67
31-Electrical machinery	262.05	391.51	284.05	301.05	426.90	463.52
32-Radio, television & communication	386.41	511.60	507.73	466.85	393.44	371.81
33-Precision machinery	155.51	166.95	181.49	192.18	226.85	182.87
34-Motor vehicles	181.97	209.52	238.72	291.59	297.95	295.31
35-Other transport equipment	272.99	242.70	178.46	206.24	252.15	292.28
361-Furniture	51.70	66.18	131.02	90.38	116.84	105.24
36 less 361-Miscellaneous manufact.	104.42	97.17	80.45	104.90	121.20	117.21
37-Recycling	126.76	97.80	97.83	104.54	166.82	187.79

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3r: Mean Sales per Worker of SOEs by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	123.53	151.69	173.61	194.08	235.84	319.34
15-37: Manufacturing, 27-industry mean	122.37	147.72	176.96	213.31	281.67	337.03
151 to 154-Food products	182.14	216.90	255.23	247.05	300.26	337.31
155-Beverages	101.49	203.64	138.56	171.88	220.35	371.64
16-Tobacco	445.90	504.45	806.95	980.87	1,005	1,071
17-Textiles	83.13	88.42	201.29	233.73	135.96	499.13
18-Apparel	33.29	38.06	41.69	47.23	53.91	62.38
191-Leather	32.70	17.66	50.31	38.64	43.76	78.39
192-Footwear	33.84	34.82	32.48	36.99	39.21	48.51
20-Wood products	77.43	95.93	96.25	93.73	126.60	202.28
21-Paper	145.69	135.00	139.51	187.94	212.26	212.64
22-Publishing	149.74	163.02	181.65	209.72	220.29	274.74
23-Petroleum products	-	-	-	-	739.69	-
24-Chemicals	212.12	237.14	291.90	301.68	408.65	545.40
251-Rubber products	81.93	110.43	85.50	117.69	143.58	209.80
252-Plastics	161.15	189.89	208.25	258.98	387.90	446.74
26-Non-metallic mineral products	89.02	112.99	128.14	153.37	185.98	227.49
27-Basic metals	125.04	166.68	207.38	222.11	380.23	415.76
28-Fabricated metals	77.07	106.86	113.26	135.37	159.71	272.67
29-General machinery	94.94	114.42	115.36	130.04	156.38	164.28
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	143.24	195.03	218.46	276.67	662.68	417.33
32-Radio, television & communication	249.05	259.55	323.90	447.05	361.74	599.62
33-Precision machinery	68.54	74.63	73.30	74.76	105.10	167.03
34-Motor vehicles	85.45	108.88	145.82	209.27	246.77	388.75
35-Other transport equipment	167.26	216.54	194.55	182.71	284.23	471.14
361-Furniture	55.56	103.95	132.14	116.60	196.36	185.68
36 less 361-Miscellaneous manufact.	41.15	50.44	65.22	245.37	265.53	419.55
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3s: Mean Sales per Worker of Private Firms by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	195.19	220.92	188.57	177.29	203.53	225.30
15-37: Manufacturing, 27-industry mean	178.80	212.17	237.65	204.27	231.44	246.75
151 to 154-Food products	409.10	423.60	396.93	340.67	411.97	435.89
155-Beverages	80.00	89.86	130.43	97.61	100.63	73.39
16-Tobacco	472.50	787.39	1,910	741.91	520.19	641.88
17-Textiles	134.11	129.99	110.60	130.60	156.67	169.03
18-Apparel	38.66	45.30	52.95	57.07	67.48	76.80
191-Leather	28.80	62.10	62.78	74.20	63.43	92.89
192-Footwear	34.11	39.99	182.30	79.01	89.30	88.04
20-Wood products	81.75	80.25	87.83	122.40	128.80	148.68
21-Paper	125.47	150.31	174.68	187.34	200.57	226.94
22-Publishing	79.43	108.07	102.21	117.69	137.88	147.35
23-Petroleum products	484.40	767.70	576.84	836.47	905.09	841.69
24-Chemicals	135.55	181.20	173.45	206.95	203.25	218.91
251-Rubber products	175.83	141.22	304.08	305.72	470.31	457.90
252-Plastics	210.00	229.36	198.86	226.77	274.64	317.62
26-Non-metallic mineral products	42.02	315.79	54.84	63.99	74.60	95.12
27-Basic metals	317.81	191.78	287.00	405.52	532.29	500.34
28-Fabricated metals	146.67	151.35	164.87	183.37	200.60	215.00
29-General machinery	130.96	111.26	150.01	148.63	157.46	177.41
30-Office & computing machinery	761.89	576.39	305.35	208.58	334.09	395.19
31-Electrical machinery	171.19	334.07	192.82	194.70	289.63	346.32
32-Radio, television & communication	123.32	210.80	211.68	172.61	169.39	147.65
33-Precision machinery	91.46	88.95	92.72	116.86	135.78	144.40
34-Motor vehicles	67.15	104.24	82.70	93.11	101.99	145.01
35-Other transport equipment	243.81	181.21	139.99	134.26	148.23	217.32
361-Furniture	46.72	60.01	112.06	74.23	114.81	99.72
36 less 361-Miscellaneous manufact.	68.12	68.49	60.73	90.44	106.14	95.45
37-Recycling	126.76	97.80	97.83	104.54	153.69	146.30

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)



Appendix Table 3t: Mean Sales per Worker of MNCs by Industry  
(million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	387.91	367.52	372.73	410.23	429.82	426.61
15-37: Manufacturing, 27-industry mean	504.46	477.15	465.55	524.98	566.85	654.94
151 to 154-Food products	454.97	422.95	504.43	588.23	656.95	645.56
155-Beverages	447.83	559.18	654.86	691.94	800.08	723.06
16-Tobacco	228.14	110.89	129.75	118.24	215.55	2,249
17-Textiles	164.87	176.95	181.93	185.23	196.20	185.36
18-Apparel	98.18	74.84	62.00	153.99	101.71	77.11
191-Leather	70.66	51.96	56.11	89.15	141.80	158.62
192-Footwear	185.26	67.25	61.32	76.53	224.65	99.89
20-Wood products	107.76	156.89	223.18	129.94	187.33	229.42
21-Paper	238.36	216.07	246.64	268.39	291.33	351.81
22-Publishing	183.09	147.03	151.04	135.67	150.94	198.46
23-Petroleum products	1,862	2,029	1,986	2,406	2,740	3,251
24-Chemicals	756.20	758.93	779.91	975.72	1,014	1,085
251-Rubber products	206.50	205.05	182.53	217.25	255.83	310.92
252-Plastics	314.44	329.89	320.72	351.48	445.60	437.15
26-Non-metallic mineral products	382.42	384.25	404.09	402.51	398.93	394.08
27-Basic metals	1,884	1,254	1,486	1,601	1,624	1,548
28-Fabricated metals	377.07	348.71	365.02	364.72	448.91	496.57
29-General machinery	348.72	370.18	365.28	382.77	414.79	401.68
30-Office & computing machinery	1,549	1,421	520.08	855.48	760.61	711.31
31-Electrical machinery	505.00	603.38	490.27	543.15	704.70	781.45
32-Radio, television & communication	778.10	920.66	931.88	919.79	819.10	707.07
33-Precision machinery	301.27	285.06	326.35	332.70	391.55	253.85
34-Motor vehicles	763.02	801.46	975.09	1,055	873.13	751.90
35-Other transport equipment	611.03	464.74	300.39	463.28	577.60	433.17
361-Furniture	116.12	108.45	285.45	215.58	120.67	136.94
36 less 361-Miscellaneous manufact.	182.33	136.99	113.40	125.82	149.14	150.88
37-Recycling	-	-	-	-	600.00	913.86

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3u: Mean Sales per Worker of Medium-Large Firms  
by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	169.58	217.68	190.34	203.74	230.06	254.15
15-37: Manufacturing, 27-industry mean	267.24	287.66	294.37	299.14	341.18	362.98
151 to 154-Food products	276.53	296.20	294.07	314.04	363.03	400.06
155-Beverages	161.31	219.98	194.79	214.23	232.14	250.25
16-Tobacco	405.30	484.53	757.84	887.53	824.93	1,129
17-Textiles	98.49	116.70	114.69	128.43	139.54	152.02
18-Apparel	42.61	41.36	44.86	46.36	52.34	54.21
191-Leather	43.07	49.92	49.36	65.09	86.35	106.30
192-Footwear	42.26	44.12	57.58	50.28	106.35	60.78
20-Wood products	60.90	67.57	80.93	76.90	90.20	112.88
21-Paper	136.66	153.07	182.91	171.63	211.30	240.88
22-Publishing	144.43	146.76	159.58	176.84	182.43	207.65
23-Petroleum products	800.68	1,111	1,413	1,238	1,349	1,640
24-Chemicals	343.56	372.48	394.84	486.96	496.83	564.18
251-Rubber products	147.54	164.74	191.05	241.02	327.54	397.14
252-Plastics	224.43	224.86	226.81	251.19	335.83	346.91
26-Non-metallic mineral products	89.55	416.76	100.84	112.84	118.65	129.66
27-Basic metals	450.19	393.12	507.65	570.86	646.06	678.39
28-Fabricated metals	175.22	189.01	217.92	232.02	252.25	274.69
29-General machinery	149.90	148.66	182.89	196.69	209.26	223.20
30-Office & computing machinery	1,549	1,135	786.88	520.38	810.28	488.97
31-Electrical machinery	302.31	367.01	340.57	364.39	472.85	537.98
32-Radio, television & communication	435.64	572.68	608.64	607.84	540.94	508.11
33-Precision machinery	167.08	165.68	198.84	202.48	251.63	196.95
34-Motor vehicles	260.13	282.70	354.08	418.39	432.13	409.98
35-Other transport equipment	262.33	294.45	172.99	204.93	272.36	315.76
361-Furniture	52.89	62.72	112.33	80.95	94.63	110.26
36 less 361-Miscellaneous manufact.	122.05	100.69	88.31	109.90	131.12	132.04
37-Recycling	271.22	145.33	113.82	106.84	181.99	132.44

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3v: Mean Sales per Worker of Medium-Large SOEs  
by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	123.99	152.77	169.45	188.47	237.23	302.70
15-37: Manufacturing, 27-industry mean	122.93	149.18	173.12	208.51	282.23	320.17
151 to 154-Food products	180.06	216.46	256.55	248.01	301.67	340.43
155-Beverages	103.63	212.63	145.68	179.28	226.91	372.95
16-Tobacco	445.90	504.45	806.95	980.87	1,005	1,071
17-Textiles	84.38	88.60	83.41	94.15	135.96	179.98
18-Apparel	33.48	38.06	41.69	47.23	53.91	62.38
191-Leather	32.70	17.66	50.31	38.64	43.76	78.39
192-Footwear	34.30	34.82	32.48	36.99	39.21	48.51
20-Wood products	78.56	95.93	97.20	95.29	120.36	202.28
21-Paper	145.69	135.00	139.51	192.09	212.26	212.64
22-Publishing	150.78	163.39	183.22	211.78	225.63	278.87
23-Petroleum products	-	-	-	-	739.69	-
24-Chemicals	216.62	239.31	294.90	301.68	408.65	550.41
251-Rubber products	81.93	110.43	85.50	117.69	143.58	228.84
252-Plastics	161.15	189.89	208.25	258.98	387.90	446.74
26-Non-metallic mineral products	89.41	114.75	129.46	153.56	185.98	227.49
27-Basic metals	125.04	166.68	207.38	222.11	380.23	415.76
28-Fabricated metals	74.67	106.86	113.26	135.37	158.66	272.32
29-General machinery	94.94	114.42	115.36	129.34	156.38	164.28
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	148.27	202.69	224.05	276.67	662.68	417.33
32-Radio, television & communication	249.05	259.55	323.90	447.05	361.74	599.62
33-Precision machinery	68.54	74.63	73.30	74.76	105.10	167.03
34-Motor vehicles	87.15	113.59	148.61	216.01	254.61	264.25
35-Other transport equipment	167.26	218.88	196.59	184.73	284.23	477.77
361-Furniture	55.56	111.10	132.14	116.60	196.36	185.68
36 less 361-Miscellaneous manufact.	41.15	50.44	65.22	245.37	265.53	419.55
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3w: Mean Sales per Worker of Medium-Large Private Firms by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	125.90	196.55	144.06	156.10	177.57	200.99
15-37: Manufacturing, 27-industry mean	139.38	219.24	214.60	198.56	237.10	260.05
151 to 154-Food products	273.51	289.80	269.98	283.34	330.30	367.86
155-Beverages	104.71	128.74	103.08	122.13	123.35	101.61
16-Tobacco	69.30	482.94	501.86	615.00	475.72	641.88
17-Textiles	79.09	102.91	99.20	114.82	120.31	135.14
18-Apparel	28.48	32.11	40.00	38.42	46.24	45.77
191-Leather	28.64	49.12	43.72	52.87	48.09	74.53
192-Footwear	33.62	37.63	63.02	39.66	44.14	40.26
20-Wood products	50.13	54.52	62.49	68.97	77.44	97.00
21-Paper	124.46	148.08	180.14	157.59	199.45	228.58
22-Publishing	99.32	96.38	110.76	135.00	150.28	158.22
23-Petroleum products	535.36	848.08	675.55	848.27	986.89	1,180
24-Chemicals	148.69	197.95	209.35	253.74	228.36	273.13
251-Rubber products	143.13	156.72	217.31	276.47	400.68	459.33
252-Plastics	207.14	204.95	204.92	221.37	295.79	317.98
26-Non-metallic mineral products	55.31	527.40	60.67	72.68	79.66	93.17
27-Basic metals	254.65	186.51	342.82	443.36	512.82	579.55
28-Fabricated metals	131.66	156.27	191.86	207.90	217.42	218.02
29-General machinery	115.02	129.13	163.04	168.83	164.80	175.01
30-Office & computing machinery	-	849.08	1,177	101.51	508.75	391.10
31-Electrical machinery	204.89	236.54	222.92	235.44	289.86	372.41
32-Radio, television & communication	155.98	247.29	273.94	232.34	268.65	205.54
33-Precision machinery	104.49	117.93	117.36	127.03	134.95	158.79
34-Motor vehicles	96.63	128.26	115.92	117.91	134.78	162.70
35-Other transport equipment	191.87	257.18	100.41	159.59	178.37	202.97
361-Furniture	45.05	54.00	71.35	73.72	85.20	101.59
36 less 361-Miscellaneous manufact.	71.57	54.58	62.11	86.38	117.38	107.01
37-Recycling	271.22	145.33	113.82	106.84	181.99	132.44

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 3x: Mean Sales per Worker of Medium-Large MNCs  
by Industry (million dong)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	392.90	372.51	375.93	384.10	420.12	433.02
15-37: Manufacturing, 27-industry mean	512.82	484.58	512.42	527.48	582.85	667.87
151 to 154-Food products	472.44	457.19	477.38	547.90	628.41	664.92
155-Beverages	475.84	589.88	690.54	800.12	856.95	823.86
16-Tobacco	228.14	110.89	129.75	118.24	215.55	2,249
17-Textiles	170.81	181.98	186.44	182.14	196.36	186.29
18-Apparel	98.18	72.41	57.92	63.67	66.41	74.93
191-Leather	70.66	53.70	56.11	89.15	140.07	160.44
192-Footwear	70.44	67.25	61.93	76.53	226.00	97.80
20-Wood products	109.50	146.14	226.48	128.63	184.61	213.41
21-Paper	245.45	219.69	246.24	272.49	308.49	364.34
22-Publishing	145.28	162.08	150.20	140.80	115.09	198.37
23-Petroleum products	1,862	2,029	2,642	2,406	2,740	3,251
24-Chemicals	822.42	804.34	861.00	1,068	1,146	1,255
251-Rubber products	205.44	208.44	186.28	217.25	262.36	316.10
252-Plastics	307.20	301.08	310.63	349.92	457.48	422.49
26-Non-metallic mineral products	370.33	378.93	392.84	384.55	386.81	403.50
27-Basic metals	1,948	1,342	1,641	1,667	1,691	1,757
28-Fabricated metals	389.78	363.00	379.76	378.71	434.99	505.45
29-General machinery	392.55	312.89	388.41	407.10	441.88	469.23
30-Office & computing machinery	1,549	1,421	656.99	855.48	1,011	572.86
31-Electrical machinery	511.27	612.21	557.15	573.31	704.63	851.38
32-Radio, television & communication	825.32	969.15	974.13	970.80	861.46	731.91
33-Precision machinery	304.76	231.89	312.03	304.85	387.06	241.70
34-Motor vehicles	782.60	848.95	1,035	1,150	966.06	820.44
35-Other transport equipment	660.72	479.46	302.67	321.13	457.71	442.72
361-Furniture	116.12	93.85	285.45	110.23	122.19	138.22
36 less 361-Miscellaneous manufact.	199.03	141.38	114.72	130.37	144.81	151.72
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4a: Mean Female Shares of Employment of All Firms by Industry (percent)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	34.61	35.29	35.61	36.18	36.69	36.72
15-37: Manufacturing, 27-industry mean	38.24	36.73	36.80	36.74	36.81	37.69
151 to 154-Food products	27.40	30.41	32.32	33.71	34.46	32.53
155-Beverages	20.28	20.64	21.60	23.17	23.59	31.91
16-Tobacco	52.18	48.43	50.57	48.66	47.20	48.89
17-Textiles	64.88	63.07	61.15	61.04	60.73	60.30
18-Apparel	76.93	77.48	76.58	75.74	74.43	74.18
191-Leather	72.35	68.13	66.14	66.54	67.07	64.84
192-Footwear	68.82	69.51	68.70	68.05	67.16	67.71
20-Wood products	29.93	31.28	30.71	32.60	33.58	33.74
21-Paper	34.53	33.29	34.05	34.11	34.60	35.88
22-Publishing	41.68	39.97	39.77	39.58	40.69	40.40
23-Petroleum products	21.06	20.25	20.67	19.83	14.71	15.97
24-Chemicals	38.43	36.21	35.01	33.64	35.20	35.35
251-Rubber products	31.49	27.85	29.47	31.73	31.85	31.68
252-Plastics	36.15	37.60	36.79	37.67	37.70	37.55
26-Non-metallic mineral products	40.05	37.12	36.28	36.15	34.28	33.95
27-Basic metals	15.07	14.55	15.17	15.47	17.78	17.43
28-Fabricated metals	21.05	20.76	20.69	20.19	21.15	21.54
29-General machinery	20.27	20.57	19.68	21.20	21.30	21.12
30-Office & computing machinery	49.09	35.65	45.97	39.90	35.12	43.96
31-Electrical machinery	32.03	33.73	31.86	31.70	32.53	32.76
32-Radio, television & communication	42.30	42.91	42.28	40.49	39.61	40.55
33-Precision machinery	36.82	40.17	41.62	37.57	39.18	41.16
34-Motor vehicles	16.39	18.13	18.35	19.28	21.60	23.32
35-Other transport equipment	19.69	19.81	19.11	21.86	22.63	22.41
361-Furniture	28.44	31.18	30.69	30.07	31.75	31.79
36 less 361-Miscellaneous manufact.	49.13	53.69	51.16	48.92	49.73	51.28
37-Recycling	46.07	19.21	17.22	23.11	24.18	25.44

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4b: Mean Female Shares of Employment of SOEs by Industry  
(percent)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	42.88	42.35	42.49	43.02	41.64	40.80
15-37: Manufacturing, 27-industry mean	41.72	41.88	41.60	41.37	39.94	39.95
151 to 154-Food products	51.22	51.85	51.82	53.37	51.96	50.43
155-Beverages	38.31	36.60	36.13	39.77	40.84	39.60
16-Tobacco	56.64	52.93	52.68	52.80	48.05	48.48
17-Textiles	67.68	66.21	67.06	66.73	62.99	62.87
18-Apparel	79.96	80.81	81.24	80.50	81.56	80.93
191-Leather	65.46	74.22	64.65	68.11	70.35	64.82
192-Footwear	74.25	75.35	76.81	76.40	75.60	75.73
20-Wood products	31.24	30.19	31.85	32.88	32.14	32.25
21-Paper	38.27	36.87	35.39	36.21	36.45	34.73
22-Publishing	42.44	42.44	43.22	43.68	43.57	43.79
23-Petroleum products	-	-	-	-	23.77	-
24-Chemicals	43.43	42.95	40.77	41.57	36.64	35.73
251-Rubber products	37.20	38.37	40.66	37.84	38.07	36.54
252-Plastics	42.70	43.62	41.27	39.89	36.75	38.10
26-Non-metallic mineral products	36.85	34.36	33.77	33.38	32.22	30.68
27-Basic metals	23.67	22.61	21.32	20.61	18.41	19.75
28-Fabricated metals	24.64	21.89	22.51	22.72	21.09	20.82
29-General machinery	23.86	25.76	25.38	24.54	22.67	22.86
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	32.04	32.85	31.98	31.01	30.05	30.73
32-Radio, television & communication	36.84	35.79	38.48	35.73	37.93	37.78
33-Precision machinery	30.35	30.72	34.10	34.31	36.59	37.64
34-Motor vehicles	19.29	20.99	19.71	17.76	19.06	18.73
35-Other transport equipment	21.25	20.24	19.16	20.70	18.87	18.72
361-Furniture	30.56	32.59	36.37	33.47	36.29	37.48
36 less 361-Miscellaneous manufact.	53.04	54.98	52.09	48.82	46.59	39.65
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4c: Mean Female Shares of Employment of Private Firms by Industry  
(percent)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	31.46	32.49	32.93	33.52	34.30	34.60
15-37: Manufacturing, 27-industry mean	34.53	32.67	33.33	33.18	33.84	35.08
151 to 154-Food products	24.51	27.92	30.15	31.60	32.55	30.80
155-Beverages	17.42	18.45	19.93	21.72	22.23	31.39
16-Tobacco	34.09	30.83	34.53	34.70	42.37	47.89
17-Textiles	64.06	61.69	60.24	60.18	60.03	59.27
18-Apparel	74.81	75.71	74.09	73.26	72.12	72.01
191-Leather	71.71	63.79	61.01	61.55	62.29	61.56
192-Footwear	66.20	64.71	63.90	62.14	62.29	64.61
20-Wood products	29.26	30.96	30.19	32.11	33.22	33.36
21-Paper	33.31	32.13	33.02	33.34	33.97	35.24
22-Publishing	40.05	37.44	37.80	38.12	39.81	39.60
23-Petroleum products	20.39	19.38	19.93	16.60	12.28	15.00
24-Chemicals	38.64	35.65	34.62	33.49	35.55	35.56
251-Rubber products	24.47	21.17	24.04	27.03	26.42	25.49
252-Plastics	35.32	36.63	35.92	36.39	36.18	36.06
26-Non-metallic mineral products	41.66	38.41	37.33	37.14	35.01	34.68
27-Basic metals	12.95	12.38	14.22	14.83	17.30	16.80
28-Fabricated metals	19.79	19.93	19.45	18.89	20.03	20.51
29-General machinery	15.86	17.24	16.76	19.08	19.38	19.32
30-Office & computing machinery	31.58	22.59	42.31	36.06	29.06	40.36
31-Electrical machinery	26.26	27.19	23.57	22.41	24.84	24.68
32-Radio, television & communication	34.76	32.86	31.93	32.25	33.54	32.95
33-Precision machinery	31.04	30.61	33.15	25.75	28.84	32.23
34-Motor vehicles	12.33	15.36	16.06	15.77	17.89	18.80
35-Other transport equipment	15.25	14.41	14.23	16.98	18.93	18.55
361-Furniture	27.16	29.58	29.06	28.27	29.94	29.92
36 less 361-Miscellaneous manufact.	43.31	45.91	45.31	43.01	43.87	45.67
37-Recycling	46.07	19.21	17.22	23.11	23.81	24.90

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)



Appendix Table 4d: Mean Female Shares of Employment of MNCs by Industry  
(percent)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	45.18	46.77	48.17	49.14	50.01	49.84
15-37: Manufacturing, 27-industry mean	44.27	45.68	45.93	46.85	45.61	46.38
151 to 154-Food products	42.22	44.50	43.01	43.49	45.58	46.88
155-Beverages	31.64	29.54	32.16	32.42	37.08	35.22
16-Tobacco	50.37	68.47	76.72	75.99	52	53
17-Textiles	64.76	65.44	61.09	61.46	62.77	63.48
18-Apparel	81.36	80.95	81.70	80.89	79.50	80.86
191-Leather	75.75	74.77	75.64	76.40	75.15	72.64
192-Footwear	69.82	77.31	74.75	76.47	73.26	71.78
20-Wood products	37.86	38.09	38.61	39.95	39.77	40.13
21-Paper	44.56	43.83	45.03	41.83	40.94	44.61
22-Publishing	44.43	44.94	45.15	45.26	46.28	46.07
23-Petroleum products	24	24	22.15	33	20	20.79
24-Chemicals	32.21	31.90	32.10	29.88	33.30	34.39
251-Rubber products	47.36	43.01	44.78	46.72	47.68	50.71
252-Plastics	37.45	40.16	40.30	43.66	45.90	44.75
26-Non-metallic mineral products	28.54	26.80	28.04	29.20	27.90	27.29
27-Basic metals	14.08	17.16	16.31	16.56	21.82	23.44
28-Fabricated metals	23.37	24.82	28.99	29.74	31.07	30.76
29-General machinery	30.28	27.00	28.17	29.43	31.30	32.05
30-Office & computing machinery	57.84	55.24	52.37	47.58	45.74	49
31-Electrical machinery	43.19	47.72	48.39	52.41	52.59	54.34
32-Radio, television & communication	55.04	55.80	55.84	54.96	51.43	54.72
33-Precision machinery	49.20	53.99	54.60	55.01	55.28	57.61
34-Motor vehicles	27.60	28.19	27.42	32.81	33.06	39.05
35-Other transport equipment	33.91	35.36	37.25	38.92	37.92	38.07
361-Furniture	44.20	44.41	42.81	43.95	45.33	44.88
36 less 361-Miscellaneous manufact.	59.95	64.07	60.73	60.44	62.15	61.35
37-Recycling	-	-	-	-	36.36	35

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4e: Mean Female Shares of Employment of Medium-Large Firms by Industry (percent)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	42.75	42.23	42.52	42.69	42.83	42.56
15-37: Manufacturing, 27-industry mean	41.21	39.55	39.87	39.65	39.78	40.81
151 to 154-Food products	42.96	46.17	46.77	46.95	45.71	45.12
155-Beverages	35.50	33.54	32.13	33.19	33.41	36.96
16-Tobacco	56.64	51.23	52.38	51.84	47.83	48.89
17-Textiles	68.32	66.38	66.03	65.31	64.93	65.22
18-Apparel	79.16	79.51	78.98	78.43	77.57	77.64
191-Leather	73.58	72.30	71.37	71.12	72.50	69.57
192-Footwear	71.14	71.98	71.95	71.76	71.74	71.64
20-Wood products	40.40	38.95	38.62	40.39	42.53	41.88
21-Paper	33.09	31.87	33.70	33.30	33.52	34.99
22-Publishing	42.50	41.31	42.03	41.65	42.11	43.36
23-Petroleum products	20.94	20.86	22.16	23.39	15.97	19.21
24-Chemicals	39.72	38.38	37.55	35.13	35.69	36.24
251-Rubber products	36.25	30.42	34.07	34.28	36.34	35.89
252-Plastics	37.90	39.09	38.80	39.99	39.65	39.84
26-Non-metallic mineral products	39.24	35.29	35.79	36.45	34.95	34.14
27-Basic metals	14.80	14.08	14.20	14.03	15.31	14.89
28-Fabricated metals	21.75	21.23	20.93	20.46	21.07	21.64
29-General machinery	21.50	21.15	20.68	21.36	20.85	21.34
30-Office & computing machinery	57.84	39.56	45.12	38.51	37.03	47.46
31-Electrical machinery	33.27	34.78	32.95	34.76	34.70	35.27
32-Radio, television & communication	44.06	44.43	44.76	45.63	44.46	45.89
33-Precision machinery	37.77	43.17	46.26	40.90	45.65	44.50
34-Motor vehicles	18.70	20.07	20.80	21.19	22.08	25.71
35-Other transport equipment	20.36	21.01	20.06	23.22	23.27	23.96
361-Furniture	32.65	36.32	35.48	35.62	37.85	37.34
36 less 361-Miscellaneous manufact.	55.61	59.37	57.41	55.20	57.32	58.70
37-Recycling	36.92	15.46	15.56	16.49	19.89	24.50

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4f: Mean Female Shares of Employment of Medium-Large SOEs by Industry (percent)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	43.12	42.51	42.66	43.13	41.81	40.88
15-37: Manufacturing, 27-industry mean	41.87	41.95	41.70	41.39	40.06	40.08
151 to 154-Food products	51.98	52.13	52.07	53.55	51.92	50.54
155-Beverages	39.62	37.26	37.11	39.76	42.15	39.66
16-Tobacco	56.64	52.93	52.68	52.80	48.05	48.48
17-Textiles	67.52	66.28	67.69	67.26	62.99	65.09
18-Apparel	80.61	80.81	81.24	80.50	81.56	80.93
191-Leather	65.46	74.22	64.65	68.11	70.35	64.82
192-Footwear	75.63	75.35	76.81	76.40	75.60	75.73
20-Wood products	31.41	30.19	32.18	32.79	32.99	32.25
21-Paper	38.27	36.87	35.39	35.96	36.45	34.73
22-Publishing	42.25	42.47	43.00	43.61	43.66	43.59
23-Petroleum products	-	-	-	-	23.77	-
24-Chemicals	43.11	43.20	41.26	41.57	36.64	35.94
251-Rubber products	37.20	38.37	40.66	37.84	38.07	37.94
252-Plastics	42.70	43.62	41.27	39.89	36.75	38.10
26-Non-metallic mineral products	36.82	34.39	33.76	33.50	32.22	30.68
27-Basic metals	23.67	22.61	21.32	20.61	18.41	19.75
28-Fabricated metals	24.70	21.89	22.51	22.72	21.60	20.94
29-General machinery	23.86	25.76	25.38	24.75	22.67	22.86
30-Office & computing machinery	-	-	-	-	-	-
31-Electrical machinery	31.82	32.65	31.75	31.01	30.05	30.73
32-Radio, television & communication	36.84	35.79	38.48	35.73	37.93	37.78
33-Precision machinery	30.35	30.72	34.10	34.31	36.59	37.64
34-Motor vehicles	19.68	20.69	20.02	18.07	19.40	18.25
35-Other transport equipment	21.25	20.17	19.00	20.47	18.87	18.36
361-Furniture	30.56	33.55	36.37	33.47	36.29	37.48
36 less 361-Miscellaneous manufact.	53.04	54.98	52.09	48.82	46.59	39.65
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4g: Mean Female Shares of Employment of Medium-Large Private Firms by Industry (percent)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	41.64	40.61	40.61	40.44	40.71	40.52
15-37: Manufacturing, 27-industry mean	38.75	35.30	35.19	35.51	36.23	37.55
151 to 154-Food products	39.76	44.81	46.18	46.18	44.64	44.17
155-Beverages	32.53	31.60	29.22	30.53	29.80	36.66
16-Tobacco	69.13	34.74	22.73	38.38	42.16	47.89
17-Textiles	69.51	66.45	66.53	66.29	65.92	65.68
18-Apparel	77.91	78.23	77.10	76.56	75.70	75.93
191-Leather	73.82	69.03	68.77	68.10	70.24	67.00
192-Footwear	69.35	68.47	68.69	67.66	68.97	70.28
20-Wood products	42.62	40.54	39.41	41.02	43.29	42.52
21-Paper	31.11	30.02	32.25	31.93	32.43	34.04
22-Publishing	44.16	37.71	39.29	38.71	40.53	42.44
23-Petroleum products	20.17	19.92	21.73	20.28	13.37	18.75
24-Chemicals	41.47	38.72	38.95	35.30	36.28	37.11
251-Rubber products	28.75	22.60	28.07	27.73	29.45	27.04
252-Plastics	36.96	37.76	37.76	38.76	37.83	38.05
26-Non-metallic mineral products	41.88	36.61	37.28	38.11	36.25	35.27
27-Basic metals	11.90	11.17	12.64	12.85	14.46	14.19
28-Fabricated metals	19.66	19.82	18.56	18.20	18.71	19.47
29-General machinery	15.71	16.24	16.33	17.88	17.72	18.03
30-Office & computing machinery	-	23.89	25.58	27.17	26.09	36.36
31-Electrical machinery	26.57	25.36	22.09	22.80	24.24	24.41
32-Radio, television & communication	38.11	34.15	32.53	36.71	38.03	36.83
33-Precision machinery	30.09	31.26	35.46	23.82	29.51	30.41
34-Motor vehicles	12.54	16.72	17.61	16.30	16.15	18.00
35-Other transport equipment	14.37	14.39	13.28	16.86	17.80	19.19
361-Furniture	31.44	34.84	33.74	33.86	36.17	35.46
36 less 361-Miscellaneous manufact.	51.04	52.62	52.77	50.33	52.48	54.16
37-Recycling	36.92	15.46	15.56	16.49	19.89	24.50

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4h: Mean Female Shares of Employment of Medium-Large MNCs by Industry (percent)

VSIC code, Industry	2000	2001	2002	2003	2004	2005
15-37: Manufacturing, firm mean	46.01	47.79	49.24	50.38	51.28	51.01
15-37: Manufacturing, 27-industry mean	44.52	46.00	46.42	47.19	46.31	47.46
151 to 154-Food products	42.22	44.94	43.08	44.09	46.51	47.12
155-Beverages	30.57	29.19	31.19	33.27	37.82	35.14
16-Tobacco	50.37	68.47	76.72	75.99	52	53
17-Textiles	65.85	66.30	63.24	61.70	62.96	64.12
18-Apparel	81.36	82.31	82.30	81.85	80.99	81.51
191-Leather	75.75	76.64	75.64	76.40	75.61	74.22
192-Footwear	70.71	77.31	75.46	76.47	74.51	72.67
20-Wood products	38.38	37.57	38.69	40.38	40.79	40.05
21-Paper	44.49	43.75	45.17	42.74	40.91	43.70
22-Publishing	43.21	43.34	47.45	44.21	43.06	48.67
23-Petroleum products	24	24	23	33	20	20.79
24-Chemicals	32.42	32.93	31.46	30.54	33.86	34.35
251-Rubber products	47.80	43.80	44.58	46.72	48.90	51.41
252-Plastics	39.02	41.80	41.81	44.13	46.09	45.35
26-Non-metallic mineral products	28.38	26.47	27.56	28.26	26.97	26.39
27-Basic metals	13.03	16.23	15.38	15.68	18.98	17.89
28-Fabricated metals	23.73	25.49	28.91	28.99	30.89	30.66
29-General machinery	30.45	27.20	28.80	30.18	31.50	33.89
30-Office & computing machinery	57.84	55.24	51.64	47.58	44.31	56.97
31-Electrical machinery	42.55	48.01	49.00	52.73	52.87	54.80
32-Radio, television & communication	55.85	56.17	56.04	57.08	52.94	55.64
33-Precision machinery	51.80	55.90	59.70	56.98	61.34	60.32
34-Motor vehicles	28.02	28.06	28.58	32.99	32.39	39.31
35-Other transport equipment	33.62	35.03	36.57	39.43	38.10	37.63
361-Furniture	44.20	44.37	42.81	44.57	45.83	45.15
36 less 361-Miscellaneous manufact.	61.94	65.23	62.14	61.33	63.82	63.50
37-Recycling	-	-	-	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4i: Mean Shares of Science and Technology Workers in All Firms by Industry and Owner (percent)

VSIC code, Industry	All Firms			SOEs			Private Firms			MNCs		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
15-37: Manufacturing, firm mean	7.82	8.86	8.85	11.12	11.58	13.17	6.01	8.03	7.92	16.12	12.25	12.71
15-37: Manufacturing, 27-industry mean	12.33	12.53	11.53	11.14	11.13	14.17	12.79	12.69	10.56	18.85	14.73	15.67
151 to 154-Food products	3.66	5.11	5.78	8.67	8.88	10.58	2.44	4.12	4.71	19.06	16.06	16.26
155-Beverages	6.18	7.96	6.79	12.57	12.81	12.60	4.80	6.72	5.90	18.18	30.30	24.99
16-Tobacco	10.59	7.93	12.40	10.39	8.51	9.81	12.58	4.17	11.22	8.33	12.60	28.58
17-Textiles	5.46	6.97	7.69	6.26	7.86	9.28	5.00	6.89	7.63	6.30	6.69	7.30
18-Apparel	5.89	6.48	6.29	3.92	3.20	2.93	7.09	7.93	7.03	3.71	3.79	4.93
191-Leather	4.40	5.68	6.63	3.67	4.78	5.01	5.82	6.13	6.17	1.93	5.03	7.68
192-Footwear	4.37	4.29	5.26	4.64	2.81	2.01	5.07	5.30	6.38	2.35	2.89	4.34
20-Wood products	4.53	4.72	4.45	9.52	9.85	8.82	3.89	4.37	4.14	6.74	5.36	7.09
21-Paper	8.10	9.00	7.86	8.80	11.11	8.15	7.81	8.90	7.76	10.71	8.53	8.87
22-Publishing	20.40	21.98	18.59	20.69	23.54	26.64	17.49	20.84	16.68	55.04	30.18	20.27
23-Petroleum products	20.69	27.19	19.30	-	-	50.00	12.22	26.10	11.96	58.82	29.37	33.29
24-Chemicals	20.66	20.00	19.12	16.03	16.83	19.35	17.77	19.99	17.39	32.91	22.32	25.08
251-Rubber products	8.61	10.51	9.85	11.64	8.80	8.48	7.72	10.78	10.12	8.98	10.31	9.47
252-Plastics	12.64	11.28	10.42	12.71	12.54	14.14	12.48	11.57	10.11	13.32	9.41	11.49
26-Non-metallic mineral products	5.06	5.46	5.56	7.52	8.18	9.70	3.52	4.11	4.19	18.53	17.41	17.01
27-Basic metals	8.00	8.47	9.11	9.59	10.71	13.06	4.95	7.06	7.64	23.97	15.93	20.43
28-Fabricated metals	11.74	11.19	9.97	11.67	10.65	15.36	10.07	10.70	9.21	19.74	15.20	14.68
29-General machinery	18.20	16.93	16.10	11.66	11.54	10.92	19.74	17.98	16.11	26.84	19.26	20.37
30-Office & computing machinery	42.14	39.53	33.73	-	-	-	78.95	47.43	33.76	23.73	25.70	33.69
31-Electrical machinery	17.71	18.63	17.80	16.44	21.97	20.71	17.30	18.52	17.83	19.21	17.64	16.90
32-Radio, television & communication	23.99	23.73	20.76	25.63	21.65	25.01	23.62	26.91	17.71	22.71	21.09	24.88
33-Precision machinery	23.62	19.42	18.32	12.66	8.11	24.17	26.31	20.84	14.49	25.83	21.09	22.71
34-Motor vehicles	11.29	10.08	11.71	12.71	10.38	12.90	6.48	8.78	9.79	27.52	15.55	16.75
35-Other transport equipment	10.20	8.70	10.75	12.42	9.98	12.82	7.54	8.57	10.22	16.05	7.50	11.01
361-Furniture	6.42	6.43	6.05	8.86	12.53	8.16	6.29	6.51	6.16	6.41	4.51	4.81
36 less 361-Miscellaneous manufact.	12.89	10.57	9.66	8.74	9.99	13.75	12.94	11.33	9.38	13.30	9.35	10.14
37-Recycling	5.56	10.01	1.28	-	-	-	5.56	10.01	1.32	-	-	0.00

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 4j: Mean Shares of Science and Technology Workers in Medium-Large Firms by Industry and Owner (percent)

VSIC code, Industry	All Firms			SOEs			Private Firms			MNCs		
	2000	2002	2004	2000	2002	2004	2000	2002	2004	2000	2002	2004
15-37: Manufacturing, firm mean	8.75	8.35	8.19	10.99	11.36	12.95	5.95	6.93	6.73	14.82	10.66	10.79
15-37: Manufacturing, 27-industry mean	10.88	11.21	10.86	10.95	11.00	14.15	8.09	12.47	9.98	18.05	13.10	13.92
151 to 154-Food products	6.78	6.76	6.90	8.80	8.88	10.64	3.85	5.08	5.03	17.75	13.28	15.11
155-Beverages	12.70	14.40	13.17	13.08	13.12	12.89	10.23	11.47	11.07	17.72	29.50	25.53
16-Tobacco	9.94	8.29	12.32	10.39	8.51	9.81	5.37	0.00	9.48	8.33	12.60	28.58
17-Textiles	4.99	4.79	6.38	6.43	6.97	9.28	4.28	4.37	5.81	5.31	4.54	6.73
18-Apparel	4.30	3.86	4.36	3.88	3.20	2.93	4.64	4.32	4.67	3.71	3.12	3.99
191-Leather	2.46	3.86	5.38	3.67	4.78	5.01	2.54	2.78	3.51	1.93	5.03	7.76
192-Footwear	3.84	3.56	3.49	3.43	2.81	2.01	4.64	4.44	3.99	2.40	2.28	3.27
20-Wood products	4.71	4.26	3.82	9.68	10.02	8.81	3.36	3.43	3.25	6.64	5.25	6.18
21-Paper	7.27	8.00	6.89	8.80	11.11	8.15	6.76	7.62	6.53	9.83	8.62	9.21
22-Publishing	19.58	20.53	19.85	19.87	22.59	25.31	11.18	15.44	15.68	56.00	26.25	12.26
23-Petroleum products	19.43	30.49	22.35	-	-	50.00	9.58	29.28	14.10	58.82	32.49	33.29
24-Chemicals	18.95	17.60	17.56	16.26	17.03	19.35	13.03	15.86	14.82	31.96	21.63	22.70
251-Rubber products	7.64	8.13	8.06	11.64	8.80	8.48	5.59	7.97	8.44	7.91	8.15	7.15
252-Plastics	9.62	8.71	8.89	12.71	12.54	14.14	8.37	8.63	8.27	12.48	7.89	10.01
26-Non-metallic mineral products	5.59	5.48	5.33	7.55	8.06	9.70	3.16	3.65	3.58	16.71	15.35	14.55
27-Basic metals	7.16	8.05	8.32	9.59	10.71	13.06	3.36	6.31	6.41	20.97	14.44	18.08
28-Fabricated metals	11.66	10.40	10.11	11.24	10.65	15.12	9.07	9.28	8.70	18.47	14.44	14.19
29-General machinery	15.93	15.12	13.92	11.66	11.54	10.92	16.96	16.16	13.77	24.86	17.80	17.60
30-Office & computing machinery	23.73	29.61	30.74	-	-	-	-	88.37	44.47	23.73	10.03	21.59
31-Electrical machinery	14.58	15.58	16.17	13.09	19.76	20.71	11.52	14.26	15.71	19.27	15.73	15.47
32-Radio, television & communication	23.48	22.82	19.09	25.63	21.65	25.01	22.55	25.06	16.32	21.80	21.92	19.30
33-Precision machinery	22.53	15.82	16.74	12.66	8.11	24.17	27.02	17.79	15.41	23.08	16.84	15.79
34-Motor vehicles	12.94	10.71	10.64	12.67	10.77	13.43	4.48	9.40	9.09	27.94	13.63	12.00
35-Other transport equipment	10.52	8.30	10.07	12.42	9.97	12.82	7.29	7.66	9.14	14.45	7.49	9.80
361-Furniture	4.99	5.66	4.60	8.86	12.53	8.16	4.50	5.59	4.45	6.41	4.51	4.74
36 less 361-Miscellaneous manufact.	8.56	8.55	6.77	8.74	9.99	13.75	6.87	9.16	6.47	10.76	7.90	6.96
37-Recycling	0.00	3.36	1.39	-	-	-	0.00	3.36	1.39	-	-	-

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 5a: Results of Estimating Equations (1) and (2) in Cross Sections

Independent variable, statistic	2000				2002				2004			
	Equation (1)		Equation (2)		Equation (1)		Equation (2)		Equation (1)		Equation (2)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
d1516	-0.0710	0.33	-0.1073	0.15	0.0165	0.77	0.0041	0.94	-0.1003	0.02	-0.1102	0.01
d1719	-0.1027	0.15	-0.1209	0.10	0.0117	0.84	0.0020	0.97	-0.0226	0.58	-0.0220	0.59
d2021	-0.0761	0.29	-0.0903	0.22	-0.0113	0.84	-0.0223	0.69	-0.0695	0.09	-0.0777	0.06
d2425	0.1867	0.01	0.1648	0.03	0.2784	0.00	0.2695	0.00	0.1318	0.00	0.1304	0.00
d2628	0.0126	0.86	-0.0122	0.87	0.0971	0.09	0.0840	0.14	0.0020	0.96	-0.0045	0.91
d2933	0.0608	0.42	0.0652	0.39	0.2190	0.00	0.2154	0.00	0.0400	0.37	0.0478	0.28
d3435	-0.0477	0.54	-0.0353	0.66	0.0425	0.49	0.0519	0.40	-0.0591	0.24	-0.0459	0.36
$\ln(KE_{ij})$	0.1056	0.00	0.1068	0.00	0.0764	0.00	0.0767	0.00	0.0690	0.00	0.0693	0.00
$\ln(E_{ij})$	0.2005	0.00	0.2007	0.00	0.1458	0.00	0.1463	0.00	0.1218	0.00	0.1219	0.00
$ES_{ij}$	0.0124	0.00	0.0124	0.00	0.0115	0.00	0.0115	0.00	0.0130	0.00	0.0130	0.00
$EF_{ij}$	-0.0045	0.00	-0.0045	0.00	-0.0045	0.00	-0.0046	0.00	-0.0042	0.00	-0.0043	0.00
$DS_{ij}$	-0.0985	0.00	-0.0953	0.00	0.0228	0.29	0.0234	0.28	0.0573	0.01	0.0587	0.01
$DM_{ij}$	0.4972	0.00	0.4943	0.00	0.4367	0.00	0.4367	0.00	0.3773	0.00	0.3765	0.00
$C4_j, HF_j$	0.0029	0.00	0.0048	0.37	0.0008	0.28	0.0004	0.92	0.0024	0.00	0.0086	0.01
Constant	0.6859	0.00	0.7616	0.00	1.1556	0.00	1.1809	0.00	1.5122	0.00	1.5434	0.00
Observ.	5,620	-	5,620	-	7,841	-	7,841	-	10,563	-	10,563	-
R <sup>2</sup>	0.351	-	0.350	-	0.302	-	0.302	-	0.248	-	0.248	-
F	214.72	0.00	213.69	0.00	227.32	0.00	227.92	0.00	196.91	0.00	195.78	0.00



Appendix Table 5b: Results of Estimating Equations (3) and (4) in Cross Sections

Independent variable, item	2000				2002				2004			
	Equation (3)		Equation (4)		Equation (3)		Equation (4)		Equation (3)		Equation (4)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
Food, beverages, and tobacco (VSIC 151-154, 155, 16)												
$\ln(KE_{ij})$	0.1272	0.00	0.1277	0.00	0.0813	0.00	0.0812	0.00	0.0789	0.00	0.0787	0.00
$\ln(E_{ij})$	0.2060	0.00	0.2051	0.00	0.1869	0.00	0.1868	0.00	0.1708	0.00	0.1712	0.00
$ES_{ij}$	0.0065	0.00	0.0065	0.00	0.0089	0.00	0.0089	0.00	0.0114	0.00	0.0114	0.00
$EF_{ij}$	-0.0043	0.00	-0.0043	0.00	-0.0038	0.00	-0.0038	0.00	-0.0034	0.00	-0.0034	0.00
$DS_{ij}$	-0.0898	0.06	-0.0864	0.07	-0.0949	0.02	-0.0939	0.03	-0.1275	0.00	-0.1295	0.00
$DM_{ij}$	0.5606	0.00	0.5620	0.00	0.6322	0.00	0.6333	0.00	0.5276	0.00	0.5277	0.00
$C4_j, HF_j$	0.0084	0.00	0.0385	0.00	0.0038	0.00	0.0176	0.00	-0.0002	0.82	-0.0002	0.96
Constant	0.4550	0.00	0.5307	0.00	0.8932	0.00	0.9257	0.00	1.1398	0.00	1.1352	0.00
F	126.95	0.00	126.98	0.00	131.36	0.00	131.54	0.00	104.91	0.00	105.09	0.00
Observ.	1,501	-	1,501	-	1,759	-	1,759	-	2,083	-	2,083	-
R <sup>2</sup>	0.342	-	0.343	-	0.333	-	0.333	-	0.277	-	0.277	-
Textiles, apparel, leather, and footwear (VSIC 17, 18, 19)												
$\ln(KE_{ij})$	0.0454	0.00	0.0452	0.00	0.0414	0.00	0.0416	0.00	0.0507	0.00	0.0509	0.00
$\ln(E_{ij})$	0.1535	0.00	0.1499	0.00	0.1411	0.00	0.1379	0.00	0.1306	0.00	0.1273	0.00
$ES_{ij}$	0.0166	0.00	0.0166	0.00	0.0164	0.00	0.0164	0.00	0.0156	0.00	0.0156	0.00
$EF_{ij}$	-0.0038	0.00	-0.0036	0.00	-0.0036	0.00	-0.0035	0.00	-0.0038	0.00	-0.0037	0.00
$DS_{ij}$	-0.2552	0.00	-0.2548	0.00	-0.2348	0.00	-0.2338	0.00	-0.2143	0.00	-0.2136	0.00
$DM_{ij}$	0.2744	0.00	0.2762	0.00	0.2641	0.00	0.2650	0.00	0.2770	0.00	0.2781	0.00
$C4_j, HF_j$	-0.0086	0.00	-0.0363	0.00	-0.0067	0.00	-0.0282	0.00	-0.0071	0.00	-0.0294	0.00
Constant	1.4870	0.00	1.3821	0.00	1.5226	0.00	1.4439	0.00	1.5961	0.00	1.5114	0.00
F	79.77	0.00	78.55	0.00	76.65	0.00	75.69	0.00	86.42	0.00	85.28	0.00
Observ.	3,651	-	3,651	-	3,762	-	3,762	-	3,894	-	3,894	-
R <sup>2</sup>	0.142	-	0.139	-	0.132	-	0.130	-	0.140	-	0.138	-

Appendix Table 5b (continued)

Independent variable, statistic	2000				2002				2004			
	Equation (3)		Equation (4)		Equation (3)		Equation (4)		Equation (3)		Equation (4)	
	Value	P- val.	Value	P- val.	Value	P- val.	Value	P- val.	Value	P- val.	Value	P- val.
Wood, paper, furniture (VSIC 20, 21, 361)												
$\ln(KE_{ij})$	0.1090	0.00	0.1075	0.00	0.0931	0.00	0.0908	0.00	0.0880	0.00	0.0847	0.00
$\ln(E_{ij})$	0.1691	0.00	0.1718	0.00	0.1586	0.00	0.1597	0.00	0.1470	0.00	0.1485	0.00
$ES_{ij}$	0.0128	0.00	0.0127	0.00	0.0128	0.00	0.0128	0.00	0.0129	0.00	0.0127	0.00
$EF_{ij}$	-0.0043	0.00	-0.0043	0.00	-0.0050	0.00	-0.0051	0.00	-0.0048	0.00	-0.0048	0.00
$DS_{ij}$	-0.1947	0.00	-0.2061	0.00	-0.1330	0.01	-0.1327	0.01	-0.0924	0.09	-0.0968	0.08
$DM_{ij}$	0.2015	0.00	0.2060	0.00	0.2879	0.00	0.2924	0.00	0.2872	0.00	0.2932	0.00
$CA_j, HF_j$	-0.0069	0.00	-0.0219	0.00	-0.0033	0.00	-0.0189	0.00	-0.0064	0.00	-0.0283	0.00
Constant	1.2245	0.00	1.1231	0.00	1.2515	0.00	1.2345	0.00	1.4063	0.00	1.3482	0.00
F	98.85	0.00	96.81	0.00	102.61	0.00	104.26	0.00	103.70	0.00	104.15	0.00
Observ.	2,826	-	2,826	-	2,990	-	2,990	-	3,183	-	3,183	-
R <sup>2</sup>	0.190	-	0.187	-	0.185	-	0.186	-	0.175	-	0.176	-
Chemicals, rubber, plastics (VSIC 24, 251, 252)												
$\ln(KE_{ij})$	0.0802	0.00	0.0799	0.00	0.0706	0.00	0.0706	0.00	0.0560	0.00	0.0567	0.00
$\ln(E_{ij})$	0.1289	0.00	0.1291	0.00	0.1431	0.00	0.1432	0.00	0.1412	0.00	0.1408	0.00
$ES_{ij}$	0.0097	0.00	0.0097	0.00	0.0104	0.00	0.0104	0.00	0.0125	0.00	0.0126	0.00
$EF_{ij}$	-0.0045	0.00	-0.0045	0.00	-0.0046	0.00	-0.0046	0.00	-0.0051	0.00	-0.0051	0.00
$DS_{ij}$	0.1343	0.00	0.1355	0.00	0.1801	0.00	0.1803	0.00	0.1976	0.00	0.1949	0.00
$DM_{ij}$	0.4447	0.00	0.4458	0.00	0.4397	0.00	0.4398	0.00	0.5062	0.00	0.5040	0.00
$CA_j, HF_j$	-0.0009	0.57	-0.0071	0.43	-0.0014	0.36	-0.0079	0.38	-0.0040	0.01	-0.0164	0.07
Constant	1.4763	0.00	1.4723	0.00	1.4957	0.00	1.4809	0.00	1.6370	0.00	1.5830	0.00
F	86.02	0.00	86.05	0.00	103.34	0.00	103.35	0.00	73.89	0.00	73.52	0.00
Observ.	1,811	-	1,811	-	1,893	-	1,893	-	2,014	-	2,014	-
R <sup>2</sup>	0.269	-	0.269	-	0.274	-	0.274	-	0.265	-	0.264	-

Appendix Table 5b (continued)

Independent variable, statistic	2000				2002				2004			
	Equation (3)		Equation (4)		Equation (3)		Equation (4)		Equation (3)		Equation (4)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
Non-metallic mineral products, basic metals, metal products (VSIC 26, 27, 28)												
$\ln(KE_{ij})$	0.0975	0.00	0.0964	0.00	0.0957	0.00	0.0950	0.00	0.0957	0.00	0.0960	0.00
$\ln(E_{ij})$	0.1473	0.00	0.1463	0.00	0.1430	0.00	0.1421	0.00	0.1442	0.00	0.1440	0.00
$ES_{ij}$	0.0094	0.00	0.0095	0.00	0.0094	0.00	0.0095	0.00	0.0089	0.00	0.0089	0.00
$EF_{ij}$	-0.0073	0.00	-0.0074	0.00	-0.0063	0.00	-0.0063	0.00	-0.0049	0.00	-0.0050	0.00
$DS_{ij}$	-0.1244	0.00	-0.1273	0.00	-0.0292	0.41	-0.0287	0.42	-0.0270	0.45	-0.0263	0.46
$DM_{ij}$	0.5171	0.00	0.5230	0.00	0.5176	0.00	0.5214	0.00	0.4614	0.00	0.4619	0.00
$C4_j, HF_j$	-0.0046	0.00	-0.0227	0.00	-0.0027	0.01	-0.0127	0.05	-0.0017	0.12	-0.0127	0.05
Constant	1.4041	0.00	1.3748	0.00	1.3743	0.00	1.3570	0.00	1.3824	0.00	1.3781	0.00
F	191.94	0.00	191.59	0.00	197.88	0.00	197.92	0.00	171.22	0.00	171.24	0.00
Observ.	3,026	-	3,026	-	3,225	-	3,225	-	3,463	-	3,463	-
R <sup>2</sup>	0.322	-	0.321	-	0.310	-	0.310	-	0.273	-	0.273	-
Machinery (general machinery [29], office and computing machinery [30], electrical machinery [31], radio, television & communication machinery [32], and precision machinery [33])												
$\ln(KE_{ij})$	0.1089	0.00	0.1105	0.00	0.0906	0.00	0.0930	0.00	0.0762	0.00	0.0775	0.00
$\ln(E_{ij})$	0.1303	0.00	0.1336	0.00	0.1245	0.00	0.1284	0.00	0.1161	0.00	0.1195	0.00
$ES_{ij}$	0.0113	0.00	0.0113	0.00	0.0097	0.00	0.0101	0.00	0.0100	0.00	0.0102	0.00
$EF_{ij}$	-0.0051	0.00	-0.0051	0.00	-0.0062	0.00	-0.0059	0.00	-0.0063	0.00	-0.0063	0.00
$DS_{ij}$	0.0017	0.98	-0.0093	0.89	0.1234	0.03	0.1135	0.05	0.1640	0.01	0.1568	0.01
$DM_{ij}$	0.4798	0.00	0.4773	0.00	0.5221	0.00	0.5202	0.00	0.5298	0.00	0.5295	0.00
$C4_j, HF_j$	-0.0030	0.13	-0.0058	0.05	0.0016	0.38	-0.0036	0.23	-0.0007	0.73	-0.0050	0.08
Constant	1.4772	0.00	1.3815	0.00	1.4549	0.00	1.4918	0.00	1.6582	0.00	1.6387	0.00
F	74.27	0.00	75.02	0.00	73.80	0.00	75.13	0.00	75.98	0.00	77.18	0.00
Observ.	1,105	-	1,105	-	1,188	-	1,188	-	1,274	-	1,274	-
R <sup>2</sup>	0.313	-	0.315	-	0.302	-	0.302	-	0.292	-	0.294	-

Appendix Table 5b (continued)

Independent variable, statistic	2000				2002				2004			
	Equation (3)		Equation (4)		Equation (3)		Equation (4)		Equation (3)		Equation (4)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
Motor vehicles, other transportation equipment (34, 35)												
$\ln(KE_{ij})$	0.0751	0.00	0.0719	0.00	0.0693	0.00	0.0673	0.00	0.0638	0.00	0.0622	0.00
$\ln(E_{ij})$	0.1301	0.00	0.1226	0.00	0.1299	0.00	0.1277	0.00	0.1077	0.00	0.1038	0.00
$ES_{ij}$	0.0117	0.00	0.0122	0.00	0.0138	0.00	0.0140	0.00	0.0131	0.00	0.0134	0.00
$EF_{ij}$	-0.0034	0.02	-0.0035	0.02	-0.0034	0.01	-0.0034	0.01	-0.0037	0.01	-0.0038	0.01
$DS_{ij}$	0.2115	0.00	0.2325	0.00	0.2352	0.00	0.2402	0.00	0.2871	0.00	0.2943	0.00
$DM_{ij}$	0.4490	0.00	0.4665	0.00	0.4454	0.00	0.4492	0.00	0.4778	0.00	0.4894	0.00
$CA_j, HF_j$	-0.0364	0.00	-0.0761	0.00	-0.0342	0.00	-0.0737	0.00	-0.0344	0.00	-0.0825	0.00
Constant	2.9782	0.00	1.9315	0.00	2.8827	0.00	1.8894	0.00	3.0106	0.00	2.0971	0.00
F	43.87	0.00	46.35	0.00	56.46	0.00	56.58	0.00	55.24	0.00	53.99	0.00
Observ.	887	-	887	-	937	-	937	-	960	-	960	-
R <sup>2</sup>	0.269	-	0.275	-	0.276	-	0.278	-	0.269	-	0.270	-
Miscellaneous manufacturing, recycling (369, 37)												
$\ln(KE_{ij})$	0.1908	0.00	0.1955	0.00	0.0854	0.02	0.0858	0.02	0.0575	0.03	0.0566	0.03
$\ln(E_{ij})$	0.2103	0.00	0.2066	0.00	0.1525	0.00	0.1530	0.00	0.0740	0.08	0.0748	0.07
$ES_{ij}$	0.0108	0.03	0.0099	0.04	0.0066	0.11	0.0066	0.09	0.0277	0.00	0.0280	0.00
$EF_{ij}$	-0.0063	0.04	-0.0066	0.03	-0.0091	0.00	-0.0090	0.00	-0.0047	0.01	-0.0046	0.01
$DS_{ij}$	0.4063	0.02	0.3976	0.02	0.2843	0.40	0.2814	0.40	-0.0179	0.95	-0.0151	0.95
$DM_{ij}$	0.5355	0.00	0.5219	0.00	0.5718	0.00	0.5689	0.00	0.3178	0.00	0.3200	0.00
$CA_j, HF_j$	-0.0006	0.93	-0.0104	0.12	-0.0045	0.47	-0.0134	0.07	-0.0065	0.07	-0.0194	0.00
Constant	0.6253	0.21	0.7003	0.05	1.5290	0.00	1.4353	0.00	1.9398	0.00	1.8298	0.00
F	13.63	0.00	14.99	0.00	9.32	0.00	11.69	0.00	13.57	0.00	17.80	0.00
Observ.	135	-	135	-	186	-	186	-	259	-	259	-
R <sup>2</sup>	0.440	-	0.443	-	0.312	-	0.315	-	0.301	-	0.304	-

Appendix Table 6: Results of Estimating Equations (5) and (6) in Cross Sections

Independent variable, statistic	2000				2002				2004			
	Equation (5)		Equation (6)		Equation (5)		Equation (6)		Equation (5)		Equation (6)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
d1516	0.0558	0.68	0.0490	0.72	0.2270	0.02	0.2471	0.01	-0.0514	0.42	-0.0537	0.39
d1719	0.0597	0.64	0.0590	0.64	0.2042	0.03	0.2260	0.01	-0.0028	0.96	-0.0083	0.89
d2021	0.0748	0.57	0.0877	0.52	0.2857	0.00	0.2935	0.00	0.0102	0.87	0.0085	0.89
d2425	0.2576	0.04	0.2574	0.04	0.4567	0.00	0.4653	0.00	0.1265	0.04	0.1225	0.04
d2628	0.1478	0.27	0.1456	0.28	0.2871	0.00	0.3078	0.00	0.0510	0.42	0.0469	0.45
d2933	0.2881	0.03	0.2854	0.03	0.3429	0.00	0.3597	0.00	0.0224	0.72	0.0236	0.71
d3435	0.0702	0.60	0.0511	0.71	0.1848	0.06	0.1839	0.06	-0.0702	0.35	-0.0672	0.37
$\ln(KE_{ij})$	0.1120	0.00	0.1123	0.00	0.0720	0.00	0.0712	0.00	0.0697	0.00	0.0699	0.00
$\ln(E_{ij})$	0.2030	0.00	0.2035	0.00	0.1530	0.00	0.1523	0.00	0.1355	0.00	0.1355	0.00
$ES_{ij}$	0.0113	0.00	0.0112	0.00	0.0092	0.00	0.0093	0.00	0.0119	0.00	0.0119	0.00
$EF_{ij}$	-0.0043	0.00	-0.0043	0.00	-0.0042	0.00	-0.0042	0.00	-0.0038	0.00	-0.0038	0.00
$SSH_j$	-0.0014	0.45	-0.0009	0.63	0.0038	0.00	0.0031	0.01	0.0023	0.03	0.0026	0.01
$MSH_j$	-0.0014	0.64	-0.0008	0.80	0.0077	0.00	0.0069	0.00	0.0044	0.00	0.0046	0.00
$C4_j, HF_j$	0.0025	0.09	0.0092	0.19	-0.0030	0.01	-0.0077	0.10	0.0001	0.93	-0.0023	0.52
Constant	0.6237	0.00	0.6197	0.00	0.7100	0.00	0.6974	0.00	1.2714	0.00	1.2677	0.00
Observ.	3,287	-	3,287	-	5,163	-	5,163	-	7,430	-	7,430	-
R <sup>2</sup>	0.158	-	0.158	-	0.151	-	0.151	-	0.129	-	0.129	-
F	42.83	0.00	42.89	0.00	63.55	0.00	63.04	0.00	76.36	0.00	76.57	0.00

Appendix Table 7: Results of Estimating Equations (5) and (6) in Fixed Effects Panels

Independent variable, statistic	2000-2002				2002-2004				2000-2002-2004			
	Equation (5)		Equation (6)		Equation (5)		Equation (6)		Equation (5)		Equation (6)	
	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.	Value	P-val.
d1516	0.3104	0.28	0.3085	0.28	0.5636	0.11	0.5891	0.10	0.3264	0.18	0.3524	0.14
d1719	0.5563	0.06	0.5610	0.06	0.3477	0.25	0.3662	0.22	0.4477	0.03	0.4680	0.02
d2021	0.4075	0.14	0.3991	0.15	0.0590	0.84	0.0907	0.76	0.1925	0.29	0.2133	0.24
d2425	0.4001	0.05	0.4027	0.05	0.5702	0.07	0.5833	0.07	0.4562	0.01	0.4759	0.01
d2628	0.4819	0.07	0.4891	0.06	0.4092	0.19	0.4664	0.14	0.4700	0.01	0.5223	0.00
d2933	0.6682	0.03	0.6765	0.03	0.8663	0.01	0.8492	0.01	0.7093	0.00	0.7098	0.00
d3435	0.2326	0.43	0.2158	0.46	1.0003	0.00	0.9853	0.00	0.7703	0.00	0.7758	0.00
$\ln(KE_{ij})$	0.1303	0.00	0.1301	0.00	0.1172	0.00	0.1168	0.00	0.1297	0.00	0.1303	0.00
$\ln(E_{ij})$	-0.0233	0.67	-0.0238	0.66	-0.0402	0.29	-0.0403	0.28	-0.0077	0.78	-0.0062	0.82
$ES_{ij}$	0.0014	0.53	0.0014	0.52	0.0026	0.09	0.0026	0.08	0.0023	0.05	0.0023	0.05
$EF_{ij}$	-0.0015	0.45	-0.0015	0.45	0.0012	0.33	0.0011	0.35	0.0003	0.73	0.0004	0.71
$SSH_j$	-0.0173	0.00	-0.0177	0.00	-0.0158	0.00	-0.0169	0.00	-0.0146	0.00	-0.0156	0.00
$MSH_j$	-0.0010	0.81	-0.0014	0.72	0.0030	0.46	0.0024	0.55	0.0040	0.10	0.0035	0.15
$C4_j, HF_j$	0.0005	0.86	0.0057	0.59	-0.0114	0.00	-0.0445	0.00	-0.0071	0.00	-0.0246	0.00
Constant	1.9234	0.00	1.9439	0.00	2.0776	0.00	1.9761	0.00	1.7980	0.00	1.7180	0.00
Observ.	8,450	-	8,450	-	12,593	-	12,593	-	15,880	-	15,880	-
Groups	6,521	-	6,521	-	8,988	-	8,988	-	10,265	-	10,265	-
R <sup>2</sup> -within	0.139	-	0.139	-	0.131	-	0.131	-	0.162	-	0.161	-
R <sup>2</sup> -betw.	0.036	-	0.036	-	0.024	-	0.026	-	0.061	-	0.064	-
R <sup>2</sup> -overall	0.041	-	0.041	-	0.029	-	0.031	-	0.068	-	0.071	-
F	9.06	0.00	9.03	0.00	15.42	0.00	15.85	0.00	37.63	0.00	37.80	0.00
Hausman	73.03	0.00	73.24	0.00	153.58	0.00	156.32	0.00	185.10	0.00	184.69	0.00

Appendix Table 8a: Number of All Firms by Industry

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	37,645	43,643	57,361	62,583	75,457	89,763
01 to 05-Agriculture, fishery, forestry	3,306	3,347	3,284	2,324	2,250	2,281
10 to 41-Mining, manufacturing, utilities	10,716	12,063	15,233	17,278	21,534	23,136
10 to 14-Mining	417	575	849	1,006	1,164	1,239
11-Oil & gas	2	2	2	2	6	5
15 to 37-Manufacturing	10,190	11,340	14,200	16,025	18,903	21,688
151 to 154-Food products	2,649	2,570	2,900	2,951	3,143	3,908
155-Beverages	797	832	964	1,032	1,128	884
16-Tobacco	23	26	23	25	25	24
17-Textiles	391	449	597	666	792	968
18-Apparel	560	667	919	1,120	1,376	1,474
191-Leather	61	68	92	103	149	164
192-Footwear	190	212	254	271	312	342
20-Wood products	729	802	1,041	1,136	1,398	1,582
21-Paper	379	447	540	646	772	913
22-Publishing	260	355	527	687	891	1,051
23-Petroleum products	11	11	12	10	11	12
24-Chemicals	401	463	585	702	799	938
251-Rubber products	109	116	146	160	191	201
252-Plastics	349	446	625	712	876	1,100
26-Non-metallic mineral products	1,094	1,152	1,273	1,346	1,559	1,712
27-Basic metals	113	152	212	251	310	398
28-Fabricated metals	609	778	1,174	1,447	1,903	2,287
29-General machinery	230	302	375	456	534	590
30-Office & computing machinery	3	5	11	15	22	21
31-Electrical machinery	161	181	232	270	331	353
32-Radio, television & communication	89	86	115	138	170	182
33-Precision machinery	43	49	59	62	71	82
34-Motor vehicles	170	200	263	252	290	349
35-Other transport equipment	261	299	358	405	450	508
361-Furniture	349	508	656	845	1,006	1,247
36 less 361-Miscellaneous manufact.	156	154	233	291	360	361
37-Recycling	3	10	14	26	34	37
40 to 41-Utilities	109	148	184	247	1,467	209
45-Construction	3,718	4,893	7,235	8,838	10,687	12,908
50 to 52-Trade	14,252	16,131	21,830	22,966	27,058	34,154
55 to 99-Services	5,653	7,209	9,779	11,177	13,928	17,284
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	42,288	51,680	62,908	72,012	91,755	-
01 to 05-Agriculture, fishery, forestry	3,378	3,438	3,379	2,407	2,369	-
10 to 41-Mining, manufacturing, utilities	10,938	13,140	15,858	18,198	23,203	-
45-Construction	3,999	5,693	7,845	9,717	12,315	-
50 to 52-Trade	17,547	20,722	24,794	28,396	36,079	-
55 to 99-Services	6,426	8,687	11,032	13,294	17,789	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 8b: Number of SOEs by Industry

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	5,706	5,301	5,329	4,791	4,572	4,046
01 to 05-Agriculture, fishery, forestry	825	756	737	633	606	569
10 to 41-Mining, manufacturing, utilities	1,771	1,607	1,615	1,496	1,437	1,238
10 to 14-Mining	132	116	122	108	98	85
11-Oil & gas	1	1	1	0	2	2
15 to 37-Manufacturing	1,566	1,408	1,406	1,307	1,245	1,070
151 to 154-Food products	210	177	193	182	173	162
155-Beverages	88	83	76	63	56	39
16-Tobacco	17	19	18	17	16	16
17-Textiles	76	71	67	64	59	55
18-Apparel	112	103	101	93	82	61
191-Leather	6	2	5	6	7	5
192-Footwear	43	40	39	40	35	29
20-Wood products	62	59	57	44	39	31
21-Paper	39	33	32	33	29	24
22-Publishing	166	166	171	156	161	148
23-Petroleum products	0	0	0	0	1	0
24-Chemicals	101	86	85	78	73	64
251-Rubber products	17	12	14	13	16	10
252-Plastics	22	24	25	22	21	17
26-Non-metallic mineral products	219	185	184	180	176	136
27-Basic metals	21	21	21	20	16	18
28-Fabricated metals	92	70	70	60	66	61
29-General machinery	71	80	70	69	58	45
30-Office & computing machinery	0	0	0	0	0	0
31-Electrical machinery	26	24	25	23	25	25
32-Radio, television & communication	30	21	21	20	19	16
33-Precision machinery	8	7	7	7	6	4
34-Motor vehicles	40	30	28	25	25	21
35-Other transport equipment	78	79	79	72	66	65
361-Furniture	16	14	15	15	17	16
36 less 361-Miscellaneous manufact.	6	2	3	5	3	2
37-Recycling	0	0	0	0	0	0
40 to 41-Utilities	73	83	87	81	94	83
45-Construction	994	898	906	856	819	693
50 to 52-Trade	1,182	1,053	1,040	890	795	664
55 to 99-Services	934	987	1,031	916	915	882
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	5,759	5,355	5,364	4,845	4,596	-
01 to 05-Agriculture, fishery, forestry	851	764	743	640	612	-
10 to 41-Industry	1,777	1,619	1,622	1,509	1,441	-
45-Construction	998	908	915	867	821	-
50 to 52-Trade	1,194	1,064	1,047	896	803	-
55 to 99-Services	939	1,000	1,037	933	919	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)



Appendix Table 8c: Number of Private Firms by Industry

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	30,461	36,587	49,847	55,266	67,860	82,276
01 to 05-Agriculture, fishery, forestry	2,443	2,548	2,496	1,632	1,577	1,637
10 to 41-Mining, manufacturing, utilities	7,898	9,185	11,981	13,826	17,776	19,295
10 to 14-Mining	276	446	714	884	1,047	1,135
11-Oil & gas	0	0	0	0	0	0
15 to 37-Manufacturing	7,592	8,680	11,176	12,783	15,363	18,039
151 to 154-Food products	2,323	2,263	2,543	2,579	2,766	3,524
155-Beverages	678	721	857	935	1,039	808
16-Tobacco	4	6	4	7	6	5
17-Textiles	249	299	433	482	596	723
18-Apparel	355	439	612	752	968	1,112
191-Leather	36	41	56	65	91	112
192-Footwear	105	125	149	159	181	210
20-Wood products	625	701	931	1,025	1,276	1,458
21-Paper	316	383	468	566	684	825
22-Publishing	88	180	341	512	702	868
23-Petroleum products	9	9	8	8	8	10
24-Chemicals	212	279	382	480	565	690
251-Rubber products	68	78	105	116	135	146
252-Plastics	268	347	506	575	719	899
26-Non-metallic mineral products	821	904	1,016	1,084	1,292	1,481
27-Basic metals	79	107	166	205	265	350
28-Fabricated metals	427	604	974	1,234	1,649	1,999
29-General machinery	128	189	262	330	406	474
30-Office & computing machinery	1	3	7	10	14	12
31-Electrical machinery	89	106	138	170	219	237
32-Radio, television & communication	29	30	50	71	98	106
33-Precision machinery	21	22	29	32	39	50
34-Motor vehicles	103	140	191	178	196	250
35-Other transport equipment	146	165	220	255	296	343
361-Furniture	310	442	571	738	878	1,083
36 less 361-Miscellaneous manufact.	99	87	143	189	242	229
37-Recycling	3	10	14	26	33	35
40 to 41-Utilities	30	59	91	159	1,366	121
45-Construction	2,688	3,967	6,294	7,937	9,819	12,163
50 to 52-Trade	13,027	15,023	20,729	22,019	26,192	33,409
55 to 99-Services	4,405	5,864	8,347	9,852	12,496	15,772
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	35,004	44,314	55,236	64,526	84,003	-
01 to 05-Agriculture, fishery, forestry	2,485	2,623	2,578	1,702	1,684	-
10 to 41-Industry	8,103	10,072	12,536	14,682	19,410	-
45-Construction	2,958	4,748	6,887	8,799	11,441	-
50 to 52-Trade	16,308	19,593	23,682	27,437	35,193	-
55 to 99-Services	5,150	7,278	9,553	11,906	16,275	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 8d: Number of MNCs by Industry

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	1,478	1,755	2,185	2,526	3,025	3,441
01 to 05-Agriculture, fishery, forestry	38	43	51	59	67	75
10 to 41-Mining, manufacturing, utilities	1,047	1,271	1,637	1,956	2,321	2,603
10 to 14-Mining	9	13	13	14	19	19
11-Oil & gas	1	1	1	2	4	3
15 to 37-Manufacturing	1,032	1,252	1,618	1,935	2,295	2,579
151 to 154-Food products	116	130	164	190	204	222
155-Beverages	31	28	31	34	33	37
16-Tobacco	2	1	1	1	3	3
17-Textiles	66	79	97	120	137	190
18-Apparel	93	125	206	275	326	301
191-Leather	19	25	31	32	51	47
192-Footwear	42	47	66	72	96	103
20-Wood products	42	42	53	67	83	93
21-Paper	24	31	40	47	59	64
22-Publishing	6	9	15	19	28	35
23-Petroleum products	2	2	4	2	2	2
24-Chemicals	88	98	118	144	161	184
251-Rubber products	24	26	27	31	40	45
252-Plastics	59	75	94	115	136	184
26-Non-metallic mineral products	54	63	73	82	91	95
27-Basic metals	13	24	25	26	29	30
28-Fabricated metals	90	104	130	153	188	227
29-General machinery	31	33	43	57	70	71
30-Office & computing machinery	2	2	4	5	8	9
31-Electrical machinery	46	51	69	77	87	91
32-Radio, television & communication	30	35	44	47	53	60
33-Precision machinery	14	20	23	23	26	28
34-Motor vehicles	27	30	44	49	69	78
35-Other transport equipment	37	55	59	78	88	100
361-Furniture	23	52	70	92	111	148
36 less 361-Miscellaneous manufact.	51	65	87	97	115	130
37-Recycling	0	0	0	0	1	2
40 to 41-Utilities	6	6	6	7	7	5
45-Construction	36	28	35	45	49	52
50 to 52-Trade	43	55	61	57	71	81
55 to 99-Services	314	358	401	409	517	630
ADDEDNDUM: PUBLISHED ESTIMATES						
All industries	1,525	2,011	2,308	2,641	3,156	-
01 to 05-Agriculture, fishery, forestry	42	51	58	65	73	-
10 to 41-Industry	1,058	1,449	1,700	2,007	2,352	-
45-Construction	43	37	43	51	53	-
50 to 52-Trade	45	65	65	63	83	-
55 to 99-Services	337	409	442	455	595	-

Note: Samples include firms with positive employment, sales, labor compensation, and fixed assets.

Source: Vietnam, General Statistics Office (various years a, various years b)

Appendix Table 8e: Number of Medium-Large Firms by Industry

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	14,495	16,879	21,038	24,028	28,058	31,266
01 to 05-Agriculture, fishery, forestry	1,160	1,129	1,269	1,143	1,160	1,155
10 to 41-Mining, manufacturing, utilities	6,231	7,226	8,812	10,170	11,938	13,043
10 to 14-Mining	334	404	547	654	740	744
11-Oil & gas	2	2	2	2	6	5
15 to 37-Manufacturing	5,820	6,738	8,178	9,425	11,064	12,210
151 to 154-Food products	871	950	1,142	1,274	1,480	1,690
155-Beverages	182	199	205	236	246	220
16-Tobacco	20	23	20	21	22	24
17-Textiles	318	363	435	493	570	684
18-Apparel	498	589	777	949	1,151	1,136
191-Leather	57	59	74	88	117	125
192-Footwear	178	197	232	240	272	292
20-Wood products	387	454	559	624	766	814
21-Paper	296	344	389	455	528	598
22-Publishing	190	218	253	281	338	375
23-Petroleum products	10	9	8	8	9	9
24-Chemicals	290	312	376	428	497	529
251-Rubber products	75	92	101	110	130	131
252-Plastics	254	315	424	489	545	661
26-Non-metallic mineral products	668	758	874	943	1,118	1,215
27-Basic metals	90	121	156	186	214	280
28-Fabricated metals	380	469	618	740	937	1,077
29-General machinery	166	222	252	297	338	338
30-Office & computing machinery	2	4	4	9	10	13
31-Electrical machinery	127	138	165	196	230	244
32-Radio, television & communication	77	74	91	96	111	120
33-Precision machinery	37	39	44	47	46	53
34-Motor vehicles	107	128	158	159	183	194
35-Other transport equipment	199	230	265	303	321	360
361-Furniture	230	318	388	538	628	772
36 less 361-Miscellaneous manufact.	110	109	161	204	240	234
37-Recycling	1	4	7	11	17	22
40 to 41-Utilities	77	84	87	91	134	89
45-Construction	2,613	3,293	4,443	5,280	6,121	6,741
50 to 52-Trade	2,176	2,545	3,261	3,775	4,481	5,218
55 to 99-Services	2,315	2,686	3,253	3,660	4,358	5,109

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 8f: Number of Medium-Large SOEs by Industry

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	5,416	5,056	5,095	4,631	4,415	3,865
01 to 05-Agriculture, fishery, forestry	742	695	678	599	573	532
10 to 41-Mining, manufacturing, utilities	1,740	1,575	1,580	1,474	1,412	1,211
10 to 14-Mining	132	115	119	105	96	82
11-Oil & gas	1	1	1	0	2	2
15 to 37-Manufacturing	1,539	1,385	1,382	1,292	1,229	1,052
151 to 154-Food products	206	175	191	181	172	160
155-Beverages	84	79	69	60	53	38
16-Tobacco	17	19	18	17	16	16
17-Textiles	74	70	65	63	59	51
18-Apparel	111	103	101	93	82	61
191-Leather	6	2	5	6	7	5
192-Footwear	42	40	39	40	35	29
20-Wood products	61	59	56	43	38	31
21-Paper	39	33	32	32	29	24
22-Publishing	163	159	165	152	154	144
23-Petroleum products	0	0	0	0	1	0
24-Chemicals	98	85	84	78	73	63
251-Rubber products	17	12	14	13	16	8
252-Plastics	22	24	25	22	21	17
26-Non-metallic mineral products	218	182	182	179	176	136
27-Basic metals	21	21	21	20	16	18
28-Fabricated metals	90	70	70	60	63	60
29-General machinery	71	80	70	68	58	45
30-Office & computing machinery	0	0	0	0	0	0
31-Electrical machinery	25	23	24	23	25	25
32-Radio, television & communication	30	21	21	20	19	16
33-Precision machinery	8	7	7	7	6	4
34-Motor vehicles	36	28	27	24	24	19
35-Other transport equipment	78	78	78	71	66	64
361-Furniture	16	13	15	15	17	16
36 less 361-Miscellaneous manufact.	6	2	3	5	3	2
37-Recycling	0	0	0	0	0	0
40 to 41-Utilities	69	75	79	77	87	77
45-Construction	966	889	896	854	816	686
50 to 52-Trade	1,098	973	972	839	747	613
55 to 99-Services	870	924	969	865	867	823

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 8g: Number of Medium-Large Private Firms by Industry

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	7,752	10,272	14,040	17,151	21,017	24,461
01 to 05-Agriculture, fishery, forestry	389	402	556	496	529	566
10 to 41-Mining, manufacturing, utilities	3,514	4,481	5,735	6,891	8,411	9,474
10 to 14-Mining	193	278	417	536	627	645
11-Oil & gas	0	0	0	0	0	0
15 to 37-Manufacturing	3,318	4,199	5,315	6,347	7,743	8,822
151 to 154-Food products	555	662	806	921	1,129	1,332
155-Beverages	70	95	109	149	164	151
16-Tobacco	1	3	1	3	3	5
17-Textiles	181	217	281	311	379	452
18-Apparel	294	366	475	590	752	781
191-Leather	32	33	38	50	61	74
192-Footwear	95	110	128	128	143	163
20-Wood products	285	357	452	517	652	700
21-Paper	234	281	321	377	445	517
22-Publishing	23	54	78	114	163	202
23-Petroleum products	8	7	5	6	6	7
24-Chemicals	118	143	196	232	293	327
251-Rubber products	36	55	61	66	75	79
252-Plastics	178	222	312	360	401	482
26-Non-metallic mineral products	401	517	624	689	861	995
27-Basic metals	57	78	113	143	172	236
28-Fabricated metals	206	308	433	550	707	816
29-General machinery	69	112	145	183	224	236
30-Office & computing machinery	0	2	1	4	4	6
31-Electrical machinery	57	65	83	101	126	137
32-Radio, television & communication	19	20	28	33	44	47
33-Precision machinery	16	13	17	18	18	25
34-Motor vehicles	45	72	91	91	97	105
35-Other transport equipment	87	100	129	158	172	200
361-Furniture	191	254	303	434	502	610
36 less 361-Miscellaneous manufact.	59	49	78	108	133	115
37-Recycling	1	4	7	11	17	22
40 to 41-Utilities	3	4	3	8	41	7
45-Construction	1,622	2,384	3,521	4,390	5,267	6,010
50 to 52-Trade	1,040	1,531	2,243	2,892	3,684	4,547
55 to 99-Services	1,187	1,474	1,985	2,482	3,126	3,864

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 8h: Number of Medium-Large MNCs by Industry

VSIC code, Industry	2000	2001	2002	2003	2004	2005
All industries	1,327	1,551	1,903	2,246	2,626	2,940
01 to 05-Agriculture, fishery, forestry	29	32	35	48	58	57
10 to 41-Mining, manufacturing, utilities	977	1,170	1,497	1,805	2,115	2,358
10 to 14-Mining	9	11	11	13	17	17
11-Oil & gas	1	1	1	2	4	3
15 to 37-Manufacturing	963	1,154	1,481	1,786	2,092	2,336
151 to 154-Food products	110	113	145	172	179	198
155-Beverages	28	25	27	27	29	31
16-Tobacco	2	1	1	1	3	3
17-Textiles	63	76	89	119	132	181
18-Apparel	93	120	201	266	317	294
191-Leather	19	24	31	32	49	46
192-Footwear	41	47	65	72	94	100
20-Wood products	41	38	51	64	76	83
21-Paper	23	30	36	46	54	57
22-Publishing	4	5	10	15	21	29
23-Petroleum products	2	2	3	2	2	2
24-Chemicals	74	84	96	118	131	139
251-Rubber products	22	25	26	31	39	44
252-Plastics	54	69	87	107	123	162
26-Non-metallic mineral products	49	59	68	75	81	84
27-Basic metals	12	22	22	23	26	26
28-Fabricated metals	84	91	115	130	167	201
29-General machinery	26	30	37	46	56	57
30-Office & computing machinery	2	2	3	5	6	7
31-Electrical machinery	45	50	58	72	79	82
32-Radio, television & communication	28	33	42	43	48	57
33-Precision machinery	13	19	20	22	22	24
34-Motor vehicles	26	28	40	44	62	70
35-Other transport equipment	34	52	58	74	83	96
361-Furniture	23	51	70	89	109	146
36 less 361-Miscellaneous manufact.	45	58	80	91	104	117
37-Recycling	0	0	0	0	0	0
40 to 41-Utilities	5	5	5	6	6	5
45-Construction	25	20	26	36	38	45
50 to 52-Trade	38	41	46	44	50	58
55 to 99-Services	258	288	299	313	365	422

Note: Samples include firms with 20 or more employees, positive sales, positive labor compensation, and positive fixed assets.

Source: Vietnam, General Statistics Office (various years b)

Appendix Table 9: Concentration Measures Used in Regression Analysis

VSIC code, Industry	4-firm Concentration Ratios			Herfindahl Indexes		
	2000	2002	2004	2000	2002	2004
151 to 154-Food products	12.888	12.860	9.901	0.906	0.884	0.636
155-Beverages	41.315	50.832	51.261	6.302	9.757	9.117
16-Tobacco	61.022	67.693	74.887	12.264	14.187	17.574
17-Textiles	24.545	19.541	18.772	2.677	1.916	1.633
18-Apparel	20.607	17.868	15.245	1.785	1.419	1.066
191-Leather	38.941	35.710	43.095	5.724	5.987	6.181
192-Footwear	36.183	34.619	35.908	4.685	4.416	4.961
20-Wood products	20.555	10.825	11.169	1.841	0.974	0.856
21-Paper	45.027	21.299	18.436	7.527	2.048	1.451
22-Publishing	25.706	26.552	25.837	2.709	2.952	2.572
23-Petroleum products	90.960	87.247	81.103	27.830	26.891	21.586
24-Chemicals	25.015	21.983	19.487	2.627	2.371	2.070
251-Rubber products	47.126	41.857	34.240	6.758	5.577	4.272
252-Plastics	17.981	20.919	16.788	1.728	1.682	1.328
26-Non-metallic mineral products	25.799	20.498	17.139	2.720	1.876	1.447
27-Basic metals	50.926	38.661	38.098	8.226	5.422	5.171
28-Fabricated metals	13.318	10.390	10.055	1.229	0.846	0.741
29-General machinery	42.500	25.143	34.716	6.009	2.351	4.062
30-Office & computing machinery	100.000	99.894	98.456	99.177	80.610	51.718
31-Electrical machinery	29.197	29.178	34.418	3.687	3.445	5.711
32-Radio, television & communication	42.288	39.079	39.597	7.424	5.392	5.289
33-Precision machinery	62.490	49.956	47.644	12.274	9.070	7.749
34-Motor vehicles	48.378	45.314	40.708	10.523	7.969	6.595
35-Other transport equipment	51.347	50.267	43.279	10.905	8.893	6.328
361-Furniture	21.488	34.988	13.097	2.052	6.901	1.081
36 less 361-Miscellaneous manufact.	36.728	32.934	23.421	5.690	4.075	2.952
37-Recycling	100.000	65.190	52.712	55.403	14.277	10.001

Source: Ramstetter and Phan (2007).

Appendix Table 10: Wholesale Price Data and Concordance to Industrial Classification for Firm Data (2000=1)

VSIC code, Firm-level Classification	Wholesale Price Index Classification	2000	2002	2004
151 to 154-Food products	Food and beverage	1.000	1.022	1.079
155-Beverages	Food and beverage	1.000	1.022	1.079
16-Tobacco	Tobaccos	1.000	0.996	0.998
17-Textiles	Textile products	1.000	1.035	1.154
18-Apparel	Garment	1.000	1.177	0.902
191-Leather	Leather, articles of leather	1.000	1.047	1.078
192-Footwear	Leather, articles of leather	1.000	1.047	1.078
20-Wood products	Wood, banjo, species of bamboo	1.000	1.078	1.309
21-Paper	Paper and paper products	1.000	1.334	1.404
22-Publishing	Printing, record tapes and disks	1.000	0.980	1.041
23-Petroleum products	Crude oil, natural gas	1.000	0.908	1.747
24-Chemicals	Chemical products	1.000	1.056	1.237
251-Rubber products	Rubber, plastic products	1.000	1.094	1.307
252-Plastics	Rubber, plastic products	1.000	1.094	1.307
26-Non-metallic mineral products	Non metal products	1.000	1.023	1.222
27-Basic metals	Other metal	1.000	1.089	1.302
28-Fabricated metals	Metal articles	1.000	0.944	0.943
29-General machinery	Mechinery and equipment	1.000	0.928	1.200
30-Office & computing machinery	Mechinery, other equipment	1.000	1.022	1.229
31-Electrical machinery	Manufacture of radio & communication equipment & apparatus	1.000	1.039	1.074
32-Radio, television & communication	Manufacture of radio & communication equipment & apparatus	1.000	1.039	1.074
33-Precision machinery	Manufacture of radio & communication equipment & apparatus	1.000	1.039	1.074
34-Motor vehicles	Trailer and motor vehicles	1.000	0.963	0.979
35-Other transport equipment	Other transport means	1.000	0.971	1.059
361-Furniture	Wardrobe, table, chair	1.000	1.083	1.226
36 less 361-Miscellaneous manufact.	Wardrobe, table, chair	1.000	1.083	1.226
37-Recycling	Wardrobe, table, chair	1.000	1.083	1.226

Source: Calculated from General Statistics Office (various years c)