



Asia-Pacific Research and Training Network on Trade  
Working Paper Series, No. 42, August 2007

## Trade and Investment Liberalization Effects on SME Development: A literature Review and a Case Study of Indonesia

By

Tulus Tambunnan\*

**UPDATE:** A revised and edited version of this paper has now been published as:

Tambunnan, T., 2007 " Trade and investment liberalization effects on SME development: A literature review and a case study of Indonesia", pp.117-162, Chapter V in ESCAP, *Towards coherent policy frameworks: understanding trade and investment linkages – A study by the Asia-Pacific Research and Training Network on Trade*, (United Nations, New York).

Available online at: <http://www.unescap.org/tid/publication/tipub2469.asp>

---

\*Tulus Tambunnan, is Director, Centre for Industry and SME Studies, University of Trisakti, Indonesia. The views presented in this paper are those of author and do not necessarily reflect the views of University of Trisakti, ARTNeT members, partners and the United Nations. This study was conducted as part of the Asia-Pacific Research and Training Network on Trade (ARTNeT) initiative, aimed at building regional trade policy and facilitation research capacity in developing countries. This work was carried out with the aid of a grant from the IDRC. The technical support of the United Nations Economic and Social Commission for Asia and the Pacific is gratefully acknowledged. Any remaining errors are the responsibility of the author. The author may be contacted at [sjahir@rad.net.id](mailto:sjahir@rad.net.id)

**The Asia-Pacific Research and Training Network on Trade (ARTNeT) aims at building regional trade policy and facilitation research capacity in developing countries. The ARTNeT Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about trade issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. ARTNeT working papers are available online at: [www.artnetontrade.org](http://www.artnetontrade.org). All material in the working papers may be freely quoted or reprinted, but acknowledgment is requested, together with a copy of the publication containing the quotation or reprint. The use of the working papers for any commercial purpose, including resale, is prohibited.**

## *Table of Contents*

Executive Summary.....	3
I. Introduction .....	4
II. Literature Review .....	5
II.1. Effects of International Trade Reform on SMEs .....	5
II.2. Effects of Investment Liberalization on SMEs .....	9
II.3 Key Policy Lessons .....	11
III. International Trade and Investment Policy Reforms in Indonesia.....	12
IV. Overview of Development of SMEs in Indonesia .....	23
V. Effects of the Reforms on SMEs in Indonesia .....	27
V.1 Growth in Units and GDP Contributions.....	27
V.2 Export Growth.....	29
V.3 Investment Growth.....	35
V.4 Subcontracting.....	37
VI. The Case Study of Tegal Metalworking Industry.....	38
VI.1 Methodology.....	38
VI.2 Findings.....	39
VII. Concluding Remarks and Policy Recommendations.....	49
Appendix .....	51
List of Semi-structured questions.....	52
References .....	56

## *Executive Summary*

The impact of international trade and investment policy reforms on the Indonesian economy, focusing on economic growth and development of domestic manufacturing industry has been studied extensively enough. However, the implication of these trade and investment policy reforms on the growth of small and medium enterprises (SMEs) in Indonesia remains an under-researched area of both the literature on SMEs in Indonesia and in general. This study, thus, attempts to make a contribution to fill this gap by examining the impact of international trade and investment policy reforms, particularly in the post-crisis period on the growth of SMEs in Indonesia.

As this research seeks to bring to the fore benefits that have been or may be derived for SMEs from international trade and investment liberalization in Indonesia, it has three main questions: (1) how international trade and investment policy reforms affect local SMEs; (2) has growth of exports of SMEs accelerated since the reforms; and (3) does investment liberalization generate more subcontracting between local SMEs and FDI.?

The research process has three subsequent phases: (1) In-depth literature survey on the effects of macroeconomic policies, especially international trade and investment, on SMEs; (2) Secondary data analysis on the performance of SMEs; (3) Primary data analysis. With respect to the third phase, primary data were collected through a survey. The location of the survey was Tegal metal working industry in Central Java, since many SMEs (though not the majority) in this cluster have been involved in subcontracting linkages with foreign firms, mainly Japanese, since 1980s.

This study comes with two important findings. First, although many SMEs may have been lost their markets, in overall, the reforms have not affected SMEs negatively. After a slightly decline in 1998 as a consequence of the economic crisis, the number of SMEs kept growing since then. These enterprises have managed not only to survive but also to increase their output. Their export and their share in total private investment also increase on average per year. Second, subcontracting linkages between FDI and local SMEs still remain low

One important policy recommendation of this study is that, given in fact that the majority (if not all) of SMEs (especially SEs and MIEs) in Indonesia are not ready yet to compete due to their weaknesses in many areas including technology, human resource, capital, marketing knowledge, global networks, etc., in order to make local SMEs to gain more benefits than to experience losses from the trade and investment reforms in the long run, the government should seriously support the capacity building in these enterprises, especially in the areas of technology and skills.

## *I. Introduction*

International trade and investment policy have undergone fundamental change in Indonesia over the past two decades. Significant trade liberalization began in 1986 and since 1994 Indonesia has significantly reduced its applied MNF tariffs from an unweighted average of about 20% in 1994 to 9.5% in 1998. In 1998, tariffs on food items were reduced to a maximum of 5%. Besides tariffs, Indonesia has undertaken to remove all non-tariff barriers and export restrictions. Since the beginning of the 1997/98 Asian financial crisis, Indonesia has also deregulated its trade regime in the main agricultural commodities (except rice, for social reasons), terminated production and trade monopolies in certain intermediate industries (cement, plywood, rattan) and reduced export taxes on wood.

Parallel to international trade reform were reforms in the treatment of foreign investment, with ownership restrictions all but eliminated by 1995. The opening up of nearly all industries to foreign direct investment (FDI) between 1993 and 1995 helped attract large amounts of FDI. Based on the approval FDI data from the National Investment Coordinating Board (BKPM), in 1995 new approval FDI (in project units) increased by almost 30% from 1993 data, whereas in 1993 the increase was about 10% from 1990 data. In 2004, the government has established an Investment Policy Reform Initiative having as its objective the encouragement and facilitation of private sector investment through reform and implementation of transparent, predictable, market oriented policies applied equally to both foreign and domestic investors. In this the Government has recently adopted major policy changes, including the introduction of new investment law. As will be discussed in Chapter III (Box 3), this new law incorporates market oriented principles of investment policy and establishes basic guarantees such as equal treatment of Indonesian and foreign investors whenever possible, protection against expropriation of investment. Investors are permitted to invest in any sector of the economy except in activities, which are listed on "Negative List". There are no restrictions on the size of the investment, the source of funds or whether the products are destined for export or for the domestic market.

The impact of international trade and investment policy reforms on the Indonesian economy, focusing on economic growth and development of domestic manufacturing industry has been studied extensively enough. However, the implication of these trade and investment policy reforms on the growth of small and medium enterprises (SMEs) in Indonesia remains an under-researched area of both the literature on SMEs in Indonesia and in general. This study, thus, contributes to filling this gap by examining the impact of international trade and investment policy reforms, particularly in the post-crisis period on the growth of SMEs in Indonesia. In particular, answers to the following three questions were sought: (1) How does international trade and investment policy reforms affect local SMEs? (2) Has growth of SMEs exports accelerated since the reforms? and (3) Does investment liberalization generate more subcontracting opportunities for local SMEs?

Following a comprehensive review of the available literature on the effects of international trade and investment policy reforms in section II, overviews of International trade and investment reforms in Indonesia and of the development of Indonesian SMEs are given in, respectively, sections III and IV. Effects of the reforms on Indonesian SMEs are examined in section V, complemented by findings from a case study of a cluster of Indonesian manufacturing SMEs in section VI. Conclusions and policy recommendations are in section VII.

## II. Literature Review

The Asia-Pacific region provides evidence of the benefits of external trade (export and import) and investment liberalization policies. With the continued growth in external trade and inflow of foreign direct investment (FDI), the region continues to generate the highest rates of economic growth in the world, which has seen an average reduction in poverty of about 12.5 percent in this region in early 2000 as compared to early 1990s. Through external trade and FDI, the region will be further integrated into the global economy and will gain more benefits of it (Bonapace, 2005).

No doubt that the surge in exports of manufactured goods from Indonesia that occurred in the late 1980s until the mid-1990s coincided with a sharp increase in FDI in the country. Several previous studies have indicated that multinational enterprises (MNEs) were the source of a large portion of the surge of manufactured exports and also made important contributions to changes in export composition of Indonesia.<sup>1</sup> Trade policies in Indonesia also played an important role in the growth of the country's manufactured exports and the change in composition of manufactured exports. James and Ramstetter (2005) emphasized how low protection which adopted by the Indonesian government in the 1980s with respect to certain industries was a key facilitator of rapid export growth of those industries. Despite a slowdown in export growth that began in 1996 and continued into 1998 with the Asian financial crisis, Indonesia did not reverse its export-oriented trade liberalizing reforms. After the crisis, many MNEs expanded their operations in Indonesia (Takii and Ramstetter 2004).

### II.1. Effects of International Trade Reform on SMEs

It is generally believed that trade liberalization should be beneficial for domestic economy as well as the world as a whole. At an aggregate level, the channels through which trade reform could bring benefits are broadly the followings: improved resource allocation; access to better technologies, inputs and intermediate goods; economies of scale and scope; greater domestic competition; availability of favorable growth externalities like transfer of know-how and many others.<sup>2</sup>

Until quite recently, more attention has been given to macroeconomic effects of international trade reforms.<sup>3</sup> There is now a small but growing empirical literature on the effects of international trade liberalization at a disaggregate level. Theoretically, reform towards international trade liberalization could affect (positively or negatively) individual local firms in four major ways:

- by increasing competition: lower import tariffs, quotas and other non-tariff barriers have the effect of increasing foreign competition in the domestic market, and this is expected to push inefficient/unproductive local firms to try to improve their productivity by eliminating waste, exploiting external economies of scale and scope, and adopting more innovative technologies, or to shut down. Openness of an economy to international trade is also seen as increasing plant size (i.e. scale efficiency), as local firms adopt efficient technologies, management, organization, and methods of production;<sup>4</sup>

---

<sup>1</sup> See for instance, James and Ramstetter (1997) and Ramstetter (1997, 1998, 1999a, 1999b).

<sup>2</sup> For more development in this sense, see further among others, Falvey and Dong Kim (1992), and Pack (1993).

<sup>3</sup> Some of the best known are: Krueger (1978), Dollar (1992), and Kruger *et al.* (2000).

<sup>4</sup> This is in line with general theory in which size is predicted to affect export performance of firms positively. The new international trade theory posits a positive impact of market size in view of economies of scale. It argues that the scale economy provides cost advantages in production, R&D and marketing efforts. See for instance, Tybout (1992) and

- by lowering production costs due to cheaper imported inputs: local firms benefit from lower input costs, thereby allowing them to compete more effectively in both domestic markets against imports and in export markets;
- by increasing export opportunities: opening up to international competition will not only induce increased efficiency in domestic firms but it will also stimulate their exports;<sup>5</sup>
- by reducing availability of local inputs: eliminating export restrictions on unprocessed raw materials will increase export of the items at the cost of local industries.

Thus, in the case of SMEs, it can be expected that international trade liberalization that increase foreign competition in domestic market will hurt some inefficient or uncompetitive SMEs, while benefit other efficient or competitive SMEs. The efficiency effects of foreign trade liberalization may be observed in an increase in average plant size among SMEs and (presumably) lower average costs. The international literature on the effect of foreign trade policy on SMEs presents, however, some surprising and quite important findings. The seminal work of Tybout (2000) on the micro dynamic effects of international trade liberalization on manufacturing firms in developing countries, for instance, consistently shows just the opposite: that increases in import penetration as well as reductions in protection are associated with reductions not increases in plant size. Thus, rather than improve efficiency immediately, an important finding of this study is that liberalization may work against the (scale) efficiency of SMEs in the short run (or if there are gains of efficiency, they are quite small).<sup>6</sup> The Tybout's findings are supported by Tewari's (2001) findings from Tamil Nadu's experience in the past fifteen years. After the government removed restrictions on many industries, including textile, allowing anyone to enter the industries, and simultaneously liberalized trade, there was a spate of entry by relatively small firms in the industries, notably textiles. Firms with 400-500 spindles set up shop, in contrast to the 10,000-20,000-spindle plant that larger firms operated. By the mid 1990s, the average plant size in the spinning industry had fallen significantly. Other important studies on the effect of trade reform on SMEs are given in Box 1.

In Indonesia, within many existing studies on SMEs in the country, perhaps the only evidence on the effects of trade reforms before the 1997/98 economic crisis on SMEs' exports is from a field study conducted by Berry and Levy (1994). They surveyed 91 SME exporters in three sub-sectors of manufacturing, and conducted intensive interviews with 30-40 public and non-profit agencies active in SMEs issues between January and June 1992. The three sub-sectors were garment in Jakarta and Bandung (both are in West Java), rattan furniture in Jakarta and Surabaya (East Java), and carved wooden furniture in Jepara (Central Java). From a total of 33 interviewed rattan product exporters, they found that all but one of the firms sampled exported 90% or more of their output, and 26 of 33 firms began exporting the same year they entered into production. Most of them started to export or increased their export share in their total production since the Indonesian government imposed bans on the export of unprocessed and semi-processed rattan in 1986 and 1988-89 respectively. So, it seems that the ban has been a key factor leading to a major expansion in rattan furniture exports of Indonesia's SMEs.<sup>7</sup> Indeed, there are many cases, though unfortunately no official data are available, showing that free exports of raw materials have

---

Bonaccorsi (1992) for a survey. The literature associated with export marketing, on the other hand, suggests that LEs have greater resources to gather information on markets in foreign countries and to cover uncertainties of a foreign market (see e.g. Wakelin, 1997). It is, therefore, as a general hypothesis, that LEs, not SMEs, are likely to be more export-oriented.

<sup>5</sup> This is generally supported by the econometric results. See for example, Aggarwal (2001) and Tybout *et al* (1991).

<sup>6</sup> See further Tybout's review (2000).

<sup>7</sup> Indonesia has long been a major supplier of raw rattan to the major rattan furniture exporting countries of Taiwan and the Philippines. In an effort to 'jump-start' the rattan products industry in the country, the Indonesia government imposed this restriction policy (Berry and Levy, 1994).

created difficulties for SMEs. For example, several times in the 1980s and also in the 1990s SMEs in the three largest metalworking industry clusters in the country, i.e. Tegal and Ceper in Central Java and

Pasuruan in East Java, experienced a serious problem to continue or expand their production due to the lack of local scraps as their main used raw material. This material has been exported mainly to China, leading to scarcity in local market for SMEs. Another case is from PT Panasonic Manufacturing Indonesia, the leading electronic company in Indonesia, which has subcontracting linkages with many SMEs to manufacture a variety of electronic products, including water pumps. For this latter item, recently, its subcontractors facing difficulties due to the lack of brass as one among their main raw materials as this one is also freely exported.<sup>8</sup>

### **Box 1: Other important studies on the effects of foreign trade reform policy on local SMEs**

Valodia and Velia (2004) investigated the relationship between foreign trade liberalization at the macro level and its micro or firm-level adjustment effects in the South African manufacturing industry, and their findings suggest that there is a strong relationship between firm size and international trade. More than half of firms not engaged in international trade are small firms. At the opposite extreme almost half of the firms that are involved in both importing and exporting are large firms employing more than 200 workers. It seems that larger firms have been more successful at integrating their manufacturing activities into global chains of production.

Tewari and Goebel (2002) studied SMEs competitiveness in Tamil Nadu (in Southern India). They find two interesting facts. First, SMEs in some industries are doing better than those in others; just as some industries are doing better than others. Second, SMEs tied to low-end market segments in large urban or metro areas appear to be the most vulnerable to cheap import competition from overseas. Ironically, SMEs serving similar niches in the rural areas or in small towns do not face the same pressures. Their access to intricate, socially embedded distribution networks linking them to rural markets appears to be a source of strength that non-local competitors will find too costly to replicate.

Others such as, Kaplinsky and Readman (2001), Kaplinsky, *et al.* (2002), Roberts and Tybout (1996), and Roberts (2000) suggest that the path to growth for SMEs in a trade liberalized world lies in their ability to compete with imported goods and services, and this depends much on their ability to upgrade their production capacities, access to human resource and new technology, and to improve the quality of their products.

Official data as well as literature show that most of the Indonesian SMEs doing export, do it indirectly via subcontracting systems with LEs in which SMEs manufactured semi-final products and then finalized by LEs (for instance, in food industries, processing raw materials into ready-made foods takes place in SMEs and packaging in LEs). It has been widely accepted that for SMEs to succeed on the export front they must have some way to lower production or to increase efficiency and quality of their products. Berry et al (2001) suggested that subcontracting with either LEs or trading companies is one route. Berry and Levy (1999) reported that in Indonesia subcontracting arrangements were common among SME exporters in rattan, furniture and garments. They argue that the growth of export of SMEs in these manufacturing subsectors no doubt reflects a rapidly increasing importance of subcontracting arrangements, mainly with commercial intermediaries. But, no similar evidence can be found in other subsectors such as metal products and electronics industries.

From those who export directly, not all of them do it through shipments to overseas markets, but they sell their products to foreign tourists who visit their villages or workshops. They are called “buyers market”-oriented SMEs. Van Dierman (1997), Knorringa (1998), Cole (1998) and Sandee et al. (2000) find that in certain subsectors, most export-oriented SMIs in clusters operate in buyer-driven commodity chains. Their studies show how SMEs penetrate global markets via buyer-driven trade

---

<sup>8</sup> Interview with Mr Daniel Suhardiman, Group Manager from PT Panasonic Manufacturing Indonesia.

networks with cases of furniture and garments in Jakarta, garments in Bali, and carved wooden furniture in Jepara (Central Java). These studies also show clearly that foreigners who came to Indonesia as tourists and visited the furniture cluster in Jepara or clusters of garments SMIs in Bali have played an important role in modernizing the production method and quality of products in these clusters and linking them to international markets.

Shortly after the economic crisis in 1997, van Dierman et al. (1998) attempted to assess the impact of foreign trade and investment policy reforms related to the IMF sponsored deregulations under the Letter of Intent (LOI) on SMEs in the manufacturing industry in Indonesia. It shows that the likely impact varies by subsector or group of industry. SMEs in the pre-crisis most protected industries were expected to be adversely affected than those in the less protected ones. However, the assessment has some serious limitations. The most important one is the fact that it was based on secondary data and a survey of literature on SME development in various groups of industry during the crisis period. No field surveys or indepth interviews were conducted. Thus, the increased production costs due to the huge depreciation of the rupiah, not the protection tariffs reduction, could be the reason for the closed down of many SMEs in several industries which was observed during that period.

Other studies on SMEs in Indonesia may indicate, though not explicitly, the important effects of macroeconomic policies versus special designed programs on SMEs, as they conclude that most SME development programs (e.g. subsidized credit, various training programs, external trade promotions, and subcontracting schemes) have not been very successful.<sup>9</sup> They argue that friendly macro economic policies, including trade policies (e.g. import and export regulations) are very important for SMEs growth. For instance, based on his analysis of the effects of macro-and micro-policy environments on rural industries in Indonesia, van Dierman (2004: 53) states that a significant number of macro policies such as trade (protection) policies placed additional costs and burdens on rural SMEs. He argues, therefore, that macro-policies that created a favorable economic environment, as reflected by consistently high growth rates in GDP, and not biased in favor of large enterprises (LEs), provided the best stimulus for SME growth.<sup>10</sup>

Recently there has been a debate which is important for both researchers and policy makers in Indonesia, namely does participation of SMEs in the global economy lead to their sustainable growth? Some contributors to this debate are rather sceptical.<sup>11</sup> Perhaps, the wood furniture industry cluster in Jepara is a good test case, as underlined by a number of papers on this industry.<sup>12</sup> For instance, based on their assessment on whether enterprises and workers in this cluster have gained from producing for the global market and whether the gains are sustainable, they find that the cluster has made gains by participating in export activities; the growth in the number of enterprises and in the number of jobs is undeniable, and the earnings of workers have also increased substantially. However, the industry's prospect for further growth is questionable. On the input side, the industry is suffering from the increasing scarcity and hence rising cost of raw material. On the output side, it is suffering from intensifying competition from Viet Nam, China and other countries. More specifically, they conclude that these gains are not sustainable for a number of reasons, one of which is the viability of exports

---

<sup>9</sup> For discussion explicitly or implicitly on the government programs to support SMEs in Indonesia, see for instance, Sandee (1995), Sandee *et al* (2002), van Dierman (2004), and Sato (2000).

<sup>10</sup> Hine and Kelly (1997) for instance state explicitly that many factors, including the level of protection (i.e. tariff as well as non-tariff barriers policies), exchange rate policies, red tape and other unnecessary administration procedures, and multilateral, regional, and bilateral trade policies are key macro issues that indirectly or directly affect the ability of SMEs to enter global markets..

<sup>11</sup> See e.g. Kaplinsky *et al.* (2002) and Humphrey (2003).

<sup>12</sup> See for instance Sulandjari and Rupidara (2002) and Loebis and Schmitz (2005).



which has become dependent on wood which is logged illegally and which risk depletion. Halting this process is, however, difficult because intensifying price competition in the international market makes enterprises prefer the cheaper illegal wood. However, generalizing the findings from Jepara to other clusters may not be valid since different clusters may have different problems.

## II.2. Effects of Investment Liberalization on SMEs

As with trade liberalization, investment liberalization should also take into consideration what impact (positive and negative) would have on the SMEs. Theoretically, investment liberalization affects SMEs in a number of ways. On the positive side, a better investment environment generates many new firms or/and encourage existing firms (including SMEs) to expand their production capacities. The expansion of local SMEs can also take place with direct link to LEs, including MNCs/FDIs through e.g. subcontracting production linkages ('complementary effect'). In other words, MNC/FDIs act as a growth source for local SMEs. Moreover, most often in the literature, MNCs/FDIs have been claimed as positive factors for developing countries firms for breaking entry-barriers into export markets. Several studies have appeared to examine the export-spillovers effect of FDI on domestic firms and this often take place through subcontracting arrangements.<sup>13</sup> Although these studies do not categorize domestic firms by size, it can be assumed that well developed SMEs (i.e. those with better technologies, high skilled workers, and good management systems) can benefit from this spillovers effect. On the negative side, however, reform towards FDI liberalization has the effect of increasing new LEs at the cost of existing SMEs unable to compete ('competition effect'). Thus, 'complementary effect', rather than 'competition effect', can be considered to minimize the negative impact of investment liberalization on SMEs.

Unfortunately, due to limited literature exclusively on the effect of investment policy reform on SMEs in Indonesia, it is hard to say whether the long-term gradual process of investment liberalization, started first by the introduction of Foreign Direct Investment Law in 1967 marking the beginning of the openness to FDI, and followed by the 'real' liberalization with the introduction of various incentives to attract FDI (including more sectors open for FDI) in the second half of the 1980s and reached the climax after the crisis 1997/98 with the IMF Reform Agreement, has created complementary net effects or competition net effects on local SMEs.<sup>14</sup> However, there are many case studies on subcontracting in Indonesia which may give some insight, and the majority of these studies conclude that such production linkages do not develop smoothly despite of investment liberalization and this is attributed to many factors: local SMEs cannot meet the required standard of quality due to their lack of technology and skills, market distortion, and the institutional coordination problem indicated by, among others, the lack of consistency and coherence in policy, underdeveloped business environment, such as information asymmetry, rent seeking lobby, difficulties to access financial and technological facilities.<sup>15</sup>

---

<sup>13</sup> See Pradhan *et al.* (2006) for a survey.

<sup>14</sup> The positive effects of FDI on SMEs also depend on the quality of FDI. If many foreign companies invest in local ailing companies, restructure them, and sell the company after restructuring, this means that the quality of FDI is questionable for three main reasons: a) it is short-term, therefore the general notion of achieving benefits associated with FDI is based on the longer term; b) the restructuring process leaves more people unemployed; and c) the gains made by the sale of the re-structured companies are repatriated, thus no long-term benefits, less employment, capital flight and less opportunity for tech transfer and capacity development.

<sup>15</sup> The studies include from Sato (2000), Supratikno (2001), JICA (2000), Thee (2005) and Nagata and Iman (2002).

FDI is an important source of technology transfer to local firms in developing countries,<sup>16</sup> suggesting that investment liberalization will also act as a stimulus for local SMEs from this perspective. Based on his study on the role of FDI in the so-called Newly Industrializing Countries (NICs) such as South Korea, Taiwan, Hong Kong, and Singapore, Soesastro (1998) states the following: there is no doubt that FDI plays an important role in cross-border flows, transfers and the diffusion of technology. The story of technology flows in the Asia-Pacific region has centred on the dramatic surge in FDI, particularly in the East Asian developing economies.....It is generally believed that FDI brings in more advanced technologies than alternative channels. This is particularly the case with MNCs, because they play a dominant role in the generation of technology and are usually associated with new or technologically complex products.....(page 312). This is also supported by many studies evaluating the technology transfer or spillovers from FDI in Indonesia, though not explicitly on local SMEs. For instance, by using cross-sectional data, Sjöholm (1999a,b) found positive spillovers from FDI in Indonesian manufacturing industry. Soesastro (1998) also concludes the same: the pattern of inward technology flows for Indonesia seems to be dominated by the use of FDI as the main channel for technology acquisition. In some sense this has been the country's implicit 'technology policy', and the favourable attitude of the government towards FDI has been based to a large extent on the promise of technology that will be brought in as part of the investment package (page 319).

Also similar evidence can be found in other Asian developing countries. For instance, Thailand, Tangkitvanich (2004) concludes that *linkages between foreign assemblers and domestic suppliers have always been crucial to the competitiveness of the Thai automotive industries. Assemblers have been major sources of technologies, especially management technology in the areas of quality control and production. The linkages also enabled domestic suppliers to gain a foothold in the international production network.* (page.218).

Studies on subcontracting linkages between foreign firms and local SMEs in Indonesia such as by Sato (1998), Iman and Nagata (2002), Tambunan (2007), and Pantjadarma (2004) have one common conclusion that through such production linkages, foreign firms played an important role for the capacity building, including in technology, in local SMEs.

Perhaps, the most robust finding of the literature is that the absorptive capacity of local firms in the host country is essential for getting significant benefits from FDI. Without adequate human capital or investments in research and development, spillover from FDI fails to materialize. Thus, FDI policies in developing countries may need to be complemented by appropriate policy and institutional changes with respect to education, R&D, and human capital accumulation, if local companies (including SMEs) in these countries are to take full advantage of increased FDI (Saggi, 2002).

Most of the existing literature on technology transfers from FDI/MNCs to developing countries does not make a distinction of local recipients between SMEs and LEs. However, many case studies on subcontracting between FDI-based companies and local small-scale subcontractors suggest that local SMEs can gain benefits in terms of e.g. technology development through transfer of technology from FDIs (Box 2)

---

<sup>16</sup> See e.g. Kim (1997), Marcotte and Niosi, 2005), Yusuf (2003) and Saggi (2002) for a survey of literature.

## **Box 2: Selected Important Case Studies on subcontracting between FDI and local SMEs in LDCs.**

Tangkitvanich (2004) studied automotive industry in Thailand. It shows that the industry consists of many subcontracting processes between foreign assemblers and domestic suppliers. He concludes that *linkages between foreign assemblers and domestic suppliers have always been crucial to the competitiveness of the Thai automotive industries. Assemblers have been major sources of technologies, especially management technology in the areas of quality control and production. The linkages also enabled domestic suppliers to gain a foothold in the international production network.* (page.218).

Sato (1998), Iman and Nagata (2002), Tambunan (2007), and Pantjadarma (2004) studied subcontracting linkages between foreign firms and local SMEs in Indonesia. One common conclusion from these studies is that through such production linkages, foreign firms played an important role for the capacity building in local SMEs.

Grunsven (2000) states that: *over the past decade, industrial policy in a number of countries in East and Southeast Asia which hitherto had based late industrialization mainly on FDI, has started to recognize the relevance of the development and growth of local enterprises/SMEs in the industrialization process, and has started to address the issue of how to achieve this. A range of factors or motives has stimulated this interest. A transition may be observed from internationalization and production organization embodied in vertically integrated TNCs towards rapidly increasing vertical disintegration and an enhanced role of enterprise networks in production organisation whereby independent firms across the globe are used by leading TNC as manufacturing satellites. More generally, global production networks, with a significant role assigned to local firms in agglomerated production nodes, inter alia in regions in the Southeast and East Asian countries, are emerging as a more important mode in the globalization process of manufacturing vis a vis TNC.....* (hal, 29).

Islam (1992) made an overview of the process of transfer, dissemination and adoption of technology from FDI for small and cottage industries (SCIs) in the Asian developing region. He argues that *....,technology can get transferred to SCIs through multinationals, although the usual notion is that they operate only in the large and medium-scale industries. For example, some multinationals engage subcontractors who are often in the SCI sector and provide them with designs of products and training. Also, by creating a learning effect in the receiving country, multinationals can help the emergence of a class of entrepreneurs and skilled workers who in turn can initiate similar industries at smaller scales. Thus, even in the absence of a conscious policy of transferring technology to SCIs, the sustained operation of multinationals may create conditions conducive to such a process* (page 7).

Gwari (2005) investigated the benefits of the presence of FDI for SMEs in Namibia. It shows that, on the one hand, investment liberalization attracts many FDIs to flow into country, but, on the other hand, it does not automatically mean that local SMEs will benefit from it. It depends on whether the local SMEs are ready to do business (e.g. through subcontracting systems) with MNCs.

There are three key policy lessons from the above literature review with a view to shaping future SME policy in Asian developing countries and better identify linkages between trade and FDI policy and SME performance in these countries. First, protection instead of open market policies by e.g. restricting certain activities to domestic SMEs may actually contribute to abuse of local market power and, by insulating SMEs from competition, makes them less able to penetrate foreign markets or to develop improvements in technology, productivity and efficiency. However, given the fact that the majority (if not all) of SMEs in these countries are not yet ready to compete, trade liberalization should be accompanied with specially designed SME development schemes to improve their competitiveness through capacity building (including possible linkages that can be formed with potential LEs). Otherwise, in the long-run local SMEs may die out.

Second, trade policy reform may have unintended negative side effects on SMEs. For instance, liberalizing export of unprocessed commodities which are the SMEs' key raw materials or inputs causes local shortages of these items and hence makes local SMEs unable to continue or to expand their production. This requires thus a careful design of a trade policy reform. All possible negative, direct as well as indirect, effects on SMEs should be taken explicitly into consideration in designing a trade policy reform..

Third, the absorptive capacity of local SMEs in the host country is essential for getting significant benefits from FDI. Without adequate human capital or investments in research and development, spillover from FDI to local SMEs fails to materialize. Consequently, FDI policies in the

host country need to be complemented by special programs especially in the areas of technology, skills, and management, to support local SMEs to become efficient and highly competitive local subcontractors.

### *III. International Trade and Investment Policy Reforms in Indonesia*

When Soeharto took over from Soekarno in 1966, marking the beginning of the New Order government (1966-1998), without wasting time, he started right away a swift economic reform which in its first five years produced dramatic results beyond the most optimistic expectations. The main aim of the reform was twofold: to reduce inflation as a short term objective and to generate economic growth and hence to increase the living standard as a medium to a long term objective. The New Order government was fully aware that to achieve the first objective, a macroeconomic stabilisation was a precondition, and to achieve the second objective, international trade reform and liberalisation of the capital account, including a more favourable investment law, were the effective strategies.

During this New Order era, trade and investment policies have undergone fundamental changes in Indonesia along with changing patterns of development strategy from an inward looking import substitution strategy during the oil boom in the early 1970s to outward looking export promotion in mid 1980s after the end of oil boom in the mid 1980s. The process of trade and investment reforms which are parts of economic reforms since the New Order up to 2006 can be divided into three phases: 1967-1980, 1985-1997 (just before the economic crisis), and 1998 (during the crisis) onwards (Table 1). The first phase was a period of limited liberalization and deregulations as the government implemented limited tariff reduction and removed quantitative restrictions (say, non-tariff barriers or NTBs) on a limited range of imported goods, especially those which were really needed for domestic consumption and industries. But, from the investment policy perspective, it was a very important period, as for the first time Indonesia introduced a national law on both foreign and domestic investment soon after the New Order government took power, marking the beginning of opening gradually sectors for private investment. In addition, capital account in the country's balance of payment was also liberalized and the government adopted managed floating for its exchange rate system.

The second phase was a period of extensive liberalization and deregulation with a broad range of measures. The simple (unweighted) average tariff was cut some 26 percent from 27 percent in 1985 to a little under 20 percent in 1992. NTBs as a percentage of tariff lines had declined from 32% to 17% by 1990 and to 5% by 1992; as a percentage of imports they fell from 43% in 1986 to 13% by 1990. (Iqbal and Rashid, 2001). This period also witnessed a larger role for the private sector as reflected by the increase in private domestic as well as foreign investments in Indonesia, and an emphasis on non-oil and gas exports, especially labour-intensive manufactured products such as textile and garments, footwear, and wood products. Restrictions on foreign direct investment (FDI) were gradually relaxed and the easing of some ownership restrictions, particularly on export-oriented investments. The number of specific investment clearances required for a FDI fell from 24 to 10 and there was a relaxation of other dimensions of investment regulation. For example, investment licenses were made valid for a period of 30 years compared with 5 before the liberalization. Minimum amounts of investment required were reduced and ownership restrictions on projects that exported 100 percent of output were waived (Pangestu, 2001).

**Table 1: Three Phases of Foreign Trade and Investment Reforms in Indonesia Since 1970**

Period	Phase	Most Important Measures
1967-1980	I	<ul style="list-style-type: none"> <li>-some tariff reduction</li> <li>-removal of quantitative restrictions on limited imports</li> <li>-national law on foreign and domestic private investment was introduced</li> <li>-liberalisation of capital account in the balance of payments</li> <li>-managed floating was adopted as the exchange rate system.</li> </ul>
1985-1997	II	<ul style="list-style-type: none"> <li>-simplifying export-import procedures (including the duty drawback scheme for exporters was improved substantially);</li> <li>-limited agricultural liberalization;</li> <li>-across the board tariff reduction;</li> <li>-quantitative restrictions on some imports were removed, especially import licensing and import monopolies;</li> <li>-approval procedures for foreign investment were simplified and abolition of limitation on FDI, especially export-oriented investments (including more liberal treatment with regard to foreign ownership);</li> <li>-revamping and replacing the corrupt customs service with a private Swiss surveying company (Société Générale de Surveillance, SGS);</li> <li>-exemption from duties and VAT was given to export-oriented investments;</li> <li>-banking system deregulation;</li> </ul>
1998 onwards	III	<ul style="list-style-type: none"> <li>-financial restructuring program, including the closure of 16 private insolvent banks;</li> <li>-foreign trade and investment liberalization;</li> <li>-elimination of all cartels in all sectors;</li> <li>-agricultural liberalization, including: (i) removals of import restrictions on various commodities; (ii) removals on export bans on wheat, soybeans, sugar and oil palm products; (iii) the monopoly role of the Logistics Agency (BULOG) on rice imports was revoked and replaced by a 30% tariffs; (iv) removal of local content regulation for agricultural products; (v) privatizing plantations, estates and input suppliers; (vi) liquidating cooperatives and removing land use regulations restricting producer crop choices; (vii) Suspending the value-added tax (VAT) on rice and other essential commodities; (viii) eliminating wheat, sugar and fertilizer subsidies; (ix) phasing out soybean subsidies; (x) eliminating import subsidies and relevant import duties for soybean meal and fishmeal; and (xi) for the first time in 30 years, allowing private traders to import rice;</li> <li>-removal of various import licensing schemes such as the Import Producer licences for iron and steel products, engine and engine parts, heavy transport equipment, and electronic products;</li> <li>- removal of local content requirements, reduction of tariffs on imported cars and components, and simplification of licensing procedures;</li> <li>-elimination of all export restrictions and taxes;</li> <li>-introduction of anticorruption and competition laws;</li> <li>- approved Importer and Approved Sole Agent licences, which were applied to various industries from food-related subsectors to lubricants;</li> <li>-liberalization of market access for five services sectors, namely telecommunications, industrial services, tourism, financial services and banking;</li> <li>-removal of local content regulations under the TRIMS (Trade Related Investment Measures), with the local content requirements for motor vehicles;</li> </ul>

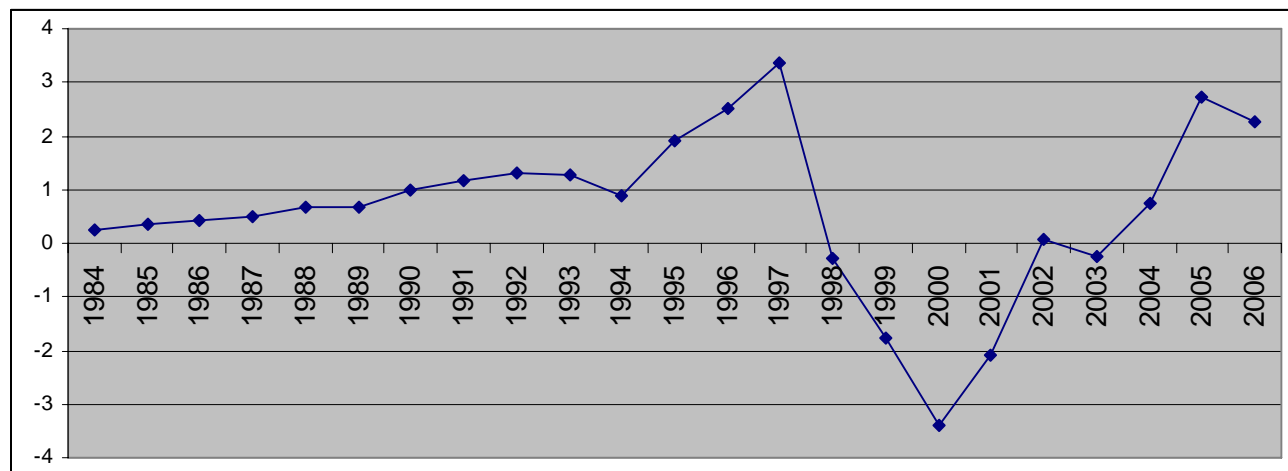
Sources: Pangestu (1996), Feridhanusetyawan, *et al.* (2000), Jamesn (2001), Erwidodo, *et al.* (2001), Firdausy, *et al.* (2000), Iqbal and Rashid (2001), Magiera (2001), and Department of Industry and Trade ([www.Deperindag.go.id](http://www.Deperindag.go.id))

The third phase is the ongoing post-crisis broader reform started first with the IMF sponsored deregulations under the Letter of Intent (LOI) and continued further with Indonesian own initiatives. One of the most heavily regulated and protected sectors of the Indonesian economy, automobiles, was also affected by these developments. The tariff on completely built up sedans was reduced to 200 percent in 1995 and to 90 percent in 2003. A new FDI was forthcoming in the auto sector as General Motors Corporation, absent from the Indonesian auto market since the 1930s, decided to proceed with

investment in a vehicle production facility, finally introducing some western competition into the Japanese-dominated domestic automobile industry. The “national car” project which had been launched as a joint venture with the nearly bankrupt KIA Motors Corporation of Korea before the crisis period was also eliminated.<sup>17</sup>

Figures 1 and 2, respectively, show the results of the foreign trade and investment reforms. Net FDI inflows into Indonesia increased steadily in the 1980s and accelerated significantly since 1994. But, in 1998 when the crisis got worst, net FDI became negative when more capital flight took place than new FDI came in. The trend continued up to 2000, and after that it started to recover. Distribution by sector indicates that FDI in Indonesia are still concentrated in the manufacturing industry. The ratio of total trade (export plus import) to GDP increased steadily since early 1990s up to 1998 when the crisis reached its climax. That was also the year when many companies especially in the manufacturing industry experienced financial difficulties as a consequence of the huge depreciation of the rupiah against the US dollar. After 1999, Indonesia external trade started to recover again.

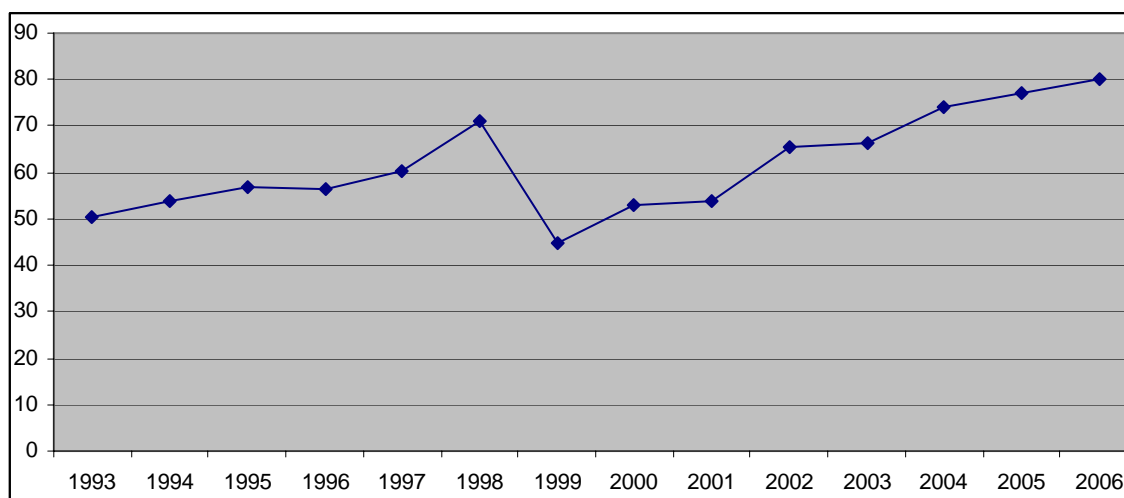
**Figure 1: Growth of Net FDI Inflows to Indonesia, 1984-2006 (as a percentage of GDP)**



Source: Asian Development Bank database (Key Indicators of Developing Asian and Pacific Countries, various years) and National Investment Coordinating Board (BKPM, various years)

<sup>17</sup> The “national car” was a compact sedan named the “Timor” and was manufactured in Korea and granted duty free entry into Indonesia. It prompted a vigorous campaign of protest against the blatant discrimination by existing Japanese, European and American makers that ultimately was taken to the World Trade Organization (WTO).

**Figure 2: Growth in Indonesian External Trade (total trade as a percentage of GDP), 1993-2006**



Source: Asian Development Bank database (Key Indicators of Developing Asian and Pacific Countries, various years) and BKPM (various years)

Textile, consumer electronics and automotive are good examples of domestic industries which developed rapidly after the introduction of the national laws on foreign investment (*UU PMA*) in 1966 and on domestic investment (*UU PMDN*) in 1967 aimed to liberalize some sectors (including manufacturing industry) and some subsectors of the manufacturing industry (including textile, electronics and automotive) for private investment. In textile industries FDI from Japan was dominant in the 1970s, especially in the synthetic-fibre and modern weaving industry, and followed by Korean and Taiwanese firms have made investments since the late 1980s. In early 1990s, foreign firms accounted for less than 30% of the share in value added in spinning and weaving industry.

The garment industry only began focusing on export orientation in the early 1980s, as a result of the implicit export subsidy under the export-certificate scheme and the subsidized export credit mechanism described earlier. Until the mid-1980s, the sector was dominated by domestic firms, but the share of foreign firms in value added increased to 24% by 1992. The number of foreign firms in the garment sector increased after 1986, as a result of the relocation of East Asian NIE firms, especially from Korea and Taiwan. The main reason for relocating to Indonesia was the combination of low labour costs and the improvements in the investment climate in the country.

In consumer-electronics industry, the banning of CBU consumer electronics in the 1970s led to investments by joint ventures and domestic companies producing under licence. In 1970s up to mid-1980s, the dominant investor was Japan. Export of this industry only began in the mid-1980s by some firms, but exports accelerated only in the early 1990s, after the relocation of a number of large consumer-electronics firms from Japan and Korea. As a result, the share of foreign consumer-electronics firms in value added increased from 58% in 1986 to 71% in 1992.

The automotive industry in Indonesia is still domestic market oriented. The industry started to develop with after the government issued a policy to ban the import of CBU motor vehicles in early 1970s, aimed to encourage import substitution in automotive assembly. In addition, the government also introduced a domestic-content policy, known as the deletion program, in 1977 and set target dates for assemblers to meet certain levels of local content. In 1993, the ban on imports of CBU vehicles

was replaced by tariffs of 200% for vehicles assembled domestically and 300% for those not assembled domestically. Many foreign brands, especially Japanese ones, were produced in Indonesia through either joint ventures or production under license. In some cases, the firms started off as domestic firms producing under license, with the foreign principal keeping a tight control over operations. Other important foreign investors in this industry were German and American.

A lot of investment went into components and parts production, including engines. Some of the large-scale assemblers invested in backward integration, often in partnership with the suppliers of their principal, mostly Japanese. The manufacture of components and parts, however, which was a result of the domestic-content rules, comprised foreign joint ventures, domestic producers producing under license for foreign brand names, and many local SMEs.

The bold reforms discussed above also resulted in rapid economic growth and an extremely rapid transformation from the beginning of 1970s to 1997. High economic growth, together with low inflation, raised per capita income more than ten-fold from \$70 in 1969 to \$1100 in 1997 (current prices). In 1998 the per capita income dropped significantly and in 2000 onwards it started to recover though the process has been slow. The growth rate of per capita real GDP is still much lower than that of Thailand, another most affected country in the region by the crisis (Table 2).

**Table 2: Growth rate of per capita real GDP in Southeast Asia (% per year)**

Country	2002	2003	2004	2005	2006
Cambodia	4.2	6.6	9.3	10.9	8.2
Indonesia	3.2	3.5	3.7	3.4	5.1
Lao People's Dem. Rep.	3.1	3.2	3.5	-1.7	5.2
Malaysia	2.2	3.3	5.0	3.0	3.9
Myanmar	9.8	11.6	11.3	11.0	-
Philippines	2.4	2.8	4.0	2.8	3.2
Singapore	3.2	2.8	7.4	4.1	4.5
Thailand	4.4	6.2	4.5	4.4	3.9
Viet Nam	5.7	5.8	6.3	7.0	6.9

Source: ADB (2007)

The growth success during the New Order era was also matched by similar success on the distribution side. The number of people living below the poverty line was reduced from 70 million in 1970 to 26 million in 1993. This meant a fivefold reduction in the percentage of people living below the poverty line from 60 per cent to 14 per cent during the same period.<sup>18</sup>

The transformation in the Indonesian economy since 1966 has been remarkable. Even though foreign aid is still a significant source of economic development, prior to the current crisis, this was gradually being complemented by tax revenue. Government investments, once occupying the commanding heights of the economy, have been gradually replaced by private and foreign investment. Oil revenue, the main source of foreign exchange earnings in the 1970s, has been replaced by non-oil export earnings amounting to around 70 per cent of total exports in the 1990s. All of this resulted in an economy more resilient to external shock for much of this period.

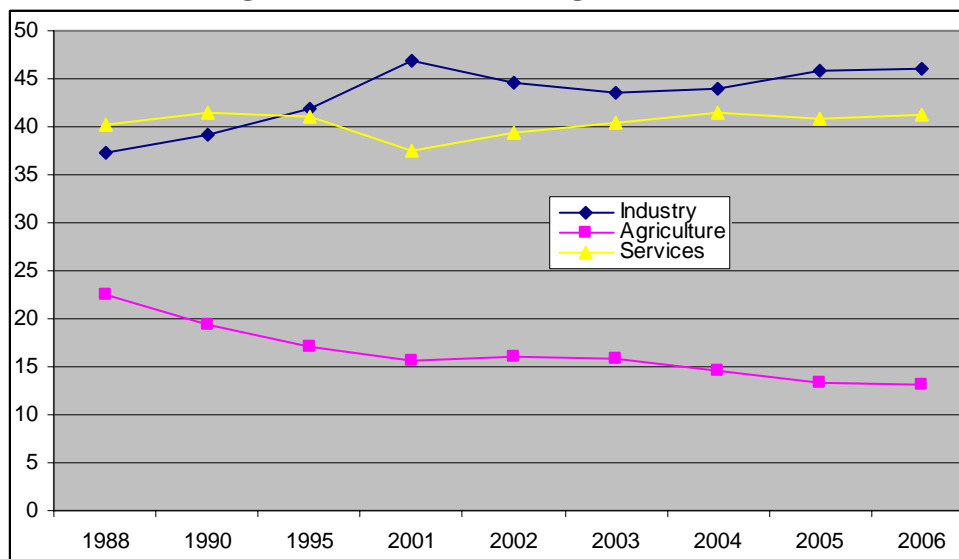
<sup>18</sup> The remarkable economic development in Indonesia during the New Order government is discussed in many publications, including, Booth and Cawley (1981), Booth (1989), Hill (1996), and Tambunan (2006).



Equally remarkably, structural change has also been the landmark of Indonesia's New Order. The agricultural sector, which once dominated the economy, declined from 56 per cent of GDP in 1965 to less than 15 per cent in 2007. Meanwhile, the industry has grown tremendously and as a result, the share of industry in GDP, which was a mere 8 percent in 1965, reached more than 45% in 2001, 2005 and 2006 (Figure 3)

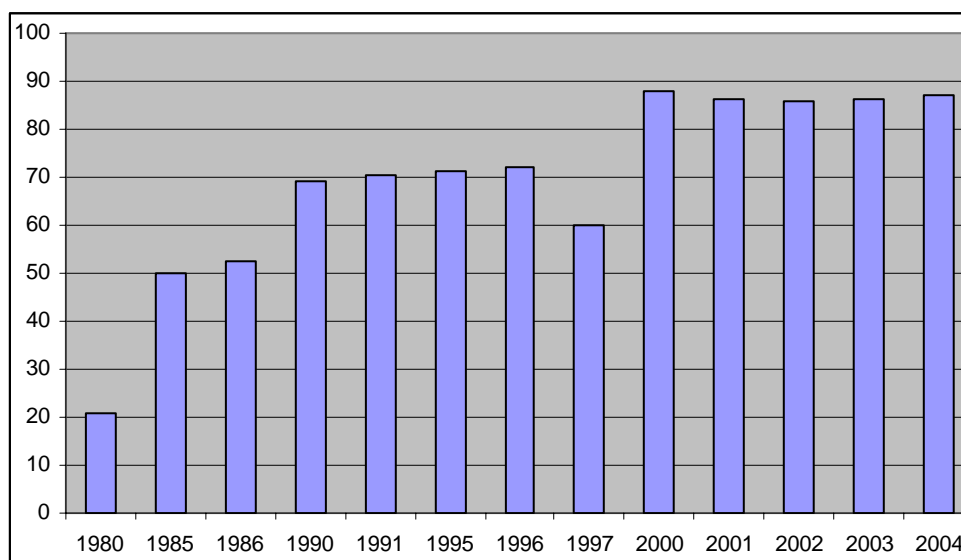
Initially, the objective of Indonesia's more liberal foreign trade policies was to restructure the economy by diversifying the external trade sector away from its heavy dependence on oil and gas. These reform policies were highly successful at attracting foreign investment in light, labor-intensive export industries (Magiera, 2001). Until the late 1970s, manufacturing exports constituted no more than 4 percent of total exports. By 1987 the share of manufacturing exports had surpassed the share of agricultural exports, and in 1992, overtook the share of oil and gas, mineral, and basic metal exports. As the share of agricultural and primary product exports declined and the share of manufacturing exports increased, Indonesia became less prone to external terms of trade shock. Figure 4 shows a positive trend in long-term development of manufactured exports in Indonesia's total non-oil and gas exports

**Figure 3: Structural Change (% of GDP)**



Source: Asian Development Bank database

**Figure 4: Share of Industry Manufacturing in Total Non-Oil & Gas Exports, 1980-2004 (%)**



Sources: for the period 1980-1997: James (2001), and 2000 onwards: Department of Industry.

In 2004, the government has established an Investment Policy Reform Initiative (IPRI) having as its objective the encouragement and facilitation of private sector investment through reform and implementation of transparent, predictable, market oriented policies applied equally to both foreign and domestic investors. In this the government has recently adopted major policy changes, including liberalizing the rules for foreign investment (Box 3). This IPRI sets forth newly adopted and current policies of the government for promoting and facilitating private sector investment in Indonesia. The government is committed to the rapid elimination of the remaining restriction on foreign and local private investment. To ensure its effectiveness, the IPRI will be supplemented, if necessary, by more new detailed investment guidelines.

### **Box 3: Investment Policy Reform Initiative (IPRI)**

In relation to this IPRI, the government has undertaken the following steps:

- 1) New National Investment Law which is already implemented since early 2007 which regulates investment on all sectors. This new law incorporates market oriented principles of investment policy and establishes basic guarantees such as equal treatment of Indonesian and foreign investors whenever possible, protection against expropriation of investment. Free repatriation of foreign investment capital and returns and a reasonable part of the salaries and wages of expatriate personnel and related concepts drawn from regional and international best practice. Regulations and Decrees issued under the earlier investment laws have been streamlined and reformed to minimize negative list and other restrictions on local and foreign investment. In this new law the administration of investment related functions by government agencies and departments have been updated and improved in light of the new policies contained in this Investment Policy Statement.
- 2) Investors are permitted to invest in any sector of the economy except in activities, which are listed on "Negative List" (see Box 4). There are no restrictions on the size of the investment, the source of funds or whether the products are destined for export or for the domestic market. Existing foreign investors may invest in activities other than those initially authorized, except for activities stated on the negative list.
- 3) Industrial licenses are still needed based on the principles of fairness, simple, quick and transparent mechanism and procedure. Procedures for company formation are to be administered so as to permit prompt establishment of business enterprises.
- 4) The government is committed to enhance the country's investment climate and international competitiveness by further reducing and simplifying taxes and duties through ongoing tax and trade policy reform programs. The current Indonesia tax law provides tax incentive to investors who invest in certain sectors and or certain areas as follows: (a) investment allowances; (b) accelerated depreciation and amortization; (c) expanded loss compensation but not more than 10 years; (d) 10% tax rate for dividend paid to foreign taxpayer, except to prevail tax convention maintaining lower tax rate.
- 5) The government will continue to ensure, according to pre-set criteria and procedures that foreign exchange for import transactions and dividend payments is freely available and the Government is committed to ensuring the ease of repatriation of capital and payments for business services.
- 6) The government is also considering introducing a simple system that will allow foreign investments access to local funding based on simple established criteria.
- 7) Within the framework of the labor laws of Indonesia, the government recognizes that enterprises may require foreign expertise. Accordingly, it will continue to make residence permits readily available according to prevailing regulation for key personnel required for employment in such enterprises.
- 8) The government recognizes the importance of infrastructure to support investment and is committed to make available adequate infrastructure such as transport, electricity, water and communications through partnership mechanisms that attract private capital. Adequate legal protection including guarantees for the integrity of contracts will be provided.
- 9) The government is committed to ensure that land for industrial and commercial use is readily available to investors. The government will receive and simplify all existing land licensing and environmental approval procedures to ensure transparency. The government is committed to develop new serviced industrial sites and has provided the necessary framework to enable private investors to develop industrial sites including through arrangements for subleasing to other investors.
- 10) To further enhance the capacity of the National Investment Coordinating Board (BKPM) and to create an integrated investment promotion regime, the government is actively reviewing proposals for the formation of an independent, public private partnership to promote and facilitate all private investment in all sectors in Indonesia.
- 11) The government is committed that the investment services for foreign and domestic investment in the era of regional autonomy is more preferable than the current condition. Therefore, a "one stop service" system will be introduced to be implemented in the region.
- 12) The government recognizes that security of assets of investors is of paramount importance. It therefore, assures investors that it will avoid using any measures that will adversely affect their property rights. In the case of foreign investors, the government has negotiated and concluded several bilateral investment treaties, which provide direct protection to investors for the security of their assets as well as assurances for the repatriation of proceeds from their investments. The government will actively pursue additional bilateral investment treaties with other countries. Indonesia has also joined the Multilateral Investment Guarantee Agency (MIGA).
- 13) To improve economic and trade relationship with other countries, Indonesia would like to have certain law provisions that regulate the right of tax imposed from each country. The purposes of those provisions are achievement of rule of law, avoiding double taxation, and prevention of tax evasion. The government is entitled to make an agreement with other countries to avoid double taxation and to convention and other rule of laws and also the tax regulation of each country.
- 14) The government recognized that foreign investors must have an appropriate forum to resolve disputes that can not be settled amicably. While such disputes would normally lie within the jurisdiction of a competent court, parties may agree in certain cases to pursue extra-judicial adjudication and to choose an appropriate forum, including international conciliation or arbitration. To that end, Indonesia has become a member of the International Center for Settlement of Investment at Washington DC

**(Box 3 continued)**

15) In this IPRI, the development of the country's small and medium enterprises (SMEs) gets also an important attention. The government is therefore dedicated to continuing with various programs assists these enterprises, including simplifying the regulatory and policy environment, removing obstacles to securing access to raw materials, removing tax related impediments and improving access to credit. Also with these programs, the government will promote mutually advantageous, commercially beneficial subcontracting/partnership arrangements between large-scale foreign and local firms and small- and medium-scale business.

Source: BKPM (news letters/press releases, 2004-2007)

The willingness of Indonesia to liberalize its investment and external trade regimes is also related to the country's commitments with ASEAN. As a member of the Association of Southeast Asian Nations (ASEAN), Indonesia is committed to form a free trade area in ASEAN (AFTA), through the agreed Common Effective Preferential Tariff (CEPT) scheme, started in 2003. AFTA is meant to create a preferential trading block in ASEAN. That was in January 1992 when intra-ASEAN economic co-operation received a major boost at the Fourth ASEAN Summit in Singapore with the agreement by ASEAN countries to achieve an ASEAN Free Trade Area (AFTA) within 15 years. Originally, fifteen commodity groups were chosen to be on the fast track, which included such areas as vegetable oils, chemicals, fertilizers, rubber products, pulp and paper, wooden and rattan furniture, gems and jewellery products, cement, pharmaceuticals, plastics, leather products, textiles, ceramics and glass products, copper cathodes, and electronics. For fast-track products with tariffs greater than 20 per cent, tariffs were to be immediately reduced to 20 per cent, and to 0-5 per cent within 10 years; while for fast-track products with tariffs at 20 per cent or below, tariffs were to be reduced to 0-5 per cent within 7 years.

To qualify for CEPT (Common Effective Preferential Tariff), goods must satisfy the ASEAN local content requirement of 40 per cent. AFTA is a broader and much improved intra-ASEAN liberalization program, but unprocessed agriculture products were initially excluded. Only since the last few years, unprocessed agricultural commodities started to be included in the scheme. Recently, AFTA has been expanded with several non-member countries. For instance, the ASEAN-China FTA was formed in 2003, and almost all main important unprocessed agricultural products are included in this agreement such as live animals, meat and edible meal offal, fish, dairy produce, other animal products, live trees, edible vegetables and edible fruits and nuts.

In addition, as a member of APEC, although there are no binding and specific liberalization commitments in APEC, Indonesia also commits to meet the Bogor Declaration to liberalize trade and investment in the Asia Pacific region through unilateral trade liberalization efforts with governments of other member countries in the region. In this respect, considerable industrial tariff reduction has been implemented by the Indonesian government in the last 10 years. In APEC, the tariff reduction measure is generally based on the average level of tariff. This means that sectoral classifications become less relevant.<sup>19</sup>

Besides these two regional commitments, Indonesia has commitments to international trade and investment liberalization as part of the Uruguay Round/WTO agreement. In this respect, Indonesia

---

<sup>19</sup> The Bogor Declaration called upon APEC members to fully liberalize trade by 2010 for developed members and 2020 by developing members, including Indonesia.

has been reducing its border tariffs, opening its markets, as well as reducing other domestic distortions especially in the industrial and agricultural sectors.<sup>20</sup>

**BOX 4: NEGATIVE LIST BASED ON PRESIDENTIAL DECREE 96/2000 jo.118/2000**

**LIST OF BUSINESS FIELDS ABSOLUTELY CLOSED FOR INVESTMENT**

**AGRICULTURAL SECTOR**

1. Cultivation and processing of marijuana and the like

**MARINE AND FISHERY SECTOR**

2. Collection / utilization of sponge

**INDUSTRIAL AND TRADING SECTOR**

3. Industries producing chemicals harmful to the environment , such as penta chlorophenol, Dichloro Trichloro Ethane (DDT), dieldrin, chlordane, carbon tetra chloride, Chloro Flouro Carbon (CFC), methyl bromide, methyl chloroform, halon etc.
4. Industries producing chemicals stipulated in Schedule - 1 of the Chemical Weapon Convention (sarin, soman, tabun, mustard, levisite, ricine and saxitoxin)
5. Industries producing weapons and related components
6. Industries producing cyclamate and saccharine
7. Industries producing alcoholic drinks (liquor, wine and drinks containing malt)
8. Casino and gambling facilities

**COMMUNICATIONS SECTOR**

9. Air traffic system providers (ATS providers), ship certification and classification inspections
10. Management and operation of Radio Frequency Spectrum and Satellite Orbit Monitoring Stations

**MINING AND ENERGY SECTOR**

11. Mining of radioactive minerals

**LIST OF BUSINESS FIELDS CLOSED TO INVESTMENT IN WHICH A PART OF THE SHARE ARE OWNED BY FOREIGN CITIZENS AND / OR FOREIGN BUSINESS ENTITIES**

**FORESTRY AND PLANTATION SECTOR**

1. Germ plasm cultivation
2. Concession for natural forests
3. Contractors in the field of lumbering

**COMMUNICATION SECTOR**

4. Taxi / bus transportation services
5. Small-scale sailing

**TRADING SECTOR**

6. Trading and trading supporting services  
Except :  
Large-scale retailers (malls, supermarkets, department stores, shopping centers) , wholesale trading (distributors / wholesalers, exporters and importers), exhibition / convention service providers, quality certification service providers, market research service providers, warehousing services outside seaports, and after-sale services.

**INFORMATION SECTOR**

7. Radio and television broadcasting services providers, radio and closed circuit television broadcasting services, and multimedia and printed media.
8. Motion picture production industry (film production, film technical services, export and import film business, film distributors and motion picture theatre operation).

<sup>20</sup> Indonesia's Uruguay Round Market Access Negotiation was resolved with the decision that the country would bind substantially all tariff lines at 40 percent, with a few exceptions.

BOX 4 (continued)

8. Regular / non-regular commercial airliners.

#### **LIST OF BUSINESS FIELDS OPEN TO INVESTMENT UNDER CERTAIN CONDITIONS**

##### **MARINE AND FISHERY SECTORS**

- 1 Cultivation of fish in fresh waters
  - a. Open to foreign investments for freshwater turtles, nila gift, sidat, kodok lembu, fresh water giant shrimps and thillapya sp;
  - b. In cooperation with small-scale fishery business
- 2 Fishing of demersal fish (big fish, grouper and other sea fish)
  - except ZEEI areas of the Malacca Strait and Arafura sea

##### **INDUSTRIAL SECTOR**

- 1 Industries producing wood pulp
  - a. raw material obtained from imported chips or quarantine of raw material supplied from industrial timber estates (HTI)
  - b. other than sulfonating and / or chlorination (C 12)
- 2 Industries producing pulp made of other cellulose fibres or other materials
  - other than sulfonating and chlorination (C 12)
- 3 Industries producing chloro alkali
  - other than those using mercury
- 4 Processing of finished / semi-finished goods made from mangrove wood
  - raw material coming from mangrove cultivation
- 5 Money printing industry
  - Operational licenses from BOTASUPAL -BAKIN and approval from Bank Indonesia required
- 6 Special printing industries (postal stamps, duty stamps, Bank Indonesia negotiable papers , passports and stamped postal matter)
  - Operational licenses from BOTASUPAL - BAKIN required
- 7 Milk processing industry (powder and sweetened condensed milk)
  - processing (not only repackaging)
- 8 Plywood and rotary veneer industries
  - only for The Irian Jaya Province (Papua)
- 9 Sawn timber industries
  - a. only for the Irian Jaya province (Papua)
  - b. outside the Irian Jaya province (Papua), only using logs from non natural forests
- 10 Ethyl alcohol industries
  - Technical grade, being only used as raw materials and auxiliary materials of other industries.
- 11 Industries producing raw materials for explosives (ammonium nitrate)
  - Only in cooperation with business entities which have secured a recommendation from the Ministry of Defense
- 12 Industries producing explosives and components for industrial (commercial) use
  - a. Only in cooperation with business entities which have secured a recommendation from the Ministry of Defense.
  - b. Only manufacturing activities, while storage and distribution are executed by companies appointed by the government.
- 13 Electricity planning and supervision consulting services
  - Open to foreign investments with the provision that:
    - a. PLTA (Hydro power plant) with a capacity above 50 MW,
    - b. PLTU (steam power plant) with a capacity above 55 MW,
    - c. PLTP (geothermal power plant) with a capacity above 55 MW,
    - d. Main electrical relay station with a voltage above 500 KV,
    - e. Transmission networks with a voltage above 500 KV
- 14 Electricity equipment construction, maintenance, installation services, development of technology supporting the supply of electricity and testing of electricity installations.
  - Open to foreign investments with the provision that:
    - a. Main electrical relay stations with a voltage above 500 KV,
    - b. Transmissions networks with a voltage above 500 KV

BOX 4 (continued)

15 Petroleum and natural gas drilling services

Open to foreign investments with the provisions that:

- a. only for offshore drilling,
- b. especially for locations outside the Eastern Indonesia Region, must cooperate with national partners operating in a similar business field.

16 Power plant businesses

- Open to locations outside Java, Bali and Madura

TRADING SECTOR

1 Restaurants

- Open to foreign investments with the special provision that they must be located in tourism areas / zones and / or integrated with hotels

2 Game services

- Open to foreign investments with the special provision that they must be located in tourism areas / zones and / or integrated with hotels.

Source: BKPM

## *IV. Overview of Development of SMEs in Indonesia*

In Indonesia, SMEs have historically been the main player in domestic economic activities, especially as a large provider of employment opportunities, and hence a generator of primary or secondary sources of income for many households. For low income or poor farm households in rural areas, SE units of less than 20 workers in non-farm activities are especially important. These enterprises have also been an important engine for the development of local economies and communities. However, compared with many others, especially more developed economies, Indonesian SMEs are not yet contributing significant value added to the national economy. Instead, they have been more important as the locus of most employment<sup>21</sup>.

SMEs have also been expected to play another important role in the Indonesian economy, namely as an engine for the growth of exports of non-oil and gas, particularly in manufacturing. This expectation stems from evidence showing that the most successful cases of SMEs development in the Newly Industrializing Countries (NICs) such as South Korea and Taiwan have directly related to trade and the adoption of export-oriented strategies. The experiences of these countries suggest that although in general export-orientation is highly correlated with size, many (if not all) SMEs can compete effectively in both domestic and international (Tambunan, 2006).

---

<sup>21</sup> In Indonesia, there are several definitions of SMEs, depending on which agency provides the definition. As this paper uses data from the State Ministry of Cooperative and Small and Medium Enterprises (Menekop & UKM), the Department of Industry (MoI), and the Central Statistical Agency (BPS), only definitions of these three government agencies are relevant for the paper. Menekop & UKM promulgated the Law on Small Enterprises Number 9 of 1995, which defines a small enterprise (SE) as a business unit with total initial assets of up to Rp 200 million (about US\$ 20,000 at current exchange rates), not including land and buildings, or with an annual value of sales of a maximum of Rp 1 billion (US\$ 100,000), and a medium enterprise (ME) as a business unit with an annual value of sales of more than Rp 1 billion but less than Rp 50 billion. The Law does not explicitly define micro enterprises (MIEs). However, Menekop & UKM data on SEs include MIEs. BPS, which regularly conducted surveys of SMEs, uses the number of workers as the basis for determining the size of an enterprise. In its definition, MIEs, SEs and MEs are business units with, respectively, 1-4, 5-19, and 20-99 workers, and large enterprises (LEs) are units with 100 or more workers. MoI defines enterprises by size in its sector also according to number of workers as the BPS definition.

Typically, SMEs in Indonesia account for more than 90% of all firms outside the agricultural sector, and thus they are the biggest source of employment, providing livelihood for over 90% of the country's workforce, especially women and the young. The majority of SMEs, especially the smallest units, generally called micro enterprises (MIEs), are scattered widely throughout the rural area and therefore they may play an important role as a starting point for development of villagers' talents as entrepreneurs, especially those of women. MIEs are dominated by self-employment enterprises without hired paid workers. They are the most traditional enterprises, generally with low levels of productivity, poor quality products, and serving small, localized markets. There is little or no technological dynamism in this group. The majority of these enterprises eke out bare subsistence. Some of them are economically viable over the long-term, but a large portion is not. Many MIEs face closure or very difficult upgrading especially with import liberalization, changing technology and the growing demand for higher quality modern products. However, the existence or growth of this type of enterprise can be seen as an early phase of entrepreneurship development.

According to official data from the State Ministry of Cooperative and Small and Medium Enterprises (Menekop & UKM), SEs in 1997 accounted for more than 39.7 million units, or about 99.8% of the total number of enterprises in the country in that year, and increased to more than 48 million units in 2006 (Table 3). So, generally speaking, this table may indicate that every year new entrepreneurs have been born. Unfortunately, there is no data which can show whether the transformation process or size upgrading has happened within SMEs, with MIEs becoming SEs, SEs becoming MEs, and MEs being transformed into LEs. This transformation process of firms by size may show a better picture about long-term entrepreneurship development.

**Table 3: Total Units of Enterprises by Size Category: 1997-2006 (000 units)**

Size Category	1997	1998	1999	2000	2001	2003	2004	2005	2006
Σ SEs	39,704.7	36,761.7	37,804.5	39705.2	39883.1	43372.9	44,684.4	47,006.9	48,822.9
Σ MEs	60.5	51.9	51.8	78.8	80.97	87.4	93.04	95.9	106.7
Σ LEs	2.1	1.8	1.8	5.7	5.9	6.5	6.7	6.8	7.2
Total	39,767.3	36,815.4	37,858.1	39789.7	39969.995	43466.8	44,784.14	47,109.6	48,936.8

Source: Menekop & UKM (various issues).

In the Asia-Pacific region, Indonesia is the biggest economy with respect to the total number of SMEs. A 2003 report from APEC and some official estimated data from a number of member economies show that about 50% of total non-farm SMEs in the region were in Indonesia and China (Table 4). When agriculture is included, this portion is much higher since these two countries are the largest agrarian economies in the group.

The unit structure of SMEs by sector indicates that the majority of enterprises in all sectors are from the category of SME with almost 100 percent in agriculture (Table 5). Whereas, the distribution of SMEs by sector shows that Indonesian SMEs are concentrated in agriculture, followed by trade, hotel and restaurants as the second and manufacturing industry as the third largest sector (Table 6). In this latter sector, they are involved mainly in simple traditional manufacturing activities such as wood products, including furniture, textiles, garments, footwear, and food and beverages. Only a small portion of total SMEs are engaged in production of machinery, production tools and automotive components. This is generally carried out through subcontracting systems with several multinational car companies such as Toyota and Honda. This structure of industry reflects the current technological



capability of Indonesian SMEs, which are not yet as strong in producing sophisticated technology-embodied products as their counterparts in other countries such as South Korea, Japan, and Taiwan. Although the Indonesian government has been taking many initiatives to support the capacity building, especially in technology and human resource development, in SMEs, ranging from trainings in production technique, general management (MS/MUK), management quality systems ISO-9000, and entrepreneurship; providing total quality control advice; promoting and supporting subcontracting arrangements between SMEs and LEs (including FDI-based companies) as well as linkages between SMEs and R&D institutions and universities; and establishments of Small Business Consultancy Clinics (KKB), and common service facilities, including lab. (UPT) in clusters.

**Table 4: Numbers of Non-Agricultural SMEs in Selected Asia-Pacific Economies\***

Country/Economy	SME in non-agricultural sector**			SMEs as % of all enterprises in the 1990s**
	1990	1996	2002	
Australia	757,100	895,500	1,111,900	97
Brunei Darussalam	3,856	4,085	5,000	98
Canada	855,840	879,335	925,000	98
Chile	423,021	445,299	500,000	16
China	8,608,200	7,253,406	8,000,000	99
Hong Kong, China	277,886	287,904	292,000	98
Indonesia	12,045,600	16,416,020	17,000,000	98
Japan	6,484,264	6,433,557	6,139,735	99
South Korea	2,094,637	2,607,710	2,700,000	99
Malaysia			19,000	84
Mexico	1,302,757	2,179,631	2,854,266	99
New Zealand	159,564	218,044	19,2000	99
Peru	406,966	453,667	460,000	
Philippines	77,807	99,767	817,976	99
Russian Federation	896,000	886,500	850,000	86
Singapore	31,468	47,001	54,000	91
Chinese Taipei	791,663	991,881	1,050,000	98
Thailand	632,300		350,000	96
USA	5,359,421	5,691,430	6,303,593	96
Viet Nam	1,000		200,000	
Total	40,640,280	45,790,737	49,824,470	

Notes: \* figures in the columns 2 - 4 include state owned companies in some cases (notably China);

\*\* blanks indicate data are not available.

Source: APEC (2003) and other official estimated data from some individual member economies

**Table 5: Unit Structure of SMEs by Sector in Indonesia, 2000, 2005 and 2006 (%)**

Sector	2000				2005				2006			
	SE	ME	LE	Σ	SE	ME	LE	Σ	SE	ME	LE	Σ
1.Agriculture	99.99	0.01	0.00	100.0	99.99	0.01	0.00	100.0	99.99	0.01	0.00	100.0
2.Mining	99.61	0.35	0.04	100.0	99.67	0.28	0.05	100.0	99.72	0.23	0.05	100.0
3.Manufacture	99.48	0.45	0.07	100.0	99.42	0.49	0.09	100.0	99.40	0.52	0.08	100.0
4. Elect, gas & water supply	93.19	5.59	1.22	100.0	92.47	6.18	1.35	100.0	92.50	6.14	1.36	100.0
5.Construction	97.57	2.24	0.19	100.0	97.43	2.40	0.17	100.0	97.55	2.26	0.19	100.0
6.Trade, hotel & restaurant	99.54	0.45	0.01	100.0	99.57	0.42	0.01	100.0	99.55	0.43	0.02	100.0
7.Transport & comm..	99.87	0.12	0.01	100.0	99.82	0.16	0.02	100.0	99.81	0.18	0.01	100.0
8.Finance, rent & service	83.42	14.63	1.95	100.0	83.65	14.67	1.68	100.0	85.11	13.37	1.52	100.0
9.Services	99.60	0.38	0.02	100.0	99.66	0.32	0.02	100.0	99.67	0.31	0.02	100.0
Total	99.79	0.20	0.01	100.0	99.78	0.20	0.02	100.0	99.77	0.22	0.01	100.0

Source: Menekop & UKM (various issues).

**Table 6: Unit Distribution of SMEs by Sector in Indonesia, 2000, 2005 and 2006 (%)**

Sector	2000				2005				2006			
	SE	ME	LE	Σ	SE	ME	LE	Σ	SE	ME	LE	Σ
1. Agriculture	59.23	2.22	1.20	59.11	55.86	1.74	0.85	55.75	53.68	1.57	0.74	53.56
2. Mining	0.38	0.67	1.18	0.38	0.50	0.69	1.60	0.50	0.54	0.58	1.67	0.54
3. Manufacture	6.57	14.91	33.57	6.59	5.95	14.30	36.98	5.97	6.56	15.82	35.47	6.58
4. Elect., gas & water supply	0.03	1.02	3.08	0.04	0.03	0.97	2.98	0.03	0.03	0.90	2.96	0.03
5. Construction	0.31	3.63	4.42	0.32	0.34	4.08	4.30	0.35	0.33	3.52	4.41	0.34
6. Trade, hotel & restaurant	24.37	55.36	24.95	24.43	25.89	53.38	21.83	25.95	27.13	54.03	24.11	27.19
7. Transport & communic.	4.70	2.89	3.88	4.70	5.54	4.48	4.67	5.53	5.52	4.46	4.47	5.52
8. Finance, rent & service	0.13	11.14	20.60	0.15	0.13	11.22	18.06	0.16	0.15	10.51	17.68	0.17
9. Services	4.28	8.17	7.12	4.29	5.76	9.13	8.72	5.77	6.06	8.60	8.50	6.06
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Menekop & UKM (various issues).

The output structure by size of enterprises and sector shows that agriculture has always been the key sector for SEs, as they produce around 86 to 87 percent of total output in the sector. The second important sector for this group of enterprises is trade, hotel and restaurant with their annual share ranging from 74 to 76 percent. MEs, on the other hand has the largest output contribution in finance, rent & service at around 46 to 47 percent, followed by transportation and communication with a share ranging from the lowest 23.47 per cent in 2006 to the highest 26.22 percent in 2001. In manufacturing industry, both SEs and MEs are traditionally not so strong as compared to LEs (Table 7).

With respect to output growth, the performance of SMEs is relatively good as compared to that of LEs. The output growth of SEs and MEs was respectively 3.96 per cent and 4.59 per cent in 2001 and increased to 5.38 percent and 5.44 percent, respectively in 2006. LEs experienced, on the other hand, a growth rate of 3.04 percent and ended up at 5.60 percent during the same period (Figure 5).

**Table 7: Structure of GDP by size of enterprises and sector, 2000-2006 (%)**

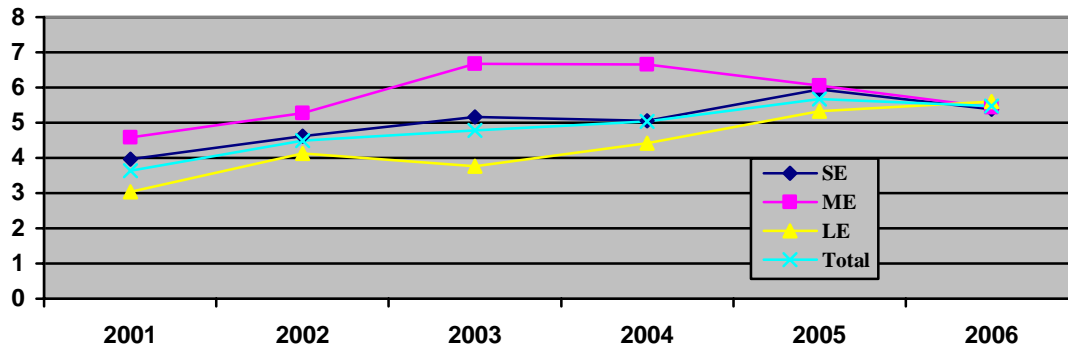
Sec*	2000			2001			2002			2003			2004			2005			2006			Σ
	SE	ME	LE	SE	ME	LE	SE	ME	LE	SE	ME	LE	SE	ME	LE	SE	ME	LE	SE	ME	LE	
1	86.5	9.0	4.5	87.1	8.7	4.2	87.6	8.4	4.1	87.5	8.5	4.0	87.4	8.6	4.1	87.3	8.6	4.1	86.8	8.9	4.3	100.0
2	5.6	2.7	91.8	6.2	2.8	90.9	8.3	3.2	88.4	9.2	3.5	87.3	8.5	3.3	88.3	7.0	3.0	90.0	8.2	3.2	88.6	100.0
3	13.3	12.6	74.2	15.6	12.4	73.9	13.7	12.6	73.7	13.9	12.6	73.6	13.3	12.2	74.5	12.7	11.6	75.8	12.5	11.3	76.3	100.0
4	0.6	8.9	90.5	0.6	8.1	91.4	0.6	9.1	90.3	0.6	8.4	91.1	0.5	7.4	92.0	0.5	7.6	91.9	0.5	7.6	91.9	100.0
5	44.6	21.8	33.7	44.8	21.8	33.4	44.3	21.8	33.9	44.6	21.8	33.6	44.0	21.7	34.3	44.3	21.8	33.9	44.2	21.8	34.0	100.0
6	74.8	21.5	3.8	74.4	21.8	3.9	75.8	20.5	3.7	75.2	21.0	3.8	74.9	21.2	3.9	75.7	20.7	3.7	76.1	20.3	3.6	100.0
7	34.8	25.3	39.9	35.2	26.2	38.6	32.8	24.9	42.3	32.0	24.9	43.1	29.1	24.4	46.5	28.8	24.0	47.2	29.8	23.5	46.7	100.0
8	18.0	47.2	34.8	18.1	46.7	35.3	17.9	47.3	34.8	17.2	46.7	36.1	17.2	47.0	35.8	17.0	47.0	36.1	16.7	46.9	36.4	100.0
9	36.8	7.6	55.5	36.7	7.6	55.8	39.4	7.9	52.7	38.9	7.8	53.3	38.9	7.8	53.3	40.8	8.2	51.1	40.2	8.0	51.8	100.0
GDP	38.9	15.8	45.3	39.0	15.8	45.2	40.8	16.2	43.1	40.5	16.3	43.2	39.2	16.2	44.6	37.8	15.7	46.5	37.7	15.6	46.7	100.0

Note: \* = code of sector, see Table 4.

Source: National Agency for Statistics (BPS)

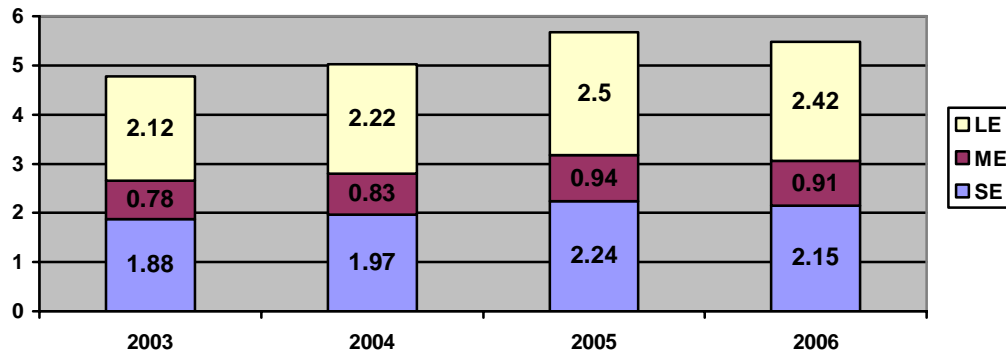
SMEs' contribution to the annual GDP growth is also higher than that of LEs. In 2003, the GDP growth rate was 4.78 percent, from which 2.66 percent came from SMEs, compared to 2.12 percent from LEs. In 2005, the SMEs' share in GDP growth reached the highest level at 3.18 percent before slightly declined to 3.06 percent in 2006. More interestingly, within the SME group, SEs' contribution to the GDP growth is always higher than that of MEs. In 2006, from the GDP growth rate at 5.5 percent, about 2.15 percent is from SEs as compared to 0.91 per cent from MEs (Figure 6).

**Figure 5: Output Growth Rates of SEs, MEs and LEs, 2001-2006 (%)**



Source: Menegkop & UKM (various issues).

**Figure 6: GDP growth contribution by size of firms, 2003-2006 (%)**



Source: National Agency for Statistics (BPS)

## V. Effects of the Reforms on SMEs in Indonesia

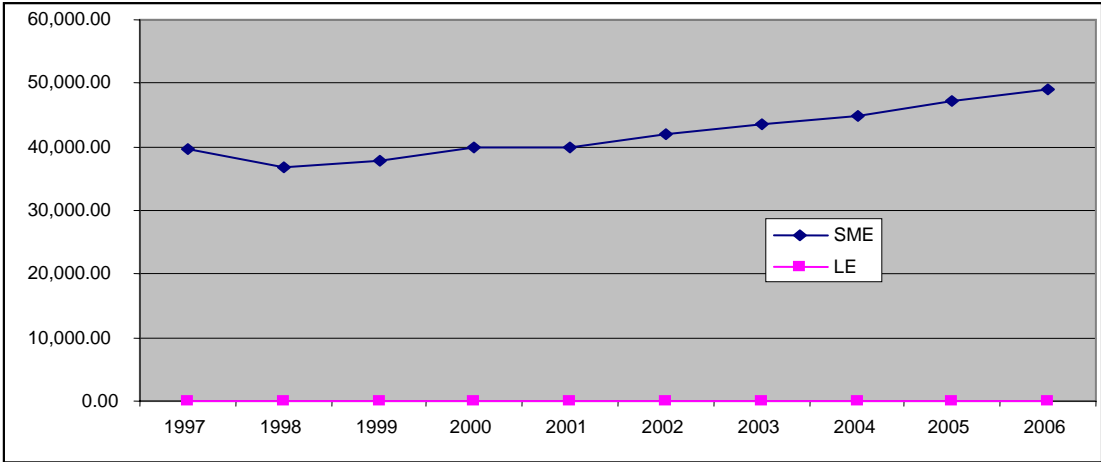
### V.1 Growth in Units and GDP Contributions

Clearly, the development of manufacturing industry and non-oil/gas exports in Indonesia has been an important success of the era of deregulation of international trade and investment in the country. However, there are always concerns regarding the survival of SMEs in the country. Questions remain: (i) can local SMEs survive if imports are allowed to freely enter the domestic market; (ii) have export opportunities been more open for local SMEs since the reforms; (iii) do local SME have enough capacity to develop or increase their exports; and (iv) how best can SMEs enhance their ability to supply foreign invested firms and thus participate more actively in regional or global production networks as sub-contractors of MNEs?

With respect to the first question, the answer is positive. Figure 7 indicates that after a slightly decline in 1998 as a consequence of the economic crisis, the number of SMEs kept growing since then. As already discussed in the literature survey (see again Section II.1), van Dierman *at al.* (1998) tried to assess the impact of more aggressive trade and investment policy reforms shortly after the economic crisis in 1997/98 related to the IMF sponsored deregulations under the Letter of Intent (LOI) on SMEs in the manufacturing industry in Indonesia. They conclude that the likely impact varies by subsector or group of industry. SMEs in the pre-crisis most protected industries were expected to be adversely

affected than those in the less protected ones. This figure may suggest, however, that although many SMEs may have been damaged, in overall, the reforms have not affected SMEs negatively

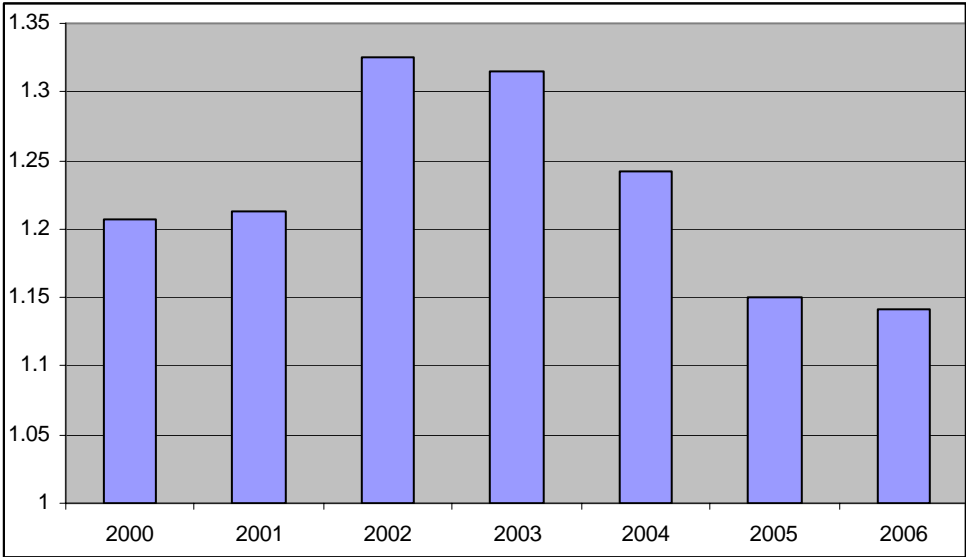
**Figure 7: Growth in Unit of SME and LEs, 1997-2006**



Source: Menekop & UKM

Further, the structure of GDP by size of enterprises (see again Table 7) shows that the GDP share of SMEs is always above 50 per cent, so, the ratio of SMEs to LEs in GDP contribution is always above one (Figure 8). If the reforms before and after the crisis have been in favor of LEs, then the SMEs’ contribution to GDP should have been fell to less than 50 per cent. On the contrary, SMEs have managed not only to survive but also to increase their output. As shown before (see again Figure 5), the output growth of SEs and MEs was respectively 3.96 per cent and 4.59 per cent in 2001 and increased to 5.38 percent and 5.44 percent, respectively in 2006. Also (see again Figure 6), the SMEs’ contribution to the country’s annual GDP growth is higher than that of LEs. So, there is no evidence on the suspected negative correlation between the openness of the Indonesian economy as a consequence of the reforms and the existence of local SMEs.

**Figure 8: Ratio of SMEs to LEs in GDP Contribution, 2000-2006**



Source: Menekop & UKM

## V.2 Export Growth

In the last few years, especially since the economic crisis 1997/98, there has been much discussion about the role of SMEs in Indonesia's non-oil and gas export development, particularly in manufacture. As in many other developing countries, in Indonesia, historically, LEs have been the dominant force not only in domestic sectors but also in export activities, with SMEs, especially the small ones, engaged in exporting in only a very limited way, mainly indirectly through production linkages with LEs or marketing linkages with trading houses/companies or independent exporters. This concern about the export propensity of SMEs in Indonesia has arisen as the government increasingly view export activity as a key source of foreign currencies that together with foreign investment can substitute the country's foreign debt. Moreover, it is generally believed that the income and job creating potential of SMEs will not be fully exploited unless these enterprises are also involved in exporting (Tambunan, 2006b).<sup>22</sup>

Official data on SMEs' exports may answer the second and the third questions, showing that not only SMEs are able to export (or at least a portion of them), but their export also increases on average per year. As presented in Table 8, in 2000, total exports of these enterprises amounted to Rp75,448.6 billion and went up by more than 50 per cent to Rp.122,199.5 billion in 2006. However, the share of SMEs in the country's total export is still very small as compared to that of LEs. In 1990, the SMEs' contribution to the total export (including oil and gas) was 11.1 percent, and increased to 15.7 percent in 2006. Within the group of these enterprises, MEs are much stronger than SEs. In 1990, the MEs' share in total export was 8.9 percent compared to 2.2 percent of SEs, and in 2006 the ratio is 11.81 to 3.89 percent (Figure 9).

Table 8 shows that the majority of SMEs' export came from the manufacturing industry. Interestingly, the share of MEs' export originated from this sector is much higher than that of SEs (Figures 10A and 10B). This significant gap may suggest that in the manufacturing industry, the ability of MEs to export is higher than that of SEs. The difference can be explained by differences in such as access to capital and market information, skills, promotion facilities, and external networks. Naturally, MEs are in a better position than SEs for all these factors, which are crucial in determining the successful of a firm in doing export.

However, the share of SMEs in total export of manufacturing industry is much smaller than that of their larger counterparts. Within the group, MEs performed much better than their smaller counterparts. As can be seen in Figure 11, the share of SEs never reached 10 percent. In 2000 it was only 3.15 percent and slightly decreased to 3 percent in 2006. While during the same period, the export share of MEs was 12.53 percent and improved to 14.72 percent. Previously, such as Hill (1997, 2001), Tambunan (2006b), and Thee (1993) argue that, although on average per year the export contribution of SMEs in Indonesia's total manufacturing export is relatively small as compared to that of their larger counterparts, they seem to have shared nicely in the manufactured export boom in the 1980s and 1990s. Thee (1993) concludes that from the point of view of technology and adaptability, export growth of SMEs in manufacturing industry has been achieved substantially by finding niche markets and adapting costs and quality to market demand.

---

<sup>22</sup> This government effort to promote SMEs as a major player in the country's export activities is reflected by the explicitly inclusion of SME issues in many recent issued regulations on trade and investment, including in the new law on investment which is still underway.

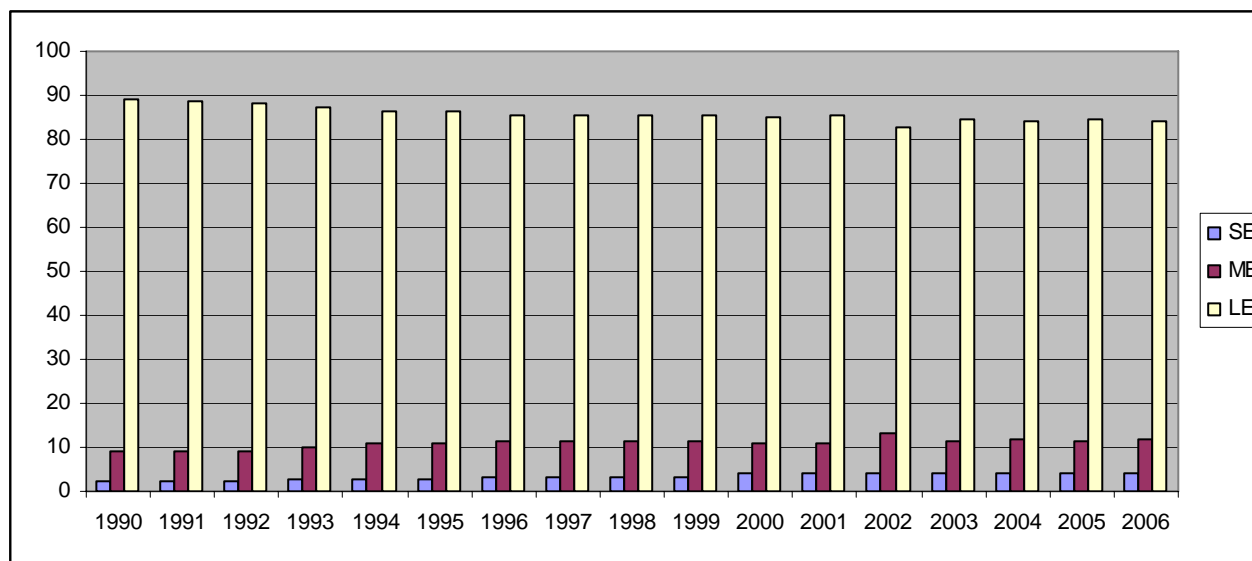
**Table 8: Exports of SMEs and LEs, 2000-2006 (billion rupiah)**

Sector*	2000		2001		2002		2003		2004		2005		2006	
	SME	LE	SME	LE	SME	LE	SME	LE	SME	LE	SME	LE	SME	LE
(1)	8396.3	427.5	9013.6	552.7	9771.6	962.2	8479.7	536.6	8715.3	881.8	11535.4	1037.9	12662.7	1078.8
(2)	657.0	74490.8	980.9	89811.2	684.7	79541.5	583.9	77829.2	638.7	92822.5	1139.9	132107.3	1621.3	153874.3
(3)	66395.3	357135.5	70852.1	377040.4	76833.8	339086.3	68033.1	337773.4	86194.2	414953.7	97662.7	471249.3	107915.5	501170.5
Total	75448.6	432053.8	80846.6	467404.3	87290.1	419590.0	77096.7	416139.2	95548.2	508658.0	110338.0	604394.5	122199.5	656123.6

Note: \* = code of sector, see Table 4.

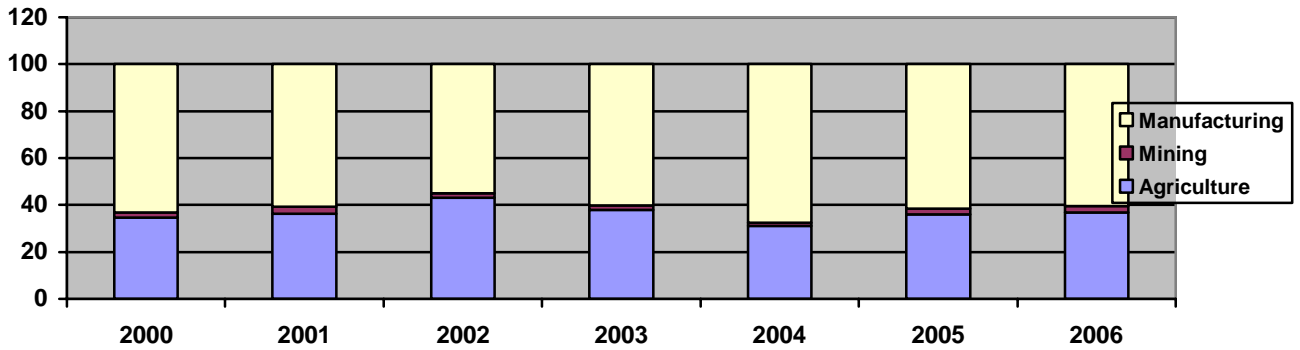
Source: Menegkop & UKM

**Figure 9: SMEs' Contribution to Total Export Value, 2000-2006 (%)**



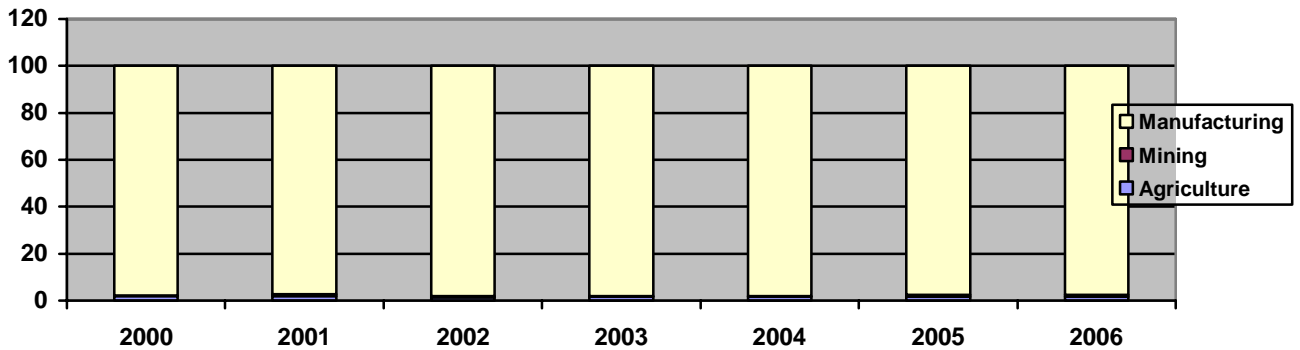
Source: Menegkop & UKM

**Figure 10A: Distribution of SEs' Export Value by Sector, 2000-2006 (%)**



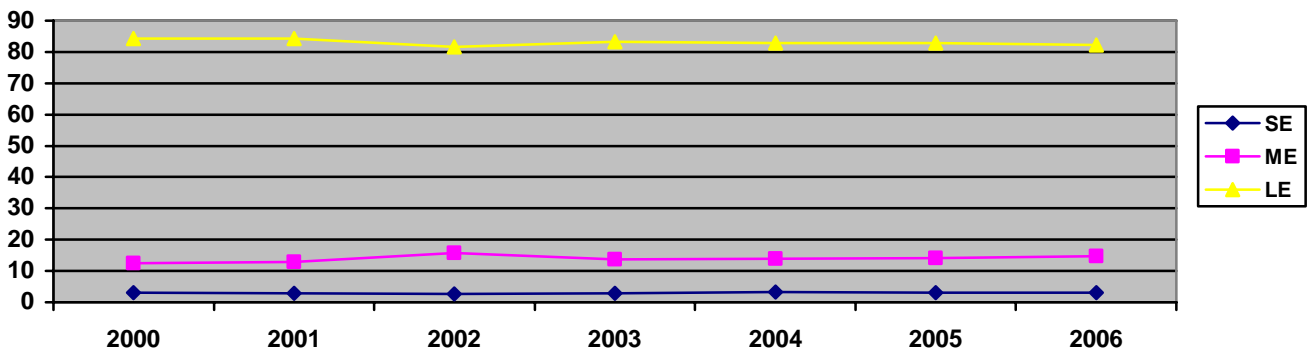
Source: Menegkop & UKM

**Figure 10B: Distribution of MEs' Export Value by Sector, 2000-2006 (%)**



Source: Menegkop & UKM

**Figure 11: Share of SMEs in Total Export Value in Manufacturing Industry, 2000-2006 (%)**

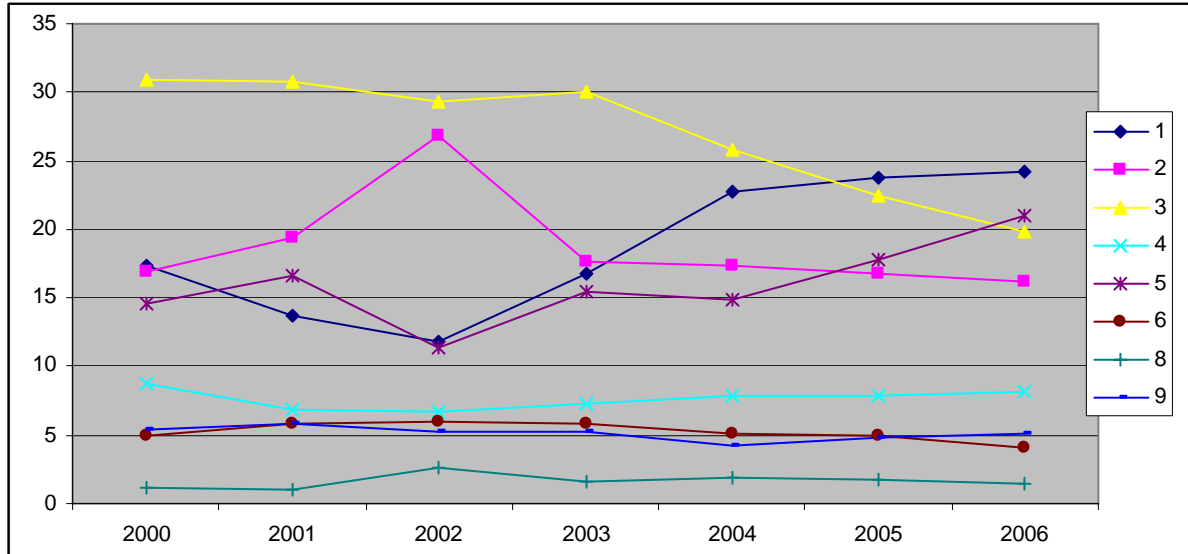


Source: Menegkop & UKM

Further, from 9 industrial groups at two digit level within the manufacturing industry, i.e. food, beverages and tobacco (1); textile, leather and footwear (2); wood products (3); paper and publication (4); fertilizer, chemicals and rubber products (5); semen and non metal mining (6); basic metal, steel and iron (7); transportation means, machinery and its equipments (8); and others (9), SEs' exports are concentrated in wood products, including furniture, although recently their share declined and passed by exports of food, beverages and tobacco and fertilizers, chemicals and goods made from

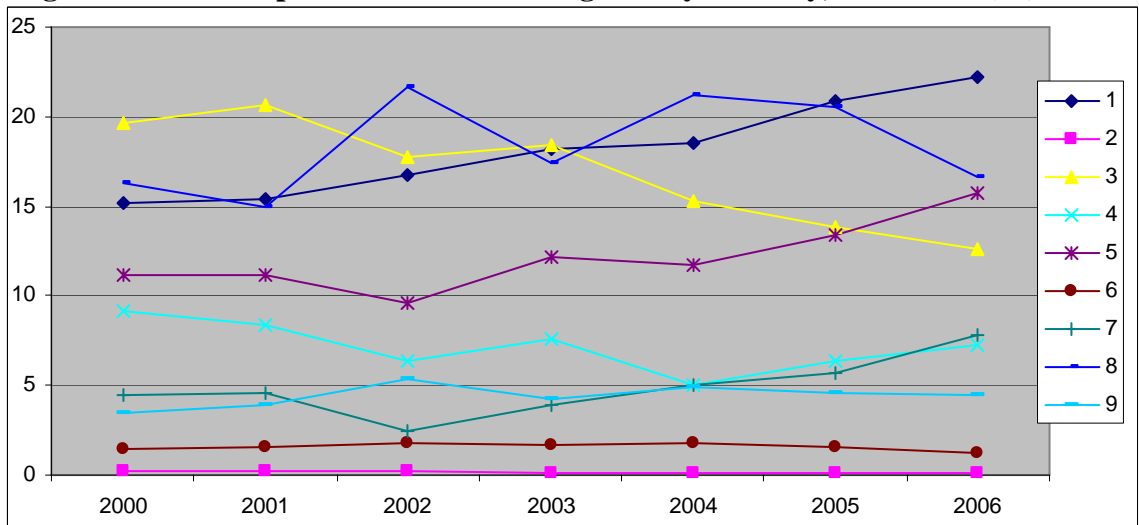
rubber. SMEs do not export goods made from steel and iron (Figure 12). Whereas, MEs' exports are more or less equal distributed among the groups of industry; although their share in wood products went down constantly (Figure 13).

**Figure 12: SE's export of manufactured goods by industry, 2000-2006 (%)**



Source: BPS

**Figure 13: ME's export of manufactured goods by industry, 2000-2006 (%)**

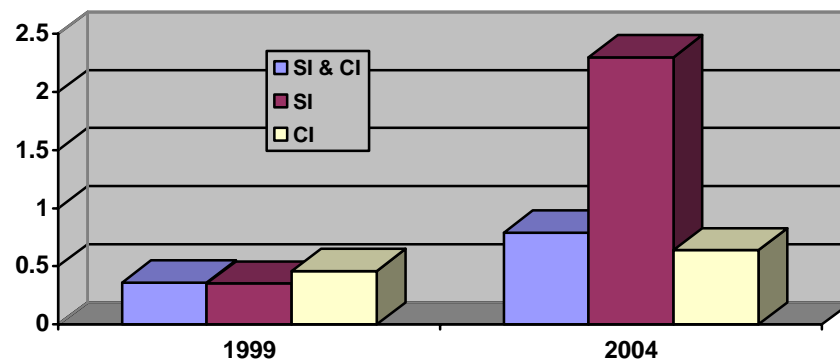


Source: BPS

Data from BPS on SEs and MIEs in the manufacturing industry show that in 1999 from a total of 2,505,692 SEs and MIEs, only 0.36 percent of them did export, and it increased to 0.79 percent of a total of 2,679,241 SEs and MIEs in 2004. So, the export intensity within this group has increased during that period. But, the ratio varies between SEs and MIEs. In 1999, the percentage was respectively 0.46 and 0.35 for MIEs and SEs, and the ratio changed significantly in 2004: 0.64 and 2.3, respectively (Figure 14). This indicates that SEs, i.e. better managed and organized units of production, are in a better position than MIEs in capturing increasing export opportunities generated by the reforms.



**Figure 14: Percentage of total number of Manufacturing SEs and MIEs doing Export, 1999 and 2004**



Source: BPS

However, not all of those involved in export activities are fully export oriented, in the sense that many of them only export small portions of their total products. Back to the BPS data on manufacturing SEs and MIEs, Table 9 shows that in 1999, SEs and MIEs exported 80 percent or more of their total production are less than 50 percent, and increased to about 68 percent in 2004. The percentage, however, varies between SEs and MIEs.

**Table 9: Export-oriented Manufacturing SEs and MIEs by Percentage of Total Production for Export, 1999 and 2004 (unit)**

Category	Unit	Period	Percentage of total production for export				
			<15	15-39	40-64	65-79	≥ 80
SEs & MIEs	9,124	1999	268	2,470	1,899	183	4,304
MIEs	1,956		62	518	379	45	952
SEs	7,168		206	1,952	1,520	138	3,352
SEs & MIEs	21,104	2004	1,472	2,013	2,786	513	14,320
MIEs	15,472		1,157	1,055	2,082	378	10,800
SEs	5,632		315	958	704	135	3,520

Source: BPS

Another important feature of the export-oriented SMEs in Indonesia is that the majority of those who do export, they do not export directly, but indirectly through intermediaries such as traders, exporting companies, or trading houses. Traders or trading companies usually collect products from or give orders to, regularly or irregularly, many producers. As an example, BPS data from Census of Small and Cottage Industry in 1996, show that with respect to the number of enterprise, the share of small exporters who did direct export was only 0.19 percent, while those who did indirect exports was 99.81 percent. In terms of export value, the share of those who did direct and indirect export was 0.98 and 99.02 percent respectively. Based on his own field survey on SMEs in a variety of industrial groups, Urata (2000) provides, however, a rather different figure. As shown in Table 10, the majority of his respondents did export by themselves, while only a few of them use intermediaries.

**Table 10: Export Channels of Indonesian SMEs: Findings from a 1999 Survey (%)**

No of respondents	Total	SE	ME	Sector					
				Textile	Food	Wood	Electronic	Automotive	Mechanical
-Direct marketing	63	62	64	52	56	80	60	55	-
-via sales agent	24	31	19	32	31	15	13	23	-
-via export trading house	8	4	11	14	10	3	7	13	-
-via assembly manufacturer	2	1	2	-	-	-	15	-	-
-via import trading house	1	**	2	2	1	1	-	3	-
-via buying agency	1	1	1	1	2	-	4	-	-
-managed by head office*	1	-	1	-	1	-	-	6	-

Note: \* = The marketing activities of Japanese subsidiaries are controlled by the head office.

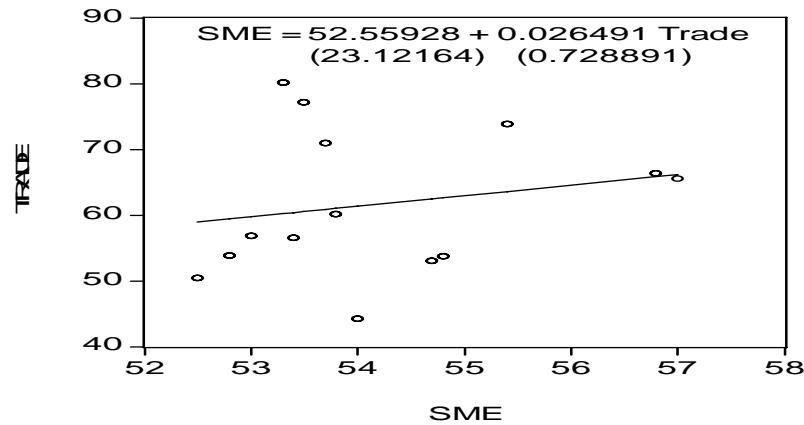
\*\* = no data

Source: from Table 4-11 in Urata (2000).

There are at least two main reasons that many export-oriented SMEs in Indonesia could not conduct export activities directly. First, there are institutional and business constraints where SMEs cannot solve, due to (i) they do not have strong direct access to export market or no access to information on export market opportunities and requirements; (ii) they are not able to adjust to rapid changes in export market; (iii) high risk in payment and shipment; (iii) time lag in the payment, while the small exporters/producers need daily cash flow very badly; and (iv) high cost for direct export activity. Second, financial problem due to (i) capital owned by SME is limited, especially to investment capital; and (ii) lack of support from financing and guarantee institution to SME (Urata, 2000; Tambunan, 2006b).

Official data on total value of trade and total number of SMEs show no indication that SMEs in Indonesia have been negatively affected by the international trade reforms (Figure 15). Moreover, protection instead of open market policies by, e.g., restricting certain activities to domestic SMEs may actually contribute to abuse of local market power and, by insulating firms from competition, makes them less able to penetrate foreign markets or to develop improvements in technology, productivity and efficiency (Thee, 2000). However, there is also no evidence of the efficiency effects of trade liberalization in the form of an increase in average plant size among SMEs. This Indonesian case seems to be consistent with the findings by Tybout (2000) as cited above that liberalization may work against the (scale) efficiency of SMEs in the short run.

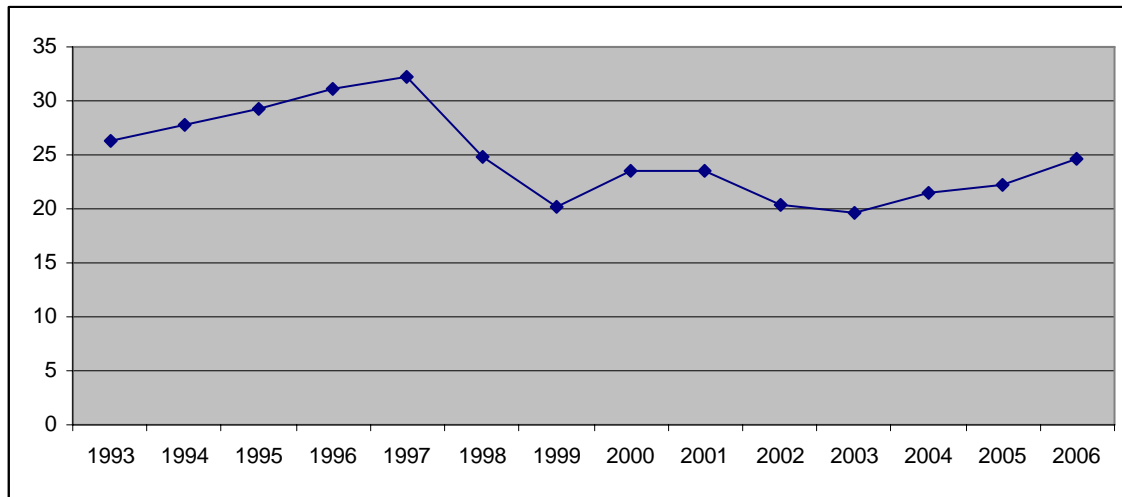
**Figure 15: Scatter Diagram of number of SME and Trade in Indonesia**



### V.3 Investment Growth

No doubt that the investment (combined with trade) policy reforms during the New Order era, which had opened gradually many economic activities for the private sector, including foreign investors, have had positive results: domestic investment (including the inflow of FDI) grew rapidly especially since the second half of 1980s up to 1997. Shortly after the 1997/98 economic crisis, however, investment dropped significantly (Figure 16). In response to this negative development, the government has established an Investment Policy Reform Initiative (IPRI) with 15 main policies, including liberalizing the rules for foreign investment and elimination of the remaining restriction on foreign and local private investment (see again Chapter III). This new initiative shows some promising results as investment in the country started to recover in the last few years.

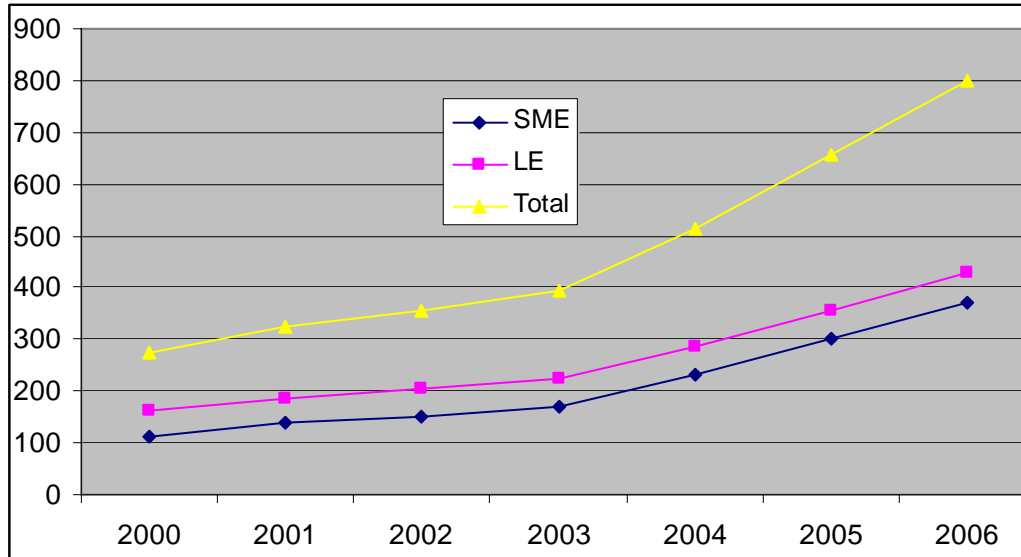
**Figure 16: Growth of Domestic Fixed Capital Formation in Indonesia (as a percentage of GDP), 1993-2006**



Source: BPS/ADB

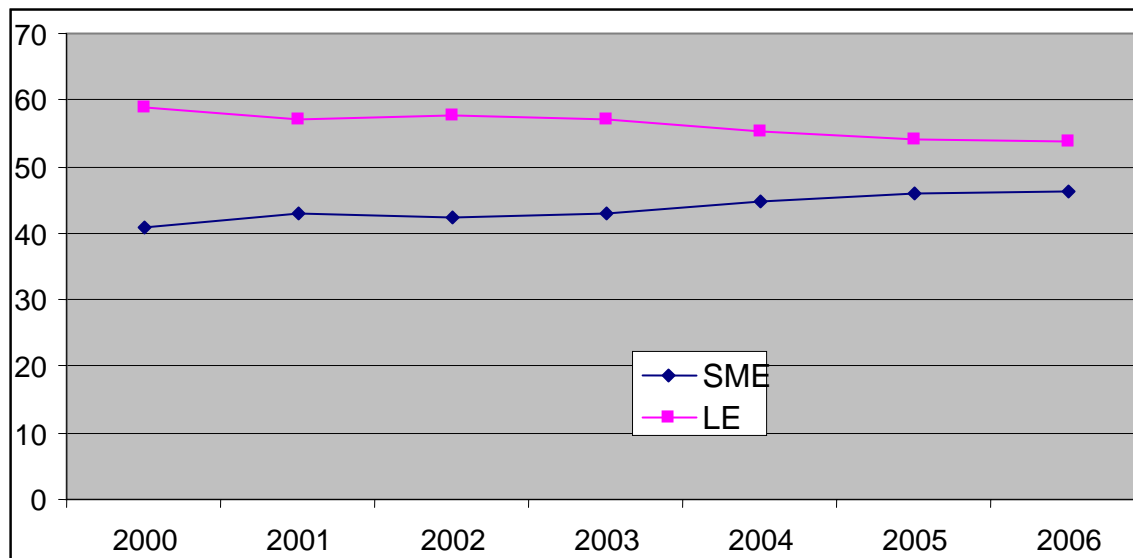
Although SMEs facing many constraints (including lack of access to formal credit sources such as banks), no doubt, as suggested by official data on the growth of investment made by SMEs, that the more open investment environment in Indonesia has accelerated investment activities in this group (Figure 17), with their share in total private investment increasing in the last 6 years almost 41 percent in 2000 to 46 percent in 2006 (Figure 18).

**Figure 17: Investment Value by Size Group of Enterprises in Indonesia, 2000-2006 (billion Rp)**



Source: Menekop & UKM

**Figure 18: Share of SMEs vis-à-vis LEs in Total Investment in Indonesia, 2000-2006 (%)**



Source: Menekop & UKM

## V.4 Subcontracting

In the beginning of the New Order era when Indonesia started to liberalize its investment regime gradually, the government also imposed local content and subcontracting rules in the engineering industry. It dates back to 1976 when Ministerial Decree No.307 was announced specifying a 4-year program for the deletion of specified parts from the imported CKD packs for commercial motor vehicles. This decree was soon followed in 1977 by a similar decree applying to motorcycles and scooters. Subcontracting regulations were first introduced in the 1981 motorcycle decree which specified whether each nominated component could be made “in-house” (by the assembler), or must be made “out-house” (by a subcontractor). By January 1985 decrees on the local content of simple types of machine tool were announced. Generally speaking, the overwhelming emphasis of the deletion program decrees has been on local content, with subcontracting requirements forming only a minor part.

Further, in order to strengthen the industrial structure, during Repelita IV (five year plan), the government issued several measures to create horizontal and vertical industrial linkages involving SMEs and LEs. Although the role of especially SEs in manufacturing industry at that time was quite insignificant as measured by total value added and volume of production, Repelita IV stipulated that the role of SEs within Indonesia’s manufacturing industry needs to be enhanced by developing MEs and LEs which should in turn stimulate the development of SEs in the industry through subcontracting linkages (MoI, 1985).

The economic rationale behind the local content policy was to create a captive market for domestic products in order to increase the economic scale of production and thereby to increase efficiency. The main aim of this policy was to encourage industrialization in the country and also to encourage a pattern of industrial development that followed the industrial pyramid model from Japanese. In this model, SMEs were at the base to support LEs at the top of the pyramid (TAF, 2000). Unfortunately, there are no official time series data on total number of SMEs as subcontractors to foreign companies in Indonesia since the implementation of the local content and subcontracting rules. However, many case studies (see Section II.2) may suggest that industrial development in Indonesia did not follow the same pattern as in Japan. On the contrary, the local content policy resulted in a vertically integrated production system within LEs.

The Asia Foundation (TAF, 2000) argues that the lack of success of this policy in creating strong interdependence between SMEs and LEs was largely due to the government’s excessive interference, aimed at replacing the market mechanisms. The government interference went too far. The government decided which products were to get priority in this policy, and introduced fiscal incentives in line with the type of priority recipient products. The determination of priorities does not always appear to have been on economic considerations, such as SMEs’ capacity for investment and absorption of technology.

Although the local content policy was largely unsuccessful in developing viable domestic supplier firms, successful private-led subcontracting networks did arise in some industries such as the case of the Japanese Toyota multinational company represented in Indonesia by PT. International Astra, the country’s largest integrated automotive company. The company was able to develop several SMEs into efficient and viable suppliers. As a result of the rigorous training which the company provided to local suppliers with potential, overtime, these suppliers were able

to produce a wide range of parts and components for cars and motorcycles according to the strict quality standards set by the company, and also to meet its strict delivery schedules.

By the end of 1990s the government issued the Partnership Law (Government Regulation No.44/1999) as the implementation of the Law No.9/1995 on Small Business. Patterns of partnership regulated in this law are: nucleus-plasma, vendor, subcontract, franchise, general trade, and many other forms. Only since 2001 the government has tried to develop special Law for Subcontract Development, which has four (4) important substances: (i) creating conducive-business environment for promoting subcontracting system; (ii) roles and obligations of parent companies and sub-contractors; (iii) incentives to promote subcontracting system; and (iv) sanctions.

It is generally expected that as a result of ongoing government's efforts to attract FDI into the country after the significant fall during the 1997/98 economic crisis, not only that the FDI inflow will comeback again but it will increase at an increasing rate (see again Figure 1) and the local SMEs are expected to gain benefit from the presence of FDI especially through subcontracting arrangements. So, the aim of this Subcontract Development Law is to encourage and facilitate such arrangements.

## *VI. The Case Study of Tegal Metalworking Industry*

### VI.1 Methodology

The case of the Tegal metal working industry in Central Java was selected for this study, as many SMEs in this cluster have been involved in subcontracting linkages with foreign firms, mainly Japanese, since 1980s.

Primary data was collected through a survey as part of the case study to collect information and perceptions from the various stakeholders, particularly from the private sector. A multi-method approach was used: in-depth interviews and focus group discussions (FGD). Since this study is exploratory, so, the survey was conducted according to the descriptive and hypothesis-generating approach (Yin, 1989) rather than the hypothesis-testing model.<sup>23</sup> The respondents were selected not on the basis of pattern-matching, but on the basis of logistics and willingness of them to participate in the interviewing process. Given that long-term time series data on SMEs are limited, and the nature of the effect of international trade and investment liberalization policies on the performance of SMEs (e.g. output and export growth) cannot easily be quantified, not only semi-structured but also in-depth interviews were adopted to get many evidence as much as possible in order not only to have a deeper understanding of the process of the effects, but also to increase the validity of the study (Kirk and Miller, 1986).

---

<sup>23</sup> Differently with the second approach, with the first one, a survey does not use a fully structured questionnaire which is specially formulated to test some determined hypothesis on relationship between variables. The main aim of this survey is to explore all possible factors that may have effects, directly or indirectly on a phenomenon being investigated.

During the survey, in-depth interviews were carried out with a number of respondents including representatives of some foreign affiliates which have subcontracting with the local SMEs, owners of local SMEs which have and have not subcontracting linkages with foreign firms, some retailers, some NGOs, and some local government representatives. These respondents were selected from four subdistricts, i.e. Adiwerna, Talang, Desa Kebasen and Desa Dampyak. The research sampling was focused on metal workshops in the automotive and shipbuilding industries. During the fieldwork, a FGD was held including with workshop owners to discuss the effects of international trade and investment policy reforms on their businesses, especially with respect to subcontracting opportunities and domestic competition with imported goods. A list of survey participant and a list of semi-structured questions are given in appendix.

## VI.2 Findings

Tegal metalworking industry, as the case in this study, is a good example of the importance of FDI for the development of local SMEs through subcontracting production linkages in Indonesia. It is in the district of Tegal (*Kabupaten* Tegal), hereinafter Tegal, which is part of the provincial government of Central Java located at the northern shore near the north coast of West Java on key trucking and rail routes. Major industries in the district include processed food (tea and tofu), textiles (batik and embroidery) and furniture (bamboo and wood). The district generates 22.09% of its annual income from the industrial sector, compared with 24.24% and 24.62% from its trade and agriculture sectors respectively. These three sectors are the largest contributors to the district economy. The remaining 29.05% of district income comes from service (10%), financial services (7%), construction (4%), transport (4%), mining (2%), water supply and electricity (1%). The district has a population of 1,423,346 people (Regional Office of Industry and Trade, Tegal).

Tegal is among few areas in Indonesia with a long history of development in the metalworking industry clusters. It has been a metalworking center since the mid-1800s when it was the locus of several sugar processing factories and related enterprises including locomotive repair shops and metal processing factories. The industry continued, thriving particularly under the New Order's massive infrastructure and development agenda. In the beginning of the 1980s, as many FDIs, especially in the manufacturing industry, already entered the country, the first subcontracting activity started between local producers and a foreign affiliate company (Kubota), sparking government activity to develop the metal working industry (Figure 19).

The Tegal metalworking industry has about 30,029 workers out of 118,820 workers or approximately 25 % of total workers employed in the district's industrial sector. Based on information from Regional Office of Industry and Trade in Tegal, currently (2006) there are around 2,811 metal workshops in the district, or about 10% of the total number of local enterprises in non-farm sectors. Among these are seven *sentra*, or groups of geographic agglomerations of metal enterprises producing the same metal products (e.g. components or spare parts for ships and vehicles), including LIK Takaru. Since the New Order era, *sentra* have become the focus of government development strategies for SMEs in all manufacturing subsectors, including the metalworking industry. The majority of metal workshops are small, employing less than 20 workers, mainly male.

Before, in 2003 Pantjadarma (2004) also did a study in Tegal and he reports that in that year there are 3000 firms with 16,587 workers in the metalworking industry, and he got this

number also from local government officials. Unfortunately, there are no official long time series data on total metal workshops and, especially no data on closed and new born metal workshops by year in Tegal. So, it is hard to get insight about the long-term firm-level dynamics in this metal working industry, especially during the reforms before the crisis. However, when this difference in total number of metal workshops between this study and that from Pantjadarma was shown to the local government officials, they admitted that in the last few years there were many workshops out of business for different reasons, e.g. could not compete with other better workshops or imported goods, lack of money cash, and difficulties in the procurement of raw materials. While those who started their business long time ago and are still in business until now are mainly from the ME category and done a lot of upgrading in technology and production. Many of them were employees in LEs in Tegal or outside before they started their own workshops and some of them established subcontracting with LEs.

Most of Tegal's metal workshops rely on the same basic metalworking technologies, e.g. casting, cutting, bending, drilling or stamping depending on product, machining, welding, and finishing (painting or electronic plating depending on product, and assembly). Most of the metal products are final consumer goods; metal craft, kitchenware, building fixtures, furniture, accessories and agricultural tools (sickle, shovel). Industrial goods range from various small items (nuts, bolts, washers, locks, hinges, door handles, some automotive components and ship parts) to hydrant pumps, hand tractor, coffee bean peeler and rice dryer. They have business linkages with some LEs through subcontracting, wholesale distributors mainly in Jakarta, housing developer in the region. Also the Tegal cluster links with other metalworking SME communities in Ceper (about 180 km to the south) and furniture producers in Jepara (about 100 km away to the East). Their comparative advantage has been in filling small orders for simple metal products or components. The small size of workshops gives them greater flexibility and Tegal's abundant cheap labor can outweigh the productivity advantages of more capital-intensive production. There is often intense price competition between workshops.<sup>24</sup>

The structure of the Tegal metalwork value chain is illustrated in Figure 20. According to the size of production and level of production sophistication, there are two types of workshops in the Tegal metalworking industry: MEs and LEs as a modern type of metal workshops, and SEs as a traditional type of workshops. In addition, there are two types of subcontractors: workshops which receive orders for metal components directly from big companies such as FDI-based companies, state-owned companies or private firms outside the district, called *inti*, and workshops which do subcontracting arrangements with the *inti* workshops, called *plasma*. The first type of subcontractors consists mainly of MEs and some LEs and *plasma* workshops are dominated by SEs. Especially large *inti* workshops with total employees up to 100 men derive a majority of their income from sub-contracting work. During the survey in 2005, there were several large foreign affiliate companies which subcontracted work to Tegal metal workshops, including PT Komatsu Indonesia Tbk, PT. Daihatsu, and some divisions of the Astra Group such as PT. Sanwa and PT.

---

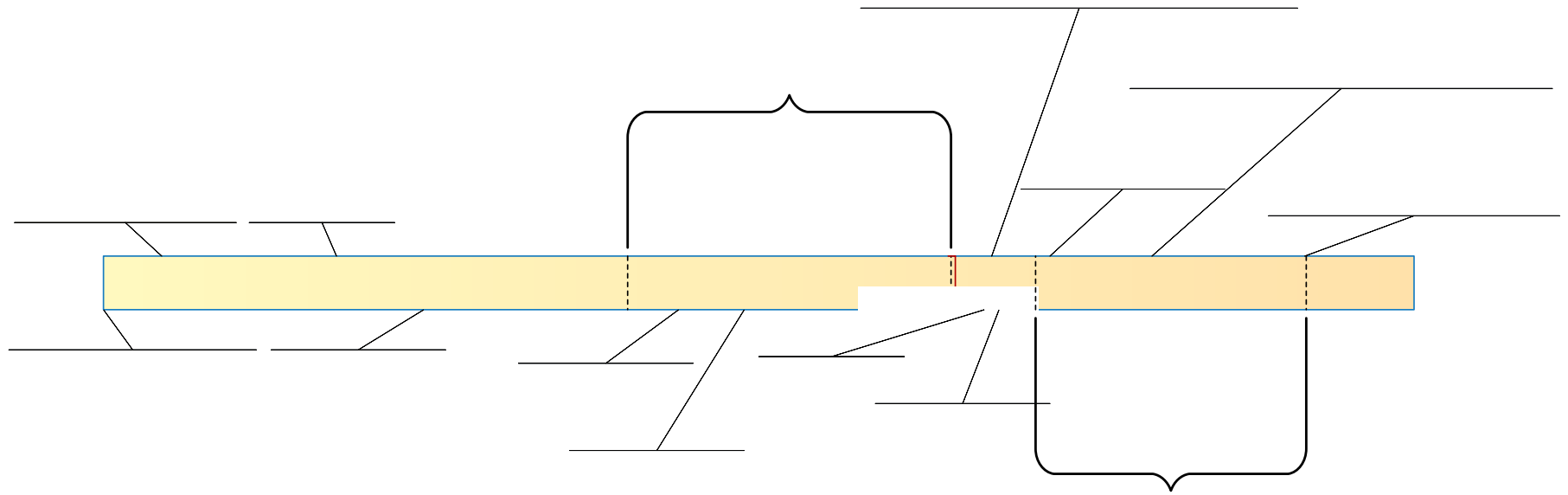
<sup>24</sup>Pantjadarma (2004) made a general assessment of the level of sophistication of the production facility in the *sentra* which was based on a capability to utilize high-precision equipment such as computer numerical control (CNC) machine for production, degree of order and cleanliness of the plants. Although, it is an imprecise technique, it provides some insights to the level of technological capabilities of the firms. It was observed that majority of firms are not "modern" enough. Also, only a few that has entered the export market. Nonetheless, as he concludes, it has sufficient technological capabilities to serve domestic market.



Katshusiro. These companies often source metal components from several parts of the country, mostly in West Java. Among these companies, the most prominent one is PT Komatsu Indonesia Tbk (say KI) which is a subsidiary of a Japanese company that has established subcontracting production linkages with Tegal metal workshops since 1998. This company produces various equipments for construction and mining activities under the global trademark of Komatsu, such as hydraulic excavators, bulldozers, motor graders, frames and related components, steel cast products as well as off-highway dump trucks. Two most successful local *inti* subcontractors to KI, which included in the survey are, PT. Prima Karya and PT. Karya Paduyasa (Box 5).

*Plasma* workshops usually hire cheap, unskilled labor or use family members (mainly men) as unpaid workers (helpers) and the owner passes basic metalworking skills on to his employees, leaving the technical capacity of the workshop highly dependent on the technical capacity of the owner. *Inti* workshops often sub-contract part of their production to *plasma* workshops.

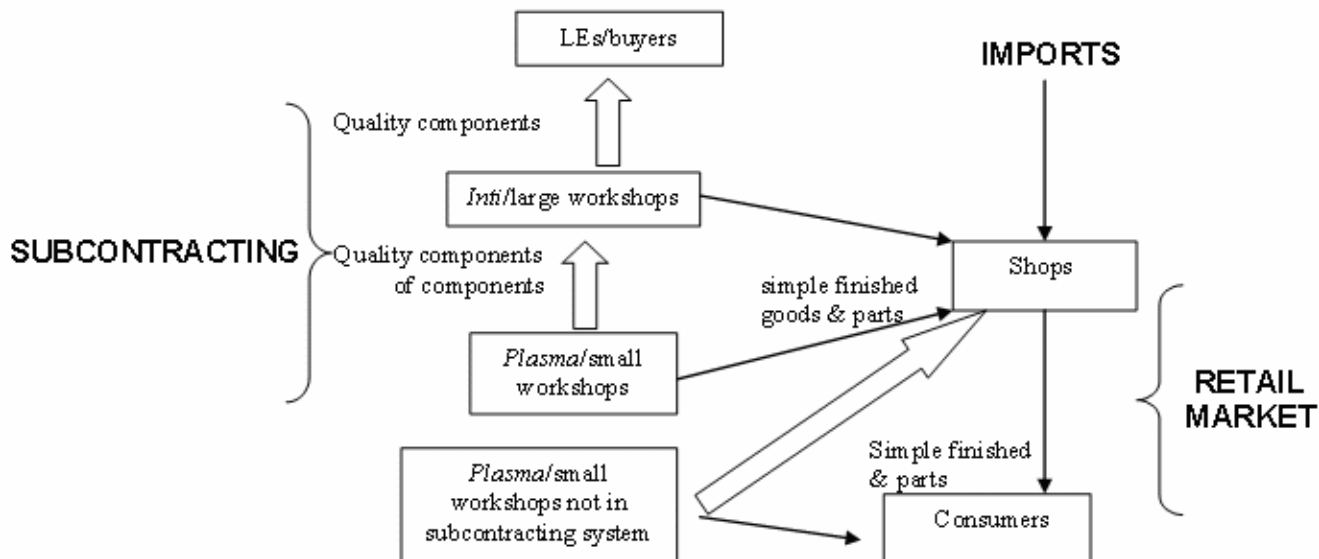
Figure 19. The History of the Tegal Metalworking Industry from Early 1980s



1982  
Takaru officially  
declared a  
"Small Industrial  
Cluster"

1985  
Common  
Technical Lab  
set up in  
Takaru

**Figure 20. Structure of the Tegal Metalwork Value Chain**



Local workshops which have no subcontracting businesses manufacture entirely for the wholesalers and retailers or sell their products directly to local consumers rather than through these marketing channels. Many wholesalers and retailers purchase goods from Tegal metal workshops for resale in stores in cities in the country.

It was found, however, that not all local producers/workshops can easily establish subcontracting relations with these foreign companies (say LEs). To become subcontractors, local firms must have attained a certain level of technical and managerial capacity. They must prove that they have the capacity to produce high quality components and meet the stringent delivery times. An audit determines if they have the required machinery, manpower,<sup>25</sup> facilities, legal standing<sup>26</sup> and use of ISO standards.<sup>27</sup> After that, then they are requested to produce a sample component from provided technical drawings. According to KI's *inti* workshop owners interviewed, before an agreement is signed, KI often ask for a trial run of the mass production process, subjecting the output to quality control tests. If they could produce a certain product item on a regular schedule and consistent quality, they would then be granted a license for manufacturing different product items, thereby expanding their product lines. In the last 2 years, many suppliers have been tested through a few initial batch orders, but, in the end, only four local enterprises were able to meet KI's satisfaction; two of them were included in the sample. Larger and more modern metal workshops are more likely to adopt new technologies in their bid to become subcontracting *inti* to LEs.<sup>28</sup>

<sup>25</sup> They must have enough manpower to have two shifts for higher productivity.

<sup>26</sup> KI as many other LEs require their subcontractors to be a P.T. (Limited Liability Company) not a C.V. (a Limited Partnership not involving a legal person and personal assets are liable for obligations).

<sup>27</sup> KI as many other LEs require the use of ISO standards even if the workshop is not officially certified.

<sup>28</sup> The two interviewed *inti* subcontractors, PT Prima Karya (PK) and PT Karya Padu Yasa (KPY), said that past reputation and personal network was also a critical factor for their successful bid to become subcontractors. However, they have insisted that the opportunity to become KI subcontractors was open for every workshop in the cluster as long as they can prove themselves to have capability to meet the quality requirements asked by KI. KI has periodically opened competition for new *inti*.

## BOX 5: Profiles and Histories of Two *Inti* suppliers to KI.

### PT Prima Karya:

This company specializes in making parts and components for heavy equipment, and it was formally incorporated in 1983, beginning operations with the manufacture of spray cans and agriculture machinery such as hand tractors. Currently, the company has 50 employees, of which about more than 50% of them are high school graduates or under and two are university graduates. The company's first experience as a subcontractor started in 1985, as it won a contract with a large local conglomerate for manufacturing large quantities of 'coffee peeler' machines (but, the contract was later terminated due to the economic crisis in 1997/98). Currently, the company is one of the *inti* suppliers for KI, and also succeeded in becoming one of the prime local suppliers for Natra Raya (NR), an affiliate of U.S. Caterpillar, which came to Tegal in search of potential suppliers. It has managed to expand its product lines to more than 100 items supplied to KI and to NR on a regular basis. Total turnover in 1999 was Rp650 million per year and increased continuously though slightly in recent years. The company virtually was a manufacturer of heavy equipment parts, including engine tools, dashboards, and forklift parts. It expanded its operations to include the manufacture of pumps, agriculture equipment, parts for scales and door railings for sale to the general market. These jobs were merely incidental orders received along with the routine work the company did for KI and NR. Prospects for growth are extremely favourable. However, the company is chronically short of working capital because of the arrangement whereby payments are made only after the final products are manufactured and delivered.

The company has a great innovative capability. The fact that the company was able to advance from making relatively simple products to supplying metal components with higher grades of precision on a consistent basis demonstrates its ability to learn and increase its skills. This ability is largely attributable to the owner who has been vigilant in solving on-site technical problems. According to the owner, being accepted as a prime KI supplier was his company's first milestone, a role which requires in advance the ability to translate technical drawings and to work toward the final product. Another prerequisite fulfilled by PK as a prime KI supplier was a level of quality that ensured that no rejects were classified as fatal ones; the company was able to correct defects easily and ship the products back to KI.

The company reached the second milestone when it was presented with the challenge of supplying a large complex piece associated with engine hoods. Making the first sample proved to be quite difficult using the inappropriate machinery available at the time. Even with several days help by an expert from KI, the company was still unable to produce a satisfactory sample according to specifications. After several trials driven forward by the persistence of the owner, PK finally sent the finished sample to KI at the end of the week. Approval was achieved not long afterwards.

All jigs and fixtures that allow assemblage and welding on a consistent basis are built by the company itself. Much of the machinery is developed in house, such as large bending and pressing machines, with up to 70% local contents. This level of accomplishment demonstrates the experience and skills the company acquired, largely in tacit or unspoken form, as it overcame each major challenge. One of the benefits obtained by working with KI is the opportunity to send employees to be trained at KI's facility in Jakarta.

### PT. Karya Paduyasa

The company has three plants, each with a specific production objective, namely for: (i) casting, principally hydrants and fire monitors; (ii) incidental job orders, usually in small lots; and (iii) a stamping process especially for large parts and automotive components. It began by making textile equipment and parts in Jakarta in the 1950's. After the company moved to Tegal, it diversified into making agriculture tools and machinery. While rapidly diversifying its product base, it improved its productive capability. Among the important achievements of the company was the development of the casting capability to produce hydrants. Hydrant manufacturing was driven by government contract. At the peak of production, the company made around 200 units per month.

One major milestone for the company was to be selected as one of the few local prime suppliers for heavy equipment for KI and NR. Furthermore, because of its ability to deliver the products in timely fashion with consistent acceptable quality, KP's base of product lines in the heavy equipment business expanded rapidly. However, the company manufactures less items as compared to that of PT Prima Karya for both KI and NR.

Recently, a sign of positive growth emerged as hydrant orders began to increase to 10-20 per month, with a similar increase in orders from KI and NR. However, because of the arrangement under which payments are sent only after the final products are manufactured and delivered, the company suffers from shortages of working capital, especially after the substantial layoff of workers.

The company has ample facilities for metalworking operations, which range from casting to welding to finishing. What is more impressive, however, is the company's ability to make an increasingly complex range of products as it acquires experience over time. As noted previously, this ability was a key factor in being chosen as one of the regular suppliers of KI and NR. The company's most recent accomplishment was its expansion into the manufacture of automobile components for an automaker. This move was soon followed by the construction of a plant dedicated to the stamping process. The company equipped the plant with its own dies and fixtures, and also set up a small crane to make a large heavy bottom piece for a tractor. It manufactures many of the machines and tools it uses in this plant. Its dedication to efficiency is also demonstrated by its efforts to minimize waste from paint spraying by constructing six large fans directed at a pool of water to capture paint droplets. The stamping plant's overall facilities are well organized and maintained.

**BOX 5 (continued)**

Finally, the company devotes considerable attention to skill development. It provides incentives to employees to participate in various training activities at other locations by covering their travel and accommodation expenses.

Source: own survey and some written information from Iman and Nagata (2002),

After winning a contract, an *inti* subcontractor has access to a significant level of technical training. According to a sub-contractor of PT Komatsu, trainings directly addressed the technical needs of the workshop in meeting the production requirements of Komatsu. Indonesian experts from the Jakarta Komatsu office leading the training used a teaching style that clearly delivered the necessary knowledge and emphasized practical application, with 90 percent of training time spent in hands-on experience. Trainers also help the workshop identify problems and troubleshoot.

During the survey, it was found that those who failed to become subcontractors, lack of capital, limited skill, and no access to information appeared to be the three most important constraints. They did not have enough money to purchase the required machinery and to hire many workers (generally, SEs are self-employment units without helpers or hired workers). They often use second-hand or homemade equipment. If they hire workers, often low-skilled workers with little or no experience and rely on shop owner's technical knowledge.<sup>29</sup> Since many SE owners built their expertise through working in small shops and rarely have formal academic training, they have difficulties reading technical drawings and instead rely on copying samples, leading to less accurate output. So, they lack the technical ability to produce complicated components with the precision required by LEs. Also, due to lack of information and no skill, they did not know how to meet ISO standards. They said that from the government they could not expect too much. The government did give some information, but they need direct assistance too.

Though less direct, the subcontracting system does provide some market opportunities for smaller workshops to benefit from the virtuous circle affecting *inti* capacity building. Subcontracting *plasma* gain from the incentive to produce higher quality for a higher price with technical coaching from *inti* clients in their own virtuous circle. *Inti* respondents for auto components, for instance, turn to *plasma* workshops to produce 10–15 percent of their orders from LEs, usually components of components or basic parts made more cheaply in small workshops while still passing the quality control requirements of LEs. Often soft loans are provided by *inti* to *plasma* to help them acquire new machines capable of higher quality output. *Inti* and *plasma* involved in subcontracting are more likely to use government sponsored facilities such as the UPT (i.e. technical service unit, including lab.), especially to test the quality of materials. They are more able to offset lab usage costs through the higher price paid by LEs for quality parts.

---

<sup>29</sup> Cheap labor and relatively small, shifting job orders reduces incentives for them to specialize or acquire expensive machineries to increase productivity. As one seasoned metal worker explained, the strength of the *plasma* workshop is the flexibility to do smaller orders. However this flexibility becomes a liability to capacity development when workshops must fill many small orders and never develop specialization that leads to expanded command of technology.

Overall, the indepth interviews and the FGD (see the list of respondents in the appendix) yield 13 important findings:

- 1) Although no official long time series data are available, in the last few years there were some workshops out of business for different reasons, e.g. could not compete with other more efficient/productive workshops or imported goods, lack of money cash, and difficulties in the procurement of raw materials. On the other hand, there are not so much new born firms. While those who started their business long time ago and are still in business until now are mainly from the ME category and done a lot of upgrading in technology and production. Many of them were employees in LEs before they started their own workshop, and only a few of them established subcontracting with LEs. So, at least according to local government officials, it is hard to conclude that the aggressive post-crisis reforms have significant effects on the cluster. Although there are some producers experiencing a decline in their domestic market share in favor of expanding imported goods recently, the cluster survives.
- 2) Only workshops with good management and which have enough capital and skills and are in capacity to produce competitive products or those who have subcontracting with LEs can survive in the long-run. In the last few years, imported cheap products from China have become a serious challenge for Tegal workshops to survive. This may suggest that the ability of the Tegal cluster to survive depends on their capacity building, and the latter will require many direct government supports.
- 3) FDI companies are important as their presence gives more opportunities of backward linkages through subcontracting to local companies and thus help the locals to upgrade their technological capabilities and hence to improve their performance.<sup>30</sup> Current example of FDI companies doing extensively subcontracting with local SMEs in Indonesia include PT Astra International (in the automotive industry), PT Panasonic (in the electronics industry) and KI in the Tegal case. In the Tegal case, KI is important not only for the *inti* subcontractors but also indirectly for the *plasma* workshops having subcontracting links with the *inti*.
- 4) However, only few workshops are able to be as local subcontractors, since KI is more likely to subcontract parts of their production to local firms which have already a certain level of technology capability, and these are mostly MEs. In other words, the majority of metal workshops in Tegal are still “underdeveloped” in technology and human resource from the KI’s point of view. Currently, there are 27 companies as local suppliers to KI, an increase slightly after liberalization.
- 5) In line with the global market orientation, however, FDI companies also tend to globalize their procurement and supply chain management through global or cross sourcing strategy. Consequently, this brings local companies into severe competition vis-à-vis global suppliers. So, they argue that unless conditions exist to allow local companies to be competitive, liberalization policy towards FDI in Indonesia does not necessarily give the above opportunities to producers in Tegal.
- 6) It is clear that subcontracting linkages between FDI and local SMEs in the manufacturing industry in general and the machinery industries in particular still remain low even though Indonesia has been implementing FDI liberalization policy long before the economic crisis hit the country in 1997/98. It is largely because of the institutional coordination problem indicated by, among others, the lack of

---

<sup>30</sup> This is also supported by Blomström and Sjöholm (1999) from their analysis of statistical data of Indonesia showing that industries with a large presence of FDIs are able to increase the production capabilities of local companies.

consistency and coherence in policy. For instance, during the New Order era, on one hand, the government liberalized investment and wanted to promote subcontracting between FDI and local SMEs through the local content policy, while on the other hand, macroeconomic policies created monopoly or oligopoly practices which were not in favor of development of SMEs. The government had also not established special programs to support capacity building in SMEs to become efficient subcontractors. Even until now, with respect to SMEs development policy in Indonesia, too much attention has been given to credit schemes, but much less attention on technology development, innovation and skills development. In addition, others such as information asymmetry, rent seeking lobby, difficulties to access financial and technological facilities also ultimately hinder local SMEs to become more competitive or to become well developed subcontractors for FDI.<sup>31</sup>

7) From the inputs side, the international trade liberalization has benefited the cluster mainly in the form of cheaper inputs as a direct consequence of lower import tariffs and elimination of quantitative constraints. However, they had experienced several times difficulties in the procurement of scrap as their main raw material as export of this item has also been liberalized since the 1980s.<sup>32</sup>

8) From the output side, as they admitted, they are now facing heavier competition from imported automotive components and other products similar to their own products. Some producers even have lost a great part of their domestic market shares to cheaper items from China. Many of the respondents feel that after the 1997/98 economic crisis as the foreign trade reform became more aggressive, the threat from imported Chinese goods has become more serious than ever before. Even some of them argued that the government should not take an aggressive step in liberalizing imports on finished and semi-finished products, except on raw materials or inputs. Otherwise, as they admitted, in the long-run, trade liberalization will have a negative rather than a positive effect on their business.<sup>33</sup>

9) Not only the retail market but also the subcontracting links are under pressure by the rise of China as a regional competitor in metal manufacturing. As more assembly is done in China, it becomes more efficient to produce components closer to the place of assembly. Tegal's metal workshops stand to be disproportionately affected by this as it becomes more cost-effective to produce remaining components in metal production centers in Jakarta, decreasing transportation costs. Mr. Franz, a representative of KI said that the company used to subcontract metal casting orders for about 10 tons of product from many locations far from Jakarta, including Tegal. The order has been reduced to 300 kg and moved to Jakarta.

10) They are more concerned on trade liberalization than investment liberalization for three main reasons. First, foreign trade reform affects directly their procurement of raw materials. Although after

---

<sup>31</sup> From interviews not only with a representative of KI (Mr. Franz), but also of some other Japanese companies in Indonesia.

<sup>32</sup> Not only Tegal but also metalworking workshops in other two most known clusters i.e. Cepur (also in Central Java) and Pasuruan (East Java) have similar experiences many times in the 1980s and 1990s. It is even generally expected that as the export of scrap has been intensified recently mainly to China this problem will come again in the near future.

<sup>33</sup> The Indonesian government's decision to reduce import barriers has indeed led to mounting concerns about increased imports due to the lack of competitiveness of Indonesian industries, especially SMEs. Although enhancing competitiveness is indeed a valid policy goal, increased protection is not a proper policy instrument for achieving that goal since protection reduces competitiveness, rather than increases it. Furthermore, from his own observation on the effect of trade policy reform during the New Order era, Magiera (2001) states that there are no signs that the reduction of import barriers by Indonesia has had a detrimental affect on import competing sectors. But, after the crisis, and especially since the last few years newspapers almost regularly release stories on cases of local SMEs in certain clusters facing tough competition from cheaper imported goods. Even, the former Chairman of the Indonesian Association of Automotive Components (GIAMM), Mr. Hadi Suryadiprja, once said that since the implementation of the CEPT AFTA, domestic producers of automotive components have been seriously under pressured. Also many automotive factories have been moved abroad, for instance, Toyota Vios to Thailand (*Bisnis Indonesia, Friday, 7 November 2003, page T12*).

the 1997/98 crisis the competition from imported automotive components and other similar items becomes heavier, most of them believe that as long as distortions in the inputs market are disappeared through among others eliminating tariffs and other barriers on imported materials and added with improvements in productivity and quality, they can manage to compete with imported products. Although only a small portion of the producers in the cluster using imported inputs, with the increase in imported inputs, the domestic/local market prices for such inputs decline in favor of metalworking producers. Second, they do not see direct effects of investment liberalization. Even, frankly, as they admitted, they do not see the difference between the current investment environment and, say, 20 years ago. Also most of them are not aware about the government's efforts (including the new investment law) to liberalize investment in the country. For them, the serious threats are coming from imported products, not from FDI producing similar items. Third, only for those who are subcontractors for KI may see some benefits from investment liberalization. But the chance to become suppliers to KI is fully determined by their readiness to become qualified subcontractors (as already explained in the above case study), not by investment liberalization, and, unfortunately, many producers in the cluster could not meet the requirements. They argue, therefore, that for them investment liberalization without accompanied by government supports to improve their capability to become subcontractors will not have benefits at all.

11) They have close contacts with the regional office of the Ministry of Trade and the Ministry of Industry, and they are often consulted on current changes in import regulations and domestic market competitions, but not so much on current changes in investment policies. So, they have no views on how well foreign trade and investment liberalization have been coordinated. Their co-operations with the regional offices usually have to do with training and assistances provided by the offices to improve their technology, production and management capabilities in order to be able to compete in domestic markets and to exports.

12) For most of the producers, public interventions such as development of infrastructure, easy access to bank credits, monetary stability (e.g. low inflation and interest rates and stable exchange rate), and bureaucratic reform, especially in dealing with business permits, and direct supports such as training and market information give more direct benefits than trade and investment policies. Or, as they argued, they need trade and investment reforms in accompanied with such public interventions and direct supports.

13) Although they are not really aware of all trade and investment policies in the country, they have one important experience related to the case of P.T. Kubota Indonesia, which can show a kind of uncoordinated investment and trade policies. P.T. Kubota Indonesia, a subsidiary of a Japanese, was among many other FDI-based companies which came to Indonesia as a result of investment liberalization efforts during the New Order era. It was also among 30 big companies in Indonesia as the pioneers in doing subcontracting with local SMEs in the country through the so-called "Foster Parent" (FP) program attempted to create productive linkages between large and small firms. This was the time when the government started to regulate subcontracting activities in the engineering sector as part of the "local content" programs by the end of 1970s. In 1981 P.T. Kubota started looking for subcontractors in Tegal and by the end of the 1980s many local metalworking industries, mainly MEs, were involved in subcontracting with the company. The company also has many subcontractors in Semarang (where the company is also located) and Klaten areas of Central Java. The company assembles small Kubota diesel engines competitive with the Mitsubishi and Yanmar products. Suddenly, by the last quarter of 1980s, the Indonesian government allowed build-up diesel engines from China (Dong Feng) to enter the Indonesian market. As a direct consequence of this trade policy, with its market price only about 50%-60% of the domestically assembled Kubota diesel engines, in the first few years P.T. Kubota saw a



significant decline in its domestic market, and hence its subcontractors in Tegal also experienced badly.<sup>34</sup>

## *VII. Concluding Remarks and Policy Recommendations*

No doubt that the rapid economic growth and the rapid transformation of the Indonesian economy in the New Order era were significantly attributed to the trade and investment reforms undertaken during that period. After the economic crisis in 1997/98, the more aggressive reforms also started to show some results, as in 1999 the country's GDP started to grow again and it keeps growing at an accelerating rate until now. For the just introduced new investment law, it may take sometime to show some results.

The main important question addressed in this study is that: can local SMEs survive from all these still ongoing trade and investment reforms? Or, more specifically: (i) how international trade and investment policy reforms affect local SMEs; (ii) has growth of exports of SMEs accelerated since the reform; and (iii) has investment liberalization generated more subcontracting between local SMEs and FDI? At least official data shown in this study may suggest that although many SMEs may have been damaged, in overall, the reforms have not affected SMEs negatively. Moreover, protection instead of open market policies by e.g. restricting certain activities to domestic SMEs may actually contribute to abuse of local market power and, by insulating firms from competition, makes them less able to penetrate foreign markets or to develop improvements in technology, productivity and efficiency.

However, given in fact that the majority (if not all) of SMEs (especially SEs and MIEs) in Indonesia are not ready yet to compete due to their weaknesses in many areas including technology, human resource, capital, marketing knowledge, global networks, etc., in order to make local SMEs to gain more benefits than to experience losses from the trade and investment reforms in the long run, the government should take concrete actions in the following areas:

- 1) trade and investment liberalization should be accompanied by special designed SMEs development schemes to support long-term capacity building in the enterprises. The schemes should focus on six major areas: (i) access to credit and market information; (ii) human resource development; (iii) technology development and innovation; (iv) global networks in both inputs and output markets; (v) subcontracting; and (vi) development of infrastructure that open more access for local SMEs to broader markets.
- 2) trade reform policies should be carefully designed to prevent liberalizing export of unprocessed commodities which are the SMEs' key raw materials or inputs leading to the shortage of these items in local market which will reduce the SMEs' production capability.

---

<sup>34</sup> In fact this experience was also similar to the experience of Timor Putra Nasional, the national car manufacturer which had a joint venture with the nearly bankrupt KIA Motors Corporation of Korea (35%) during the last few years of the New Order era. In the early 1970s, imports of complete build up (CBU) motor vehicles were banned, to encourage import substitution in automotive assembly, and a local-content policy, known as the deletion program, was introduced in 1977 and set target dates for assemblers to meet certain levels of local content. Many foreign brands, especially Japanese ones, were produced in Indonesia through either joint ventures or production under licence. In some cases, the firms started off as domestic firms producing under licence, with the foreign principal keeping a tight control over operations. Although the target dates for the deletion program were never fully met, a lot of investment went into components and parts production, including engines. Some of the large-scale assemblers invested in backward integration, often in partnership with the suppliers of their principal, mostly Japanese. In 1993, the ban on imports of CBU vehicles was replaced by tariffs of 200% for vehicles assembled domestically and 300% for those not assembled domestically. Suddenly, by mid. 1990s the government took a controversial decision by allowing import of a build up car with zero import tariff from Korea (i.e. KIA).

3) To make local SMEs able to gain benefits from investment liberalization through subcontracting, the government should focus on three areas: (i) to improve SME's capacity for investment and absorption of advanced technology; (ii) to create friendly business environment by eliminating all market distortions (such as information asymmetry, wrong price signals, rent seeking lobby) and difficulties to access financial and technology facilities and other necessary inputs, monetary stability, appropriate tax policy, and bureaucratic reform, especially in dealing with business permits; and (iii) to improve institutional coordination, both among different departments representing different sectors such as industry, mining, agriculture, constructions, banking, as well as between each of the sectors, BKPM and the Ministry of Finance, which can be indicated by consistency and coherence in policy.

4) Investment liberalization should also give opportunities to local SMEs to integrate into global production network. Subcontracting is one thing to facilitate this. To develop into highly competitive supporting industries or vendors supplying certain parts of global products is another way. For this too, the government has a very important role to play to support this development, not only through special designed schemes but also indirectly through creating "easy doing business" environment such as mentioned in point 3 above.

5) Although the coordination between government and private sector in the preparation and formulation of economic policies or business regulations has been significantly improved since the economic and political reforms in 1999, it is still mainly at the national level between the ministries and LEs or business associations, including the Indonesian Chamber of Commerce and Industry, which mostly representing the business interests of LEs. At the local level, such coordination between local governments and clusters of SMEs needs to be improved significantly.

6) The government should be more aggressive in socializing through many channels (e.g. electronic, newspapers, press releases, and gathering) new coming policies or regulations in advance before their implementation to all local SMEs. At the same time, the government should give the best solutions for local SMEs in particular sectors in order to minimize the negative effects or to maximize the positive effects of such new policies or regulations. In addition, SMEs represented by e.g. SMEs associations or NGOs should be more actively involved in the preparation and formulation of economic policies (e.g. trade and investment) that will affect them directly or indirectly.

## Appendix

List of respondents in the Tegal Case

Type		Name	Institution	Position
<b>Government</b>	1.	Harmanto	Regional Planning Agency	Economics section
	2.	Sriyanto	Regional Planning Agency	Head
	3.	Nino	Sub-department on investment	Head
	4.	Dasuki	-Sub-department on industry - PT Astra	Head Representative
	5.	Drajat Samyono	UPT	Head
		Khaeruddin	DPRD (legislative) DPRD	-Member
	6.	Akhmad Hussein	DPRD	Head of DPRD
	7.	Mashuri	DPRD	Vice head of DPRD
	8.	Arifin	PPIT	Head
	9.	Muarif	Sub-department on industry	Metal-section
	10.	Ito	UPT Logam	Head
<b>NGO/other informants</b>	11.	Muanas	-Local community empowerment agency -DPRD	member
	12.	Syaekhudin	-Politeknik Purbaya	- Member -Lecturer
	13.	Dimiyati	NGO	Staff
	14.	Kawi	BPPT/PUPUK	Staff
<b>Inti</b>	15.	Agus	PT NEFA	Factory Supervisor
	16.	Dwi Wanto	CV Milakko	Owner
	17.	Angwari	PT Karya Padu Yasa	Owner
	18.	Danuri	PT Karya Padu Yasa	Assistant
	19.	Hafidz	PT Karya Padu Yasa	Worker
	20.	Hasibuan	PT Prima Karya	Head of Technical Division
	21.	Fauzi		
<b>Plasma</b>	22.	Amin Solahuddin	UD Sepakat	Owner
	23.	Heru	-	Owner
<b>Suppliers to retail market/ Mixed</b>	24.	Abdullah AN	CV Target	Owner
	25.	Sartono	UD Santika	Owner
	26.	Rojikin	-	Owner
	27.	Imron	UD Setia Kawan	Owner
	28.	Abdullatif Urip	UD Sumber Urip	Owner
	29.	Taryo	UD Risna Jaya	Owner
	30.	Suchemi	UD Karya Logam	Owner
	31.	Ali Mustaqim	UD Kartika Karya	Owner
	32.	Masrukhi	UD Rizka Mandiri	Owner
	33.	Sukari	UD Bintang Riski	Owner
	34.	Sujai Jamali	UD Iqra Logam	Owner

## List of Semi-structured questions

### I. Profile of respondents

- 1) Name:
- 2) Occupation:
- 3) Address:

### II. Producers

#### II.1 General Information

- 1) Size of unit: .....workers
- 2) Type of metal products:.....
- 3) Doing business since 19.....
- 4) Volume of production in the last five year (unit): 1 .....  
2.....  
3.....  
4.....  
5.....
- 5) Market of destination: - domestic: .....%  
-retail: .....%  
-subcontracting:.....%  
-final users/consumers: .....%  
- export:.....%
- 6) Current main problems:.....
- 7) Ever get any supports from government? Yes [ ], please elaborate.....  
No [ ], please elaborate.....

#### II.2 Investment environment and subcontracting

- 1) Have you ever done (or still doing) subcontracting? Yes [ ]  
No [ ]
- 2) For subcontractors,
  - 2.1) Since 19.....
  - 2.2) With which company: - local firm in the same size category inside the cluster [ ]  
-local firms in the larger size category inside the cluster [ ]  
-domestic larger company outside the cluster [ ]  
- foreign affiliates/FDI [ ]
  - 2.3) How did you start; who has approached you first? Please, elaborate:.....
  - 2.4) Main reason for doing subcontracting,.....
  - 2.5) Main obstacles that you must overcome first before becoming a subcontractor, .....
  - 2.6) Main benefits as a subcontractor, .....
  - 2.7) what supports you got from the company?. Please, elaborate.....
- 3) For those non-subcontractors,
  - 3.1) Have you ever tried to become a subcontractor? Yes [ ], please elaborate.....  
No [ ], please elaborate
  - 3.2) The main reason not doing a subcontracting:.....
- 5) Have you done any investment in your business (e.g. expanding your production, buying a new machine, etc.) in the last, say, five year? Yes [ ], please elaborate.....  
No [ ], please elaborate.....
- 6) Has doing investment recently become easier than in the past? Yes [ ]  
No [ ] .....

- 7) Are you aware that government has done much since the Soeharto time through many regulations and policies to improve investment environment in Indonesia? Yes [ ], please elaborate.....  
 No [ ], please elaborate.....
- 8) Has government given direct supports to your investment activities? Yes [ ]  
 No [ ]
- 9) Have you ever heard about the new law on investment? Yes [ ], please elaborate.....  
 No [ ], please elaborate.....
- 10) Are you always being informed by your local government about new regulations on investment?  
 Yes [ ]  
 No [ ]
- 11) Do you think that the presence of FDI in Indonesia will benefit your business?  
 Yes [ ], please elaborate....  
 No [ ], please elaborate.....
- 12) Do you think that investment liberalization is what you most needed to improve your business, or other policies such as trade reform is more important for your business? Yes [ ], please elaborate.....  
 No [ ], please elaborate....
- 13) Do you think investment reform policies should be accompanied with SMEs direct supports such as training so that you can gain benefit from the reform? Yes [ ], what kinds of direct supports?.....  
 No [ ] (not necessary). Please explain....

### II.3 Trade environment

- 1) For exporters,
- 1.1) Since when do you export?
- 1.2) Do you export directly or indirectly? Directly [ ]  
 Indirectly [ ]  
 - via trader [ ]  
 - via trading/exporting companies [ ]  
 - via subcontracting production linkages [ ]  
 - other [ ], please explain
- 1.3) Have you exports increased in the last few years? Yes [ ], please, elaborate.....  
 No [ ], please, elaborate.....
- 1.4) Main constraint in doing export.....
- 1.5) Has government given you direct supports to do export? Yes [ ], please elaborate.....  
 No [ ], please elaborate.....
- 2) Do you use imported materials? No [ ]  
 Yes [ ]  
 - all materials [ ]  
 - only a small portion of required inputs [ ]
- 3) For those using imported inputs,
- 3.1) Main reasons using imported inputs.....
- 3.2) Has import become cheaper recently? No [ ]

Yes [ ]

- What main factors which make imports cheaper do you think?

3.3) Has doing import recently become easier than in the past? Yes [ ], please elaborate.....

No [ ], please elaborate.....

3.4) Has government given you direct supports to do import? Yes [ ], please elaborate....

No [ ], please elaborate.....

1) Have you ever experienced shortage of local inputs? If yes, was that because the inputs were also for

export, or other reasons? Please, elaborate.....

2) Has competition in domestic market from imported products become tougher recently?

Yes [ ], please

elaborate....

No [ ], please

elaborate.....

6) Have you lost your market share because of imported products recently? Yes [ ], please elaborate...

No [ ], please

elaborate...

7) Are you aware that government has done much since the Soeharto time through many regulations and

policies to make export and import activities easier in Indonesia? Yes [ ], please elaborate....

No [ ], please elaborate.....

8) Are you always being informed by your local government about new regulations on investment?

Yes [ ]

No [ ]

9) Do you think that trade liberalization in Indonesia will benefit your business?

Yes [ ], in what way? Please, explain.....

No [ ], why? Please, explain.....

10) Do you think that government should do trade reform slowly? Yes [ ], please explain.....

No [ ], explain.....

11) Do you think that trade liberalization is what you most needed to improve your business, or other policies such as investment reform is more important for your business? Yes [ ], please elaborate.....

No [ ], please

elaborate....

12) Do you think trade reform policies should be accompanied with SMEs direct supports such as training so that you can gain benefit from the reform? Yes [ ], what kinds of direct supports?.....

No [ ] (not necessary). Please explain....

13) Which is more important for you business:

- trade reform [ ], please explain.....

- investment reform [ ], please explain.

### III. Non producers

1) Does the cluster show any improvement (e.g. increases in output, export, number of new born firms and subcontractors) as compared to say, 10 years ago? Yes [ ], elaborate.....

No [ ], elaborate.....

2) Do trade and investment reform policies have obvious effects on the cluster?

- explain.....
- Yes [    ], in what way? Please
- No [    ], elaborate.....
- 3) Are subcontracting with FDI very important to improve the performance of the cluster?  
 Yes [    ], elaborate.....  
 No [    ], elaborate.....
- 4) Main reasons that not all of the producers in the cluster as subcontractors.....
- 5) Main constraints facing the cluster:  
 - Main constraints to become a subcontractor:.....  
 - Main constraints to become an exporter.....  
 - Main constraint to increase productivity:.....
- 6) Are there many supports from government? Yes [    ], elaborate.....  
 No [    ], elaborate.....
- 7) why, at least some of producers use imported materials? Please elaborate.....
- 8) Has the cluster significantly affected by increasingly competition from imported goods?  
 Yes [    ], elaborate.....  
 No [    ], elaborate.....
- 8) which is more important for the cluster:
- Trade reform [    ], explain.....
  - investment reform [    ], explain.....
  - development of infrastructure [    ], explain.....
  - access to credit [    ], explain.....
  - direct government supports [    ], explain.....
  - Bureaucratic reform [    ], explain
  - Monetary stability [    ], explain
  - Other [    ], explain

## References

- Aggarwal, Aradhna (2001), "Liberalisation, Multinational Enterprises and Export Performance: Evidence from Indian Manufacturing", Working Paper No.69, June, New Delhi: Indian Council for Research on International Economic Relations.
- Amin, A.T.M. Nurul (1994), "The Difficult Transition from Informal Economy to Marshallian Industrial District", *Area*, 26(1): 12-27.
- APEC (2003), *Profile of SMEs and SME Issues in APEC 1990-2000*, APEC Small and Medium Enterprises Working Group, APEC Secretary, Singapore.
- ADB (2007), *Asian Development Outlook 2007*, Manila: Asian Development Bank.
- Bahri, Sjaiful Reni Kustiari and Glynn Wittwer (2000), "Effects of Farm Policy Reform on Indonesia's Secondary Food Crops". Working Paper 01.01, October, CIES, University of Adelaide, Adelaide
- Barker, A.T. (1992), "An Empirical Investigation of the Differences between Initiating and Continuing Exporters", *Asia Pacific International Journal of Marketing*, 4(1).
- Barry, F. Gorg, H. and Strobl. E. (2001), "Foreign direct investment and wages in domestic firms: productivity spillovers vs labour-market crowding out", mimeo, University College of Dublin dan University of Nottingham.
- Bayoumi, T., David T. Coe, and Elhanan Helpman (1999), "R&D spillovers and global growth", *Journal of International Economics*, 47:399-428.
- Berry, Albert and Brian Levy (1994), "Indonesia's Small and Medium-Size Exporters and Their Support Systems", Policy Research Working Paper 1402, December, Policy Research Department, Finance and Private Sector Development Division, World Bank, Washington, D.C.
- Berry, Albert, and Brian Levy (1999), "Technical, Financial and Marketing Support for Indonesia's Small and Medium Industrial Exporters", in B. Levy, A. Berry and Jeffrey B. Nugent (eds.), *Fulfilling the Export Potential of Small and Medium Firms*, Kluwer Academic Publishers, Boston.
- Bonaccorsi, A. (1992), "On the Relationship Between Firm Size and Export Intensity", *Journal of International Business Study*, 23(4): 605-35.
- Bonapace, T. (2005), "Regional trade and investment architecture in Asia-Pacific emerging trends and imperatives", Research and Information System for Developing Countries (RIS), India.
- Booth, A. and P. Mc Cawley (1981), "The Indonesian Economy Since the Mid Sixties", in Booth and P. Mc Cawley (eds), *The Indonesian Economy During the Soeharto Era*, Oxford University Press.
- Booth, A. (1989), *Indonesian Economic Development under Soeharto Era*, Oxford University Press.



- Cole, William (1998a), "Bali's Garment Export Industry", in Hal Hill and Thee Kian Wie (eds.), *Indonesia's Technological Challenge*, Research School of Pacific and Asian Studies, Australian National University, Canberra, and Institute of Southeast Asian Studies, Singapore.
- Cole, William (1998b), "Bali Garment Industry. An Indonesian Case of Successful Strategic Alliance", mimeo, Jakarta: The Asia Foundation.
- Culpan, R. (1989), "Export Behavior of Firms: Relevance of Firm Size", *Journal of Business Research*, 18.
- Dawson, J. (1992), "The Relevance of the Flexible Specialization Paradigm for Small-Scale Industrial Restructuring in Ghana", in Rasmussen, J., H. Schmitz and M.P. van Dijk (eds.), "Flexible specialization: a new view on small industry", *IDS Bulletin* (Special Issue), 23(3): 52-65
- Dollar, D. (1992), "Outward oriented developing economics really do grow more rapidly: Evidence from 95 LDCs, 1976-1985", *Economic Development and Cultural Change*, 40: 321-344.
- Dosi, G., Freeman, C. and Fabiani, S. (1994), "The Process of Economic Development: Introducing some stylized facts and theories of technologies, firms and institutions", *Industrial and Corporate Change*, 3(1), 1-45.
- Falvey, A. and C.D. Kim (1992), "Timing and sequencing issues in trade liberalization", *The Economic Journal*, 102: 908-924.
- Fane, G. and T. Condon (1996), "Trade Reform in Indonesia, 1987-95," *Bulletin of Indonesian Economic Studies*, 32(3) :33-54
- Feridhanusetyawan, Tubagus; Mari Pangestu; and Erwidodo (2000), "Effects of AFTA and APEC Trade Policy Reforms on Indonesian Agriculture", Working Paper 00.01, October, CIES, University of Adelaide, Adelaide
- Feridhanusetyawan, Tubagus and Mari Pangestu (2002), "Indonesian Trade Liberalization: Estimating the Gains", Working Paper 02.02, November, CIES, University of Adelaide, Adelaide
- Firdausy, Carunia Mulya, Haryo Aswicahyono and Lepi Tarmidi (2000) "Sources of Indonesian Economy Growth", paper, Jakarta: CSIS.
- Fu, Pauline (1997), "External Trade and Outward Investment: The Case of Taiwan's Small and Medium Enterprises", paper presented at the 24th ISBC, November 16-19, Taipei.
- Haar, J. (1995), "The Internationalization Process and Marketing Activities: the case of Brazilian export firms", *Journal of Business Research*, 32(2).
- Harrison, B. (1992), "Industrial Districts: Old Wine in New Bottles?", *Regional Studies*, 26(5).
- Hill, Hal. (1996), *The Indonesian Economy since 1966: Southeast Asia's Emerging Giant*, Cambridge University Press.

- Hill, Hall (1997), *Indonesia's Industrial Transformation*, Institute of Southeast Asian Studies, Singapore, and Allen and Unwin, Sydney.
- Hill, Hal (2001), "Small and Medium Enterprises in Indonesia: Old Policy Challenges for a New Administration", *Asian Survey*, 41(2).
- Hine, D. and S. Kelly (1997), "Tickets to Asia: Foreign market entry and sustained competitiveness by SMEs", paper presented at the 10th International Conference on SMEs, Miami, Florida, 6-7 April 1997. Miami 6-7 April 1997.
- Hobday, Michael (1994), "Export-led Technology Development in the Four Dragons; The Case of Electronics", *Development and Change*, 25(2): 393-61.
- Hobday, Michael (1995), *Innovation in East Asia: the Challenge to Japan*. Vermont: Edward Elgar.
- Hu, Albert G. Z. and Adam B. Jaffe (2001), "Patent Citations and International Knowledge Flow: The Cases of Korea and Taiwan", NBER Working Paper 8528, October, National Bureau of Economic Research, Cambridge, MA.
- Humphrey, J. (2003), "Opportunities for SMEs in Developing Countries to Upgrade in the Global Economy", International Labour Organisation SEED Working Paper 43, Geneva: ILO.
- Humphrey, J. and H. Schmitz (2002), "How does insertion in global value chains affect upgrading in industrial clusters?", *Regional Studies* 36(9):1017-1027.
- Iqbal F. and F. Rashid (2001), "Deregulation and Development in Indonesia: An Introductory Overview," in F. Iqbal and W. James (eds.), *Indonesia's Trade and Investment Policy Experience: Distortions, Deregulation and Future Reforms*, Westport CT: Praeger.
- Iman, M.S. and Nagata, A (2001). "Determinants of Industrial Backward Linkage of Japanese Companies in Indonesia," proceeding The 16 th Annual Conference of The Japan Society for Science Policy & Technology Management, Tokyo
- Iman, M. S. and Nagata, A. (2002), "Institutional Coordination Problem. An Obstruction to Promotion of Industrial Backward Linkages", paper, School of Knowledge Science Japan Advanced Institute of Science and Technology, Tatsunokuchi, Japan
- Islam, Rizwanul (1992), "Transfer, Dissemination and Adoption of Technology for Small and Cottage Industries: An Overview", dalam Islam, Rizwanul (ed.), *Transfer, Adoption and Diffusion of Technology for Small and Cottage Industries*, ILO-ARTEP., Geneva.
- Jacob, Jojo and Christoph Meister (2005), "Productivity Gains, Technology Spillovers and Trade: Indonesian Manufacturing, 1980-96", *Bulletin of Indonesian Economic Studies*, 41(1): 37-56.
- James, William E. (2001), "The Gains from Open International Trade and Investment in the Deregulation Era Implications for Indonesia's International Economic Policy in the 21st Century", March, PEG 32, Jakarta: ECG, USAID.

- James, William E. and Eric D. Ramstetter (1997), "Globalization's Implications for Indonesia: Trade Policy, Multinationals and Competition," in Satya Dev Gupta (ed.), *Dynamics of Globalization and Development*, Boston and London: Kluwer Academic Publishers:153-185.
- James, William E. and Eric D. Ramstetter (2005), "Trade, Foreign Firm, and Economic Policy in Indonesian and Thai Manufacturing", East-West Center Working Papers, Economic Series No.78, May, Honolulu: East-West Center.
- JICA (2000), "Study on Inter-firm Linkages and Financial Needs for the Development of Small and Medium Scale Manufacturing Industry in Indonesia", Jakarta: Japan International Cooperation Agency in cooperation with PT Kami Karya Nusantara.
- Kaplinsky, R. (1994), "From Mass Production to Flexible Specialization: A Case Study of Microeconomic Change in a Semi-industrialized Economy", *World Development*, 22(3).
- Kaplinsky, R., M. Morris and J. Readman (2002), "The globalisation of product markets and immiserising growth: lessons from the South African furniture industry", *World Development* 30(7):1159-1178
- Keller, Wolfgang (1997), "Trade and The Transmission of Technology", NBER Working Paper No. 6113, Cambridge, MA.: National Bureau of Economic Research.
- Keller, Wolfgang (1998), "Are International R&D spillovers trade-related ? Analyzing spillovers among randomly matched trade partners", *European Economic Review*, 42:1469-1481.
- Keller, Wolfgang (1999), "How Trade Patterns and Technology Flows Affect Productivity Growth", NBER Working Paper No. 6990, Cambridge, MA.: National Bureau of Economic Research.
- Keller, Wolfgang (2000), "Geographic localization of international technology diffusion", NBER discussion paper No. 7509, Cambridge, MA..
- Keller, Wolfgang (2001), "The Geography and Channels of Diffusion at the World's Technology Frontier," NBER Working Paper No. 8150, March.
- Kim, Chuk Kyo (2004a), "SMEs Development Policy in Korea and Its Implications for Indonesia", research paper, June, Jakarta: UNSFIR.
- Kim, Chuk Kyo (2004b), "Developing on SME Development Policy for Indonesia", UNSFIR Working Paper, July, Jakarta: United Nations Support Facility for Indonesia Recovery
- Kim, Linsu (1997), *Imitation to Innovation: the dynamics of Korea's technological learning*, Boston : Harvard Business School Press.
- Knorringa, Peter (1998), "Cluster Trajectories in Developing Countries: Towards a Typology", Preliminary draft, The Hague: Institute of Social Studies.
- Knorringa, Peter and Weijland, H. (1993), "Subcontracting - the incorporation of small producers in dynamic industrial networks", in I.S.A. Baud and G.A. Bruijne (eds.), *Gender, Small-scale Industry and Development Policy*, Intermediate Technology Publications, London.

- Kraay, Aart, Isidro Soloaga and James Tybout (2001), "Product quality, product efficiency and international technology diffusion", paper presented at the AEA meeting, New Orleans, January.
- Krueger, A. (1978), *Foreign Trade Regimes and Economic Development: Liberalization Attempts and Consequences*, Cambridge, Mass.: Ballinger Publishing Co. for National Bureau of Economic Research.
- Kruger, J.J., U. Cantner and H. Hanusch (2000), "Total factor productivity, the East Asian miracle, and the world production frontier", *Weltwirtschaftliches Archiv*, 136:111-136.
- Lee, Youn Jai (1999), "Role and Experience of Korea's SMEs", paper presented at the International Conference on SMEs At New Crossroads: Challenges and Prospects, 28-30 September, Universiti Sains Malaysia, Penang, Malaysia.
- Loebis, L. and Schmitz, H. (2005), "Java furniture makers: winners or losers from globalization?", paper, Institute of Development Studies (IDS), Sussex, UK.
- Lorenz, E.H. (1992), "Trust, Community, and Cooperation: Toward a Theory of Industrial Districts", in M. Storper and A.J. Scott (eds.), *Pathways to Industrialization and Regional Development*, Routledge, London.
- Magiera, Stephen L.. (2000), "Indonesia's Trade Performance During the Economic Crisis," May, Jakarta: Partnership for Economic Growth (PEG) , Ministry of Industry and Trade-USAID, May.
- Magiera, Stephen L. (2001), "An Overview of Indonesia's Trade Policy During the 1990s", May, Nathan Associates, Jakarta: The Partnership for Economic Growth (PEG)
- Mans, Darius (1996), "Indonesia: Industrial Technology Development for a Competitive Edge", Indonesia Discussion Paper Series 4, World Bank, Jakarta.
- Marcotte, Claude and Jorge Niosi (2005), "Small and Medium-sized Enterprises involved in technology transfer to China. Wjat di their Partners Learn?", *International Small Business Journal*, 23(1): 27-47.
- Masum, Muhammad (1992), "Transfer of Technology to Small and Cottage Industries: The Bangladesh Experience", in Islam, Rizwanul (ed.), *Transfer, Adoption and Diffusion of Technology for Small and Cottage Industries*, ILO-ARTEP., Geneva.
- Mathews, John A. and Cho, Dong-Sung. (2001), *Tiger Technology: The Creation of a Semiconductor Industry in East Asia*, Cambridge: Cambridge University Press.
- Moini, A.H. (1995), "An Inquiry Into Successful Exporting: An Empirical Investigation Using a Three-Stage Model", *Journal of Small Business Management*, 33(3).
- Muhtaman, D. R. (2003), *Raw material supply for the MSME furniture industry in Central Java*, Bogor: Smart Wood.

- Nadvi, K. and Schmitz, Hubert (1994), "Industrial Clusters in less developed countries: a review of experiences and research agenda", Discussion Paper No.339, January, Institute of Development Studies, University of Sussex, Brighton.
- Navaretti, Barba Giorgio and David Tarr (2000), "International Knowledge Flows and Economic Performance: A Review of the Evidence", *World Bank Economic Review*, 14:1-15.
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge.
- Pangestu, Mari (1996), "Economic Reform, Deregulation and Privatization", mimeo, Centre for Strategic and International Studies, Jakarta
- Pangestu, M. (2001), "Foreign Investment Policy in Indonesia: Evolution and Characteristics," in F. Iqbal and W. James (eds.), *Indonesia's Experience with Trade and Investment Policy: Distortions, Deregulation and Future Reforms*, Westport CT: Praeger.
- Pantjadarma, Derry (2004), "The Potential Role for An ICT Entrepreneur in Accelerating SME Development in Indonesia: The Case of the Metal Working Industries in Tegal", *Journal of International Business and Entrepreneurship Development*, 2(2) (Special Issue), 17-24
- Posthuma, A. C. (2003), "Taking a seat in the global market place: opportunities for "high road" upgrading in the Indonesian wood furniture sector?", mimeo, Geneva: In Focus Programme on Boosting Employment through Small Enterprise Development, International Labour Organisation.
- Ramstetter, Eric D. (1997), "International Trade, Multinational Firms, and Regional Integration in Thailand" in Wendy Dobson and Chia Siow Yue (eds.), *Multinationals and East Asian Integration*, Toronto: International Development Research Centre and Singapore: Institute of Southeast Asian Studies: 107-130.
- Ramstetter, Eric D. (1998), "Export Propensities and Foreign Ownership Shares in Southeast Asian Manufacturing", in F. Gerard Adams and Shinichi Ichimura (eds), *East Asian Development: Will the East Asian Miracle Survive?* Westport, CN: Praeger: 171-192.
- Ramstetter, Eric D. (1999a), "Comparisons of Foreign Multinationals and Local Firms in Asian Manufacturing Over Time", *Asian Economic Journal*, 13(3):163-203.
- Ramstetter, Eric D. (1999b), "Trade Propensities and Foreign Ownership Shares in Indonesian Manufacturing in the Early 1990s", *Bulletin of Indonesian Economic Studies*, 35(2): 43-66.
- Rasmussen, J., H. Schmitz, and M.P. van Dijk (eds.)(1992), "Flexible Specialization: A New View on Small Industry?", *IDS Bulletin* (Special Issues), 23(3).
- Roberts, M.J. and J. Tybout (1996). *Industrial Evolution in the Developing Countries*, Oxford: Oxford University Press.
- Roberts, S. (2000). Understanding the effects of trade policy reform: the case of South Africa, *South African Journal of Economics*, 68(4): 607-638.

- Sabel, C.F. (1986), "Changing Models of Economic Efficiency and their Implication for Industrialization in the Third World", in A. Foxley, M. McPherson, and G.O' Donnell (eds.), *Development, Democracy and the Art of Trespassing: Essays in Honor of Albert o. Hirschman*, Notre Dame University Press, Notre Dame.
- Sabel, C.F. (1989), "Flexible Specialization and the Re-emergence of Regional Economies", in P.Q. Hirst and J. Zeitlin (eds.), *Reversing Industrial Decline? Industrial Structure and Policies in Britain and Her Competitors*, Bergman, Oxford.
- Saggi, K. (2002) "Trade, Foreign Direct Investment, and International Technology Transfer: A Survey", *The World Bank Research Observer* 17(2): 191–235.
- Sandee, Henry (1994), "The Impact of Technological Change on Interfirm Linkages. A Case Study of Clustered Rural Small-Scale Roof Tile Enterprises in Central Java", in P.O. Pedersen, A. Sverrisson, and M.P. van Dijk (eds.), *Flexible Specialization. The Dynamics of Small-Scale Industries in the South*, Intermediate Technology Publications, London: 72-95.
- Sandee, Henry (1995), "Innovation Adoption in Rural Industry: Technological Change in Roof Tile Clusters in Central Java, Indonesia", unpublished PhD dissertation, Vrije Universiteit, Amsterdam.
- Sandee, Henry (2002), "The impact of the crisis on small-scale enterprises in Java: findings from selected case studies", in M. P. van Dijk and H. Sandee (eds.), *Innovation and Small Enterprises in the Third World*, Cheltenham: Edward Elgar.
- Sandee, Henry, P. Rietveld, Hendrawan Supratikno, and P. Yuwono (1994), "Promoting Small Scale and Cottage Industries. An Impact Analysis for Central Java", *Bulletin of Indonesian Economic Studies*, 30 (3): 115-142.
- Sandee, H., B. Isdijoso and S. Sulandjari (2002), *SME Clusters in Indonesia: an analysis of growth dynamics and employment conditions*, Jakarta: International Labour Office.
- Sato, Yuri (2000), "Linkage Formation by Small Firms: The Case of a Rural Cluster in Indonesia", *Bulletin of Indonesian Economic Studies*, 36(1):137-66.
- Schiller, J. and B. Martin-Schiller (1997), "Market, Culture and State in the Emergence of an Indonesian Export Furniture Industry", *Journal of Asian Business*, 13(1): 1-23.
- Schmitz, Hubert (1990), "Flexible Specialization in Third World Industry: Prospects and Research Requirements", Industrialization Seminar Paper No.5, Institute of Social Studies (ISS), The Hague.
- Schmitz, Hubert (1995a), "Small shoemakers and Fordist giants: tale of a super-cluster", *World Development*, 23(1).
- Schmitz, Hubert (1995b), "Collective efficiency: growth path for small-scale industry", *Journal of Development Studies*, 31(4).
- Schmitz, Hubert (1997b), "Collective Efficiency: A Way Forward for Small Firms", IDS Policy Briefing Issue, 10, April, University of Sussex.

- Schmitz, H. (ed.) (2004), *Local Enterprises in the Global Economy: Issues of Governance and Upgrading*, Cheltenham: Edward Elgar.
- Schmitz, Hubert and Musyck, B. (1994), "Industrial Districts in Europe: Policy Lessons for Developing Countries?", *World Development*, 22(6).
- Sengenberger, W., Loveman, G.W., and Piore, M.J. (eds.)(1990), *The Re-emergence of Small Enterprises: Industrial Restructuring in Industrialized Countries*, Geneva: International Institute for Labour Studies.
- Soesastro, Hadi (1998), "Emerging Patterns of Technology Flows in the Asia-Pacific Region: The Relevance to Indonesia", in Hal Hill and Thee Kian Wie (eds.), *Indonesia's Technology Challenge*, Research School of Pacific and Asian Studies, Australian National University and Institute of Southeast Asian Studies.
- Storper, M. (1990), "Industrialization and the Regional Question in the Third World: Lessons of Post imperialism; Prospects of Post-Fordism", *International Journal of Urban and Regional Research*, 14.
- Sulandjari, S. and N. S. Rupidara (2002), "Value chain analysis of wood furniture clusters in Central Java", draft report, Salatiga: Centre for Micro and Small Enterprise Dynamics.
- Supratikno, Hendrawan (2001), "Subcontracting Relationship in Indonesian Manufacturing Firms", *Gadjah Mada International Journal of Business*, 3(2): 115-127
- TAF (2000), "Strategic Alliances and Development of Small and Medium-Scale Enterprises in Indonesia", Final Report, May, The Asia Foundation, Jakarta.
- Takii, Sadayuki and Eric D. Ramstetter (2004), "Multinational Presence and Labor Productivity Differentials in Indonesian Manufacturing, 1975-2001", Working Paper 2004-15, International Centre for the Study of East Asian Development, Kitakyushu.
- Tambunan, Tulus T.H. (1998), "Cluster Diagnosis in Padang Rattan Industries and Proposed Action Plan", Study report, October, UNIDO, Jakarta.
- Tambunan, Tulus (2006a), *Entrepreneurship Development in Developing Countries*, New Delhi: Academic Excellence.
- Tambunan, Tulus (2006b), *Development of Small and Medium Enterprises in Indonesia from the Asia-Pacific Perspective*, Jakarta: LPFE-Usakti.
- Tambunan, Tulus (2006c), *Perekonomian Indonesia Sejak Orde Lama hingga Pasca Krisis* (Indonesian Economy since the Old Order up to the post-crisis), Jakarta: PT Pustaka Quantum.
- Tambunan, Tulus (2007), *Perkembangan Industri Nasional Sejak Orde Baru hingga Pasca Krisis* (Development of National Industry since New Order up to the post-crisis), Jakarta: Center for Industry and SME Studies, University of Trisakti (forthcoming).

- Tangkitvanich, Somkiat (2004), "SME Development in Thailand's Automotive Industry", in Denis Hew and Loi Wee Nee (eds.), *Entrepreneurship and SMEs in Southeast Asia*, Singapore: ISEAS.
- Tewari, Meenu (2001). "The challenge of reform: How Tamil Nadu's textile and apparel industry is facing the pressures of liberalization," paper prepared for the Center for International Development, Harvard University, Cambridge, MA.
- Tewari, Meenu and Jeffery Goebel (2002), "Small Firm Competitiveness in a Trade Liberalized World Lessons for Tamil Nadu", April, Research Paper, GDN website, New Delhi: Global Development Network.
- Thee Kian-Wie (2000), "Competition Policy in Indonesia and the New Anti-Monopoly and Fair Competition Law," Paper presented at the International Conference on Competition Policy and Economic Adjustment in Indonesia, World Bank, Asian Development Bank, USAID and AUSAID, Jakarta, August 20.
- Thee Kian Wie (2003), "The Major Channels of International Technology Transfer to Indonesia: An Assessment", paper presented at the Conference on "Catch-Up Growth and Technology Transfer", Groningen Center for Growth and Development, University of Groningen, 17-18 October.
- Tybout, James R. (1992), "Linking Trade and Productivity: New Research Directions", *World Bank Economics Review*, 6: 189-211.
- Tybout, James R (2000), "Manufacturing Firms in Developing Countries: How Well do They Do, and Why?" *Journal of Economic Literature*, 38(1), March.
- Tybout, J.R., J. de Melo, and V. Corbo (1991), "The effects of trade reforms on scale and technical efficiency: New Evidence from Chile", *Journal of International Economics*, 31:231-250.
- UNCTAD (1997). *Transnational Corporations, Market Structure and Competition Policy*, World Investment Report
- Urata, Shujiro (2000), "Policy Recommendation for SME Promotion in the Republic of Indonesia", July, Jakarta: Coordination Minister of Economy, Finance and Industry.
- Valodia, Imraan and Myriam Velia (2004), "Macro-Micro Linkages in Trade: How are Firms Adjusting to Trade Liberalisation, and does Trade Liberalisation lead to improved Productivity in South African Manufacturing Firms?", paper presented to the African Development and Poverty Reduction: The Macro-Micro Linkage Conference, Development Policy Research Unit (DPRU) and Trade and Industrial Policy Secretariat (TIPS), 13-15 October.
- Van Dierman , Peter (2004), " The Economic Policy Environment for Small Rural Enterprises in Indonesia", in Thomas R. Leinbach (ed.), *The Indonesian Rural Economy Mobility, Work and Enterprise*, Singapore: ISEAS: 95-117.
- Van Dierman, Peter, Thee Kian Wie, Mangara Tambunan, and Tulus Tambunan (1998), "The IMF Reform Agreements: Evaluating The Likely Impact on SMEs", Study Report, June, The Asia Foundation, Jakarta.



Van Dijk, Meine Pieter van (1993), "Small Enterprises and the Process of Globalization and Regional Integration", *Small Enterprise Development*, 4(3).

Wakelin, K. (1997), *Trade and Innovation: Theory and Evidence*, Edgar Publishing Inc.

Westphal, L., Rhee, W.J. and Pursell, W.J. (1985), "Korean Industrial Competence Where it came from?", World Bank Staff Working Paper 469, July, Washington, D.C.: World Bank.

World Bank (2006), "Revitalizing the Rural Economy: An Assessment of the Investment Climate faced by non-farm enterprises at the District level", Consultative Draft, July, Jakarta.