As discussed in Section 2, the globalization of production is creating potentially important competitive opportunities and challenges for Asia-Pacific SMEs as suppliers and competitors within the framework of global value chains. It is useful to consider this issue within the more general context of trends in FDI and global sourcing, and their implications for industrial linkages involving SMEs.

Over the last two decades, the use of external outsourcing has become an important strategic issue, with increasing recognition of the benefits that effective outsourcing and international production strategies can provide. In the never-ending quest for greater efficiency and cost savings, many companies have decided to source parts and components from low-cost suppliers globally, and in many instances have transferred certain segments of or the entire production process to new locations overseas. Indeed, international procurement and novel offshore integrated production arrangements have become critical to the competitiveness and success of global firms. Many corporations now have established presences across North America, Europe and the Asia-Pacific region, often away from their own corporate headquarters and traditional markets. As a result, FDI and trade have grown in an unprecedented fashion (UNCTAD 2008).

3.1. Motivations for FDI and the development of global value chains

Historically, companies have invested in overseas production facilities to gain access to locally bound natural resources, to be closer to their customers and markets, and to access markets they otherwise would have been precluded from because of high tariff and non-tariff protections. In the academic literature, investment motivated by these types of factors is referred to as “horizontal” FDI. More recently, MNEs from developed countries have been investing overseas in order to take advantage of: (a) cross-border factor cost differences; and (b) an available and abundant pool of technology and skilled personnel. This latter type of foreign investment is referred to in the literature as “vertical” FDI (for discussions on FDI, see Caves 1982; Markusen 1984 and 1995; Helpman 1984; Helpman and Krugman 1985; Brainard 1993; Dunning 1979, 1980, 1981, 1993, 1996 and 1998; and others). Multinational enterprises today are also motivated to establish overseas production facilities and cross-border sourcing for a variety of other reasons, including:

- Reduced inventory costs through just-in-time delivery of parts and components;
- More efficient utilization of capacity and core capabilities;
- Access to specialized skills and resources that the company could not develop organically or acquire through mergers and acquisitions;
- Benefits from special tax privileges and economic investment incentives of the host country;
- Benefits from special tariff treatments available between the host country and key trading partners.
3.2. Trends in foreign direct investment

Developing countries are attracting more foreign investment than ever before. According to the United Nations Conference on Trade and Development (UNCTAD 2008), FDI inflows have rocketed from $316.4 billion in 2005 to nearly $500 billion in 2007. Among developing economies, those in Asia and the Pacific were the largest recipients of foreign investment. In 2007, the region received about 64 per cent of the overall investment to developing countries. By way of comparison, the 2007 figure is slightly lower than the 2005 figure of 67 per cent, representing a slight shift in foreign direct investment to developing economies in other regions.

Within the Asia-Pacific region, China attracted the most FDI with about $84 billion of investment in 2007, followed by Hong Kong, China with $60 billion, Singapore with $24 billion, and India with $23 billion. China; Hong Kong, China; Singapore; and India together represented 59 per cent of the total FDI to Asia and the Pacific. This proportion is relatively unchanged from the 61 per cent figure of 2005. In terms of growth in FDI, the most remarkable increase was registered by India, with an impressive 200 per cent increase between the years 2005 and 2007. In 2007, a record-high level of investment poured into India. While still the fourth-largest destination economy in Asia, behind China; Hong Kong, China; and Singapore, India has rapidly caught up with Singapore and outstripped other South and South-East Asian countries in 2007 (figures 7 and 8).

Figure 7. Flows of foreign direct investment in select economies of Asia and the Pacific, 2007

(Millions of United States dollars)

As reported by UNCTAD, OECD countries remain the major sources of investment worldwide. Of the record-high outward investment of nearly $2 trillion, developed economies accounted for 85 per cent of the total value, or about $1.7 trillion. The United States remains the biggest financier, followed by other European members of OECD. While the overall investment environment in developing regions is expected to remain positive, the onset of financial crises in the United States and in other developed countries is expected to slow down foreign investment in the coming years.

### 3.3. FDI and spillover benefits

International sourcing and contract production for multinational firms have significant economic implications for domestic suppliers and the host countries. Multinationals, with their vast capital and technological resources, can assume an important role in the economic development of the host countries. An enormous amount of theoretical and empirical research has been done on the economic impact of multinationals and FDI. While generally the effect of FDI on growth has been viewed as positive—FDI raising the welfare level of the recipient country—there are circumstances where FDI could lead to an immiserizing growth (Brecher and Diaz-Alejandro 1977 and Anam and Bhanich Supapol 1992, among others). It has been shown theoretically that foreign investment

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**Figure 8. Inflows of foreign direct investment for select developing economies of Asia and the Pacific, 2005-2007**

(Millions of United States dollars)

<table>
<thead>
<tr>
<th>Country</th>
<th>2007</th>
<th>2006</th>
<th>2005</th>
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<tbody>
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<td>China</td>
<td>200000</td>
<td>150000</td>
<td>50000</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>350000</td>
<td>250000</td>
<td>150000</td>
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<tr>
<td>Korea, Republic of</td>
<td>120000</td>
<td>80000</td>
<td>50000</td>
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<tr>
<td>Taiwan Province of China</td>
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<td>70000</td>
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could lead to a perverse outcome, whereby the welfare level of the recipient country is negatively affected. Such an adverse effect occurs when FDI is combined with distorting economic conditions in the host country, such as non-productive rent-seeking activities, taxes, minimum wages and quotas, and inappropriate technology transfers.

Empirically, the effects of foreign firms on the domestic economy and the extent of spillover benefits have also been extensively studied in the economic and business literature. The results of extant studies, however, have not been definitive. At both industry and firm levels, researchers have found a significant improvement in the local producers’ productivity as a result of foreign direct investment and participation (Blomstrom and Kokko 1998; Kathuria 2001; Lipsey 2002; Buckley, Clegg and Wang 2002; Görg and Greenway 2004; Alfaro and Rodriguez-Clare 2004; Wei and Liu 2006; Dreffield and Love 2007; and Haskel, Pereira and Slaughter 2007). This correlation is believed to be related to the transfer of technology and management know-how from multinational parents to their foreign affiliates (subsidiaries, local joint venture partners and local contract manufacturers), and possible spillovers of such knowledge and technology to domestic firms. On the other hand, Haddad and Harrison (1993), Aitken and Harrison (1999), and Chung, Mitchell and Yeung (2003) have found a negative or no correlation between FDI and local firm productivity. To some extent, the contradictory findings can be explained by the methodologies employed and the nature of the data used in the analysis.

Notwithstanding the inconclusive nature of the empirical evidence on the benefit and cost of MNEs, there is now a widespread belief among policymakers that foreign investment and MNEs generate positive economic externalities or spillover benefits for host countries (Meyer 2004). As such, in recent decades, Governments of developed and developing countries have competed fiercely for foreign investment and have introduced numerous laws and policies which favour multinational firms.

It would appear that there is now a shared sentiment among policymakers that multinationals play an important and positive role in a country’s development strategy. Appropriate policies and incentives should be provided to multinational firms to encourage local-affiliate production, local sourcing of parts and components, and transfer of technology to local manufacturers so that maximum spillover benefits can be realized. It is therefore pertinent to systematically identify mechanisms and channels by which spillovers from MNEs are generated and absorbed by local firms. The conventional view is that local manufacturers can benefit from doing business with multinational firms directly and indirectly. Local contract manufacturers, parts and component suppliers, local distributors and back-office service providers may all benefit from new business opportunities and enlarged markets, and thereby economies of scale and scope, when they contract with an MNE. In many cases, they may also receive technologies and market knowledge from the contracting MNE firm, either through foreign parent-affiliate transfers or through technology licenses. Other local firms may also benefit indirectly through what is often referred to as the demonstration effect, as well as through increased competition and the transfer of skilled employees. These concepts are not new and can be traced back to the earlier work of Caves (1974), Mansfield and Romeo (1980), and others. Arguably, the existence and size of spillover benefits would be determined by the activities of the MNEs in the host country, the specific nature of the relationship between foreign MNEs and their local affiliates and contractors, the institutional factors of the host country, and the skills and technological absorptive capacity of the participating local firms.
3.4. Global sourcing and the development of industrial linkages

To many people, the term offshoring is often used interchangeably with the term outsourcing. However, according to the OECD Glossary of Statistical Terms (see http://stats.oecd.org/glossary/index.htm), “outsourcing means acquiring services from an outside (unaffiliated) company or an offshore supplier. In contrast, a company can source offshore services from either an unaffiliated foreign company (offshore outsourcing) or by investing in a foreign affiliate (offshore in-house sourcing)”. Global outsourcing is basically the sourcing of goods or services, required by corporations to fulfil certain segments of their value chain activities, from vendors, suppliers or contractors located in different countries throughout the world. These suppliers could be affiliated or unaffiliated suppliers and the context of buyer-supplier relationships could range from simple once-and-for-all purchase orders to continuous contracts for goods and services or longer-term subcontracting arrangements. Affiliated offshore suppliers could be wholly owned subsidiaries, equity joint venture partners, or contractual joint venture partners. Unaffiliated offshore suppliers could be totally independent contract manufacturers or suppliers loosely connected through strategic alliances or license arrangements. The decision to contract with outside unaffiliated suppliers for goods and services is often referred to as the decision to “contract out” or to “vertically disintegrate.” The categorization of the various forms of outsourcing and buyer-supplier relationships has been extensively discussed in the economics and organization literature (Masten 1984; Monteverde and Teece 1982; and Williamson 1975, 1979, 1985 and 1992).

Outsourcing today is considered to be central to a firm’s strategic management, and outsourcing activities now involve much more than a tactic for reducing costs of back-office functions such as accounting and ICT. Notwithstanding the fact that contracting out mundane back-office activities is still a big business, suppliers and consultants are now targeting much more strategically significant functions, such as manufacturing, logistics, product design and other innovation-related activities of multinational firms. Clearly, what is being outsourced, the way global sourcing is structured, and the specifics of the relationship between buyers and suppliers can all have impacts on the development of local suppliers, the overall supplier network and, ultimately, the deepening of the development and economic growth of local industries.

Typically, multinational firms secure the inputs and services required for their operations from either suppliers within their established international supplier network (with affiliated or unaffiliated companies) or from independent suppliers overseas. The measurement of the size of outsourcing worldwide by global firms is problematic, given the wide array of definitions and forms of “international outsourcing”. Nonetheless, it may be worthwhile to look at a commonly used measure—the share of manufacturing imports accounted for by intermediate goods, parts and components—as a rough proxy for the extent of international outsourcing. According to one study (Molnar, Pain and Taglioni 2007), outsourcing by firms in OECD countries has increased steadily over the period 1992-2004, and there was a sharp increase in the amount of parts and components (as a share of total manufacturing imports) imported from China and the ASEAN countries (see figure 9).

Indigenous suppliers, both upstream and downstream, benefit directly and indirectly from outsourcing contracts; through the development of industrial backward and forward linkages, the host country becomes more productive and internationally competitive (Lim and Pang 1982; Lall 1978, 1980; and Alfaro and others 2006).
At the firm level, local subcontractors can benefit from supplying intermediate inputs to foreign manufacturing clients in a variety of ways, including:

- Greater rate of technology diffusion—the adoption of new products and processes introduced by foreign multinational clients, improved access to new production methods, management know-how and technology from buyers and other suppliers;
- Upgrading of local skills through training and intra-industry transfer of talented workers;
- Increased demand for existing products and services leading to greater capacity utilization, employment and investment in new facilities, research and development operations, and new businesses with higher value-added (economies of scale and scope);
- Access to new product designs, international quality standards and international market information;
- Increased market competition leading to greater efficiency among local suppliers.
There are ample empirical cases where contracts between foreign producers and domestic suppliers have resulted in significant positive economic spillovers for the suppliers (Lall 1978; Bhanich Supapol 1995; Xu 2000; Buckley, Wang and Clegg 2002; Alfaro and Rodríguez-Clare 2004; Javorcik 2004; Meyer 2004). Additionally, it is now well recognized that spillover benefits could be realized by suppliers within the same industry as the multinational manufacturers (intra-industry or vertical spillovers), as well as by suppliers in related but different industries (inter-industry spillovers).

While it is conventionally accepted that local suppliers can indeed benefit from contracting with multinational firms, what is not as clear is where and under what circumstances benefits are expected to be greatest. Extant studies on backward and forward linkages have convincingly argued that a country’s capacity to take advantage of FDI externalities may be limited by its absorptive capability—the technological and managerial capabilities of local contractors and local conditions—including the educational level of the country, infrastructure, legal systems and financing (Lall 1980; Blomstrom 1986; Bhanich Supapol 1995; Kokko, Tansini and Zejan 1996; Blomstrom and Kokko 1998; and Buckley, Clegg and Wang 2002). By and large, the literature argues that FDI and global sourcing externalities are determined to a large extent by the type of products or services being sourced, how offshoring activities are being structured, the preparedness and technical absorptive capacity of local contractors, as well as by the willingness of multinationals to engage in the training of local suppliers and transfer proprietary technology and management know-how.

Earlier studies (Davidson and McFetridge 1983; Masten, Meehan and Snyder 1991; Bhanich Supapol 1995) argued that the characteristics of: (a) the home and host countries; (b) the multinational firm; (c) the supply contractor; and (d) the product being produced together determine how offshoring activities will be structured (that is, using either an arm’s length procurement contract or long-term subcontracting with a related firm, or producing internally through a wholly owned subsidiary). Relying on a well developed area of economic theory—the economics of transaction costs—it could be argued that products involving more technologically advanced components, more complexity, and output quality that is more difficult to assess would more likely be sourced from an affiliate or a wholly owned subsidiary rather than an outside contractor, everything else remaining the same. The implication is that multinationals would choose to outsource from a related party (where the supplier is either fully owned, or closely affiliated within a global supply network) for products that are higher valued, more complex and more difficult to transact. In terms of global value chains, it can be surmised that inputs and activities positioned closer to the higher value-added and possibly more technologically complex end of the production chain will likely be sourced internally or reserved for long-term trusted, reliable and proven suppliers within the established supply chain. New or unproven domestic suppliers may be precluded from participating in the MNE network altogether, or may be restricted to supplying only basic products involving older or antiquated technologies—activities with relatively little scope for spillover benefits.

From the perspective of multinational firms, one of the main considerations in the globalization of manufacturing and sourcing is how it may affect the locational configuration of the home bases for their various strategic businesses, and how this configuration may impact their future production arrangements, technological interdependency and,
ultimately, future ability to compete internationally. Globalization is likely to lead to a geographical dispersion of value-added activities. These activities necessarily involve the reallocation of resources, technology and management knowledge between firms and their subsidiaries, affiliated suppliers and independent arm's-length local suppliers. In many respects, multinational firms must weigh the benefits of outsourcing and contract manufacturing against the risk of transferring assets, some of which may be strategic and core to the firm, over to related or independent overseas contract manufacturers. Internationally contracting for production, parts and components could result in the emergence of new players, representing potentially new competitors for multinational incumbents. In an earlier article published in the *Harvard Management Update*, Martha Craumer stated:

In some cases, companies leave themselves vulnerable to a market coup by former partners when they outsource. Such was the case with the German consumer electronics company Blaupunkt … To beef up the product line it offers to its dealers, Blaupunkt decided to add VCRs and contracted the work out to Panasonic (once a lowly circuit-board stuffer). Later, with the Blaupunkt reputation attached to its products, Panasonic approached the dealers directly and presto, it had a ready-made distribution network for its own product line. (Craumer 2002)

As cited in the article, according to Ed Frey, a vice president at Booz Allen Hamilton, “In effect, all Blaupunkt did was give access to its dealer network to Panasonic”. The implication here is that MNEs must decide carefully what segments of their global value chain ought to be outsourced and what activities should be done in-house. In theory, companies should be concentrating on unloading their non-core activities by using third-party service providers, and focusing on delivering their core activities well in order to boost productivity and returns. In practice, however, deciding what is core and non-core is complicated, and what is considered non-core today may become strategically pertinent tomorrow. The use of contract manufacturers has allowed original equipment manufacturers to cut costs and free up productive resources, but as Arruñada and Vázquez (2006) cautioned, it could also unleash new and dangerous competitors:

As IBM and other companies have learned, however, contract manufacturing is a two-edged sword. For one thing, a CM [contract manufacturer] is privy to an OEM’s [original equipment manufacturer’s] intellectual property (IP), which it can leak to other clients or arrogate. For another, an ambitious, upstart CM can claim for itself the very advantage it provides an OEM. Having manufactured an OEM’s product in its entirety, the CM may decide to build its own brand and forge its own relationships with retailers and distributors—including those of the OEM. When these things happen, the OEM may find itself facing not only more dangerous incumbents but also a competitor of a new kind: the once under-estimated CM.

According to the authors, smart contracting out means keeping the hazards of potential traitorous contractors under control.

Also important to the supplier, in addition to the direct economic benefit of being selected to deliver goods and services to a multinational firm and being a part of the production network of the MNE, is the potential for spillover benefits that can boost competitiveness and growth, and subsequently increase its shares of the market. In order
for a supplier to capture beneficial spillovers from its dealings with multinational firms, it first must be selected and included in the network of qualified suppliers. Multinational firms and the affiliated contract producers (tier 1 suppliers) of original equipment manufacturers normally would search for qualified contractors locally, and select firms that can deliver the best bundle in terms of quality, reliability and price. Once selected, the supplier may then rely on subcontractors locally or internationally and, in turn, would select the next tier of subcontractors based on their ability to deliver on quality and price. Local suppliers can benefit from their interactions with foreign buyers, and whether they benefit more or less is thought to be a function of their own resource endowment (technological capacity, human resource and capital resource), their entrepreneurial tendencies, and industrial clusters and networks (Meyer 2004).

Local firms, large and small, compete for the business of multinationals. Market transactions and competition normally sort out who the suppliers in the network will be, and what the relative shares of the economic rent from the supply transactions will be. Do smaller and medium-sized firms face more constraints in accessing and linking into MNE supplier networks? That is, do multinational firms prefer to deal with larger and perhaps more established firms when selecting subcontractors? Are smaller firms more disadvantaged when negotiating a supply contract with MNEs? Do larger firms benefit more from the outsourcing activities of multinationals, and are they more equipped or better prepared to internalize the external benefits that may exist? If there are economies of scale and scope, larger firms may indeed have a distinctive advantage for participating in the GVCs of foreign multinationals. A policy question for the host country is whether small and medium-sized business should be supported so that they can better participate in the GVC activities, and if so, what should be the nature of such policy support?

3.5. Global supply networks: challenges and constraints for SME suppliers

Whether achieved by subcontracting for parts and components using occasional purchase orders, or by engaging local suppliers on a longer-term contractual basis within or outside of their global supply networks, the establishment of backward and forward linkages and the deepening of industrial development as a result of the procurement process of multinationals are generally viewed by policymakers and business practitioners as important and integral parts of the economic development and growth. As in most developing nations, economies in the Asia-Pacific region are dominated by small and medium-sized manufacturers, with the exception of several countries where there are explicit policy biases in favour of large firms and conglomerates (Bhanich Supapol 1995). Small companies are affected by and, in turn, affect globalization.

Small companies play a vital role in contributing to their national economies through employment, entrepreneurship, job creation, new product and process development, and exporting. Small local businesses face competing products from overseas and, at the same time, create new challenges for other companies overseas. With globalization, an increasing number of entrepreneurs and small business enterprises are being approached by potential offshore customers, largely as a result of intensified export promotion efforts and initiatives by governments, the large and ever-increasing number of trade shows and practitioners’ conferences and, above all, the rapidly growing reliance on e-commerce and
web-based Internet marketing. While the economic importance of SMEs and the economic contributions of foreign multinationals are well recognized, a relatively scarce amount of empirical research has been done directly on the relationship between multinationals and the development of domestic SMEs.

Multinational enterprises have been strategically sourcing from China, India and other emerging Asian-Pacific countries for years. However, new international sourcing arrangements are no longer restricted to the traditional lower-technology oriented industries (for example, automotive and electronic parts and components), with transactions for simple and low value-added activities. Such arrangements are now also found in technology intensive industries (pharmaceuticals, semi-conductors and aerospace, among others) involving more complex and specialized transactions.

Landing a contract to sell its products to a multinational firm or an MNE affiliate can be a significant challenge for a small or medium-sized local company in Asia and the Pacific. To qualify as a subcontractor and participate in the MNE global supply network, a local supplier often has to meet tough business standards and make a huge upfront investment to get their products ready. Significant re-tooling of a company’s assets and workforce is generally required and, in order to do this, some cash-flow commitments are inevitable. Issues regarding constraints to becoming a supplier for an MNE in a changing, more dynamic and more demanding environment were discussed in section 2.4.1. Domestic tier 2 or tier 3 suppliers typically face the challenge of large upfront investments that are, in many cases, highly specific and serve specialized uses. Given the required commitment and risk, SME suppliers may choose to forego or may be unable to economically finance the investment, and thereby, are precluded from participating in an international supplier network of multinational firms. As argued above, this may be more of an issue for SMEs than for larger and more established suppliers.

Ultimately, the ability to become a designated supplier and participant in the global value chain of an MNE depends on the capacity of the indigenous SME to overcome the liabilities of smallness and newness. Getting supply contracts from MNEs means that local SMEs can: (a) expand their product lines and service more markets; (b) hire more people and make investments in training and educating their workforce; (c) acquire new machinery and equipment; (d) upgrade management skills and expertise; and (e) grow. Additionally, MNE supply contracts can also provide SMEs with greater access to funding from financial institutions, which is vital and necessary for growth.

Dealing with MNEs through their supply networks or subcontracting arrangements can build industrial linkages for the home economy and can result in expanded production, employment and improved competitiveness. The impact of outsourcing can be significant where indigenous suppliers could also benefit “indirectly” (in terms of things that they did not explicitly contract for) from their buyer-supplier relationship.

One aspect of outsourcing that is deemed to be highly beneficial to the suppliers is the transfer of technology and management know-how from the buyers and their affiliates. These types of spillover benefits have been well discussed and documented in the technology transfer literature. While the extant literature has highlighted the existence of such benefits through case studies and productivity analyses, more information is yet required on where and how they may in fact arise. Conventional wisdom would suggest
that the ability to capitalize on these external benefits depends heavily on the technological absorbive capacity of the supplying firm. What is pertinent on this score therefore, is whether the absorbive capacity of SMEs is greater or less than that of larger firms. Moreover, larger firms may be able to exploit technological spillovers better because of more diversified businesses, economies of scale, and perhaps experience. Serendipitous technologies may be more likely to be used because of the greater number of possible applications associated with a more widely diversified business. More capable scientists, engineers and workers may be more attracted to larger firms because of job security, profile and/or better pay. On the other hand, it is conceivable that small and medium-sized companies may be more flexible, nimble and agile, and thus can better and more quickly absorb spillover innovations or technological improvements. It may be argued that SMEs are more entrepreneurial and innovative and do not suffer from the bureaucratic inertia (X-inefficiencies) typically associated with larger firms.

The motivation to transfer technology may also be different when dealing with SMEs as opposed to larger local suppliers. MNEs may underestimate SMEs, not viewing them as future rivals, and are therefore more likely to offer to transfer some of their technologies and know-how. Larger local supply firms can be more threatening to MNEs and represent a much more daunting potential rival down the road. For example, the Chinese computer manufacturer Lenovo, once a contract manufacturer to IBM, bought up the personal computer business of IBM for around $1.75 billion in 2005. This was a landmark deal and the transaction highlighted the new consequences of the globalization of production, where business is no longer unidirectional but expands also from emerging to developed economies. Consequently, MNE buyers may pre-emptively seek to protect their technologies more carefully and restrict spillovers or unintended technology flow.

3.6. Multinational enterprises and host country Governments

In a highly competitive global environment, being able to rely on local suppliers for commodities, parts and components is critical to the survival and success of multinational companies. As such, a multinational enterprise must seek out, engage and retain reliable, qualified (technically and managerially) and cost-competitive local suppliers for its global supply network. At the same time, host country Governments compete fiercely for the potential business of multinational enterprises, and actively promote FDI through a number of initiatives (Bhanich Supapol 1995; Ostry 1998). While direct support from Government in terms of tax incentives, minimized administrative burden and other investment incentives can help promote FDI, arguably the crucial element for attracting multinational enterprises is still the availability of skilled and qualified local subcontractors (Bhanich Supapol 1995).

In light of the changing nature of the offshoring activities of MNEs towards more specialized and higher value-added transactions, increasingly skilled subcontractors will be required; failure to keep up with international standards would result in a loss of FDI and opportunities to benefit from MNE procurement contracts. If local SMEs fail to upgrade and meet the technological and sustainability challenges of the new outsourcing environment, they will likely be passed over by MNEs. Being precluded from international value chain activities is costly to the host economy directly in terms of the foregone foreign exchange and economic value of the supply contracts, but perhaps more significant is
the foregone economic value from indirect spinoffs and technological transfers that could have been realized. If a country no longer offered MNEs outsourcing cost advantages or market opportunities, MNE buyers would likely find alternative manufacturing platforms where they could produce and operate more competitively, and would turn to different subcontractors for parts and components. The reversal of international integrated production trends can be very difficult and costly for the country, and it is pertinent that local small and medium-sized firms are appropriately encouraged to move up along the technological ladder and proactively upgrade their technological competencies so that they are better poised to participate in the evolving global value chain.

Arguably, SMEs face more constraints technologically. Larger parts and component supply firms have more resources that they can allocate to various inventive activities and are perhaps in a better position to exploit the results of their research and development because of economies of scale and scope. They may also have better access to foreign technology because of their possible greater involvement in international markets and exposure to technologies available elsewhere. In some countries, larger firms receive more support from the government. They have often been favoured to receive research and development subsidies and funding from the government because of: (a) their prior track records and performance (early-mover advantages); (b) availability of in-house scientist and engineers; (c) developed expertise that cannot be found elsewhere; or (d) their established relationships with the government funding agencies. Moreover, larger firms may be more experienced in dealing with MNEs and more familiar with technology licensing practices. They can rely on in-house legal resources when contracting for technology—resources that are likely absent amongst smaller or medium-sized business establishments. It has been argued that larger firms face lower funding costs. Possibly because of their available pool of assets that can be used as collateral, specific investments in both tangible and intangible assets, and an available corporate (financial and operational) information system which makes monitoring less costly, larger firms have greater access to different types of financial products and funding institutions.

Entrepreneurial and smaller businesses typically find it difficult to finance longer term investments, such as in research and development, which have uncertain payoffs and longer return periods. Significantly disadvantaged by the liabilities of newness and smallness, entrepreneurs and SMEs may find it increasingly difficult to participate in the international supply chain of MNEs. This notwithstanding, some of the entrepreneurial and smaller research firms have been particularly successful as providers of scientific and technical inputs to large manufacturing MNEs both offshore and onshore. A case in point is the vast number of bioengineering firms that have played a vital role in the development of new blockbuster drugs for large international pharmaceutical companies. Indian research firms have participated in outsourced clinical trials and drug development for North American and European pharmaceutical giants in recent years. It would appear however, that such offshore research firms are specialized and technologically more advanced, and can deliver added value for MNEs. Another example comes from the ICT industry, where small programme developers overseas have been involved in supplying application-specific and specialized programming services to mega-ICT and systems firms from developed countries, and have undeniably been pivotal to the latter’s commercial success.
Anecdotal evidence would suggest that small and medium-sized enterprises, regardless of their size, could successfully plug into the global supply network of an MNE. At the same time, it is important to note that there are indications of a slowing of the outsourcing of MNEs in a changing international environment. This has to be monitored carefully by both firm-level and government decision makers in terms of the competitive options of firms and implications for the role of government (see section 2).

The questions of whether government support for SMEs is warranted, to what extent, and what form such support should take are indeed central to the host country’s industrial development strategists and policymakers. Policy initiatives to allocate appropriate resources to small and medium-sized suppliers could include providing supplemental resources for upgrading and improving the manpower of SMEs, and for the adoption and diffusion of new technologies and management techniques. Ideally, industrial policies should be designed to encourage the transfer of technology to local suppliers, and for MNEs to establish offshore manufacturing facilities in areas where employment effects and industrial linkage benefits are expected to be most beneficial. This should stimulate and pump-prime the creation of sustainable and balanced industrial developmental and growth for the economies of Asia and the Pacific.