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JAPANESE AND US SUBSIDIARIES IN EAST ASIA:

HOST ECONOMY EFFECTS

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If one lesson is to be learned from the East Asian economic miracles, it is that there is no single path to economic success. Nowhere is this more obvious than in the variety of regimes these countries have maintained for foreign direct investment (FDI). During the crucial early stages of their industrialization, East Asian countries pursued policies towards FDI that spanned a spectrum from undisguised hostility to granting more favorable treatment to transnational corporations (TNCs) than that accorded to domestically-owned companies.

Japan (Encarnation, 1992; Mason, 1992; Mason, 1995) and Korea (Mardon, 1990) were at one end of the spectrum (Figure 1); they both exhibited a strong preference for acquiring technology through licensing arrangements rather than DFI, for excluding foreign capital from many sectors of the economy, and for insisting that those foreign companies permitted to invest domestically engage in joint ventures with local partners (often with implicit or explicit expectations that foreign involvement in the venture would gradually be phased out). In the middle of the spectrum, maintaining a policy regime that has consistently been neutral on the issue of ownership is Hong Kong. At the other end of the spectrum is Singapore whose policies, at least until the introduction of the Local Industry Upgrading Program in 1986, by tailoring subsidies and other incentives to the needs of specific TNCs, exhibited a bias against local firms (Soon and Tan, 1993; Yuan and Low, 1990; Yue, 1985). If the comparison is with firms owned by members of the local Chinese community, then Malaysia too for most of the post-independence period pursued policies that favored foreign investors rather than domestically-owned firms (Jesudason, 1989; Jomo K.S., 1993). Taiwan and Thailand while generally welcoming foreign investment both excluded foreign capital from some sectors of the economy. Differing foreign investment regimes were reflected in the ratio of FDI stock to GDP; in the mid-1980s, this ranged from 2.8 percent for Korea to 8.1 percent for Taiwan to 53.8 percent for Singapore (Lall, 1992, Table 2 p. 174).

Diverse policies towards foreign investment seem, however, to have had little effect on overall rates of economic growth across East Asian countries. Singapore has grown as rapidly as Korea; in recent years, Malaysia has come close to matching Taiwan’s growth performance.

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To pose the question of whether ownership matters may seem therefore to be a particularly unpromising line of inquiry. The enormous literature on transnational corporations for the most part would seem to support such a conclusion. To the question of what effects foreign investment will have on the host economy, the most frequent answer is “it depends”. Will DFI be trade creating or trade destroying, will it benefit or weaken the host country’s balance of payments, will it enhance domestic capital formation or crowd out local entrepreneurs? The answer to these and similar questions is that the performance of TNCs and their impact on the local economy will be contingent on a host of contextual factors. These include:

- the reasons why FDI was undertaken (to exploit ownership-specific advantages or to exploit locational advantages?); for defensive reasons (market preservation or acquisition) or for strategic reasons (to secure access to technology or acquire local competitors)?
- the existing and potential capabilities of domestically-owned firms and the opportunities for them together with the local state and foreign investors to forge a developmental coalition;
- the educational and skills level of the local population and the effectiveness of state action to upgrade them;
- the bargaining capacity of the host state (Encarnation and Louis T. Wells Jr., 1985); and
- the general policy context that the host state creates.

Discussion of the relative merits of TNC investment compared with that by domestic firms always runs into the methodological dead end of the impossibility of testing the counterfactual. It is impossible to know whether, or how adequately, a local firm would have filled the gap in the absence of foreign investment. Moreover, ample evidence exists that the linkages between TNC subsidiaries and the local economy, and the capacity of the local state to increase its share of the rents enjoyed by TNC subsidiaries, will vary over time (especially if the sunk costs of the TNC increase (Moran, 1974)), as the product cycle evolves (Doner, 1991), and/or if complementary assets are developed in the local economy (for evidence from Taiwan see Chi Schive (1990); for Singapore contrast the pessimistic view on local linkages in the electronics industry of Pang and Lim (1977) in their early study with their more positive view expressed more than a decade later (Lim and Pang Eng Fong, 1991)). The relationship between TNC subsidiaries and the host economy also changes as production techniques and the global economic context evolve. For instance, the increasing adoption of flexible
production techniques and just-in-time sourcing by TNC subsidiaries in Malaysia led directly
to a sharp increase in their linkages with domestically-owned firms (Rasiah, 1994; Rasiah,
1995). In a similar manner, the evolution of regional and sometimes global production
networks may have a profound effect on the local operations of TNC subsidiaries (Simon and
Jun, 1995).

Furthermore, whatever the choice of foreign investment regimes, this in itself will not
be decisive for an economy's growth prospects. What matters, as Dahlman, Ross-Larson and
Westphal (1985) argued in their study of technology acquisition, is less the method chosen
than the effectiveness with which the preferred strategy is implemented. Providing incentives
to TNCs will not in itself ensure that the potential benefits, such as access to capital,
technology, management skills, and to sales networks, that some TNCs can provide will
actually be realized. Similarly, a policy of promoting domestic firms will, if improperly
implemented, merely result in an environment in which rent-seeking predominates.

If ownership in itself is not decisive, does ownership make no difference? Given the
complexities of the issue and the importance of contingent factors, is it impossible to make any
a priori judgements about possible differences in the challenges posed by domestically-owned
and foreign-owned firms to state decision-makers, and in the impact that firms have on the
local economy? In principle, ownership should not matter. Reich (1990; 1991) was persuasive
in asserting that the crucial issue is the nature of the activities undertaken within the local
economy and the contribution these activities make to increasing local competitiveness and
advancing domestic economic welfare, rather than the ownership of companies per se. And,
indeed, some TNCs undoubtedly may bring assets to less developed countries that either
would not be available to startup domestically-owned companies or, in the case of the
development of technology, for instance, could be supplied by the TNC at much lower
opportunity costs.

Reich may be posing the correct question but the answer he gives to it is less
persuasive. As Tyson (1991) suggested, in arguing that the nationality of firms is becoming
irrelevant to where they conduct their business activities as they transform themselves into
global networks, Reich should have placed greater emphasis on the word "becoming".
Nationality continues to matter. In so far as the international division of labor is concerned,
ﬁrms have not yet transformed themselves into stateless beings (Hu, 1992).
Several *a priori* reasons exist for believing that TNC subsidiaries will behave differently from domestically-owned firms (especially to the extent that the activities of the latter are confined within the domestic territory). These differences stem from two key dimensions of the TNC: its transnationality, and its vertical integration. A firm that operates transnationally may pursue a division of labor across its various operations that is not in accord with the priorities of the host country. A conflict may exist between the firm’s need to satisfy shareholders in its home country and the goals of a host state to ensure that a greater share of the company’s activities be conducted locally. The firm may be able to realize economies of scale through the centralization of some activities that would otherwise be performed locally. Moreover, the vertical integration of the firm across national boundaries offers the opportunity to determine the stage of production or distribution and the territory in which it is able to exploit the rents arising from its ownership-specific advantages.

For some adherents of neo-classical economics, the solution to the problems faced by host countries in dealing with TNCs is straightforward: maximize domestic comparative advantage by allowing market forces free reign. This proposed solution has several problems. First, by definition, the operation of TNCs generally results from some degree of market failure. These include the capacity of the corporation to realize economies of scale or scope, or to differentiate its products by brand name, that provide the corporation with its ownership-specific advantages as a huge literature that builds on the insights of Hymer (1976) has demonstrated. In many instances, the best that the host country can hope for in its negotiations with a TNC is a situation of bilateral monopoly in which the country’s principal leverage results from control over market access. Second, the host country does not face a level playing field in foreign investment regimes but one that is tilted by the policies of other states through the incentives that they offer to local and foreign companies. Third, the TNC may engage in satisficing rather than optimizing in its scanning activities, leading to a form of hysteresis in the distribution of its operations. Fourth, from the TNC’s perspective, even in circumstances where the corporation is fully aware of the competitive advantages of the local economy, the costs of adapting product and process technologies for the local environment may far outweigh the expected benefits from exploiting differences in local factor costs.

Clearly, some East Asian states perceived that a dependence on market forces would be insufficient to ensure that the domestic economy would capture the desired share of activities and rents generated by TNCs. Moreover, they had no confidence that state
regulation would be as effective in dealing with TNCs as it would with domestically-owned corporations. The potential for state control over corporate activities, whether through decrees or through administrative guidance, was evidently a factor in the decisions of the Japanese and Korean governments to favor domestically-owned firms rather than transnational subsidiaries. State power rested on the capacity to dictate the allocation of key inputs—credit, raw materials, foreign exchange—a control that became increasingly difficult as liberalization of the domestic economy proceeded and the domestic firms themselves transnationalized (witness the current struggle between the Korean state and the chaebol over the latter’s raising of capital offshore).

For countries that are latecomers to industrialization, learning by borrowing and improving on technologies already developed by firms in more advanced economies has proved to be the most important path to rapid economic growth (Amsden, 1989; Hikino and Amsden, 1994). For governments, the critical challenge is how best to leverage access to the technologies that are held for the most part by foreign private sector actors and, once access has been attained, how best to facilitate the local diffusion of these technologies. Linkages between foreign-owned and domestically-owned firms within national boundaries are crucial to this question because of the opportunities for, in Borrus’s (1993, p. 48) phrase, “learning by interaction”.

Is the nationality of the TNC subsidiary likely to affect the prospects for the transfer and diffusion of technology to host economies? In the following section I identify several a priori grounds for suggesting that Japanese- and US-headquartered TNCs will differ in their impact on host economies in East Asia. Most of the examples are drawn from the electronics industry. The reasons for this selectivity are straightforward. Electronics is now the largest single source of manufactured export earnings for most East Asian countries. It is also by far the most important single manufacturing sector for US and Japanese FDI in East Asia (see the chapter by Encarnation in this volume) and as such offers opportunities for more systematic comparative analysis than other sectors, such as automobiles or textiles, where the presence of Japanese and US subsidiaries is far more unsymmetrical.

Does Ownership Matter? US vs Japanese Subsidiaries
The debate about whether significant differences exist between Japanese and US FDI has a long if not altogether distinguished history. Many of the arguments made by early commentators, such as Kojima’s (1978; 1986) distinction between the trade-enhancing nature
of Japanese FDI and the trade-undermining characteristic of US FDI, and Ozawa's (1979) emphasis on the importance of relative factor endowments in driving Japanese FDI, have not withstood the test of time and empirical examination (for criticisms see (Hill, 1988; Hill, 1990; Ramstetter, 1987)).

The wave of Japanese FDI in export-oriented manufacturing in other parts of Asia in the last decade—which appears little different from US FDI in its motivations—coupled with the importance of global trends to which all companies must respond regardless of home base, inspires caution in any attempt to make a priori comparisons between Japanese foreign investments and those from TNCs domiciled elsewhere. Moreover, the absence of comparable data on TNCs from other countries, and the likelihood that the vintage of investments will act as a confounding variable, all serve to complicate the analyst's task. That Japanese corporations display characteristics in their domestic operations that are regarded as unique (Aoki, 1988; Womack, Jones and Roos, 1991) and which, if they are changing at all, are doing so only slowly (Yamamura, 1990; Yamamura, 1994), however, suggests that it is likely that the operations of Japanese companies will continue to differ from those of other TNC subsidiaries. Some of these unique dimensions of Japanese corporations, inter-corporate relations, and the relations between corporations and the home government, such as aspects of the famed “lean” production techniques—just-in-time sourcing, etc.—may, if replicated in overseas affiliates, work to the benefit of the host economy. Others, such as the keiretsu relations that link assemblers and suppliers, may not (if they exclude locally-owned companies from production networks).

In the remainder of this section, I discuss four areas in which Japanese TNC subsidiaries frequently differ in their practices from their US counterparts which may be anticipated to affect the prospects of technology transfer to the host economy: the localization of management; sourcing of components and capital goods; replication of production networks; and distribution of research and development activities.  

Management Localization and Autonomy

Japanese subsidiaries are far less likely than their US counterparts to employ local managers, to employ local personnel in senior technical roles, or to have nationals of the host country on their boards. Even where local managers are employed, they are often “shadowed” by Japanese personnel and are relegated primarily to the performance of public relations roles for the company. In their study of Japanese subsidiaries in Australia, Nicholas et al. (1995, pp. 22-
3) concluded that Japanese nationals dominated the upper echelons of management, and that "there was a systematic bias in favour of Japanese managers holding key management positions, especially those involving the implementation of the technology or human capital critical to the competitive advantage of the firm."

In part, the low levels of representation of local staff in management positions may stem from the replication of the lifetime employment system in overseas affiliates (Wendy Smith--study of Japanese subsidiary in Malaysia). This has two effects. First, assuming that the subsidiary initially is staffed by expatriates, any replication of the seniority system inevitably delays the transition to locally recruited managers--unless the senior staff are relocated elsewhere within the corporation. Even if such opportunities for transferring senior staff arise, however, many Japanese subsidiaries expect local recruits to complete a lengthy training and socialization period before they are promoted. These company expectations generate the second effect: frustration on the part of locally recruited managers with their promotion prospects that often leads to their seeking employment elsewhere. Several surveys of local managers in TNC subsidiaries in Asia report that Japanese employers are viewed far less favorably than their American or European counterparts (Ernst, 1994a, pp. 16-17).

The replication of the seniority system in Asian subsidiaries constitutes a structural explanation for the low levels of localization of management in Japanese companies. In addition, the lack of familiarity of most locals with the Japanese language, with corporate culture, and with the networks within which the company operates are barriers to localization. Undoubtedly, however, corporate preferences as detailed in the chapters by Takichi and by Sedgwick in this volume are also a powerful factor against localization. Companies see the employment of Japanese managers as facilitating central control over key operations. They also fear that localization of management will increase the risks of leakage of commercial secrets to the local economy.

The relatively low levels of employment of locals in key management and technical positions reduce the prospects for the transfer of tacit technical knowledge to the host economy through personnel who gained experience in Japanese subsidiaries and then capitalize on this knowledge by breaking away to establish their own companies. Moreover, because Japanese managers are less likely to speak local languages and to maintain social networks that include personnel from domestically-owned companies, management in Japanese subsidiaries
is likely to be less well-informed than other TNC subsidiaries about the production and technical capabilities of locally-owned firms.

Not only is management in Japanese subsidiaries generally less localized than that of other TNC subsidiaries but management enjoys far less autonomy in key areas of decision-making. Several studies have found that decision-making within Japanese TNCs tends to be hierarchical and centralized in the hands of headquarters. Managers of subsidiaries enjoy little freedom of action on issues such as the sourcing of capital goods and components (Guyton, forthcoming; Kreinin, 1988). No evidence exists that the vintage of the investment has any significant effect on localization of decision-making. The lack of autonomy for local management leads to a second significant difference between Japanese and US subsidiaries: 

**Local Sourcing**

"Learning by interaction" is an important channel for the transmission of technology from TNC subsidiaries to local companies. The extent to which subsidiaries source locally is an important indicator of their integration into the host economy. Although no data are available that would enable systematic comparisons that control for date of establishment, industrial sector, etc., various studies have suggested that the subsidiaries of Japanese corporations, whether operating in industrialized or less developed countries, tend to depend more heavily on imported capital goods and components from their home country than do subsidiaries of other TNCs (on the US see Graham (1989); on Australia see Kreinin (1988); on Malaysia see Guyton (forthcoming); on Singapore see the study by Poh Kam Wong cited by Dobson (1993, pp. 52-3) and Dobson's own survey of four TNC subsidiaries). Defenders of the record of Japanese corporations on this issue argue that the explanation lies in the recent vintage of Japanese investment. Saxonhouse (1991), for instance, is critical of Kreinin's (1988) conclusions about the importing behavior of Japanese subsidiaries in Australia on these grounds. Unfortunately, Saxonhouse does not produce any evidence to substantiate his argument; he makes no attempt to re-examine Kreinin's data by controlling for date of establishment.

In some instances, local content in the production of Japanese subsidiaries in East Asia declined as companies moved from exclusive production for the local market to production for export markets. In 1992 over 60 percent of the components used by Japanese affiliates in the electronics sector in ASEAN countries and the NICs were imported, two-thirds of which were sourced from Japan (MITI data cited by Urata (1995, Table 7)). In recent years, Japanese
TNC subsidiaries have increased the proportion of components that they source from the local economy. But in examining the importance of vintage effects and technology transfer to local firms, two issues come into play. First, we do not know the relative weight of date of establishment as opposed to other variables that may drive increased local sourcing. Vintage almost certainly has some effect but may be swamped by other factors such as currency movements. The appreciation of the yen has clearly been the principal factor driving increased local sourcing in Southeast Asia in the 1990s. Date of establishment is unlikely to be the only factor retarding local purchasing given the nationality of the managers of Japanese TNC subsidiaries and their lack of autonomy in decision-making on sourcing of equipment and components discussed above. In Guyton’s (forthcoming) survey of Japanese affiliates in Malaysia, a majority of the Japanese companies reported that their parent companies dictated where machinery should be acquired (see also Sedgwick’s chapter in this volume). The general preference for purchasing within the corporate network is seen in that intra-firm transactions accounted for more than half of the purchases by Japanese affiliates in Asia in 1992; for the NICs, the figure was 60 percent (Urata, 1995, Table 8).

Second, although the sourcing by Japanese affiliates from the local economy increases over time, this does not necessarily primarily benefit domestically-owned firms but rather other Japanese subsidiaries located in the host economy. In other words, over time, the assembler at least partially replicates the network of suppliers with which it has long-standing relations in the home economy. A rare survey that compared sourcing from locally-owned in contrast to locally-based companies was conducted in Malaysia in 1987-9. It reported that even though an increase occurred in the number of locally-owned firms that supplied Japanese affiliates, the share in local procurement (itself less than a third of the value of total purchases) from locally-owned companies remained constant at around 45 percent. Meanwhile, the share sourced from locally-based Japanese affiliates rose from 18.7 to 23.8 percent (Aoki, 1992, Table 5 p. 82). Following from these observations is a further contrast between Japanese and US FDI: Replication of Production Networks

Japanese companies have a greater propensity than their American counterparts to internalize their ownership-specific advantages through the replication of their production networks when investing overseas. A study by JETRO in 1994 found, for instance, that nearly a quarter of the 62 Japanese affiliates in Malaysia interviewed had invested locally in response to a request of a Japanese assembler (Japan External Trade Organization, 1995a). The vintage effect here may
cause a greater divergence rather than a convergence in the behaviors of Japanese and US subsidiaries as, over time, Japanese companies build a more complete local replication of their domestic supply networks.

In turn, the replication of supply networks produces another inter-country difference in FDI: small and medium-sized enterprises (SMEs) have a greater share in Japanese FDI than in that of US companies. In general, the foreign investments by these smaller companies are less likely to be driven by the desire to exploit such ownership-specific advantages as proprietary technology than by the advantages that they enjoy by virtue of the nationality of their management and their established trading links with the large assembly companies. And their investment is more likely to be driven by location-specific advantages such as low labor costs. By 1993, Asia accounted for more than 90 percent of the worldwide investments by Japanese SMEs. This concentration has been attributed by JETRO (1995b, p. 20) to their search for inexpensive labor. For the host economy, investment by these SMEs has a greater potential to have a crowding-out effect on local entrepreneurs since these companies occupy relatively low-technology niches that startup local enterprises might reasonably aspire to fill. Some evidence, mainly anecdotal, exists that just such a crowding-out effect on local firms has occurred in Malaysia (Ali, 1994; Rasiah, 1995). In addition, SMEs are more likely than their larger counterparts to maintain management and key technical positions in the hands of home country nationals (this argument applies a fortiori to Taiwanese investments—see Chi Schive (1990)).

Centralization of Research and Development

Locally-owned firms (or more accurately, companies that have their home base in a particular territory—see Porter (1990, p. 19)) are more likely to carry out a greater range of activities, especially high value-added activities, in the national territory than are subsidiaries of TNCs. In Porter's words, "The home base will be the location of many of the most productive jobs, the core technologies, and the most advanced skills". The concentration of higher value added activities in the home base results not only from the historical development of the company's activities and the local linkages built up over the years, but also, amongst other factors, from the availability of skilled personnel, from pressures from home country governments, shareholders, and workers, from the capacity for realizing lower transaction costs, and from concerns over the protection of proprietary knowledge. In particular, research and development activities tend to be concentrated in home countries. Dunning (1993, p. 303)
reports that only nine percent of all research and development activities undertaken in 1989 by US TNCs was conducted by their foreign subsidiaries (only a modest increase over the 1966 share of 6 percent); for Japanese companies in 1989 the ratio of foreign to home country expenditure was even lower—only 5 percent (Dunning, 1993, p. 303 citing an unpublished paper by L.S. Peters).

This general reluctance of Japanese companies to transfer research and development activities to overseas subsidiaries is reflected in their operations in East Asia. Various surveys have shown that Japanese subsidiaries in Southeast Asia are seldom given responsibility for more than incremental process improvements: product research and development are rare. Itoh and Shibata (1995, p. 196) reported that only two research and development facilities had been established by Japanese firms in Asia, both of which were in Malaysia: a joint venture between Sanyo, Mazda and Ford for car stereo equipment (a venture that subsequently was reported to have foundered) and Matsushita's R&D facility for air conditioning equipment. This estimate may be a modest understatement of the number of Japanese subsidiaries in the region that undertake some research and development activities. Ernst (1994b, p. 21) reports eleven instances of subsidiaries engaged in product development but cautions that it is unclear whether such development amounts to anything more than simple product adaptation for the local market. The general conclusion that Japanese corporations currently undertake little R&D in their Asian subsidiaries stands. The significant contrast with US subsidiaries that increasingly have been given responsibility for product design and development, in some instances not just for local but global markets, is detailed by Borrus (1995).

Japanese and US subsidiaries in East Asia have differed significantly in their technology transfer to host economies and especially in their linkages with locally-owned companies. This conclusion follows from several of the points made above: the dominance of Japanese nationals in key management and technical positions, the lack of autonomy the affiliates enjoy in sourcing, and the development of supplier networks involving local investment by Japanese SMEs. A rare attempt to examine issues of technology transfer in more detail is provided by Guyton (forthcoming) in her survey of Japanese affiliates in Malaysia. She found that Japanese companies were more likely to work closely with locally-based Japanese suppliers on product specification and design than they were with locally-
owned companies. Moreover, Japanese firms appeared to transfer less technology from parent
company to local subsidiary than did their US counterparts: Malaysian employees of Japanese
subsidiaries whom she interviewed who had previously worked for US or European
subsidiaries reported that the parent companies had transferred more technology more quickly
to local subsidiaries than was true of their current Japanese employers. Language barriers
undoubtedly play some role; an obstacle to technology transfer is the lack of English-language
technical documentation within the Japanese firms (see also Sedgwick’s study of Japanese and
US subsidiaries in Thailand in this volume).

What policy implications follow from this conclusion on the differential effects of US
and Japanese subsidiaries? Have Japanese subsidiaries had a negative impact on host
economies? An affirmative answer to the second question would be very difficult to sustain.
Evidence of crowding-out effects on small local firms in Malaysia has to be balanced against
other surveys that report increasing linkages between Japanese subsidiaries and locally-owned
companies (Rasiah, 1995; Rasiah, forthcoming). On balance, the overall impact of Japanese
foreign direct investment in Southeast Asia has not only been to create substantial new
employment opportunities but also to transfer technology both through the import of capital
goods and through creating opportunities for learning-by-doing and learning-through-
interaction. Japanese investments have helped to build local concentrations of production and
design skills that, in turn, are now attracting new investors. But what of the impact on East
Asian countries’ balance of trade?

Trade Orientation

Many of the early studies of foreign direct investment reported that it had a net negative
impact on the balance of trade and, more generally, on the balance of payments of host
economies (see Hood (1979); and Dunning (1993)). Often such negative effects reflected the
orientation of investments towards import substitution; they were frequently import-intensive
in their sourcing of components and capital goods but generated few export earnings.

In East Asia, the nationality of subsidiaries does make a difference to the impact of
FDI on the balance of trade of host economies. In aggregate, Japanese companies conduct a
much smaller share of their trade at arms length, rely far more heavily than US subsidiaries on
imports from the parent company, and export a much smaller percentage of their total
production and in particular engage in reverse exports to the home country to a much lesser
extent than do subsidiaries of US corporations. Consequently, Japanese subsidiaries have a far
less positive effect on the balance of trade of East Asian host economies than do their American counterparts.

As noted in the previous section, several surveys suggested that Japanese subsidiaries rely more heavily than subsidiaries of TNCs headquartered elsewhere on intra-firm trade and on imports from the home country for components and capital goods. The data that would permit a systematic comparison with US subsidiaries in East Asia are not available. However, the aggregate evidence that Encarnation provides in his chapter in this volume on the role of intra-firm transactions in Japan's trade with East Asia, and the contrast with the largely arms' length trade that characterizes US trade with the region, provides further support for conclusions drawn from earlier surveys. Japanese production networks in East Asia tend to rely more heavily on imports than their American counterparts.

On the other side of the trade equation, exports from the host economy, Japanese companies generally have a far less positive impact than their American counterparts. Japanese manufacturing subsidiaries export less than their US counterparts; this is true even of subsidiaries in electronics where in 1992 Japanese subsidiaries exported 61.6 per cent of their production in contrast to the 76.2 per cent figure for US companies. As Encarnation reports in his chapter in this volume, most of the difference in export orientation is explained by contrasting records in reverse exports from subsidiaries to headquarters countries (see also Petri (1995, Tables 3.8 and 3.9, p. 45)).

A report by the Japan External Trade Organization (1995c, p. 17) summarizes these differences in export orientation:

In 1990, [the] value of exports by American subsidiaries in East Asia to their American parents was 2.6-times that of their imports. This presents a sharp contrast with Asian subsidiaries of Japanese firms, in which imports remain dominant. This is believed to be due to the fact that East Asia serves as a base for processing, assembling, and importing by American multinationals and has been incorporated into those multinationals’ global production activities. As opposed to this, for Japan, East Asia is more of a base for exports to third countries rather than a base for importing back to Japan.

The share of reverse exports in the sales of Japanese subsidiaries in East Asia has stagnated since its peak in 1989. Several factors may explain this. First, the data may be affected by the growth in the number of locally-based Japanese suppliers that sell their products “locally” to
The assemblers. Second, the stagnation of the Japanese economy following the bursting of the bubble economy has certainly retarded the growth of sales there compared with those in rapidly-growing Asian economies. Regardless of the explanation, the stagnation in reverse exports has had important economic--and political--consequences for Asian host countries of Japanese FDI. Coupled with the boom in exports of capital goods and components--particularly in the electronics sector--from Japan to the local affiliates, the lack of growth of reverse exports has exacerbated the trade imbalances between other Asian countries and Japan. In 1992, for the first time, Japan enjoyed a surplus in its overall trade with the ASEAN economies; the imbalance in trade in *manufactures* with other Asian countries was huge, exceeding Japan’s trade surplus with the United States. Moreover, the pattern of trade has not only exacerbated political tensions between Japan and other East Asian countries. It has also contributed to increasing trade tensions between these Asian countries and the United States. The triangular pattern of trade in which a substantial (although, in the 1990s, declining) share of exports was directed to the United States reinforced the trade imbalances created by the reverse exports of US subsidiaries (Cohen and Guerrieri, 1995; Encarnation, 1995; Ravenhill, 1993).

Available data do not permit a judgement as to whether the overall impact of Japanese foreign direct investment in the manufacturing sector in other East Asian countries has been positive or negative. Increased imbalances in trade with Japan associated with the growth of Japanese investment have been offset to some extent by increased exports to third countries. And, even though the overall share in total production of reverse exports to Japan has been relatively low, the hosting of Japanese subsidiaries may be crucial for the penetration of the Japanese market, as discussed in the following section.

*Japanese Subsidiaries and Reverse Exports*

The distribution networks of Japanese companies have been demonstrated to be a barrier to the exports of non-affiliated companies (Lawrence, 1991). As Japanese imports from other parts of Asia, especially in the electronics sector, have historically been dominated by intra-company trade, access to these production networks is often critical for penetrating the Japanese market. The share of intra-firm trade in the exports of Japanese subsidiaries in East Asia to Japan has actually increased in the last decade (Table One).

**Table One: Share of Intra-Firm Trade in Exports to Japan of Japanese Subsidiaries in East Asia (%)**
<table>
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<tr>
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<th>1986</th>
<th>1989</th>
<th>1992</th>
</tr>
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<tbody>
<tr>
<td>General Machinery</td>
<td>94.7</td>
<td>98.5</td>
<td>96.7</td>
</tr>
<tr>
<td>Electrical Machinery</td>
<td>73.0</td>
<td>60.3</td>
<td>90.0</td>
</tr>
<tr>
<td>Transport Machinery</td>
<td>46.0</td>
<td>35.7</td>
<td>73.9</td>
</tr>
<tr>
<td>Precision Machinery</td>
<td>86.1</td>
<td>50.8</td>
<td>96.5</td>
</tr>
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</table>


Hosting a Japanese subsidiary may be one of the easiest and possibly most cost-effective ways of gaining access to Japanese production networks and, thus to the Japanese domestic market. In this respect, some Southeast Asian countries may be at an advantage compared with Taiwan and especially Korea which historically adopted more restrictive policies towards Japanese FDI. The Electronics Industry Association of Japan (1995) reports that in 1994, Japanese companies owned 39 facilities in consumer electronics in Malaysia which produced 88 different products; in Thailand 26 plants were assembling 56 products; in Singapore 18 subsidiaries manufacturing 48 products, in Taiwan 21 plants assembling 49 products; and in Korea only 7 plants producing 16 products.

Some displacement of Korean and Taiwanese exports to the Japanese market by those from Japanese subsidiaries in Malaysia and Thailand and, to a lesser extent, Singapore appears to have occurred in the last five years (see Tanaka (1993); Japan External Trade Organization (1995b)). Two effects seem to be at work here. The first is the transfer of most low-end production in the consumer electronics industry to Southeast Asia (and, more recently, to China), products that companies in Korea and Taiwan are no longer manufacturing. The second, and much more interesting effect from a political economy viewpoint, is the construction by Japanese companies of state-of-the-art assembly plants in Southeast Asia that are intended to service the global market for that product, including the domestic Japanese market. While the high-end components for assembly may still come from Japan, as do the capital goods, and these plants have yet to be given responsibility for research, design, and product development, they have been equipped with the latest production technology to ensure quality control.

For host economies, these plants offer several significant advantages. Because these are (at least) majority-owned subsidiaries, Japanese companies are more willing to supply them with the latest technologies than they are to sell or license such technologies to potential rivals (domestically-owned firms) in Korea and Taiwan. Second, these products carry the Japanese
company's brand name, a particularly important factor in accessing the Japanese market. Korean-manufactured products gained a poor reputation in Japan in the late 1980s when several companies began marketing consumer electronics products under their own brand names rather than through original equipment manufacturing (OEM). A reputation for unreliable products and poor after sales service damaged the brand names of several Korean companies and created a "collective bad" for the "Made in Korea" label. Consequently, a widespread trend back to OEM was observed for ultimate marketing under the label of a Japanese company. This strategy does provide access both to Japanese production networks and to the Japanese market; whether it is as financially attractive (or as secure in terms of maintaining control over technologies) for Japanese companies as manufacturing in their own foreign subsidiaries is a question that would likely be decided on a product-by-product basis.

To attempt to address the product displacement issue, I reviewed Japanese imports of five products. Before discussing the individual product data, some caveats are in order. Most importantly, it is impossible to identify the exporting firm from these aggregate data (the data in the following figures are Japanese import data accessed through the Nikkei Telecom: News & Retrieval Service at the Australian National University). I am making assumptions here about the ownership of the exporting companies based on (incomplete) information on the distribution of Japanese consumer electronics plants in the region. For Malaysia and Thailand, one can be reasonably certain that the exports of consumer electronics products to Japan will have come from Japanese subsidiaries. For Singapore, although subsidiaries of companies headquartered in other countries have a significant presence in the manufacture of consumer electronics, in the products examined in this section, radios and color TVs, the production is overwhelmingly by Japanese subsidiaries. In Korea, most of the exports of consumer electronics products to the Japanese market are derived from Korean-owned companies that produce either on an OEM or an OBM basis. In Taiwan, the situation is less certain: exports to the Japanese market come both from Japanese subsidiaries and from locally-owned (and other foreign-owned) firms producing primarily on an OEM basis. Any conclusions from these data therefore must be very tentative; the data must be treated as at best illustrative; their character does not permit more rigorous analysis.

Three of the commodities, radios, calculators and telephones (Figures 2, 3 and 4), match the characteristics of the first pattern noted above: low-end electronics products whose production in Northeast Asia (and Singapore) is being phased out as industries in these
countries upgrade into higher value-added products. In 1988, Singapore, Korea and Taiwan together provided over 70 per cent of Japan’s imports of radios. In the early 1990s, a substantial proportion of production was shifted to Malaysia whose share of the Japanese import market rose within a couple of years from five per cent to over twenty-five per cent (Figure 2). A similar striking switch in sourcing characterises Japan’s imports of calculators. In the late 1980s, Taiwan alone was the source for close to 80 per cent of Japan’s calculator imports. Within three years, Taiwan had been displaced as the major exporter by Thailand and Malaysia; in this instance the production was often on an OEM basis for Japanese distributors by Taiwanese companies based in Malaysia and Thailand (for discussion of one example see Bernard and Ravenhill (1995)). In Japan’s imports of telephones (Figure 4), Taiwan held a dominant share of the market in the late 1980s but by 1993 imports from Thailand exceeded those from Taiwan and Korea. A similar trajectory is seen in the imports of sound recorders.

In other, higher value-added, products the same trend to switching of import sourcing to Southeast Asian economies is evident. But in this instance, Korea and Taiwan have not exited from the manufacture of these products; rather Japanese companies have switched from sourcing from Korea and Taiwan (often on an OEM basis from domestically-owned companies) to sourcing from new majority-owned subsidiaries in Southeast Asia. Color televisions provide one of the best examples of this trend. In the late 1980s, close to 90 per cent of all Japanese imports of color televisions were sourced from Korea and Taiwan (Figure 5). Although both countries continue to be major exporters of color televisions, their share of the Japanese import market fell precipitously in the early 1990s as new Japanese subsidiaries, particularly in Malaysia, came on-stream. By 1994, Malaysia and Thailand together accounted for over half of all Japan’s imports of this product. A similar experience, although less dramatic, is evident in Japanese imports of facsimiles (Figure 6). For this product, imports from Malaysia, which by 1994 accounted for over half of Japan’s import market, have largely displaced those from Taiwan.

A final development is the increasing sourcing of consumer appliances from subsidiaries in Southeast Asia. For the most part, these products are new imports into Japan: this is not an instance where Southeast Asian exports are displacing production from Korea and Taiwan. An early example was refrigerators (Figure 7) where imports from Japanese subsidiaries in Malaysia and Thailand quickly captured over half of the import market. Air conditioners provide another example.
Even though the aggregate data do not show an increase in the share of reverse exports in Japanese manufacturing production in East Asian subsidiaries, aggregation obscures significant developments in the most dynamic sector of manufacturing, consumer electronics, in Southeast Asia. The data in Table Two reflect the increasing importance of sales to Japan in the overall output of Japanese electronics subsidiaries in ASEAN countries. This trend can be expected to continue for reasons detailed in the conclusion. The benefits of hosting Japanese subsidiaries—with the access that they provide to the latest technologies, brand names, and Japanese domestic distribution networks—will become ever more important if reverse exports continue to increase.

Table Two: Geographical Distribution of Sales for Japanese Affiliates in ASEAN in the Electronics Industry

<table>
<thead>
<tr>
<th></th>
<th>Local</th>
<th>Exports</th>
<th>Japan</th>
<th>Asia</th>
<th>North America</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>43.0</td>
<td>57.0</td>
<td>7.4</td>
<td>33.6</td>
<td>8.5</td>
<td>6.9</td>
</tr>
<tr>
<td>1989</td>
<td>34.9</td>
<td>65.1</td>
<td>17.5</td>
<td>29.3</td>
<td>14.6</td>
<td>3.5</td>
</tr>
<tr>
<td>1992</td>
<td>38.4</td>
<td>61.6</td>
<td>27.7</td>
<td>22.4</td>
<td>8.6</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Source: Urata (1995, Table 7)

Conclusion

Does ownership matter? In the effects of foreign direct investment on host economies in East Asia in the last decade, the answer is “yes”. Subsidiaries of US corporations were more likely than their Japanese counterparts to interact with the host economy in a manner that facilitated local acquisition of technology, an essential dimension in the growth of capabilities of domestically-owned firms. Moreover, the aggregate impact on host economies’ balance of trade of US subsidiaries in East Asia has certainly been more positive than that of their Japanese counterparts. How significant are these differences? From the data that are available, it is impossible to answer this question. Certainly, in terms of the overall growth rates of the economies, the answer is that nationality of TNC subsidiaries has a negligible impact, as indeed do foreign investment regimes in general. Even to assert that the differences in impact of Japanese and US subsidiaries have been significant is not to suggest that the effects of Japanese subsidiaries have been negative. Rather, the appropriate conclusion is that their impact has generally been less positive than that of their American counterparts.
Are such differences likely to persist in the future? To address this question requires an attempt to explain why Japanese corporations have maintained relatively closed networks until now. The straightforward answer is that the management of these corporations has perceived such policies to be economically rational. The maintenance of good relations with domestically-based suppliers of components and the replication of these supplier networks in host economies helps to sustain quality control and flexible production, and may achieve these advantages at lower transaction costs than if new sources of supply have to be sought in host economies. The continued presence of Japanese expatriates in senior management positions in subsidiaries again lowers transactions costs and may also reduce the risks of leakage of proprietary technology to actual or potential rivals in the host economy. Continued sourcing of components from Japan, especially from within the corporate grouping, may facilitate the realization of economies of scale, enable the continuation of the lifetime employment system for workers no longer producing finished goods, and meet union and government pressures. Such economic rationality may be reinforced by a less tangible economic nationalism or “cultural” dimension in which greater consideration is given by Japanese companies to the evolution of the home economy than is given by transnationals headquartered elsewhere—presumably because the firm’s future prosperity is seen as intimately linked to the national economic evolution.

Such cost/benefit calculations are changing rapidly. The incentives to relocate production in other parts of East Asia are being driven by both push and pull factors. The most significant push factor is the appreciation of the yen. Sourcing from Japan has become a less viable option given the substantial increase in the local currency costs of imported Japanese capital goods and components.

Several factors are at work on the pull side. Low factor costs have made production in East Asia by far the most profitable location for Japanese foreign investment. In 1992, the most recent year for which data are available, the ratio of ordinary profit to sales in Japanese manufacturing subsidiaries worldwide was 1.1 percent; in ASEAN, however, it was 5.1 percent and in the East Asian NICs, 5.6 percent. These high profit margins coupled with perceived opportunities for further investment led to ASEAN countries having the largest share of any region in worldwide re-invested profits by Japanese subsidiaries; in 1992 subsidiaries located in ASEAN countries accounted for 31 percent of all reinvested profits by Japanese firms (Japan External Trade Organization, 1995b, p. 25).
Increased local capabilities provide a second pull factor. Some Southeast Asian countries' comparative advantage increasingly lies not in low-cost unskilled labor but in relatively low-cost skilled labor, including, for instance, engineers. The cost contrast with Japan is striking; similar differences apply to the salary scales of management. Locally-owned firms have rapidly improved their capabilities, often through their interactions with TNC subsidiaries--including those from Japan. Geographical clusters of expertise in high technology industries have emerged and are generating the spillovers that economic theory predicts (Krugman, 1991).

These pull factors are reinforced by two others. One is the growth in the size of the regional market (with the consequence that some companies have increasingly given attention to local customization of products for this market). The second is the pressure from host governments for increased transfers of technology, and for reductions in the bilateral trade surplus that Japan currently enjoys.

These changes in cost/benefit analysis may lead to an increasing divergence between the pursuit of economic rationality and economic nationalism for Japanese firms. The desire to maintain research and development activities at home and to source from Japanese suppliers is increasingly putting some Japanese corporations at a cost disadvantage compared with some of their American competitors that are more closely integrated into host country economies in East Asia. The likely response, already evident, is that Japanese companies will transfer more activities to foreign subsidiaries, and increase their local sourcing. In their aggregate impact on host economies, Japanese subsidiaries and production networks will probably increasingly resemble their US counterparts; they will become more open to non-Japanese participants.

To assert that ownership will be of decreasing importance in determining the impact of subsidiaries on host economies is not to argue that the shape of production networks will necessarily converge. Although firms face common challenges, their response may take a variety of forms. Firm strategies are constrained but outcomes are not pre-ordained (for further discussion see Ernst (1994a) and Stopford (1995)).

What are the policy implications for host economies of the differences between US and Japanese subsidiaries? Host governments wish to maximize the opportunities for technology transfer to the domestic economy. Their interest lies in fostering further opening of Japanese production networks, and the localization of senior personnel. Yet even though the governments of some host economies have expressed growing frustrations at trade imbalances
with Japan and the perceived unwillingness of Japanese companies to deepen their integration with host economies, they have acted cautiously. Governments are acutely aware of their bargaining weakness in an era when they perceive intense competition for new investment. One illustration is that the fear of loss of investments to China was a significant factor in the launch of the ASEAN Free Trade Area (Ravenhill, 1995). If governments were to attempt, for example, to exclude relatively low-technology small and medium investments for fear that they will crowd out local companies would put at risk investments by larger firms.

Host governments are not well-placed to wield a heavy stick towards foreign investors. Nor are carrots that aim to encourage greater technology transfer very effective. In general, investment incentives have been shown to be of dubious value compared with the establishment of conducive overall economic and political climates. Conditional incentives are of little utility where the state lacks the capacity to monitor the agreements closely. Such has been the case in Malaysia. In 1988, the Malaysian government attempted to exert more leverage over TNC subsidiaries by offering double tax deduction incentives to corporations that undertook local research and development, and training of local employees; in 1991 these incentives were extended to companies that sourced at least 30 percent of their components locally. The effectiveness of these measures as a means of fostering local technological capabilities has been undermined by two factors, however. The Malaysian state has lacked the technical capacity to monitor the technology transfer agreements that have been the basis for the extension of tax incentives (Ali, 1992). Rasiah (forthcoming) notes that the agreements have only been vetted on an \textit{ex ante} basis; no attempt has been made to scrutinize how effectively the agreements have been implemented. Furthermore, the incentives for domestic sourcing do not distinguish between locally-owned and locally-based companies and thus have prompted some TNC assemblers to encourage home-country suppliers to establish subsidiaries within Malaysia rather than to build links with locally-owned firms.

Host government efforts to encourage subsidiaries to interact more closely with locally owned firms and to assist in upgrading the latter's skills have been most effective where the TNCs have perceived that they will themselves gain from the arrangements. This mutuality of interests appears to be the principal reason for the success of the Local Industry Upgrading Program in Singapore, and of the Penang Skills Development Centre in Malaysia. These may be the most appropriate models for inducing technology transfer for host economies to emulate in the future. Meanwhile, the Singapore experience demonstrates the important role
that government efforts to improve infrastructure and to upgrade the skills of the local workforce can play in attracting investments for higher value-added local production.
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* vis-a-vis Chinese/Malaysian companies

FIGURE 1 FOREIGN DIRECT INVESTMENT REGIMES

- JAPAN
- SOUTH KOREA
- TAIWAN
- THAILAND
- HONG KONG
- MALAYSIA *
- SINGAPORE

PRO
DOMESTIC FIRMS

NEUTRAL

PRO
FOREIGN FIRMS
Figure 4: Japan’s Imports of Telephones (market share)
Figure 5: Japan's Imports of Color TVs (market share)
Figure 6: Japan's Imports of Facsimiles (market share)