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**To cite this article:** John Raftery , Bernie Pasadilla , Y.H. Chiang , Eddie C.M. Hui & Bo-Sin Tang (1998) Globalization and construction industry development: implications of recent developments in the construction sector in Asia, *Construction Management & Economics*, 16:6, 729-737, DOI: [10.1080/014461998372024](https://doi.org/10.1080/014461998372024)

**To link to this article:** <https://doi.org/10.1080/014461998372024>



Published online: 21 Oct 2010.



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# Globalization and construction industry development: implications of recent developments in the construction sector in Asia

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Received 18 March 1998; accepted 28 July 1998

Recent developments in the construction sector in the Asian region demonstrate three trends: (1) larger private sector participation in infrastructure projects, (2) increasing vertical integration in the packaging of construction projects, and (3) increased foreign participation in domestic construction. This paper attributes the trends to the globalization and deregulation of markets necessitated by fiscal, technological and managerial constraints. Although these trends present intra-Asian opportunities, there are also areas of concern. The trends have helped polarize the financial and technical superiority of the developed countries and the corresponding inferiority of the developing countries in the region. In the long term, this gap could be filled through technology transfer. In the short term, however, there are concerns that imported construction services could grow at the expense of the indigenous sectors of the developing countries. This paper illustrates this dilemma with the case of Japan as a world leader in international construction services. Its dominance has apparently come through the orchestration of industrial and corporate policies, implemented in a highly regulated and protected domestic market. However, construction industries in other Asian economies (such as China) will have to leapfrog in technology, finance and management know-how (e.g. through joint ventures with developed countries' construction companies) before they can become formidable powers in an environment that has become much more global, more de-regulated, more open and more competitive than before.

*Keywords:* Construction, Asia, globalization, construction industry development

## Introduction

The objective of the paper is to report and comment on significant new developments in the Asian region and to identify some consequent important issues. The issues have implications for macro-economic and construction industry development policies in general but in developing countries in particular. The paper will cover the Asian construction industries in general and will not focus on the informal and small-scale construction sub-sector.

The results presented constitute a meta-analysis – in effect, a study of studies – of 12 Asian economies with

particular focus on the construction sector. These studies were commissioned in the summer of 1997 by Asiaconstruct and cover the following economies: Australia (Lenard *et al.*, 1997); China, Mainland (Yao, 1997); China, Hong Kong Special Administrative Region (Chiang *et al.*, 1997); India (Swarup, 1997); Indonesia (Ministry of Public Works, 1997); Japan (Research Institute of Construction and Economy, 1997); Korea (Kim, 1997); Malaysia (Construction Industry Development Board Malaysia, 1997); the Philippines (Construction Industry Authority of the Philippines, 1997); Singapore (Koh, 1997); Sri Lanka (Institute for Construction Training and Development,

1997); and Vietnam (Nguyen, 1997). These reports are collected together with a regional overview in Raftery *et al.* (1997). The present results are based on the analysis made in December 1997 and revised in June 1998.

Although a couple of papers have been published in *Construction Management and Economics* on international contracting and on contractors penetrating new markets, these have tended to consider the subject from the point of view of one or two countries in particular. For example, US contractors in foreign markets (Arditi and Gutierrez, 1991), or Turkish contractors in foreign markets (Giritli *et al.*, 1990), or comparisons of Japanese and American contractors, (Abdul-Aziz, 1994). A wider view of globalization in construction is taken by Abdul-Aziz (1993), Seymour (1987) and Strassmann and Wells (1988). At the level of the multinational enterprise, the most authoritative source is probably Dunning (for example the standard work, Dunning, 1981). Other more general pan-industry perspectives would be represented by, e.g. Caves (1982), Douglas and Wind (1987), *The Economist* (1997) and Levitt (1983). Taken together it is reasonable to say that most economists would agree that increasing openness and globalization brings all round benefits. Benefits to the exporters include employment and additions to GNP. Counter-intuitively, there are probably more benefits flowing to the importing country which manages to get access to technology or products which could not be produced locally with efficiency. The country with comparative advantage can produce the goods or service to the mutual advantage of exporter and importer, thus leading to increases in overall standard of living. The 'political' economy of globalization is an entirely different matter. Countries where 'strategic' industries do not have a comparative advantage will of course find it difficult and probably

impossible to nurture these into maturity and strength. This may lead to political difficulties for governments who are keen to demonstrate to their populations that their country is indeed achieving economic development. This leads to the possibility of protection and/or industrial development policies. These issues, which are raised here only at the most general and abstract level, will be discussed below in the particular context of the construction sector in 12 Asian economies.

### The economic background and construction sector in the countries studied

Over 50% of the world's population lives in Asia, in (mostly) developing countries, at relatively high population densities, in conditions of increasing urbanization and population movement (see Table 1). It is not surprising then that the region, with its consequent huge demands for infrastructure, is the birthplace of build-operate-transfer (BOT), the procurement method which has changed inexorably the nature of public sector infrastructure provision around the world. One of the many paradoxes of the region is the undeniable fact of enormous economic growth over the past two decades which has taken place against a background of (mostly) high levels of Government intervention in the economies. The construction sector has been a pivotal ingredient in the robust economic growth of these Asian economies, as investments in building and infrastructure were needed to expand further growth (see Tables 2 and 3). Around 33% of international earnings by contractors in 1996 (amounting US\$42.453 billion) were earned from Asia (ENR, 1997). This reflects in part the substantial investment of Asian economies in the built environment, as well as their dependence on imported construction services.

**Table 1** Population density and rate of urban population<sup>a</sup>

Country	Population, 1995 (millions)	Population density, 1995 (persons/sq. km)	Average annual growth rate of urban population, 1980–1995 (%)
Australia	18.05	4	n.a.
China, Mainland	1221.5	205	4.2
China, Hong Kong	6.19	9268	1.5
India	935.74	476	3.1
Indonesia	193.75	162	4.8
Japan	125.20	553	0.6
Korea	44.85	726	3.5
Malaysia	20.69	101	4.3
Philippines	70.27	377	4.9
Singapore	2.99	7522	1.8
Sri Lanka	18.35	450	1.6
Vietnam	73.9	359	n.a.

<sup>a</sup>Source: *World Almanac* (1997)

**Table 2** Trend of GDP growth (%)<sup>a</sup>

Country	1993	1994	1995	1996	1997 <sup>b</sup>
Australia	4.0	4.4	4.0	4.1	3.1
China, Mainland	13.8	12.7	10.6	n.a.	n.a.
China, Hong Kong	6.1	5.4	4.6	4.7	5.4
India	4.5	6.3	6.7	6.6	n.a.
Indonesia	6.5	7.5	8.2	7.8	7.5
Japan	0.1	0.7	2.4	3.0	1.0
Korea	5.8	8.6	9.0	6.8	6.4
Malaysia	8.3	9.2	9.6	8.5	8.0
The Philippines	2.1	4.4	4.8	5.5	5.3
Singapore	10.1	10.5	8.8	7.0	6.5
Sri Lanka	6.9	5.6	5.5	-3.8	n.a.
Vietnam	n.a.	9.0	9.5	n.a.	n.a.

<sup>a</sup>Sources: IMF, *International Financial Statistics* December 1997; Country reports submitted to the Third Asiaconstruct Conference (Hong Kong, November 1997).

<sup>b</sup>1997 figure is forecast.

**Table 3** Growth in construction output (%)<sup>a</sup>

Country	1994	1995	1996	1997 <sup>b</sup>
Australia	5.9	5.1	-2.6	5.7
China, Mainland	n.a.	n.a.	n.a.	n.a.
China, Hong Kong	18.0	12.0	10.5	6.8
India	n.a.	n.a.	n.a.	n.a.
Indonesia <sup>c</sup>	10.9	21.6	57.7	22.7
Japan	-3.4	0.6	3.3	-5.4
Korea	13.8	17.8	16.6	n.a.
Malaysia	14.1	15.2	11.8	8.8
The Philippines	3.7	7.8	15.9	16.3
Singapore	12.0	6.8	26.0	16.0
Sri Lanka	n.a.	n.a.	n.a.	n.a.
Vietnam	n.a.	n.a.	n.a.	n.a.

<sup>a</sup>Sources: country reports submitted to the Third Asiaconstruct Conference (Hong Kong, November 1997).

<sup>b</sup>1997 figure is forecast.

<sup>c</sup>Indonesia growth figure is in nominal terms.

## Institutional, legal and economic reforms

Over the last few years, the region has seen significant institutional, legal and economic reforms of which the following are some of the most significant.

In China, resort to private capital (including foreign capital) has been allowed. According to the 1996 figures, around 50% of investment capital has been provided by non-public sources (Yao, 1997). China likewise unified the levy system as well as business tax, consumption tax and value-added tax for domestic and foreign companies. At present, only personal income tax is different for foreign enterprises. China has also taken steps

to privatize its housing sector as part of its programme to reform the state enterprise system.

In India, economic liberalization came into effect in June 1991 and reversed four decades of central planning (Swarup, 1997).

In Indonesia, although generally foreign equity is capped at 49%, this has been relaxed in some cases and under certain conditions to allow 100% foreign ownership (Ministry of Public Works, 1997).

In Japan open bidding for public works has been adopted. In January 1996 the new government procurement agreement that extended the rule of non-discrimination for domestic and foreign companies took effect (Research Institute of Construction and Economy, 1997).

In Korea, the construction and real estate sectors are awaiting government announcements regarding the deregulation and liberalization measures in the housing market, especially the abolition of price controls and land use intensity controls. In addition, the government procurement market has been open since January 1997 (Kim, 1997).

In Malaysia, privatization programmes played a very important role in the brisk growth in the construction sector. In addition, the policy of employment of foreign labour has been in place since 1991 (Construction Industry Development Board, 1997).

In the Philippines, policy reforms were adopted in regard to laws governing BOT arrangements and foreign investments. Although generally foreign equity is limited to 40%, 100% foreign equity is allowed for proponents of build-operate transfer (BOT) projects (Construction Industry Authority of the Philippines, 1997).

In Sri Lanka, the government recently allowed 100% private ownership of some selected infrastructure projects. Improvements were likewise made in the investment policy which led to allowing total foreign ownership in virtually all areas of the economy and equal treatment of foreign and local investors under the investment and general laws (Institute for Construction Training and Development, 1997).

In Vietnam there has been a shift from a centralized subsidy-based economy to a market economy. The number of private contractors has increased dramatically since the application of the Private Business Law in 1989. In addition, the Law on Land, which permitted the provision of land to individuals to build their houses, commercialized building materials, and allowed private companies to undertake construction contracts, significantly improved the urban housing situation. At

the same time, the government is carrying out a program of housing privatization (Nguyen, 1997).

Hong Kong and Singapore, to their credit, have always been open markets and thus enjoy the distinction of needing no reform to attract additional investments.

## **Major trends in construction markets across Asia**

### **Increased private sector participation in infrastructure projects**

The first among the trends in the region's construction sectors is the larger share of the private sector in the construction of infrastructure projects. This is a far cry from the situation in the 1970s when private sector involvement was focused on building construction while the public sector considered it its preserve to construct infrastructure projects. As a result of this trend, the proportion of infrastructure works carried out by the private sector has increased dramatically in telecommunication, power, transport, water, energy, petrochemical and sanitation projects.

What brought this trend about? Obviously, the significant privatization and deregulation measures adopted by the public sector itself which, in turn, have been made necessary by domestic fiscal constraints. Given limited domestic budget resources for infrastructure projects, public sector investments in many of the developing countries in the region used to be dependent almost entirely on foreign aid. However, it became evident that this way of investing was not enough and that public works projects need to tap the efficiency and resources of the private sector. Nowadays, private sector participation is actively sought in the whole gamut of project phases – financing, construction, operation, etc. – especially in major capital-intensive infrastructure projects. The most popular form of private sector collaboration is the BOT arrangement and its variants. It is fair to suggest that for most of the countries in the region, private sector leadership in public sector projects would now be the norm. To take the case of Indonesia as a point of reference, the share of private construction has grown from 42.6% of total construction output in 1994, to 44% in 1995, and is projected to settle at 77% in 20 years' time (Ministry of Public Works, 1997).

### **Vertical integration of construction projects**

The popularity of BOT contract arrangements means that 'construction only' contracting is getting less preferable except in small- to-medium-scale projects. Construction projects are becoming more complex and

requiring more sophisticated technologies and financing devices. The more usual arrangement for large projects now is for contractors, developers and financiers to form consortia in order to seize these players' respective expertise, in addition to reducing project risks. The participation of large financial institutions able to tap and mobilize sources of cheaper credit is becoming very crucial in these consortia.

The formation of these strategic alliances, in fact, is seen to be necessary because a construction firm cannot be expected to have all that is required to be effectively competitive. It may have a competitive advantage over others in some key areas but not in others. Thus the formation of strategic alliances would be an effective way of overcoming weaknesses or drawbacks that a firm may be exposed to in the increasingly competitive domestic or international setting.

### **Increased foreign participation in domestic construction**

The participation of more foreign contractors in the region's domestic construction markets is another very clear trend. This trend is a natural consequence of the larger private sector share in construction and the increasing popularity of comprehensive construction works. Quite simply, foreign construction and development firms are precisely those that at present have the capacity and resources to seize on these two trends cited earlier.

Of course, foreign contractors have long been present in the region's construction markets. The difference is that in the 1970s the participation of foreign contractors in domestic markets has been due to governments' needs to comply with donor agencies' loan requirements that contracts be tendered under competitive international bidding. In a sense, the relaxation of institutional, legal and information barriers to entry to foreign investors was initially a necessary price for the funding provided by international development agencies.

Over time, however, governments realized that to maintain the pace envisioned for their economic and infrastructure development, the active involvement of foreign capital, technology and management know-how should be encouraged. It is clear that it is very unlikely for one country to excel or even be self-sufficient in the various construction components of finance, technology, management, materials and labour. It is necessary to facilitate the trade of these resources among the various construction markets in the region. This is particularly true considering the fact that while labour and materials could in many cases be sourced domestically, such other components as technology, management and finance are more 'global', and access to these involves collaboration with foreign parties.

Realizing the benefits of foreign private sector equity in domestic construction markets, various measures have been adopted by the governments in the region. These include (1) removing or relaxing barriers in the repatriation of profits, (2) adopting a transparent tax policy, especially by way of granting equal tax treatment to foreign and local companies, (3) adopting double taxation relief agreements with other countries, (4) offering preferential interest rates for joint ventures where there is equity majority by local partners, and (5) entering into bilateral agreements with foreign governments to guarantee safety of foreign investment. In addition, sometimes imposed ceilings on foreign equity are relaxed. An example is the case of the Philippines, where 100% foreign equity is allowed for construction and development firms engaged in BOT projects.

But although foreign equity limits are relaxed in many instances, the important statutory reality of limits to foreign equity constrains the pace of foreign company acquisitions. As a result, the easiest way for foreign contractors to operate in domestic markets is through joint ventures with local construction firms. This arrangement actually has several advantages. First, foreign and local partners could nicely complement each other: the domestic associates, having better understanding of the local working conditions, look into the sources of labour and materials, while foreign firms bring into the joint venture their higher expertise in finance, technology and management. Second, the transfer of technology and management know-how can be achieved better through this arrangement.

It should be noted that the three major trends discussed above do not seem to be adversely affected (so far) by the Asian financial crisis. To be sure, in the short term the outflow of international capital from Asia would put many private infrastructure projects on hold. However, Asian governments have responded to the crisis by carrying out further institutional reforms, particularly in the banking and financial sectors. It can be argued that as these reforms bear results in the future, the banking and financial sectors in Asian economies would become more robust and the investment risks would become more transparent, thus providing a healthier environment for private sector investment in the Asian construction sector. It has been suggested that there may be some effect on private sector participation in infrastructure projects and the levels of foreign participation in domestic construction.

### **Possible negative local short-term implications of increasing globalization**

As more trade barriers are lifted and as more countries participate in the globalization process, the world will

be entering an era of increasing competition. This move towards globalization in construction poses both opportunities and concerns for less developed construction markets. There are opportunities in the sense that the expansion of international trade in construction would push companies in less developed countries to comply with international standards which, over time, could work towards increasing their competitiveness in terms of cost, quality and project delivery. There are concerns, on the other hand, about the local construction firms' level of preparedness to compete in the domestic and international arena. To compete, firms need to upgrade capabilities and resources, improve efficiency, raise the quality of work, and (very crucially) improve the ability to secure low cost capital resources. There are fears, therefore, that the increased competition arising from the inflow of foreign firms could edge out local contractors and, as a result, stifle the development of domestic construction markets. A balance needs to be struck in order to achieve wider economic development and indigenous industry development.

The following are the more commonly cited areas of concern raised in the commissioned country reports.

There is a danger that the local industries that support the construction sector could be stifled, and in the process hurt the competitiveness of the domestic construction industry. A case in point is Sri Lanka where there are concerns that the construction sector is overly dependent on imported construction materials (around 60% of construction materials are imported at present, compared with around 30% in the 1960s).

There is a need to increase the efficiency of domestic sources for construction finance because the local financial markets often are unable to meet the financing requirements of the construction sector. In particular, there is inadequacy of construction financing from the formal sector and this forces builders to resort to more costly rates from the informal sector. Thus there is a need for regional and international cooperation in the area of mobilizing large funds.

The internationalization of construction favours countries with advanced construction industries. This is manifested in the trend that pure contracting usually is no longer a viable option in construction projects now that BOT-type construction arrangements are preferred. Thus, the involvement of lesser developed countries in foreign construction projects is constrained, except perhaps in the area of labour deployment, their principal area of competitive advantage.

As the international construction industry is concerned mostly with large scale construction, only

the large technologically qualified contractors are allowed to enter into overseas contracts. The pre-qualification requirement in bidding procedures of foreign construction projects precludes the participation of medium-size operations or those in pure contracting. To be able to be pre-qualified, a firm must demonstrate that it has previously secured a certain amount of contracts with comparable magnitude and complexity. Many domestic contractors are calling for projects to be sliced into smaller portions in the hope that they could find a niche that suits their expertise.

### **An illustration: the Japanese and Chinese construction sectors**

Further illustration of the trends outlined above can be gleaned from considering the Japanese and the Chinese construction sectors. The Japanese sector is significant in that it is by far the most dominant exporter of construction services in the Asian region. The following section will discuss the factors that led to Japanese success in the region and whether this success can be sustained easily in the future. Meanwhile, the Chinese construction market will illustrate the challenges faced by an emerging construction power in succeeding in the international construction business.

Mostly, the international construction industry is concerned with large scale construction. Consequently, large firms usually generate most of the foreign revenues. *Engineering News Record* (ENR) has been publishing construction market shares over the years. In 1996, the top 225 international contractors earned a total of US\$ 126.8 billion in international revenues (defined as contractors' revenues earned abroad) (ENR, 1997). There were 78 Asian contractors in the list, which altogether account for 29% of the total revenue. In terms of global market share, Japanese firms are by far the most successful (accounting for 19% of total international revenue, compared with 5% by Koreans, 3% by Chinese (including Hong Kong), and 2% from seven other Asian countries).

Within the Asian region, the presence of Japanese contractors is most conspicuous. In fact, Japanese contractors earned almost 70% of their total international revenues from Asia. Out of US\$42.5 billion in the region, Japanese contractors have a 40% share (compared with 13% by Americans and 10% by Koreans).

### **Success of Japanese contractors**

In addition to their proximity and knowledge of the Asian market, the success of Japanese contractors in the Asian region can be attributed to their technolog-

ical superiority, their financial capacity, and their skills of forming strategic alliances with host governments and local firms. The possession of advanced technology and access to finance give Japanese firms strong competitive advantages over their Asian counterparts, as many infrastructure projects are technologically complex and need financing from the private sector. The provision of project financing has been and will continue to be an important factor of success in bidding for works in the emerging Asian countries (OECD, 1992; ENR, 1997). Japanese contractors have an upper hand in this aspect as they usually have close connection with the financial sector.

The Japanese are among the world leaders in construction technology. This has been due to two interrelated factors: (1) the efforts at technological innovation through research and development (R&D); and (2) a large domestic market and internationalization of demand from Japanese investors in foreign countries.

Investment in construction research and development in Japan has been quite impressive. Japanese firms spend about 3% of their gross receipts on R&D, the highest level of R&D spending in the construction sector (OECD, 1992). Japanese contractors have invested heavily in R&D for two reasons. First, faced with the disadvantage of high labour costs, Japan has strived to innovate to reduce dependence on labour. Second, Japanese business has always focused on long term market share, and hence their heavy commitment to R&D (Levy, 1990; 1993).

The Japanese domestic construction market is quite large. Japan has been investing in construction more than any other country in the world. Between 1960 and 1989, construction investment as a percentage of GNP ranged between 15% and 20% (Levy, 1993). This large and competitive domestic market has been an excellent training ground for Japanese contractors. The large domestic market has helped Japanese contractors move up the experience curve. Competition in the local market, meanwhile, necessitated the adoption of advanced technology that in turn contributed to Japanese contractors' success in penetrating into the international market. Furthermore, a large global market share enabled Japanese contractors to achieve some economies of scale and, more importantly, a track record of projects and learning experience with further reduction in costs (Ghemawat, 1985). Moreover, Japanese contractors can avail themselves of cheaper sources of capital. This, along with technological competence nurtured back home, became an important competitive edge in bidding for international projects, especially in design-construct contracts.

In addition, their talent at forging strategic alliances plus massive direct foreign investment (DFI) has facil-

itated market penetration by Japanese contractors and Japanese manufacturers. Especially in the Asian region, Japanese contractors are adept at building and maintaining long term relationships with local political powers. Japanese DFI is significant because quite often Japanese investors would appoint Japanese contractors for reasons of ease of communication and a desire to reduce risk (Porter, 1990).

### **Role of government**

The Japanese government is instrumental in the success of Japanese contractors in the emerging Asian economies. The Ministry of Construction (MOC) formulates and implements national strategies and policies relating to construction. Through the MOC, the Japanese government fosters the technological and financial capacity of the Japanese construction industry. To encourage technological innovation, the MOC encourages the private sector to be engaged in R&D activities. The government's help in the area of construction project financing has been given in the form of export credits, development assistance, tied aid and associated financing. In Japan, construction aid also accounts for a relatively large share of total bilateral aid to developing countries. This foreign aid has been tied to the purchase of Japanese construction services (OECD, 1992). Similar to the case of DFL, it is not uncommon to find that many construction contracts are tied in with foreign aid.

### **Lesson for emerging Asian countries**

For the purpose of this paper, the Chinese construction market is chosen as a representative of the other emerging Asian construction economies. While China can hardly be described as 'emerging' if seen from the cultural, political and economic angles, its construction industries are not quite comparable with those of Japan, Korea, Singapore and Hong Kong. Thus, from the infrastructure development angle, China is as representative of the other developing Asian economies.

Although China has a large domestic market that should provide a training ground for Chinese contractors, these contractors are not competitive in construction technology and finance. Can this hurdle be overcome easily? Sadly, no. First, since China is a major recipient of DFI, it is expected that major construction projects would be undertaken by the contractors of the countries of DFI origin such as Japan. Under such circumstances, China should take advantage of technology transfer requirements in the investment agreements to help Chinese contractors move up the learning curve. Second, China (like most other Asian countries) lacks sound financial institutions and transparent efficient

markets. China has yet to develop a banking system that responds to the market rather than the directives of the state. Third, the competitiveness of a nation's construction sector depends very much on the competitiveness of its other industries. As discussed above, many Japanese contractors have secured overseas contracts from Japanese investors. These Japanese firms have to offer products or services that are competitive on a global scale if the overseas operations are to be successful. Given the current technological state in China, it will take time before Chinese firms can make world class products or render high value-added services, and so establish their overseas operations and offer construction contracts to their Chinese construction comrades. Thus, although a significant number of Chinese contractors already are operating internationally, this lack of backing from Chinese manufacturing firms could slow their Chinese contractors' growth in foreign construction markets.

### **Conclusions**

This paper has reported and commented on significant new developments in the construction sector in Asia in regard to globalization, construction industry development, comparative advantage and industrial policy. The increased private sector participation in infrastructure projects, vertical integration of construction projects, and increased foreign participation in domestic construction characterize globalization in the region. As more trade barriers are lifted and as more countries participate in the globalization process, the region is entering an era of increasing competition. This move towards globalization in construction poses both opportunities and concerns for less competitive construction industries. Increased competition from foreign contractors could edge out local ones and stifle domestic construction industries, and because of the trend towards BOT-type contractual arrangements, projects are more and more technologically intensive. Domestic contractors in developing countries find the competition difficult, with their competitive advantage being principally cheap labour. Overseas construction markets have been growing rapidly in volume, and to a great extent this favours those countries with advanced construction industries (ENR, 1997, p.38). (This was the case at least until the crisis which began at the end of 1997 but which has not yet manifested itself in available economic data. The ENR report (1997, p.38) cites an approximate 20% growth in the revenues of the top 225 contractors from their overseas projects in the year to end 1996. It would be reasonable to imagine that this trend may be disturbed when data become available for the years to end 1998 and 1999.)



The success of Japanese contractors is attributed to their technological superiority, financial capacity, skills of forming strategic alliance with host governments and local firms. These strengths are nurtured by the indispensable presence of their Government's strong industrial policy giving aid and assistance to construction. This is not easy, and probably impossible, for other Asian economies to replicate, at least in the foreseeable future. Such an imbalance of growth has implications for macro-economic and industrial policies in general but in developing countries in particular. It brings about political difficulties for governments whose construction sectors have a strong voice and are able to create pressures in support of protectionism and/or growth of industrial development policies for construction in the region.

The countries in the region, in common with many other countries, are left with an inescapable dilemma. On the one hand is the resource allocative efficiency of 'importing' technologically advanced construction services at economic rates from other competing countries. On the other, domestic governments 'pay the price' in the short term by allowing backward sectors to flounder unless and until they can become competitive by 'leapfrogging' in terms of their technological advances. We have uncovered no evidence that would lead us to disbelieve that, in the long run, the market would operate and less competitive firms and industries would be squeezed out to the benefit of all. However, the inescapable dilemma for the governments of developing countries lies in the inevitable tensions which arise because what is best for the country in the long run, may be not the best for the domestic construction sector in the short run.

## Acknowledgements

We are grateful to the following Asiaconstruct member institutions who provided the data and country statistics used in this paper: Australia's Construction Industry Institute, China's Ministry of Works, the Hong Kong Polytechnic University, India's Construction Industry Development Council, Indonesia's Center for construction Industry Training, Japan's Research Institute of Construction and Economy, the Korea Research Institute for Human Settlements, Malaysia's Construction Industry Development Board, the Construction Industry Authority of the Philippines, Singapore's Construction Industry Development Board, Sri Lanka's Institute for Construction Training and Development, and Vietnam's National Institute for Urban and Rural Planning. Our own research for the Hong Kong Country Report and for the Regional Analysis was supported with funds from the Hong Kong

Polytechnic University, Construction Industry Development Studies and Research Centre (CIDARC) under Grant Number 1-32-56-8616. Finally, we want to acknowledge our thanks to the anonymous referees for their detailed reading of our submitted paper and for the numerous suggestions for improvements which they made.

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