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# Environmentally Sustainable Buildings in Singapore: A Strategic Reference, 2007



Edited by

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ISBN 0-497-82412-4

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# 1 INTRODUCTION & METHODOLOGY

## 1.1 WHAT DOES THIS REPORT COVER?

The primary audience for this report is managers involved with the highest levels of the strategic planning process and consultants who help their clients with this task. The user will not only benefit from the hundreds of hours that went into the methodology and its application, but also from its alternative perspective on strategic planning relating to environmentally sustainable buildings in Singapore.

As the editor of this report, I am drawing on a methodology developed at INSEAD, an international business school ([www.insead.edu](http://www.insead.edu)). For any given industry or sector, including environmentally sustainable buildings, the methodology decomposes a country's strategic potential along four key dimensions: (1) latent demand, (2) micro-accessibility, (3) proxy operating pro-forma financials, and (4) macro-accessibility. A country may have very high latent demand, yet have low accessibility, making it a less attractive market than many smaller potential countries having higher levels of accessibility.

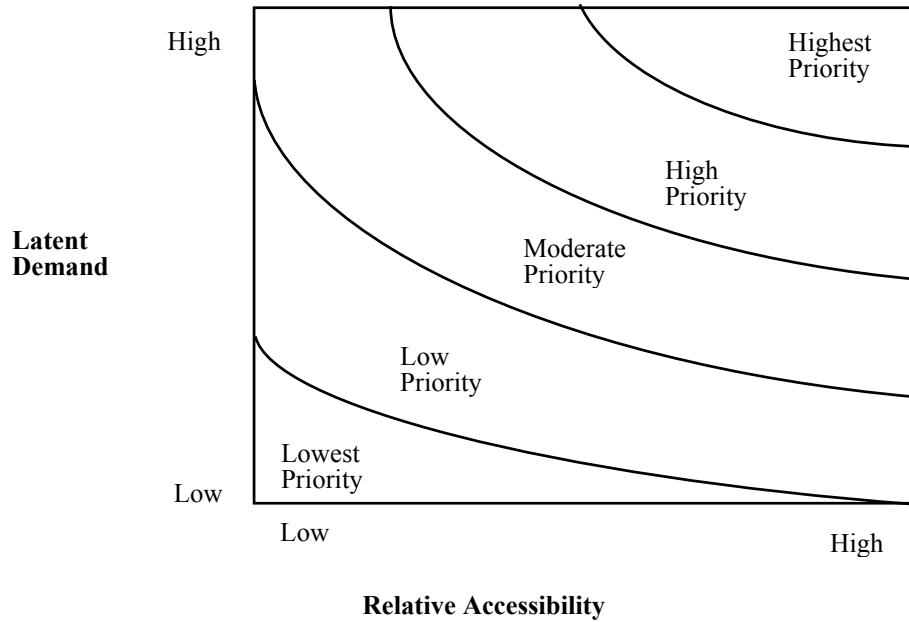
With this perspective, this report provides both a micro and a macro strategic profile of environmentally sustainable buildings in Singapore. It does so by compiling published information that directly relates to latent demand and accessibility, either at the micro or macro level. The reader new to Singapore can quickly understand where Singapore fits into a firm's strategic perspective. In Chapter 2, the report investigates latent demand and micro-accessibility for environmentally sustainable buildings in Singapore. In Chapters 3 and 4, the report covers proxy operating pro-forma financials and macro-accessibility in Singapore. Macro-accessibility is a general evaluation of investment and business conditions in Singapore.

## 1.2 HOW TO STRATEGICALLY EVALUATE SINGAPORE

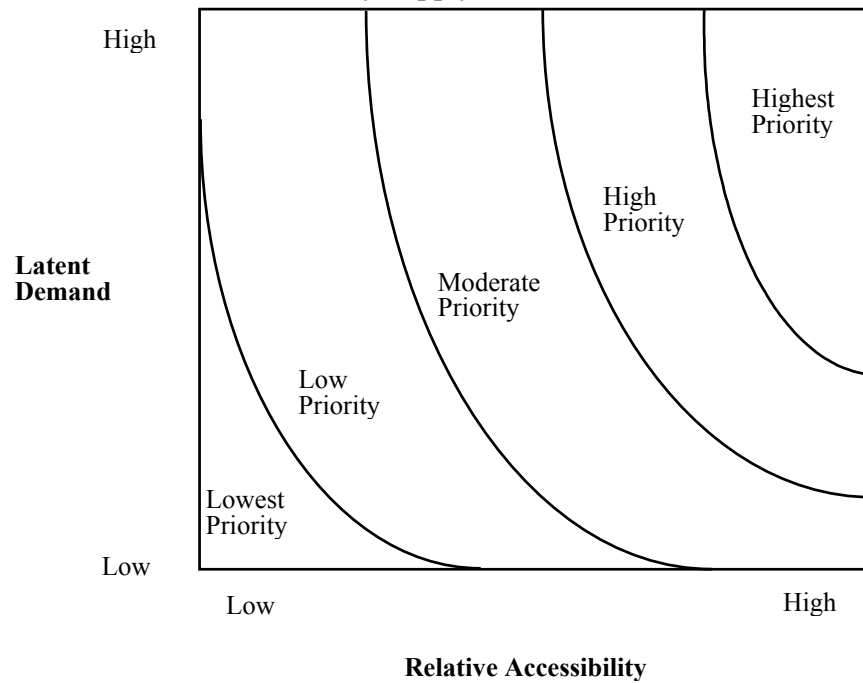
Perhaps the most efficient way of evaluating Singapore is to consider key dimensions which themselves are composites of multiple factors. Composite portfolio approaches have long been used by strategic planners. The biggest challenge in this approach is to choose the appropriate factors that are the most relevant to international planning. The two measures of greatest relevance to environmentally sustainable buildings are "latent demand" and "market accessibility". The figure below summarizes the key dimensions and recommendations of such an approach. Using these two composites, one can prioritize all countries of the world. Countries of high latent demand and high relative accessibility (e.g. easier entry for one firm compared to other firms) are given highest priority. The figure below shows two different scenarios. Accessibility is defined as a firm's ease of entering or supplying from or to a market (the "supply side"), and latent demand is an indicator of the potential in serving from or to the market (the "demand side").

## Framework for Prioritizing Countries

### Demand/Market Potential Driven Firm



### Accessibility/Supply Averse Firm



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In the top figure, the firm is driven by market potential, whereas the bottom figure represents a firm that is driven by costs or by an aversion to difficult markets. This report treats the reader as coming from a “generic firm” approaching the global market – neither a market-driven nor a cost-driven company. Planners must therefore augment this report with their own company-specific factors that might change the priorities (e.g. a Canadian firm may have higher accessibility in Canada than a German firm).

### **1.3 LATENT DEMAND AND ACCESSIBILITY IN SINGAPORE**

This report provides a detailed overview of factors driving latent demand and accessibility for environmentally sustainable buildings in Singapore. Latent demand is largely driven by economic fundamentals specific to environmentally sustainable buildings. This topic is discussed in Chapter 2 using work carried out in Singapore on behalf of American firms and authored by the United States government (typically commercial attachés or similar persons in local offices of the U.S. Department of State). I have included a number of edits to clarify the information provided. Latent demand only represents half of the picture. Chapter 2 also deals with micro-accessibility for environmentally sustainable buildings in Singapore. I use the term “micro” since the discussion is focused specifically on environmentally sustainable buildings.

Chapter 3 is also a stand-alone report that I have authored. It covers proxy pro-forma financial indicators of firms operating in Singapore. I use the word “proxy” because the provided figures only cover a “what if” scenario, based on actual operating results for firms in Singapore. The numbers are only indicative of an average firm whose primary activity is in Singapore. It covers a vertical analysis of the maximum likelihood balance sheet, income statement, and financial ratios of firms operating in Singapore. It does so for a particular Standard Industrial Classification (SIC) code. That code covers “general building contractors and operative builders”, as defined in Chapter 3. Again, while “general building contractors and operative builders” does not exactly equate to “environmentally sustainable buildings”, it nevertheless gives an indicator of how Singapore compares to other countries for a proxy adjacent category along various dimensions.

Chapter 4 deals with macro-accessibility and covers factors that go beyond environmentally sustainable buildings. A country may at first sight appear to be attractive due to a high latent demand, but it is often less attractive when one considers at the macro level how easy it might be to serve that entire potential and/or general business risks. While accessibility will always vary from one company to another for a given country, the following domains are typically considered when evaluating macro-accessibility in Singapore:

- Openness to Trade in Singapore
- Openness to Direct Investment in Singapore
- Local Marketing and Entry Strategy Alternatives
- Local Human Resources

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- Local Risks

Across these domains, a number of not-so-obvious factors can affect accessibility and risk. These are covered in the Chapter 4, which is a general overview of investment and business conditions in Singapore. Chapter 4 is also presented from the perspective of an American firm, though is equally applicable to most firms entering Singapore. This chapter is also authored by local offices of the U.S. government, as is Chapter 2. Likewise, I have included a number of edits to clarify the provided information as it relates to the general strategic framework mentioned earlier.

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## **2 ENVIRONMENTALLY SUSTAINABLE BUILDINGS IN SINGAPORE**

### **2.1 LATENT DEMAND AND ACCESSIBILITY: BACKGROUND**

The market potential in Singapore for technologies, systems and equipment used in the construction of environmentally sustainable buildings (green buildings) is becoming stronger. This covers all types of systems and products to improve energy and water efficiency of a building, technologies and equipment that improve indoor air quality, construction systems that reduce noise and air pollution, as well as recyclable building materials.

The nature of the green building technologies and equipment market in Singapore is such that sub-categories within this segment experience differing demand and supply configurations. Consequently, the market potential is difficult to assess because of the many factors affecting it. However, the state of the construction industry and government support of green building, are major factors affecting the barometer of green construction demand.

Singapore's economic recovery and high growth in the last three years have brought the construction industry back to life. In 2006, the construction industry's contribution to GDP reached 3.5% and is expected to stabilize at approximately 3%. According to the Building and Construction Authority (BCA), the government statutory agency that oversees the development of the construction industry, Singapore construction industry will experience another good year in 2007. Based on anticipated demand, the total construction demand is likely to reach between U.S. \$11.4 billion and U.S. \$12.7 billion in 2007, the highest since it reached U.S. \$16 billion in 1997.

Private sector demand is expected to be the main source of demand generating some U.S. \$8.7 billion worth of projects while public sector construction demand is projected to reach U.S. \$4.0 billion for 2007. Based on these projections, there are many opportunities to supply green construction technologies and materials to the local construction industry. The Government of Singapore's strong encouragement of local industry to adopt green technologies is providing an added boost in line with its commitment to reduce gas emissions under the Kyoto Protocol.

### **2.2 LATENT DEMAND: MARKET COMPOSITION**

This market assessment is based upon the private and public construction sector demand and its impact on the green building market.

#### **2.2.1 Best Prospects**

After nearly a decade of stagnation, the construction industry is now experiencing strong growth. Over U.S. \$10.7 billion worth of construction contracts were signed in 2006, an estimated 40.8% leap over the value of contracts in 2005. According to the Building and Construction Authority (BCA), 2007 will be another good year for Singapore's construction industry. BCA's preliminary forecast indicates the total construction demand will reach between U.S. \$11.4 billion and U.S. \$12.7 billion in 2007. Public construction demand is expected to fuel a possible rise in all types of developments. The surge in the private construction demand is linked to a significant rebound in residential, commercial and industrial developments, which the BCA attributes to the buoyant property market, appreciated rental and capital values, and strong foreign investments.

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## 2.2.2 Public Sector Demand

In 2007, public construction demand is expected to reach between U.S. \$3.5 billion and U.S. \$4.0 billion, fuelled by an anticipated increase in all types of developments. The most significant expansion is will probably come from the industrial building category.

Public residential construction demand is projected to range between U.S. \$800 million and U.S. \$933 million in 2007, with about 60% of the demand coming from the redevelopment of old public housing apartments, buildings new units for the Build-To-Order scheme, and studio apartments. Moreover, Nanyang Technological University is planning to build more hostels for students.

Commercial building construction demand is expected to increase slightly with the expected award for the construction of the People's Association's headquarters. Other demand will be derived from the hawkker centers upgrading programs.

As Singapore moves towards industrial segments with higher value-added outputs, demand for conventional factories has declined. Therefore, JTC Corporation has shifted its focus to develop more industrial facilities with modern facades and enhanced specifications as well as construct mega storage space to support the growing petrochemical sector. Two projects likely to boost industrial construction demand are the JTC's underground caverns construction and Fusionpolis 2A development.

Institutional and other building construction demand is projected to increase to between U.S. \$1.07 billion and U.S. \$1.27 billion. Major institutional projects are expected to include the Institute of Technical Education's (ITE) upcoming second regional campus and the commencement of Alexandra Hospital construction. In addition, a response to the anticipated increase in visitor arrivals, the Civil Aviation Authority of Singapore is planning for a major upgrade of Changi Airport Terminal 1.

The fully underground MRT Downtown Extension spanning 3.4 km long with five stations will become the key infrastructure to support the Marina Bay area. Civil engineering construction demand is thus likely to be boosted to between U.S. \$867 million and U.S. \$1.07 billion with the imminent awards of various MRT contracts. If the construction of the Gardens By The Bay were to go ahead by end 2007, the upper range can be reached.

## 2.2.3 Private Sector Demand

Private sector demand has been fueled by the surge in investment property deals, largely driven by Real Estate Investments Trusts (REITS) and collective sale sites snapped up by developers. The private sector construction demand is forecast to continue its growth momentum with total project awards between U.S. \$7.9 billion and U.S. \$8.7 billion.

Riding on the current bullish buying sentiment and the en-bloc sale market, demand for residential construction will likely to reach U.S. \$2.5 billion to U.S. \$2.7 billion. Projects earmarked for development in Singapore's central districts include BFC Development's Marina Bay Residences, City Development's One Shenton, Lippo Realty's condominium at Sentosa Cove and Keppel Corporation's Reflection at Keppel Bay.

The upcoming development of two Integrated Resorts and the Marina Bay Financial Center are expected to propel commercial construction demand to a record high of between U.S. \$2.2 billion and U.S. \$2.4 billion in 2007. The appreciated capital values and rising rentals for prime office space have also prompted owners to redevelop their old premises such as Ocean Building, Change Alley Aerial Plaza Tower and Overseas Union House. Other major commercial projects in the pipeline include Asian Retail Mall Fund II's shopping mall at Tampines Central, City Developments' marina hotel at Sentosa, and Meritus Mandarin hotel refurbishment at Orchard Road.

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Industrial construction demand is projected to moderate to between U.S. \$2.5 billion and U.S. \$2.7 billion. As was the case in 2006, the continued robust performance will be led by strong demand for highly specialized engineering plants such as Island Power's new power station and Concord Energy's refinery facilities. Should any other mega projects such as ExxonMobil's second cracker plant or more wafer fabrication plants proceed for development in 2007, the overall industrial construction demand will likely exceed forecasts.

Institutional and other building construction demand is projected to go up in view of the construction of the University of New South Wales campus and foundation works for the Sport Hub. Other recreational facilities expected to go ahead in 2007 include the NTUC's beach club at Palawan Beach at Sentosa and Singapore Island Country Club's new recreation clubhouse.

Civil engineering construction demand is likely to stabilize to about U.S. \$413 million in 2007 with anticipated contracts from PSA Corporation's various berths and stacking yard construction and Singapore Power's utility and cabling projects.

## **2.2.4 Medium-Term Demands**

The current positive property market sentiments are a result of sustained economic growth and spin-offs from mega developments such as the Integrated Resorts. The outlook for the next few years is promising, and the construction industry can expect a significant increase in activities at least over the next three years.

Given the optimistic projection for the growth of the construction industry and the future development by the public and private sectors, there is no doubt that demand for 'green' construction technologies and materials will grow in tandem. The importance of Singapore as a regional center is a major factor, with many Singapore-based contractors covering one or more other markets in this fast developing Asia Pacific region plus India and markets in the Middle East.

## **2.2.5 Technologies**

With growing global concerns on the sustainability of the built environment, there is increasing pressure for the Singapore construction industry to consider the environmental impact of their projects. In view of rising energy costs, there is also an increased interest in building energy efficiency and the benefits of environmentally-friendly green buildings in Singapore. The concept of green and sustainable buildings was hard to define and the practice was much less common in the past. Today, many countries including Singapore are working toward achieving a sustainable society. Singapore is slowly seeing a growing motivation to integrate sustainable and green features into buildings as they improve the living and working environment. This is especially so given that Singapore is a signatory to the Kyoto Protocol, through which the island city-state is committed to cutting 5.0% of greenhouse gas emissions by 2012.

The Government of Singapore (GOS) has gone into high gear to engage the local construction industry for their involvement in adopting green features in their projects. The GOS through the auspices of the Building and Construction Authority (BCA) has committed approximately U.S. \$47 million worth of incentives for creating a green built environment. These incentives, together with the commitment by the government to adopt BCA Green Mark certification for new public buildings, are part of the overall Green Building Masterplan that BCA had developed to drive the promotion and demand for green buildings in Singapore.

The GOS has set aside about U.S. \$13 million over the next three years for the Green Mark Incentive Program. This program will offer cash incentives to private developers and building owners that make an effort to achieve at least a

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BCA Green Mark Gold rating, or higher, for new or retrofitted buildings with a Gross Floor Area of more than 5, 000 square meters.

The other U.S. \$34 million has been set-aside to be used within the next five years for a new Research Fund for the Built Environment. This Fund aims to intensify research and development efforts in green building technologies and energy efficiency. Separately, the Singapore Economic Development Board is committing U.S. \$234 million for the green energy push. As part of this push, Singapore hopes to be a testing ground for new technology such as the latest solar panels or fuel cell engines.

From April 2007, all new and retrofitted public sector buildings are required to be BCA Green Mark certified. The Housing and Development Board (HDB) has already set in motion to obtain certification for all new public housing starting from January 2007. The BCA continues to work closely with the relevant agencies to make the new People's Association Headquarters, the new Alexandra Hospital and the Marina Barrage exemplary BCA Green Mark projects.

The HDB unveiled its first 'green' housing project with the launch of Treetops@Punggol. This green project will comprise 712 units in seven 16-story blocks, and it is expected to be completed in 2011. This is the culmination of efforts to make public housing here more in sync with nature. Among the eco-friendly features at the Treetops@Punggol include:

- Trees planted in the basement car park that emerge onto a garden on the roof, which itself will be covered with lush greenery. This will reduce outdoor temperatures by as much as 4 degrees Celsius.
- 'Cool' walls made of concrete and foam which lower temperatures inside apartments and reduce the need for air-conditioning, and reducing power bills.
- An 'integrated wash basin' which channels used water into the toilet cistern for the next flush.
- A centralized chute for recyclable materials on every floor.

Despite initial reservations over the premium prices and its remote location, the first eco-precinct through Treetops@Punggol has received an enthusiastic response just two days into its launch. According to the HDB, a whopping 3,356 applications were submitted for the 712 units at Treetops@Punggol. This clearly demonstrates the acceptance of Singaporeans' desire for a green built environment.

Private sector projects seeking the Green Mark have nearly tripled, from 13 in 2005 to 34 in 2006. In 2007, more than 50 applications have already been submitted, surpassing the number of applications for 2005 and 2006. City Developments is leading the private sector charge with 12 buildings already boasting the Green Mark. It is developing eight of the 17 upcoming private green buildings, such as City Square Mall, The Oceanfront at Sentosa Cove and One Shenton. CapitaLand also has four green buildings: Varsity Park Condominium, Capital Tower, One George Street and Plaza Singapura under its belt. Another developer, Frasers Centerpoint is building green homes including the ones at The Azure at Sentosa Cove and The Infiniti. These residences feature energy-saving installations such as solar-powered light-emitting tiles outdoors and solar-powered water heaters at the clubhouse plus; water-saving installations including dual-flush systems in the bathrooms. Rainwater is harvested and treated for non-potable use as well. Sun pipes bring natural light to basement car parks, while green roof shade block direct sunlight and lower the temperature of the building facade. Other features such as the pneumatic refuse collection systems improve hygiene and environmental quality.

The Marina Bay (Singapore Sands) Integrated Resort is in talks to obtain the green mark. Singapore's newest hospital, Alexandra Hospital, is also shooting for the Green Mark accolade when it is completed in 2009. The hospital will feature roof gardens, energy-efficient lighting and air-conditioning systems, rainwater harvesting technology and solar panels. Also in the pipeline are more green HDB housing blocks for which the HDB is in active discussions with various town councils to install green features in existing estates.

These developments certainly spell good business prospects for companies providing eco-friendly products and services. For instance, Singapore firm Etam Holdings, which manufactures and sells compost units that convert foodwaste into fertilizers, is looking forward to higher sales. Its Managing Director said: “There is definitely a big demand, but it is still going to take a bit more time to change local mentality of investing in green products.”

Nevertheless, the push for a greener built environment is an important priority for the GOS, and they are moving ahead. The BCA’s Green Mark program (an equivalent of the U.S. LEED program) will serve as a catalyst to award cash incentives to green buildings that fit its criteria. The award of various grades, ranging from certification to Platinum, also helps homebuyers confidently identify green homes in the market. Since 2005, 34 projects have been certified green. BCA is now processing 50 more applications and is targeting to have 500 certified ‘green’ buildings each year by 2015. More information on green buildings can be obtained at [www.greenmark.sg](http://www.greenmark.sg).

Besides public sector initiatives in the form of regulations, incentives and funding, other measures will be introduced to help steer the real estate and construction sectors toward higher standards of sustainability. For example, the GOS is considering amending the Building Control Act to impose minimum requirements on environmental sustainability that are equivalent to the Green Mark certified standards for new buildings and existing ones that undergo major retrofitting. Such strong legislative policies and incentive programs are a good start to encourage the Singapore construction industry to go green. Using the Treetop@Punggol experience as a guide, there is no doubt that the general public is becoming more aware of the benefits derived from green buildings which will arguably lead to an eventual acceptance of green homes.

## 2.3 LATENT DEMAND: MARKET DATA

Due to the infancy stage of ‘green’ development in the Singapore construction industry, no statistical data are available to meaningfully reflect the market size. However, as one of the key pillars of Singapore’s economic development, the combined water and clean-energy industries alone are estimated by the Singapore Economic Development Board to contribute about U.S. \$2.3 billion to Singapore’s GDP and are expected to provide 18,000 jobs by 2015. Therefore, there is great potential for U.S. firms to take advantage of these opportunities to supply ‘green’ solutions for commercial applications in Singapore.

The local market generally prefers technologies or systems that have been used elsewhere and that are successfully proven as a reliable product. In this sense, American technologies are generally looked upon as a source of proven technologies, consequently U.S. firms tend to have an advantage selling to the Singapore marketplace.

Although U.S. products are known for their high quality and efficiency, there is room for improvement in the after-sales service.

## 2.4 LATENT DEMAND: LEADING SEGMENTS

According to trade sources, there are good sales opportunities for the following ‘green’ technologies and equipment:

- Renewable energy such as Building Integrated Photovoltaic and solar panels (for external lighting) to harness solar energy.
- Low emissivity double-glazed window to reduce heat gain.
- Indoor environment quality systems/technology such as the low-VOC (Volatile organic compound) and environmentally-friendly interior paints and finishes that improve the overall indoor air quality of the home.
- Smart controls such as programmable time-clock settings, integral equipment controls, lighting photocells, and occupancy sensors for proper operation to minimize the use of energy.

- Recyclable building materials and self-cleaning external façade.
- Rooftop and vertical greenery to lower temperature and heat gain on building surfaces.
- Water saving technology such as stormwater harvesting systems to collect rainwater for non-potable use.

## 2.5 KEY SUPPLIERS

With limited indigenous manufacturing of ‘green’ technologies and no duties on these imports, the Singapore market is open. As such, a number of foreign companies’ products are already established here, and pricing is competitive.

The market for green technology in Singapore is characterized by a large number of manufacturers competing in a small market. There are two major suppliers SolarWorld (Germany) and Deutsche Solar (Germany). A formal proposal for a global environmental sustainability research institute will be submitted in June 2007 by the Swiss Federal Institute of Technology, one of the agencies recently visited by the delegation headed by Singapore’s National Research Foundation (NRF) chairman Tony Tan. The NRF delegation also visited the Energy Research Center of the Netherlands. Once these research institutes take root in Singapore, it is expected that they will introduce further competition from their respective countries to the local marketplace. American firms should therefore establish their presence in Singapore sooner before the onslaught of greater competition descends on the marketplace.

The Japanese are also moving aggressively into Singapore. Japanese suppliers are penetrating the market by competitively pricing their products and adopting aggressive marketing policies. For example, they provide interest-free credit terms of 3-6 months to buyers. The present market practice among competitors is to offer a competitive price and favorable financing terms, which the Japanese suppliers have successfully adopted.

Many Singapore developers and distributors are eager to source American products. They are particularly interested in hearing from U.S. suppliers of all types of green technologies and equipment. American technologies and equipment enjoy a good reputation in terms of quality, but many feel the products are priced too high. Another complaint is that American suppliers do not take Singapore seriously, meaning they do not employ effective product marketing strategies and do not make the commitment to provide sufficient after sales service support to their customers and local agents/distributors.

In sum, Singapore is a lucrative and competitive market. U.S. suppliers must be committed in following up with good after sales service in order to successfully maintain their customer base and retain market share in the long term.

## 2.6 PROSPECTIVE BUYERS

The principal users of ‘green’ technologies and equipment can be classified into three groups:

### 2.6.1 Government Agencies

The primary government agency involved in the provision of public housing is the Housing and Development Board. The public industrial construction provider is the JTC Corporation.

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## 2.6.2 Private Developers

There are over 150 property developers in Singapore. The key developers are members of the Real Estate Developers' Association of Singapore (REDAS).

## 2.6.3 Construction Companies

There are approximately 200 contractors operating in Singapore. The majority of these contractors are also members of the Singapore Contractors Association, and can be presumed to represent the principal contractors in the industry.

## 2.7 ACCESSIBILITY: MARKET ENTRY

Many American exporters use agents or distributors to serve the Singapore and other markets in Southeast Asia. Finding prospective partners presents no problem. Singapore firms are aggressive when it comes to representing new products and usually respond enthusiastically to new opportunities. In addition, most Singaporean companies are open to joint venture proposals, and many are interested in manufacturing under license.

Price, quality and service are the main selling factors in Singapore. Prospective exporters to Singapore should be aware that competition is strong and that buyers expect good after-sales service. Selling techniques vary according to industry or the product involved but they are comparable to the techniques used in any other sophisticated market. It is also important for U.S. firms to visit their representatives and maintain a good relationship with them.

Appointment of Distributor/Agents: there is no special legislation in Singapore covering agency agreements. In the absence of this, the Singapore's Common Law of Practice applies.

Methods of Operation for American Companies: the principal methods of operations for American companies in the Singapore market are through:

- A branch of the American firm or an associated company incorporated as a full subsidiary based in Singapore.
- A representative sent out from the United States and stationed permanently in the area. He or she may not be directly responsible for obtaining orders and making sales, but supervises local distributors and/or agents.
- An agent appointed in Singapore. Local firms which act as agents range from small trading companies, working on a small project basis to large engineering installers representing a number of manufacturers in several categories of construction related equipment. Such organizations handle a large share of the construction equipment business and generally have branches throughout the area.
- Direct sales on an open market basis. This method is only successful if the U.S. suppliers have already developed well-established connections.

In view of the competitive nature of the local business environment, it is recommended that any new-to-market American company appoint a local representative. Once business has matured, the establishment of a representative office might then be desirable to serve as a launching pad into the region.

Trade promotion and advertising: There are specialized trade magazines in Singapore and many trade fairs ([www.sgmeetings.com](http://www.sgmeetings.com)) that could serve as venues to promote U.S. construction related equipment and technologies. The major English language daily newspapers are the Straits Times and the Business Times and are available at [www.asiaone.com](http://www.asiaone.com). The business magazine that has the relevant features on construction themes is "Southeast Asia Construction" published by Trade Link Media Pte Ltd. ([www.tradelinkmedia.com.sg](http://www.tradelinkmedia.com.sg)). The major Chinese daily is

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Lianhe Zaobao ([www.zaobao.com](http://www.zaobao.com)). E-Commerce Web sites can be found at [www.ida.gov.sg](http://www.ida.gov.sg) and at [www.sg](http://www.sg). Leads for local advertising and promotional service agencies are located at [www.yellowpages.com.sg](http://www.yellowpages.com.sg).

### **2.7.1 Finances**

Shipments to Singapore are generally made under letters of credit and sight drafts, depending on the exporter's preference and the extent of past dealings with the purchaser. Standard credit terms are 30 to 90 days. The foreign departments of most major banks are well equipped to provide service and advice on matters of foreign trading and credit.

### **2.7.2 Quotations**

Quotations should be on a C&F basis whenever possible. The prices given may be either in Singapore or U.S. dollars. Exporters making quotations in Singapore dollars should consult their banks for the prevailing exchange rate. Singapore uses the metric system; it is often beneficial for price/quantity quotations to be prepared accordingly.

## **2.8 MARKET ISSUES AND OBSTACLES**

There are excellent opportunities for U.S. firms to sell green technologies and equipment into the Singapore market as the country is virtually a free port. There are no duties, taxes or tariffs on imports to Singapore of all types of construction related equipment and materials from the U.S. and elsewhere in the world. The challenge is in competing with all the other suppliers from the world since it is such an open economy.

All imported goods meant for local consumption are taxable under the Goods and Services Tax (GST), which is levied at 5%. With effect from July 2007, GST will be levied at 7%. Goods kept in the Free Trade Zone are not subject to GST, however GST will be charged if they are later released for local consumption.

### **2.8.1 Technical Requirements and Standards**

The electrical power supply specifications in Singapore are 230 volts, 50 cycles, single phase and 415 volts, 50 cycles, 3 phase. American equipment for use in Singapore must conform to these electrical requirements.

The Singapore Standard (SS) 530, which governs energy efficiency for building services and equipment, now includes key revisions to improve the minimum energy efficiency standards of air-conditioning equipment and electric motors. On July 1, 2007, the new standard is slated for implementation, when all new building plans submitted to the BCA can use it. Internationally recognized standards, such as the American National Standards Institute, are fully acceptable. SPRING Singapore (the Standards, Productivity and Innovation Board) is the government organization that oversees the formulation of industrial standards for almost every industry sector. Any queries relating to industrial standards should be directed to:

SPRING Singapore  
2 Bukit Merah Central, Singapore 159835  
Tel: (65) 6279-1847  
Fax: (65) 6272-1937  
Contact: Ms. Susan Chong, Director (Standardization Division)  
E-mail: [suchong@spring.gov.sg](mailto:suchong@spring.gov.sg)

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## 2.8.2 Intellectual Property Rights

A legal framework that specifically provides for copyright protection of Intellectual Property has been put in place under the Copyright Act. A bilateral agreement between Singapore and the United States on the protection of Intellectual Property Rights has since been in force. However, American owners must also register their copyrights in Singapore before they are enforced locally. Infringement of copyrights should be referred to the U.S. Embassy for advice and guidance.

## 2.9 KEY CONTACTS

### 2.9.1 Trade Event

The following forum in Singapore is appropriate for the promotion of all aspects of Green Buildings:

Name of Event: Green Building Asia 2007  
Date of Event: October 16-18, 2007  
Venue: Meritus Mandarin, Singapore  
Show Web site: [www.terrapinn.com/2007/gba](http://www.terrapinn.com/2007/gba)  
Show Organizer: Terappin Pte Ltd.  
1 Harbourfront Place  
#18-01 Harbourfront Tower 1  
Singapore 098633  
Tel: (65) 6322-2750  
Fax: (65) 6271-2035  
Contact: Ms. Lydia Sebastian, Director of Marketing, Asia  
E-mail: [lydia.sebastian@terrapinn.com](mailto:lydia.sebastian@terrapinn.com)

The inaugural Green Building Asia 2007 is Asia's first and foremost senior level forum dedicated to green building, covering the full spectrum of issues related to sustainable design and the most innovative green building products and services. Green Building Asia 07 is where the industry comes together to fulfill the promise of green building and advance the transformation of the marketplace.

### 2.9.2 Government and Statutory Agencies

Building and Construction Authority  
5 Maxwell Road #16-00  
Tower Block, MND Complex  
Singapore 069112  
Tel: (65) 6325-7720  
Fax: (65) 6325-4800  
Web site: [www.bca.gov.sg](http://www.bca.gov.sg)  
Contact: Mr. TAN Tian Chong, Director, Technology Development Division  
E-mail: [tan\\_tian\\_chong@bca.gov.sg](mailto:tan_tian_chong@bca.gov.sg)

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SPRING Singapore  
2 Bukit Merah Central  
Singapore 159835  
Tel: (65) 6279-1830  
Fax: (65) 6278-6990  
Web site: **www.spring.gov.sg**  
Contact: Ms. Susan CHONG, Director, Standardization Division  
E-mail: suchong@spring.gov.sg

Singapore Economic Development Board  
250 North Bridge Road  
#28-00 Raffles City Tower  
Singapore 179101  
Tel: (65) 6832-6832  
Fax: (65) 6832-6562  
Web site: **www.sedb.com**  
Contact: Mr. Kenneth TAN, Executive Director  
E-mail: kenneth@edb.gov.sg

Housing and Development Board  
HDB Hub  
480 Lorong 6 Toa Payoh  
Singapore 310480  
Tel: (65) 6490-2583  
Fax: (65) 6490-2501  
Web site: **www.hdb.gov.sg**  
Contact: Mr. YAP Tiem Yew, Director, Building Technology Department  
E-mail: yty1@hdb.gov.sg

JTC Corporation  
The JTC Summit  
8 Jurong Town Hall Road  
Singapore 609434  
Tel: (65) 6560-0056  
Fax: (65) 6565-5301  
Web site: **www.jtc.gov.sg**  
Contact: Mr. PNG Giok Hua, Director, Engineering Planning Group  
E-mail: giokhua@jtc.gov.sg

### **2.9.3 Trade Associations**

Real Estate Developers' Association of Singapore (REDAS)  
190 Clemenceau Avenue  
#07-01 Singapore Shopping Center  
Singapore 239924  
Tel: (65) 6336-6655  
Fax: (65) 6337-2217  
Web site: **www.redas.com**  
Contact: Mr. CHIA Hock Jin, Executive Director  
E-mail: hockjin@redas.com

Singapore Contractors Association, The1 Bukit Merah Lane 2  
Construction House  
Singapore 159760  
Tel: (65) 6278-9577  
Fax: (65) 6273-3977  
Web site: **[www.scal.com.sg](http://www.scal.com.sg)**  
Contact: Mr. Simon LEE, Executive Director  
E-mail: [enquiry@scal.com.sg](mailto:enquiry@scal.com.sg)

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## **3 FINANCIAL INDICATORS: GENERAL BUILDING CONTRACTORS AND OPERATIVE BUILDERS**

### **3.1 OVERVIEW**

Is Singapore competitive? With the globalization of markets, the increased mobility of corporate assets, and the need for productive human resources, this question has become all the more complex to answer. The financial indicators section was prepared to tackle this question by focusing on certain fundamentals: financial performance and labor productivity. Rather than focus on the economy as a whole, the analysis presented here considers only one sector: general building contractors and operative builders.

We are essentially interested in the degree to which firms operating in Singapore have fundamentally different financial structures and performance compared to firms located elsewhere. With respect to this view of competitiveness, if one were to invest or operate in Singapore, how would the firm's asset structure likely vary compared to a firm operating in some other country in Asia or average location in the world? In Singapore, do firms typically hold more cash and other short term assets, or do they concentrate their assets in physical plant and equipment? On the liability side, do firms operating in Singapore have a higher percent of payables compared to other firms operating in Asia, or do they hold a higher concentration of long term debt? The structure of the income statement is also telling. Do firms operating in Singapore have relatively higher costs of goods sold, operating costs, or income taxes compared to firms located elsewhere in the region or the world in general? Are returns on equity higher in Singapore? Are profit margins greater? Are inventories held longer? The financial indicators section was designed to answer these and similar questions that naturally affect one's decision to invest or operate in Singapore. Again, we are particularly interested in general building contractors and operative builders, and not the economy as a whole.

In many instances, people make all the difference. In addition to financial competitiveness, we consider the extent to which labor deployment and productivity in Singapore differs from regional and global benchmarks. In this case, we are interested in the amount of labor required to operate a typical business in Singapore and the likely returns on this human investment. What is the typical ratio of short-term and long-term assets to employee (employed in general building contractors and operative builders operations)? What are typical capital-labor ratios? How different are these ratios to those in Asia in general and the world as a whole? What are the average sales and net profits per employee in Singapore compared to regional benchmarks?

The goal of this section is to assist managers in gauging the competitive performance of Singapore at the global level for general building contractors and operative builders. With the globalization of markets, greater foreign competition, and the reduction of entry barriers, it becomes all the more important to benchmark Singapore against other countries on a worldwide basis. Doing so, however, is not an obvious task.

This report generates international benchmarks and measures gaps that might be revealed from such an exercise. First, data is collected from companies across all regions of the world. For each of these firms, data are standardized into comparable categories (assets, liabilities, income and ratios), by country, region and on a worldwide basis. From there, we eliminate all currency effects by standardizing within each category. Global benchmarks are then compared to those estimated for general building contractors and operative builders in Singapore.

Though we heavily rely on historical performance, the figures reported are not historical but are forecasts and projections for the coming fiscal year.

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### 3.1.1 Financial Returns and Gaps in Singapore

The approach used in this report to evaluate operating performance for general building contractors and operative builders in Singapore is called "vertical analysis." For those unfamiliar with this type of analysis, frequently taught in graduate schools of business, the reader is recommended Jae K. Shim and Joel G. Siegel's recent book titled *Financial Management*.<sup>1</sup> In their discussion of financial statement analysis and ratios, Skim and Siegel (p. 42-43), describe common-size statement (vertical analysis) as follows:

A common-size statement is one that shows each item in percentage terms. Preparation of common-size statements is known as *vertical analysis*, in which a material financial statement item is used as a base value and all other accounts on the financial statement are compared to it. In the balance sheet, for example, total assets equal 100 percent, and each individual asset is stated as a percentage of total assets. Similarly, total liabilities and stockholders' equity are assigned a value of 100 percent and each liability or equity account is then stated as a percentage of total liabilities and stockholders' equity, respectively. ... For the income statement, a value of 100 percent is assigned to net sales, and all other revenues and expense accounts are related to it. It is possible to see at a glance how each dollar of sales is distributed among various costs, expenses, and profits.

The authors suggest that vertical analyses involve industry-based comparisons. Such a comparison "allows you to answer the question, 'How does a business fare in the industry?' You must compare the company's ratios to... industry norms." (p. 43-44) This approach is extended to country competitiveness (in this case Singapore) for a particular sector (in this case general building contractors and operative builders). This involves calculating country, regional and global norms. This introduction will describe the seven-stage methodology used to perform this analysis. Each stage should be seen as a working assumption behind the numbers presented in later chapters.

**Stage 1. Industry Classification.** This stage begins by classifying the company into an industry. For this, we have relied on a combination of the North American Industry Classification System (NAICS pronounced "Nakes"), a relatively new system for classifying business establishments, and the older Standard Industrial Classification (SIC) system. Adopted in 1997, NAICS codes are the new industry classification codes used by statistical agencies of the United States. NAICS was developed jointly by the U.S., Canada, and Mexico to provide comparability in statistics about business activity across North America. After 60 years of service, the outdated SIC system was retired on October 1, 2000, leaving only the NAICS codes for official use. The NAICS classification system adds some 350 new industries and represents a revision to over 60% of the previous SIC industries. Despite its official retirement, the SIC system is still commonly used (and often reported in firm's financial statements).

For most companies in the world, classification within either the new NAICS or older SIC systems is a rather straight forward exercise. For some, however, it can be problematic. This is true for several reasons. The first being that the SIC or NAICS classification systems are rather broad for many product and industry categories (a firm's products or services may be only a minor aspect of the classification's definition). The second is that some firms' activities span multiple codes. Finally, it is possible that a firm is classified by one source using its SIC code, and by another using its NAICS code, and by a third using both. Furthermore, some sources do not report either code, but instead use qualitative statements of the firm's activities. Nevertheless, if one wishes to pursue a vertical analysis, some classification needs to take place which selects a peer group. In making this classification, one can rely on a number of sources. In some countries, firms must "self" classify in official periodic reports (e.g. annual reports, 10Ks, etc.) to public authorities (such as the Securities and Exchange Commission). These reports are then open for public scrutiny (e.g. EDGAR filings). In other cases, commercial data vendors or private research firms provide SIC/NAICS codes for specific companies. These include:

- Bloomberg - [www.bloomberg.com](http://www.bloomberg.com)
- Datastream (Thomson Financial) - [www.datastream.com](http://www.datastream.com)

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<sup>1</sup> Skim and Siegel (2000), *Financial Management* published by Barron's Educational Series, Inc. (BARON'S BUSINESS LIBRARY Series), ISBN: 0-7641-1402-6.

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- Dun & Bradstreet - [www.dnb.com](http://www.dnb.com)
  - Hoovers - [www.hoovers.com](http://www.hoovers.com)
  - HarrisInfoSource - [www.HarrisInfo.com](http://www.HarrisInfo.com)
  - InfoUSA - [www.infousa.com](http://www.infousa.com)
  - Investext (Thomson Financial) - [www.investext.com](http://www.investext.com)
  - Kompass International Neuenschwander SA. – [www.kompass.com](http://www.kompass.com)
  - Moody's Investors Service - [www.moody.com](http://www.moody.com)
  - Primark (Thomson Financial) - [www.primark.com](http://www.primark.com)
  - Profound (The Dialog Corporation – A Thomson Company) - [www.profound.com](http://www.profound.com)
  - Reuters - [www.reuters.com](http://www.reuters.com)
  - Standard & Poor's - [www.standardandpoors.com](http://www.standardandpoors.com)

It is interesting to note that commercial vendors often report different qualitative descriptions and industrial classifications from one to another. These descriptions and classifications may also be different from those reported by the firm itself. Anyone hoping to perform a benchmarking study, therefore, has to make a judgment call across these various sources in order to determine a reasonable classification. In this report, we have decided a meta-analytic process, by combining various sources (including linking a classification's keywords to qualitative descriptions of the firm's product line). In cases of inconsistency, the most recent or globally comparable available is chosen. Again, the overall goal is to classify firms, which either produce similar products, offer similar services, or are in the same stage of the value chain for a particular industrial classification. In the case of this report, the SIC code selected is: 15 which is defined as "general building contractors and operative builders". This classification should be seen as a working assumption. In order to obtain a more detailed discussion of this classification, the reader is referred to the Web sites developed by the U.S. Census Bureau: <http://www.census.gov/epcd/www/naics.html>. Basic definitions and descriptions are provided at: <http://www.census.gov/epcd/www/drnaics.htm#q1>. A full correspondence table between SIC and NAICS codes, and detailed definitions are given at <http://www.census.gov/epcd/www/naicstab.htm>.

**Stage 2. Firm-Level Data Collection.** A global search was conducted across over 20,000 companies in over 40 major economies, including Singapore, for those that report financials (balance sheet and income statements) and that are involved in general building contractors and operative builders. It should be noted that the public-domain financials can be either historic or projections. It should also be noted that even historic figures can be modified in the future and often represent "estimates" of performance.

**Stage 3. Standardization.** Once collected, public domain financial figures of firms identified in Stage 2 are standardized into comparable categories (assets, liabilities, and income). Again, these are limited to firms involved in some aspect of general building contractors and operative builders (i.e. are members of the value chain). From there, we eliminate all currency effects by standardizing within each category (creating ratios). In order to maintain comparability over time and across countries, vertical analysis is used. In the case of a firm's assets, we treat the total assets as equaling 100, irrespective of the value of the local currency. All other assets are then calculated as a percent of total assets. In this way, the structure of the firm's assets can be easily interpreted and compared with international benchmarks. For liabilities, total liabilities and equity are indexed to equal to 100. For the income statement, total revenue is indexed to equal 100, and all other figures are calculated as a percent of these figures.

**Stage 4. Filtering.** Not all the firms selected in Stage 2 or the ratios calculated in Stage 3 are used for the country, regional or global benchmarks, as a number of companies are purposely dropped from the analysis. This is justified by the "outlier" phenomenon that plagues such analysis. The problem lies in that any given company in the benchmarking pool may be facing some exceptional event or may be organized in an exceptional way so as to make its ratios vastly different from the norm. By including such firms, the global benchmarks can be overly skewed. In many countries, firms are organized into holding groups. These groups nominally have very few employees (e.g. 4

to 25 employees), but have extremely large assets, liabilities, or revenues. As such, the inclusion or exclusion of firms having this form of management can affect the ratios and benchmarks reported. Likewise, some firms have no net sales, no assets, no liabilities, or ratios. Others have ratios that appear implausible for a normal or viable company. In order to not allow these firms to affect the global benchmarks, only those firms with reasonable financials have been chosen. Finally, in some countries, detailed financials are not available or are not comparable to either the company in question or the global norm (e.g. various forms of depreciation). In this case, only those which exist and are comparable are reported. The details, therefore, that comprise a given ratio or set of ratios may not be reported. This may lead to the addition of several ratios, not summing to the whole.

**Stage 5. Calculation of Global Norms.** Once the filtering process has eliminated outliers, a final list of companies included is compiled. Based on this list, the ratios discussed in Stage 3 are calculated for every firm, and then averaged to create country, regional and global benchmarks. The world average is calculated using each country's population as a weight.

**Stage 6. Projection of Deviations.** The goal of this report is not only to estimate raw ratios or averages, but also to present the difference between Singapore and projected global averages for that same ratio. Furthermore, it can be insightful to know the location of each ratio within the distribution of the countries represented in Stage 5. These deviations, in fact, can be seen as projections or likely scenarios for the future. This is often true for two reasons. First, while a company's financials change from year to year, its ratios are often stable. This is especially true for the country, regional and global benchmarks which represent averages across companies. From a purely Bayesian sense, the difference between the company's recent ratios and the benchmarks are a reasonable prior for future deviations. This is true, even if the entire industry is hit by an external or exogenous shock, such as an oil crisis or economic slowdown. In other words, we assume that the structure of the variance in the industry's financials remains stable. Second, many of the data are based on preliminary reports that might be changed in future filings. As forecasts, therefore, the numbers derived from these are also forecasts of past and future performance (with associated uncertainties). The calculation of the difference between a country's ratios and the global benchmarks is meant to yield roughly approximate forecasts, or "useful measures". Within Asia, the reliability of estimates varies from one country to another for those ratios given in tables that report national averages. This is true because reliable source statistics are not available for all countries in Asia. Countries with the highest reliability, or sample sizes after filtering in Stage 4, include China, Hong Kong, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand. Others are generally econometrically extrapolated using models that use country characteristics (e.g. income per capita) as independent variables (i.e. countries having similar economic structures are assumed to have similar operating ratios). Again, the forecasts are based on the assumption of relative stability. This assumption has proven extremely robust in previous applications of this methodology (i.e. today's weather is a good predictor of tomorrow's weather, but not the weather three years from now). The results reported should be viewed as those for a "proto-typical" firm operating in Singapore whose primary activity is general building contractors and operative builders.

**Stage 7. Projection of Ranks and Percentiles.** Based on the calculation of deviations, relative ranks and percentiles are calculated across the firms used in the benchmarks. The percentile estimates the percent of a representative sample of countries in the world having values of the ratio lower than Singapore. It is important to note that a percentile being high (or low) does not mean good (or bad) past, present or future financial performance. The reader must draw this conclusion on their own. The estimates provided were created to provide managerial insight, and not a recommendation with respect to particular investments within any country.

We graphically report, for each part of the financial statement, the larger structural differences between Singapore and the regional and global benchmarks, and provide a summary table of ranks and percentiles. These are estimates for firm which would be involved in general building contractors and operative builders. A deviation from the global norm need not be a bad sign. Rather, it is simply a substantial difference that might merit further attention or perhaps signal a country's relative strength or weakness for the coming fiscal year.

### 3.1.2 Labor Productivity Gaps in Singapore

In the case of labor productivity measures, this report maintains comparability over time and across countries by using a common currency (the US dollar) and relates each measure to a “per employee basis”. Ratios are projected using raw financial statistics and, as ratios, are therefore comparable. Given a country’s human resource ratios, the resulting figures are benchmarked across regional and global averages. The seven stage approach given above is used in a similar manner.

We then report, for each part of the financial statement, the larger labor productivity gaps that Singapore has vis-à-vis the worldwide average (for general building contractors and operative builders). Again, a gap need not be a bad sign. Rather, it is simply a substantial difference that might merit further attention or signal a firm’s relative incentive to invest locally. All figures are projections, so due caution is required.

### 3.1.3 Limitations and Extensions

Shim and Siegal (p. 60) stress that “while ratio analysis is an effective tool for assessing a company’s financial condition,” operating Singapore or any other country, “its limitations must be recognized.” They find that (p. 59) “no single ratio or group of ratios is adequate for assessing all aspects of a company’s financial condition” operating in a particular country. The authors note the following limitations associated with ratio analyses which apply to the global benchmarking and vertical analysis presented here (p.60):

- Accounting standards or policies may limit useful comparisons across companies
- Management accounting practices across companies and countries may not be performed in the same style
- Ratios are static and do not reveal future trends
- Ratios do not indicate the quality of the components used to calculate the ratios (i.e. ratios have ambiguous interpretations)
- Reported ratios may not reflect real values
- Companies may be highly diversified, limiting the comparability of their ratios to others
- Industry averages or norms are approximate; finer industry definitions may be required for certain interpretations or comparisons
- Financial statements and resulting ratios often mean different things to different people depending on their points of view or motivations.

Again, all figures reported here are estimates, so due caution is required. The above caveats, and the fact that statements made in this report are forward-looking, requires that this point be emphasized. A number of intervening factors can have material effect on the ratios and variances forecasted. These include changes in a company's management style, exchange rate volatility, changes in accounting standards, the lack of oversight or comparability in accounting standards, changes in economic conditions, changes in competition, changes in the global economy, changes in source data quality, and similar factors.

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## 3.2 FINANCIAL RETURNS IN SINGAPORE: ASSET STRUCTURE RATIOS

### 3.2.1 Overview

In this chapter we consider the asset structure of companies involved in general building contractors and operative builders operating in Singapore benchmarked against global averages. The chapter begins by defining relevant terms. A common-size statement, or vertical analysis of assets is then presented for companies operating in Singapore and the average global benchmarks (total assets = 100 percent). For ratios where there are large deviations between Singapore and the benchmarks, graphics are provided (sometimes referred to as a financial “gap” analysis). Then the distribution of ratios is presented in the form of ranks and percentiles. Certain key vertical analysis asset ratios are highlighted across countries in the comparison group.

### 3.2.2 Assets – Definitions of Terms

The following definitions are provided for those less familiar with the asset-side of financial statement analysis. As this chapter deals with the vertical analysis and global benchmarking of assets, only definitions covering certain terms used in this chapter’s tables and graphs are provided here. The glossary below reflects commonly accepted definitions across various countries and official sources.

- **Accumulated Depreciation - Buildings.** Accumulated depreciation is commonly understood as a contra asset account used to report the accumulation of periodic credits to reflect the use of the estimated service life of a fixed asset. Buildings are fixed assets which represent the acquisition and improvement costs of permanent structures owned or held by the company. Such structures typically include office buildings, storage quarters, or other facilities and also associated items such as loading docks, heating and air-conditioning equipment, refrigeration equipment, and all other property permanently attached to or forming an integral part of the structure. However, it generally does not include furniture, fixtures, or other equipment which are not an integral part of the building.
- **Accumulated Depreciation – Property, Plant & Equipment Under Capitalized Leases.** Accumulated depreciation of property, plant and equipment under capitalized leases is commonly understood as a contra asset account used to report the accumulation of periodic credits to reflect the use of the estimated service life of property, plant and equipment under capitalized lease obligations.
- **Accumulated Depreciation - Transportation Equipment.** Accumulated depreciation of transportation equipment is commonly understood to be contra asset account used to report the accumulation of periodic credits to reflect the use of the estimated service life of transportation equipment.
- **Accumulated Depreciation -Machinery & Equipment.** Accumulated depreciation of machinery and equipment is commonly understood to be contra asset account used to report the accumulation of periodic credits to reflect the use of the estimated service life of machinery and equipment.
- **Buildings.** Buildings are defined as fixed assets which represent the acquisition and improvement costs of permanent structures owned or held by the company. Such structures include office buildings, storage quarters, or other facilities and also associated items such as loading docks, heating and air-conditioning equipment, refrigeration equipment, and all other property permanently attached to or forming an integral

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part of the structure. However, it does not include furniture, fixtures, or other equipment which are not an integral part of the building.

- **Cash.** Cash is typically defined as money on hand, on deposit with chartered bank, or held in the form of eligible securities.
- **Current Assets.** Current assets are generally defined to be resources which are available, or can readily be made available, to meet the cost of operations or to pay current liabilities.
- **Intangible Other Assets.** Intangible assets are generally understood to be nonphysical assets such as legal rights (patents and trademarks) recorded at their historical cost then reduced by systematic amortization.
- **Machinery & Equipment.** Machinery and equipment is commonly defined as a fixed asset classification which typically includes tangible property (other than land, buildings, and improvements other than buildings) with a life of more than one year. Such assets typically include office equipment, furniture, machine tools, and motor vehicles. Equipment may be attached to a structure for purposes of securing the item, but unless it is permanently attached to an integral part of the building or structure, it will generally be classified as equipment and not buildings. Equipment is generally defined as tangible property other than land, buildings, or improvements other than buildings, which is used in operations. Examples include machinery, tools, trucks, cars, furniture, and furnishings.
- **Prepaid Expenses.** Prepaid expenses are typically defined as those supplies and/or services (not inventory) acquired or purchased but not consumed or used at the end of the accounting period.
- **Progress Payments.** Progress payments are commonly defined as periodic payments to a supplier, contractor, or subcontractor for work as it is completed as desired, in order to reduce working capital requirements.
- **Property Plant & Equipment Under Capitalized Leases.** Property plant & equipment under capitalized leases generally consists of the gross book value (rather than the more commonly-used measures of fixed capital stocks in current or real value), of all commercial buildings, associated land and equipment used therein that are owned by the company and that are either used or operated by the company or leased or rented to others (under capitalized leases).
- **Property Plant and Equipment - Gross.** Gross property, plant and equipment generally consists of the gross book value (rather than the more commonly-used measures of fixed capital stocks in current or real value), of all commercial buildings, associated land and equipment used therein that are owned by the company and that are either used or operated by the company or leased or rented to others.
- **Property Plant and Equipment - Net.** Net PP&E equals the original cost of property, plant, and equipment (PP&E), less accumulated depreciation, depletion and amortization (DD&A).
- **Receivables (Net).** Net receivables are defined as the net amount due to the company from private persons, businesses, agencies, funds, or governmental units which is expected to be collected in the form of moneys, goods, and/or services.
- **Short Term Investments.** Short-term investments are investments which can be typically liquidated in less than one year.
- **Total Assets.** Total assets are defined as the financial representation of economic resources, the beneficial interest in which is legally or equitably secured to a particular organization as a result of a past transaction or event.

- **Total Inventories.** Total inventories are defined as the total amount of goods on hand.
- **Transportation Equipment.** Transportation equipment is equipment used for the transportation of goods for sale.
- **Work in Process.** Work in progress includes goods which have been started but are not yet ready for sale.

### 3.2.3 Asset Structure: Outlook

Using the methodology described in the introduction, the following table summarizes asset structure benchmarks for firms involved in general building contractors and operative builders in Singapore. To allow comparable benchmarking, a common index of Total Assets = 100 is used. All figures are current-year projections for companies operating in Singapore based on latest financial results available.

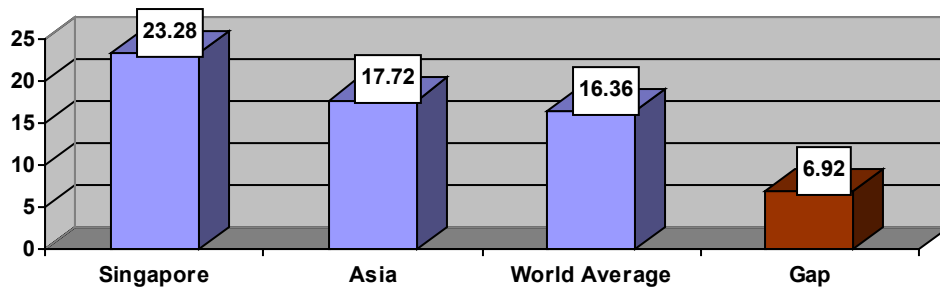
<b>Asset Structure</b>	<b>Singapore</b>	<b>Asia</b>	<b>World Avg.</b>
Cash & Short Term Investments	7.18	7.18	9.27
Cash	4.95	4.82	3.17
Short Term Investments	6.91	3.36	3.76
Receivables (Net)	23.28	17.72	16.36
Total Inventories	16.87	17.97	25.39
Work in Process	40.56	10.03	9.10
Progress Payments & Other	0.35	7.16	2.31
Prepaid Expenses	0.39	0.84	0.76
Other Current Assets	1.80	5.16	6.68
<b>Current Assets - Total</b>	<b>49.26</b>	<b>48.31</b>	<b>57.93</b>
Other Investments	0.11	2.54	1.16
Property Plant and Equipment - Net	34.77	27.27	24.06
Property Plant and Equipment - Gross	46.32	45.05	24.04
Buildings	6.89	8.89	8.28
Machinery & Equipment	17.37	10.48	6.39
Transportation Equipment	2.74	1.67	0.68
Other Property Plant & Equipment	1.93	6.97	6.32
Property Plant & Equipment Under Capitalized Leases	8.60	4.79	0.13
Accumulated Depreciation - Total	11.55	13.20	6.81
Accumulated Depreciation - Buildings	0.10	3.05	1.66
Accumulated Depreciation -Machinery & Equipment	13.05	6.11	3.58
Accumulated Depreciation - Transportation Equipment	1.69	1.04	0.47
Accumulated Depreciation - Other Prop & Equip	1.29	1.45	0.77
Accumulated Depreciation - PP&E Under Capitalized Leases	1.70	0.45	0.02
Other Assets	15.93	3.56	5.95
Intangible Other Assets	0.73	1.08	2.51
<b>Total Assets</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

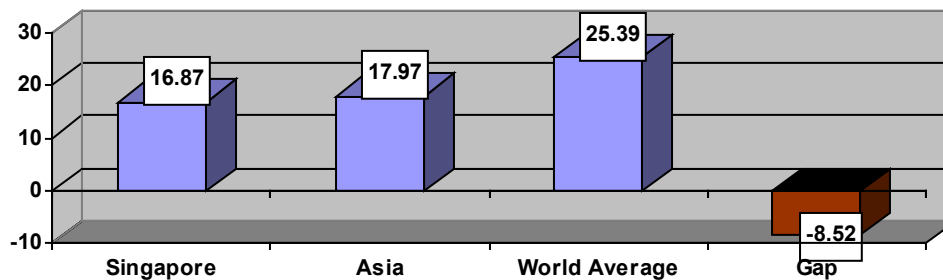
### 3.2.4 Large Variances: Assets

The following graphics summarize for general building contractors and operative builders the large asset structure gaps between firms operating in Singapore and the world average. A gap cannot necessarily be interpreted as a positive or negative reflection on performance. Gaps may signal areas of specialization, market focus, or expertise. More contextual information is required to fully interpret these gaps. The gaps highlighted here are simply those that are large.

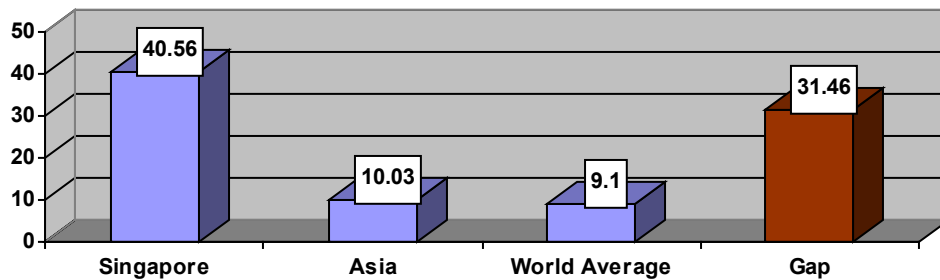
**Gap: Receivables (Net)**



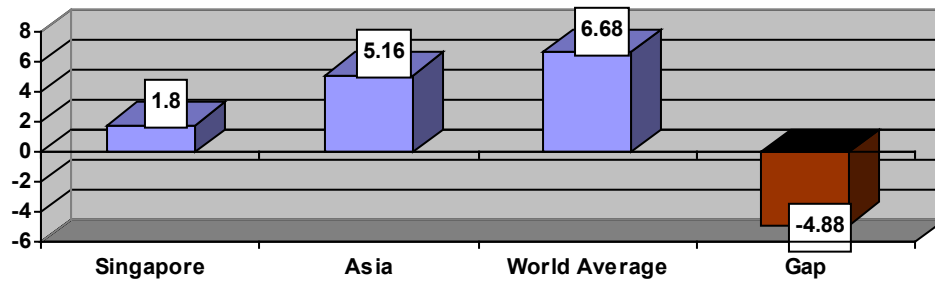
**Gap: Total Inventories**



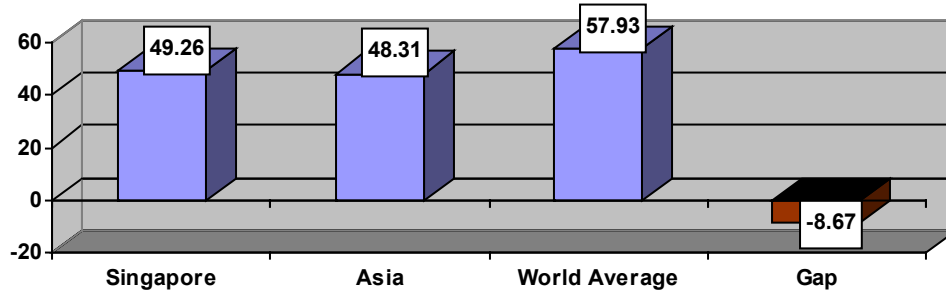
**Gap: Work in Process**



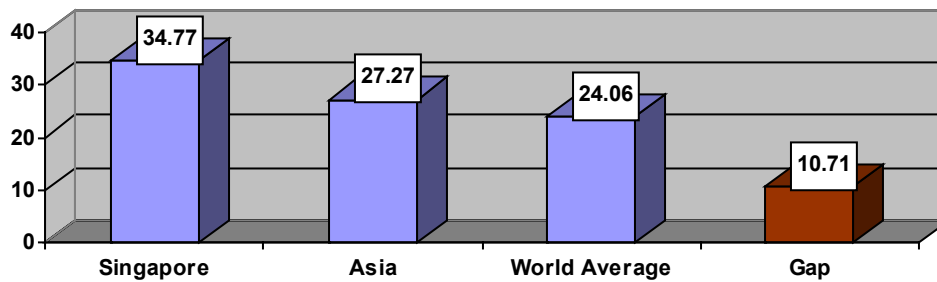
**Gap: Other Current Assets**



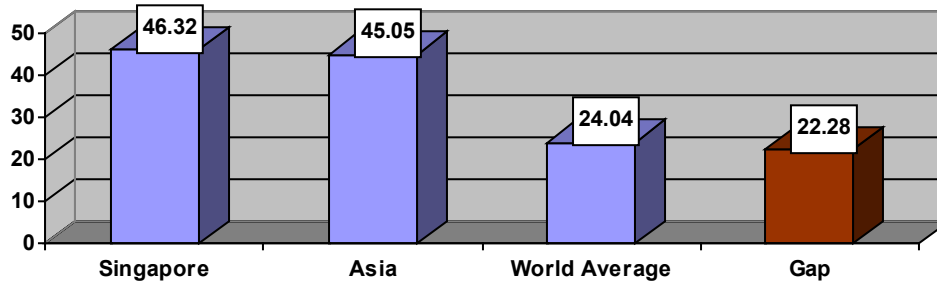
**Gap: Current Assets - Total**



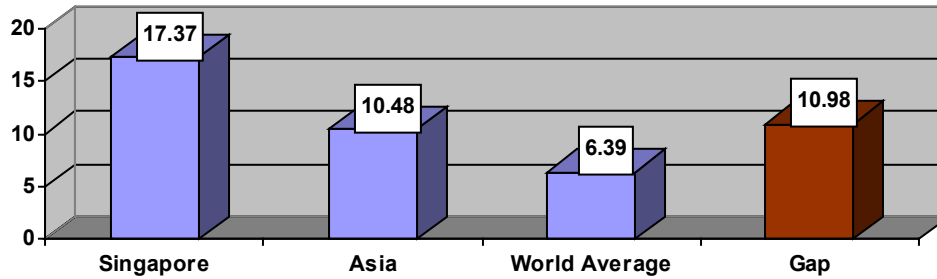
**Gap: Property Plant and Equipment - Net**



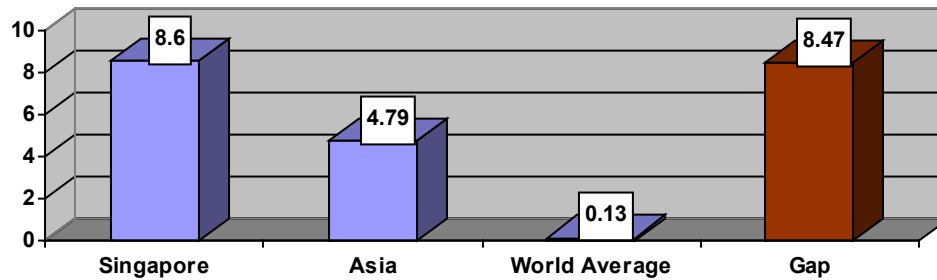
**Gap: Property Plant and Equipment - Gross**



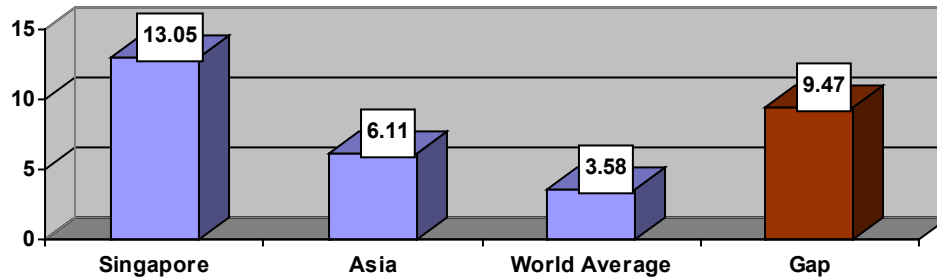
### Gap: Machinery & Equipment



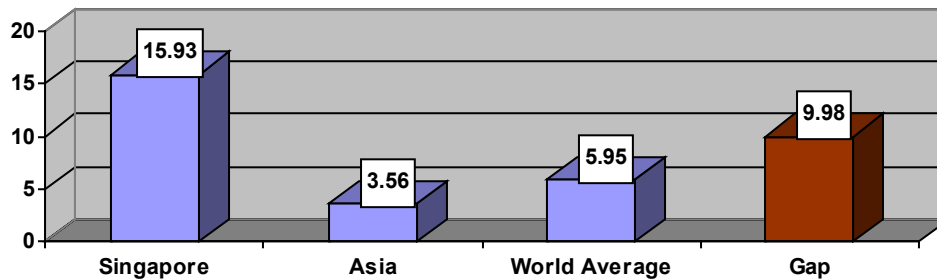
### Gap: Property Plant & Equipment Under Capitalized Leases



### Gap: Accumulated Depreciation -Machinery & Equipment



### Gap: Other Assets



### 3.2.5 Key Percentiles and Rankings

We now consider the distribution of asset ratios for general building contractors and operative builders using ranks and percentiles. What percent of countries have a value lower or higher than Singapore (what is the ratio's rank or percentile)? The table below answers this question with respect to the vertical analysis of asset structure. The ranks and percentiles indicate, from highest to lowest, where a value falls within the distribution of all countries considered in the global benchmark (the number of countries in the benchmark per line item may vary, as indicated in the Rank). Again, a high or low figure does not necessarily indicate good or bad performance. After the summary table below, a few key vertical asset ratios are highlighted in additional tables.

Asset Structure	Singapore	Rank of Total	Percentile
Cash & Short Term Investments	7.18	34 of 53	35.85
Cash	4.95	26 of 48	45.83
Short Term Investments	6.91	12 of 40	70.00
Receivables (Net)	23.28	25 of 53	52.83
Total Inventories	16.87	25 of 53	52.83
Work in Process	40.56	1 of 47	97.87
Progress Payments & Other	0.35	34 of 47	27.66
Prepaid Expenses	0.39	21 of 29	27.59
Other Current Assets	1.80	32 of 48	33.33
<b>Current Assets - Total</b>	<b>49.26</b>	<b>38 of 53</b>	<b>28.30</b>
Other Investments	0.11	34 of 40	15.00
Property Plant and Equipment - Net	34.77	7 of 53	86.79
Property Plant and Equipment - Gross	46.32	13 of 48	72.92
Buildings	6.89	24 of 48	50.00
Machinery & Equipment	17.37	12 of 48	75.00
Transportation Equipment	2.74	7 of 32	78.13
Other Property Plant & Equipment	1.93	36 of 41	12.20
Property Plant & Equipment Under Capitalized Leases	8.60	3 of 15	80.00
Accumulated Depreciation - Total	11.55	28 of 48	41.67
Accumulated Depreciation - Buildings	0.10	40 of 45	11.11
Accumulated Depreciation -Machinery & Equipment	13.05	7 of 48	85.42
Accumulated Depreciation - Transportation Equipment	1.69	8 of 31	74.19
Accumulated Depreciation - Other Prop & Equip	1.29	22 of 40	45.00
Accumulated Depreciation - P P & E Under Capitalized Leases	1.70	1 of 14	92.86
Other Assets	15.93	4 of 53	92.45
Intangible Other Assets	0.73	35 of 47	25.53
<b>Total Assets</b>	<b>100.00</b>		

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Cash & Short Term Investments

Countries	Value (total assets = 100)	Rank	Percentile	Region
Turkey	22.59	1	98.11	the Middle East
Mexico	22.53	2	96.23	Latin America
Poland	22.37	3	94.34	Europe
Canada	15.21	5	90.57	North America
Greece	15.16	6	88.68	Europe
Germany	15.05	7	86.79	Europe
France	14.96	8	84.91	Europe
Norway	14.27	9	83.02	Europe
Czech Republic	13.72	10	81.13	Europe
Spain	13.54	11	79.25	Europe
Argentina	12.78	12	77.36	Latin America
Switzerland	12.70	13	75.47	Europe
Denmark	12.61	14	73.58	Europe
Japan	12.10	15	71.70	Asia
China	11.07	16	69.81	Asia
Luxembourg	10.98	17	67.92	Europe
Pakistan	10.88	18	66.04	the Middle East
Malaysia	10.78	19	64.15	Asia
USA	10.41	20	62.26	North America
South Korea	10.06	21	60.38	Asia
South Africa	10.04	22	58.49	Africa
Brazil	9.10	23	56.60	Latin America
Thailand	8.85	24	54.72	Asia
Chile	8.66	25	52.83	Latin America
India	8.59	26	50.94	Asia
New Zealand	8.49	27	49.06	Oceania
Hong Kong	8.32	28	47.17	Asia
Sweden	8.05	29	45.28	Europe
Israel	8.03	30	43.40	the Middle East
Ireland	7.96	31	41.51	Europe
Belgium	7.27	33	37.74	Europe
<b>Singapore</b>	<b>7.18</b>	<b>34</b>	<b>35.85</b>	<b>Asia</b>
Italy	7.03	35	33.96	Europe
the United Kingdom	6.86	36	32.08	Europe
Taiwan	6.64	38	28.30	Asia
Peru	6.54	39	26.42	Latin America
Indonesia	6.14	40	24.53	Asia
Russia	5.83	42	20.75	Europe
Finland	5.36	44	16.98	Europe
Hungary	5.23	45	15.09	Europe
Netherlands	4.09	48	9.43	Europe
Philippines	3.24	49	7.55	Asia
Austria	2.36	51	3.77	Europe
Portugal	2.34	52	1.89	Europe
Australia	1.89	53	0.00	Oceania

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Cash & Short Term Investments  
(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total assets = 100)	Rank	Percentile
Macau	12.59	1	96.15
Japan	12.10	2	92.31
Brunei	11.47	3	88.46
China	11.07	4	84.62
Malaysia	10.78	5	80.77
South Korea	10.06	6	76.92
Thailand	8.85	7	73.08
India	8.59	8	69.23
Hong Kong	8.32	9	65.38
Mongolia	7.89	10	61.54
<b>Singapore</b>	<b>7.18</b>	<b>11</b>	<b>57.69</b>
Taiwan	6.64	12	53.85
Cambodia	6.51	13	50.00
North Korea	6.35	14	46.15
Laos	6.28	15	42.31
Indonesia	6.14	16	38.46
Vietnam	5.70	17	34.62
Maldives	5.60	18	30.77
Seychelles	5.44	19	26.92
Bangladesh	4.89	20	23.08
Bhutan	4.65	21	19.23
Papua New Guinea	4.44	22	15.38
Sri Lanka	4.42	23	11.54
Nepal	4.16	24	7.69
Burma	3.26	25	3.85
Philippines	3.24	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Receivables (Net)

Countries	Value (total assets = 100)	Rank	Percentile	Region
Spain	59.30	1	98.11	Europe
Poland	42.67	2	96.23	Europe
Canada	41.43	4	92.45	North America
France	40.75	5	90.57	Europe
Russia	40.67	6	88.68	Europe
Portugal	39.52	7	86.79	Europe
Malaysia	36.88	8	84.91	Asia
Hungary	36.54	9	83.02	Europe
Norway	33.39	10	81.13	Europe
Belgium	33.07	11	79.25	Europe
Czech Republic	32.42	12	77.36	Europe
Italy	31.95	13	75.47	Europe
Denmark	30.66	14	73.58	Europe
Argentina	30.20	15	71.70	Latin America
Switzerland	29.83	16	69.81	Europe
Greece	26.98	17	67.92	Europe
Sweden	26.27	18	66.04	Europe
Japan	25.82	19	64.15	Asia
Luxembourg	25.79	20	62.26	Europe
Finland	24.65	21	60.38	Europe
Thailand	24.49	22	58.49	Asia
South Korea	23.77	23	56.60	Asia
Philippines	23.59	24	54.72	Asia
<b>Singapore</b>	<b>23.28</b>	<b>25</b>	<b>52.83</b>	<b>Asia</b>
Austria	22.50	26	50.94	Europe
New Zealand	21.38	27	49.06	Oceania
Hong Kong	20.95	28	47.17	Asia
the United Kingdom	20.64	29	45.28	Europe
Germany	20.02	32	39.62	Europe
Netherlands	19.81	33	37.74	Europe
South Africa	19.01	34	35.85	Africa
India	18.80	36	32.08	Asia
USA	18.16	37	30.19	North America
Peru	18.10	38	28.30	Latin America
Brazil	17.23	39	26.42	Latin America
Chile	16.39	40	24.53	Latin America
Australia	13.07	42	20.75	Oceania
China	7.60	43	18.87	Asia
Pakistan	7.47	44	16.98	the Middle East
Turkey	7.31	45	15.09	the Middle East
Mexico	7.29	46	13.21	Latin America
Israel	6.31	48	9.43	the Middle East
Ireland	6.25	49	7.55	Europe
Taiwan	5.21	50	5.66	Asia
Indonesia	3.77	51	3.77	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Receivables (Net)**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total assets = 100)	Rank	Percentile
Seychelles	37.96	1	96.15
Malaysia	36.88	2	92.31
Macau	29.75	3	88.46
Brunei	26.93	4	84.62
Japan	25.82	5	80.77
Thailand	24.49	6	76.92
South Korea	23.77	7	73.08
Burma	23.67	8	69.23
Philippines	23.59	9	65.38
<b>Singapore</b>	<b>23.28</b>	<b>10</b>	<b>61.54</b>
Mongolia	21.85	11	57.69
Hong Kong	20.95	12	53.85
India	18.80	13	50.00
North Korea	17.57	14	46.15
Cambodia	14.26	15	42.31
Laos	13.76	16	38.46
Vietnam	12.48	17	34.62
Papua New Guinea	12.28	18	30.77
Bangladesh	10.70	19	26.92
Bhutan	10.19	20	23.08
Nepal	9.12	21	19.23
China	7.60	22	15.38
Taiwan	5.21	23	11.54
Indonesia	3.77	24	7.69
Maldives	3.43	25	3.85
Sri Lanka	2.71	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Total Inventories

Countries	Value (total assets = 100)	Rank	Percentile	Region
Israel	68.47	1	98.11	the Middle East
Ireland	67.91	2	96.23	Europe
Taiwan	56.59	3	94.34	Asia
the United Kingdom	51.27	4	92.45	Europe
USA	48.46	5	90.57	North America
Finland	44.47	6	88.68	Europe
Austria	40.05	7	86.79	Europe
China	37.29	8	84.91	Asia
Pakistan	36.67	9	83.02	the Middle East
Sweden	34.68	10	81.13	Europe
Belgium	34.54	11	79.25	Europe
Italy	33.37	12	77.36	Europe
India	32.95	13	75.47	Asia
Thailand	26.90	14	73.58	Asia
Germany	25.67	15	71.70	Europe
Japan	23.55	16	69.81	Asia
South Africa	23.46	17	67.92	Africa
Brazil	21.26	19	64.15	Latin America
Chile	20.22	21	60.38	Latin America
Peru	19.87	22	58.49	Latin America
Greece	18.45	23	56.60	Europe
Australia	18.06	24	54.72	Oceania
<b>Singapore</b>	<b>16.87</b>	<b>25</b>	<b>52.83</b>	<b>Asia</b>
South Korea	16.72	26	50.94	Asia
Canada	16.55	27	49.06	North America
France	16.28	28	47.17	Europe
Denmark	15.89	29	45.28	Europe
Switzerland	15.18	30	43.40	Europe
Czech Republic	14.61	32	39.62	Europe
Argentina	13.61	33	37.74	Latin America
Portugal	13.23	34	35.85	Europe
Luxembourg	13.13	35	33.96	Europe
Norway	12.00	36	32.08	Europe
Malaysia	9.95	37	30.19	Asia
Poland	9.59	38	28.30	Europe
New Zealand	8.73	39	26.42	Oceania
Hong Kong	8.55	41	22.64	Asia
Russia	8.50	42	20.75	Europe
Hungary	7.64	43	18.87	Europe
Spain	7.64	44	16.98	Europe
Philippines	7.21	45	15.09	Asia
Netherlands	4.93	47	11.32	Europe
Indonesia	3.02	48	9.43	Asia
Turkey	2.83	50	5.66	the Middle East
Mexico	2.82	51	3.77	Latin America

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Total Inventories**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total assets = 100)	Rank	Percentile
Taiwan	56.59	1	96.15
China	37.29	2	92.31
India	32.95	3	88.46
Thailand	26.90	4	84.62
Cambodia	25.00	5	80.77
Laos	24.11	6	76.92
Mongolia	24.00	7	73.08
Japan	23.55	8	69.23
Vietnam	21.88	9	65.38
North Korea	19.29	10	61.54
Bangladesh	18.75	11	57.69
Bhutan	17.86	12	53.85
<b>Singapore</b>	<b>16.87</b>	<b>13</b>	<b>50.00</b>
South Korea	16.72	14	46.15
Nepal	15.98	15	42.31
Brunei	13.71	16	38.46
Papua New Guinea	13.49	17	34.62
Macau	13.41	18	30.77
Malaysia	9.95	19	26.92
Hong Kong	8.55	20	23.08
Seychelles	7.94	21	19.23
Burma	7.24	22	15.38
Philippines	7.21	23	11.54
Indonesia	3.02	24	7.69
Maldives	2.76	25	3.85
Sri Lanka	2.18	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Current Assets - Total

Countries	Value (total assets = 100)	Rank	Percentile	Region
Israel	88.25	1	98.11	the Middle East
Ireland	87.52	2	96.23	Europe
the United Kingdom	81.87	3	94.34	Europe
Spain	81.59	4	92.45	Europe
Poland	81.12	5	90.57	Europe
Finland	80.18	6	88.68	Europe
India	78.05	7	86.79	Asia
Sweden	78.02	8	84.91	Europe
USA	76.73	9	83.02	North America
Belgium	75.41	10	81.13	Europe
Canada	73.35	11	79.25	North America
Taiwan	72.93	12	77.36	Asia
Italy	72.86	13	75.47	Europe
France	72.14	14	73.58	Europe
Austria	71.58	15	71.70	Europe
Japan	66.80	16	69.81	Asia
South Africa	65.87	17	67.92	Africa
Norway	65.59	18	66.04	Europe
Switzerland	65.53	19	64.15	Europe
Czech Republic	64.81	20	62.26	Europe
Germany	64.75	21	60.38	Europe
Portugal	63.68	22	58.49	Europe
Greece	61.10	24	54.72	Europe
Thailand	61.09	25	52.83	Asia
Denmark	60.40	26	50.94	Europe
Argentina	60.37	27	49.06	Latin America
Russia	60.18	28	47.17	Europe
Brazil	59.68	29	45.28	Latin America
China	58.36	30	43.40	Asia
Malaysia	57.85	31	41.51	Asia
Pakistan	57.38	32	39.62	the Middle East
Chile	56.78	33	37.74	Latin America
Luxembourg	56.67	34	35.85	Europe
South Korea	55.43	35	33.96	Asia
Hungary	54.07	36	32.08	Europe
<b>Singapore</b>	<b>49.26</b>	<b>38</b>	<b>28.30</b>	<b>Asia</b>
Peru	45.14	40	24.53	Latin America
Philippines	42.81	41	22.64	Asia
Australia	42.74	42	20.75	Oceania
New Zealand	38.61	43	18.87	Oceania
Hong Kong	37.84	44	16.98	Asia
Turkey	37.47	45	15.09	the Middle East
Mexico	37.37	46	13.21	Latin America
Netherlands	31.77	50	5.66	Europe
Indonesia	13.75	51	3.77	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Current Assets - Total**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total assets = 100)	Rank	Percentile
India	78.05	1	96.15
Taiwan	72.93	2	92.31
Japan	66.80	3	88.46
Thailand	61.09	4	84.62
Macau	59.49	5	80.77
Cambodia	59.22	6	76.92
Brunei	59.18	7	73.08
China	58.36	8	69.23
Malaysia	57.85	9	65.38
Laos	57.11	10	61.54
Seychelles	56.16	11	57.69
South Korea	55.43	12	53.85
Mongolia	54.50	13	50.00
Vietnam	51.82	14	46.15
<b>Singapore</b>	<b>49.26</b>	<b>15</b>	<b>42.31</b>
Bangladesh	44.42	16	38.46
North Korea	43.82	17	34.62
Burma	42.96	18	30.77
Philippines	42.81	19	26.92
Bhutan	42.30	20	23.08
Nepal	37.86	21	19.23
Hong Kong	37.84	22	15.38
Papua New Guinea	30.64	23	11.54
Indonesia	13.75	24	7.69
Maldives	12.54	25	3.85
Sri Lanka	9.89	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Property Plant and Equipment - Net

Countries	Value (total assets = 100)	Rank	Percentile	Region
Indonesia	76.90	1	98.11	Asia
Netherlands	57.43	3	94.34	Europe
Australia	56.14	4	92.45	Oceania
Philippines	39.07	6	88.68	Asia
<b>Singapore</b>	<b>34.77</b>	<b>7</b>	<b>86.79</b>	<b>Asia</b>
Russia	33.62	9	83.02	Europe
New Zealand	32.88	11	79.25	Oceania
Denmark	32.28	12	77.36	Europe
Hong Kong	32.21	13	75.47	Asia
Czech Republic	31.08	14	73.58	Europe
Hungary	30.21	15	71.70	Europe
Argentina	28.95	16	69.81	Latin America
Switzerland	28.65	17	67.92	Europe
Malaysia	26.86	18	66.04	Asia
China	26.41	19	64.15	Asia
Pakistan	25.97	20	62.26	the Middle East
Austria	25.51	21	60.38	Europe
Germany	25.11	22	58.49	Europe
Luxembourg	24.77	23	56.60	Europe
South Africa	23.57	24	54.72	Africa
Norway	23.33	25	52.83	Europe
Thailand	23.26	26	50.94	Asia
Portugal	21.91	27	49.06	Europe
South Korea	21.78	28	47.17	Asia
India	21.68	29	45.28	Asia
Brazil	21.35	30	43.40	Latin America
Japan	20.98	31	41.51	Asia
Chile	20.32	32	39.62	Latin America
Greece	17.36	35	33.96	Europe
Peru	17.19	36	32.08	Latin America
Poland	17.06	37	30.19	Europe
Turkey	14.88	38	28.30	the Middle East
Mexico	14.84	39	26.42	Latin America
Sweden	13.81	40	24.53	Europe
Canada	13.15	42	20.75	North America
France	12.93	43	18.87	Europe
the United Kingdom	10.92	45	15.09	Europe
Belgium	10.27	46	13.21	Europe
Finland	10.04	47	11.32	Europe
Italy	9.92	48	9.43	Europe
USA	8.58	49	7.55	North America
Spain	7.85	50	5.66	Europe
Israel	5.27	51	3.77	the Middle East
Ireland	5.23	52	1.89	Europe
Taiwan	4.36	53	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Property Plant and Equipment - Net**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total assets = 100)	Rank	Percentile
Indonesia	76.90	1	96.15
Maldives	70.12	2	92.31
Sri Lanka	55.30	3	88.46
Burma	39.21	4	84.62
Philippines	39.07	5	80.77
<b>Singapore</b>	<b>34.77</b>	<b>6</b>	<b>76.92</b>
Hong Kong	32.21	7	73.08
Seychelles	31.37	8	69.23
Macau	28.52	9	65.38
Malaysia	26.86	10	61.54
China	26.41	11	57.69
Brunei	25.87	12	53.85
Thailand	23.26	13	50.00
South Korea	21.78	14	46.15
India	21.68	15	42.31
Japan	20.98	16	38.46
Mongolia	20.75	17	34.62
North Korea	16.68	18	30.77
Cambodia	16.45	19	26.92
Laos	15.86	20	23.08
Vietnam	14.39	21	19.23
Bangladesh	12.34	22	15.38
Bhutan	11.75	23	11.54
Papua New Guinea	11.66	24	7.69
Nepal	10.52	25	3.85
Taiwan	4.36	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Accumulated Depreciation - Total

Countries	Value (total assets = 100)	Rank	Percentile	Region
Germany	31.03	1	97.92	Europe
Philippines	28.81	2	95.83	Asia
Switzerland	26.06	3	93.75	Europe
Luxembourg	22.54	5	89.58	Europe
Portugal	22.42	6	87.50	Europe
Czech Republic	21.99	7	85.42	Europe
Norway	20.61	8	83.33	Europe
Thailand	20.53	9	81.25	Asia
Argentina	20.49	10	79.17	Latin America
South Africa	19.89	11	77.08	Africa
Denmark	19.04	12	75.00	Europe
Brazil	18.02	13	72.92	Latin America
Belgium	17.96	14	70.83	Europe
Italy	17.35	15	68.75	Europe
Chile	17.15	17	64.58	Latin America
Turkey	16.12	18	62.50	the Middle East
Mexico	16.08	19	60.42	Latin America
Canada	15.84	21	56.25	North America
France	15.57	22	54.17	Europe
Netherlands	15.25	23	52.08	Europe
Peru	15.17	24	50.00	Latin America
Austria	14.38	26	45.83	Europe
Finland	13.62	27	43.75	Europe
<b>Singapore</b>	<b>11.55</b>	<b>28</b>	<b>41.67</b>	<b>Asia</b>
Sweden	10.20	30	37.50	Europe
Japan	9.79	31	35.42	Asia
New Zealand	9.72	32	33.33	Oceania
Hong Kong	9.52	33	31.25	Asia
Greece	9.29	34	29.17	Europe
Indonesia	8.73	35	27.08	Asia
Malaysia	8.56	36	25.00	Asia
Spain	8.14	38	20.83	Europe
Australia	7.68	39	18.75	Oceania
USA	6.59	40	16.67	North America
the United Kingdom	6.33	41	14.58	Europe
South Korea	5.60	43	10.42	Asia
China	3.20	44	8.33	Asia
Pakistan	3.15	45	6.25	the Middle East
Israel	1.42	46	4.17	the Middle East
Ireland	1.41	47	2.08	Europe
Taiwan	1.17	48	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Accumulated Depreciation - Total**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total assets = 100)	Rank	Percentile
Burma	28.91	1	94.44
Philippines	28.81	2	88.89
Brunei	23.54	3	83.33
Thailand	20.53	4	77.78
Macau	20.19	5	72.22
Mongolia	18.31	6	66.67
North Korea	14.72	7	61.11
<b>Singapore</b>	<b>11.55</b>	<b>8</b>	<b>55.56</b>
Papua New Guinea	10.29	9	50.00
Japan	9.79	10	44.44
Hong Kong	9.52	11	38.89
Indonesia	8.73	12	33.33
Malaysia	8.56	13	27.78
Maldives	7.96	14	22.22
Sri Lanka	6.27	15	16.67
South Korea	5.60	16	11.11
China	3.20	17	5.56
Taiwan	1.17	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Intangible Other Assets

Countries	Value (total assets = 100)	Rank	Percentile	Region
USA	9.17	1	97.87	North America
Finland	8.53	2	95.74	Europe
Greece	6.51	3	93.62	Europe
South Africa	6.48	4	91.49	Africa
Canada	6.16	5	89.36	North America
South Korea	6.14	6	87.23	Asia
Norway	6.12	7	85.11	Europe
France	6.05	8	82.98	Europe
Brazil	5.87	9	80.85	Latin America
Israel	5.77	10	78.72	the Middle East
Ireland	5.72	11	76.60	Europe
Portugal	5.61	12	74.47	Europe
Chile	5.58	13	72.34	Latin America
China	4.80	14	70.21	Asia
Taiwan	4.77	15	68.09	Asia
Pakistan	4.72	16	65.96	the Middle East
Belgium	3.31	17	63.83	Europe
Italy	3.20	18	61.70	Europe
Sweden	2.69	19	59.57	Europe
the United Kingdom	2.52	20	57.45	Europe
Australia	2.42	21	55.32	Oceania
Indonesia	2.23	22	53.19	Asia
Denmark	1.74	24	48.94	Europe
Philippines	1.72	25	46.81	Asia
Germany	1.66	26	44.68	Europe
Spain	1.23	29	38.30	Europe
Turkey	1.09	30	36.17	the Middle East
Mexico	1.09	31	34.04	Latin America
Malaysia	0.97	33	29.79	Asia
Switzerland	0.82	34	27.66	Europe
<b>Singapore</b>	<b>0.73</b>	<b>35</b>	<b>25.53</b>	<b>Asia</b>
Luxembourg	0.71	36	23.40	Europe
Japan	0.62	37	21.28	Asia
Netherlands	0.58	38	19.15	Europe
Russia	0.52	40	14.89	Europe
Hungary	0.47	41	12.77	Europe
Poland	0.43	42	10.64	Europe
New Zealand	0.38	43	8.51	Oceania
Hong Kong	0.37	44	6.38	Asia
Austria	0.31	45	4.26	Europe
Argentina	-0.80	46	2.13	Latin America
Czech Republic	-0.86	47	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Intangible Other Assets  
(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total assets = 100)	Rank	Percentile
South Korea	6.14	1	93.33
China	4.80	2	86.67
Taiwan	4.77	3	80.00
Indonesia	2.23	4	73.33
Maldives	2.03	5	66.67
Burma	1.72	6	60.00
Philippines	1.72	7	53.33
Sri Lanka	1.60	8	46.67
Malaysia	0.97	9	40.00
Brunei	0.74	10	33.33
<b>Singapore</b>	<b>0.73</b>	<b>11</b>	<b>26.67</b>
Japan	0.62	12	20.00
Seychelles	0.49	13	13.33
Hong Kong	0.37	14	6.67
Macau	-0.79	15	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

## 3.3 FINANCIAL RETURNS IN SINGAPORE: LIABILITY STRUCTURE RATIOS

### 3.3.1 Overview

In this chapter we consider the liability structure of firms operating in Singapore benchmarked against global averages. The chapter begins by defining relevant terms. A common-size statement, or vertical analysis of liabilities and shareholder equity is then presented for the proto-typical firm operating in Singapore and the average global benchmarks (sometimes referred to as a financial “gap” analysis). The figure reflect firms involved in general building contractors and operative builders in Singapore. For ratios where there are large deviations between Singapore and the benchmarks, graphics are provided (total liabilities and equity = 100 percent). Then the distribution of ratios is presented in the form of ranks and percentiles. Certain key vertical analysis liability ratios are highlighted.

### 3.3.2 Liabilities and Equity – Definitions of Terms

The following definitions are provided for those less familiar with the liability-side of financial statement analysis. As this chapter deals with the vertical analysis and global benchmarking of liabilities and equity, only definitions covering certain terms used in this chapter’s tables and graphs are provided here . The glossary below reflects commonly accepted definitions across various countries and official sources.

- **Accounts Payable.** Accounts payable are defined as amounts owed on open account to private persons or organizations for goods or services received.
- **Capital Surplus.** Capital surplus is commonly defined as an amount of equity which is directly contributed capital in excess of the par value.
- **Capitalized Lease Obligations.** A capitalized lease obligation is commonly defined as an ownership arrangement in which the item under lease is typically a long-term asset. Capital leases are generally recorded as assets with liability at the current value of the lease payment.
- **Common Equity.** Common equity is defined to equal the company's net worth. It typically comprises capital stock, capital surplus, retained earnings, and, in some cases, net worth reserves. Common equity is the portion of total net worth belonging to the common stockholders. Synonyms which are often used for common equity are “common stock” and “net worth”.
- **Common Stock.** Common stock is defined as the securities which represent the company's ownership interest. Common stockholders typically assume greater risk than preferred stockholders; although common stockholders maintain greater control and generally greater dividends and capital appreciation. Common stock can be used interchangeably with the term capital stock when the company has no preferred stock.
- **Current Liabilities - Total.** Total current liabilities are defined as the total amount of obligations which would require the use of current assets or other current liabilities to pay.
- **Current Portion of Long Term Debt.** The current proportion of long term debt is typically defined as debt which is payable in more than one year.

- 
- **Deferred Taxes.** Deferred taxes are compulsory charges from a previous accounting period which are yet unpaid.
  - **Deferred Taxes - Credit.** Deferred tax credits are defined as credits against compulsory charges from a previous accounting period which are yet unpaid.
  - **Income Taxes Payable.** Income taxes payable are understood to mean taxes which are levied by state, federal, and local governments on the company's reported accounting profit. Income taxes payable are those which are due in the current accounting period.
  - **Long Term Debt.** Long-term debt is defined to be due in a period exceeding one year or one operating cycle, whichever is longer. Long-term debt can have an extended repayment period such as a many-year mortgage on land and buildings, or debt that's intended to be permanent such as bonds issued to investors.
  - **Long Term Debt Excluding Capitalized Leases.** Long term debt excluding capitalized leases is defined as debt which is typically due in a period exceeding one year or one operating cycle, whichever is longer, less capitalized leases (see Long Term Debt for exceptions). Capital leases are generally recorded as assets with liability at the current value of the lease payment.
  - **Minority Interest.** Minority interest is the proportional share of the minority ownership's interest (less than 50 percent) in the earnings or losses.
  - **Non-Equity Reserves.** Non-equity reserves are the amount set aside for losses or liabilities which are certain to arise but cannot be quantified with certainty, and are not part of the firm's equity.
  - **Retained Earnings.** Retained earnings is an equity account reflecting the accumulated earnings of proprietary funds.
  - **Shareholders Equity.** Shareholders equity is commonly defined to be the amount of total equity reserved for common and preferred shareholders.
  - **Short Term Debt.** Short term debt is generally defined as debt payable within one year.
  - **Total Liabilities.** Total liabilities are generally defined to include all the claims against a corporation. Liabilities include accounts and wages and salaries payable, dividends declared payable, accrued taxes payable, fixed or long-term liabilities such as mortgage bonds, debentures, and bank loans.

### 3.3.3 Liability Structure: Outlook

Using the methodology described in the introduction, the following table summarizes liability and equity structure benchmarks for firms involved in general building contractors and operative builders in Singapore. To allow comparable benchmarking, a common index of Total Liabilities & Shareholders Equity = 100 is used. All figures are current-year projections for companies operating in Singapore based on latest financial results available.

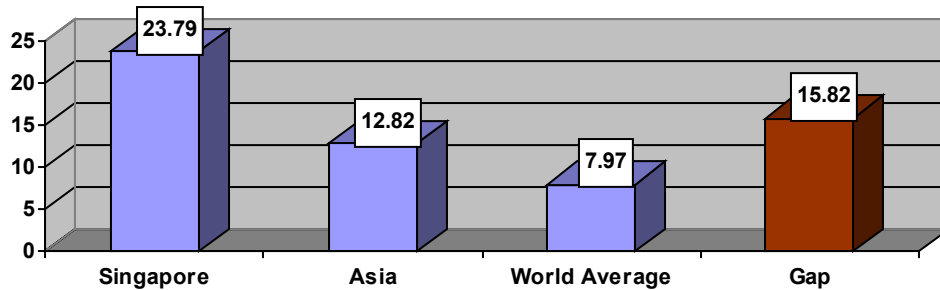
Liability Structure	Singapore	Asia	World Avg.
Accounts Payable	23.79	12.82	7.97
Short Term Debt & Current Portion of Long Term Debt	19.71	9.70	12.31
Income Taxes Payable	2.56	0.89	0.68
Other Current Liabilities	5.43	17.72	23.44
<b>Current Liabilities - Total</b>	<b>49.78</b>	<b>36.54</b>	<b>44.24</b>
Long Term Debt	17.84	13.62	12.91
Long Term Debt Excluding Capitalized Leases	17.48	13.05	12.38
Capitalized Lease Obligations	0.36	0.57	0.59
Deferred Taxes	0.39	0.08	0.34
Deferred Taxes - Credit	0.89	1.04	0.21
Deferred Taxes - Debit	0.46	0.92	0.32
Other Liabilities	0.16	3.86	2.75
<b>Total Liabilities</b>	<b>68.17</b>	<b>54.71</b>	<b>60.75</b>
Non-Equity Reserves	0.19	0.21	0.13
Minority Interest	3.80	1.33	1.82
Common Equity	27.84	28.51	29.54
Common Stock	11.97	13.21	6.80
Capital Surplus	4.74	11.16	8.34
Other Appropriated Reserves	7.02	2.93	3.70
Unappropriated Reserves	3.46	4.56	4.86
Retained Earnings	6.22	5.82	4.49
Unrealized Foreign Exchange Gain/Loss	0.01	-0.12	0.06
<b>Total Liabilities &amp; Shareholders Equity</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

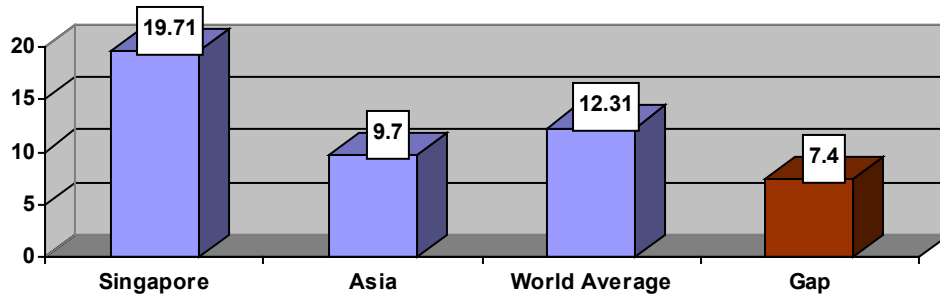
### 3.3.4 Large Variances: Liabilities

The following graphics summarize for general building contractors and operative builders the large liability structure gaps between firms operating in Singapore and the world average. A gap cannot necessarily be interpreted as a positive or negative reflection on performance. Gaps may signal areas of specialization, market focus, or expertise. More contextual information is required to fully interpret these gaps. The gaps highlighted here are simply those that are large.

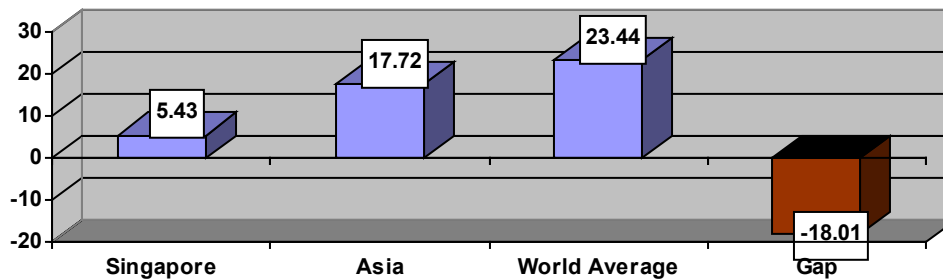
**Gap: Accounts Payable**



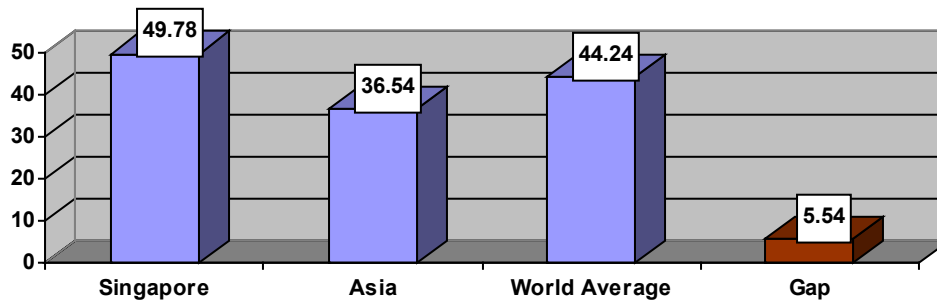
**Gap: Short Term Debt & Current Portion of Long Term Debt**



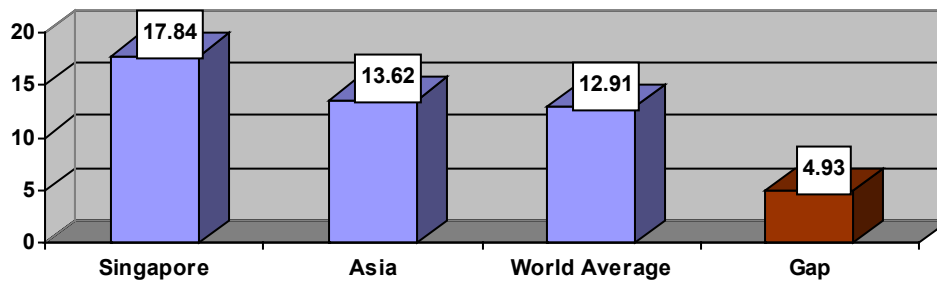
**Gap: Other Current Liabilities**



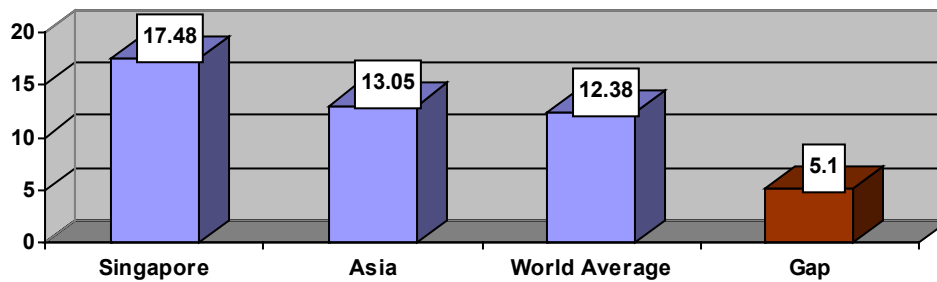
### Gap: Current Liabilities - Total



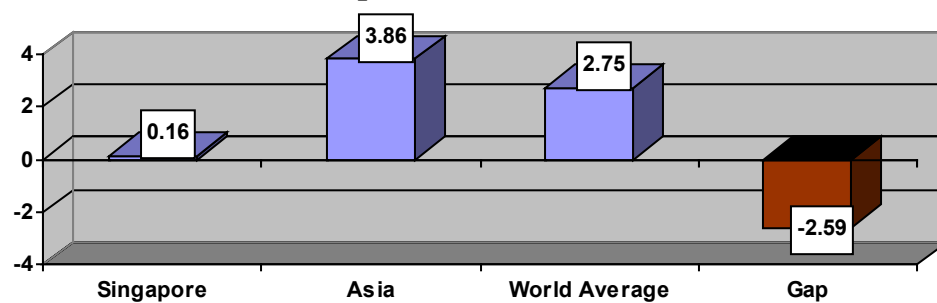
### Gap: Long Term Debt



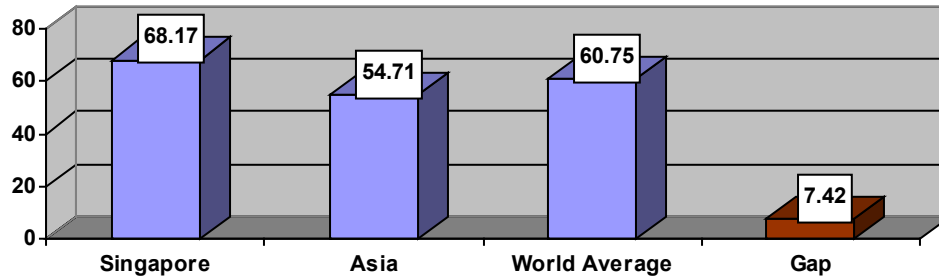
### Gap: Long Term Debt Excluding Capitalized Leases



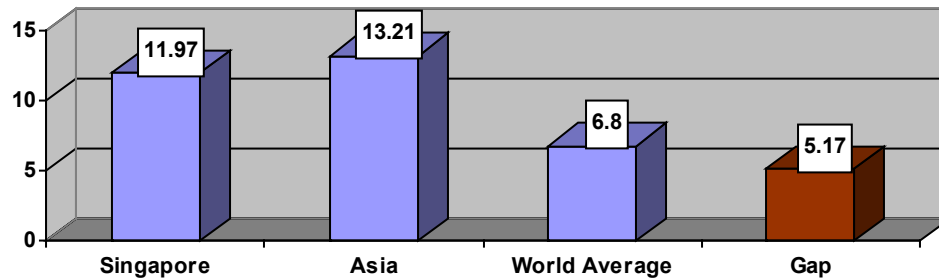
### Gap: Other Liabilities



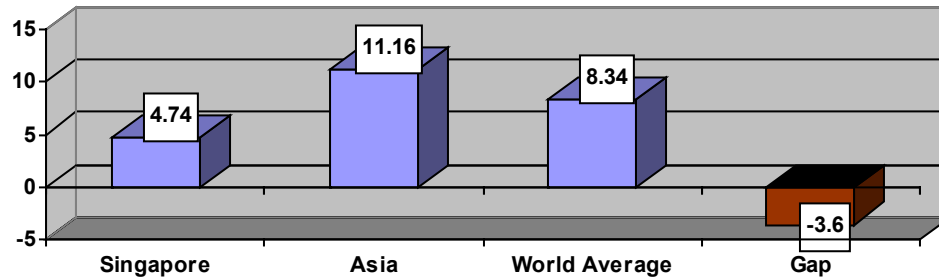
### Gap: Total Liabilities



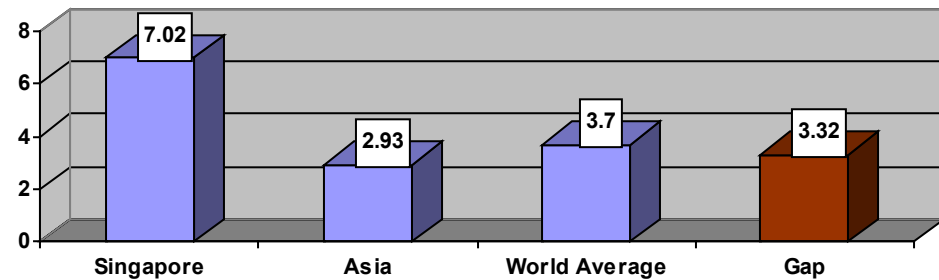
### Gap: Common Stock



### Gap: Capital Surplus



### Gap: Other Appropriated Reserves



### 3.3.5 Key Percentiles and Rankings

We now consider the distribution of liability ratios for general building contractors and operative builders using ranks and percentiles. What percent of countries have a value lower or higher than Singapore (what is the ratio's rank or percentile)? The table below answers this question with respect to the vertical analysis of liability structure. The ranks and percentiles indicate, from highest to lowest, where a value falls within the distribution of all countries considered in the global benchmark (the number of countries in the benchmark per line item may vary, as indicated in the Rank). Again, a high or low figure does not necessarily indicate good or bad performance. After the summary table below, a few key vertical liability ratios are highlighted in additional tables.

Liability Structure	Singapore	Rank of Total	Percentile
Accounts Payable	23.79	8 of 47	82.98
Short Term Debt & Current Portion of Long Term Debt	19.71	8 of 52	84.62
Income Taxes Payable	2.56	5 of 45	88.89
Other Current Liabilities	5.43	47 of 52	9.62
<b>Current Liabilities - Total</b>	<b>49.78</b>	<b>24 of 53</b>	<b>54.72</b>
Long Term Debt	17.84	14 of 53	73.58
Long Term Debt Excluding Capitalized Leases	17.48	15 of 53	71.70
Capitalized Lease Obligations	0.36	11 of 24	54.17
Deferred Taxes	0.39	22 of 39	43.59
Deferred Taxes - Credit	0.89	11 of 21	47.62
Deferred Taxes - Debit	0.46	14 of 17	17.65
Other Liabilities	0.16	49 of 49	0.00
<b>Total Liabilities</b>	<b>68.17</b>	<b>24 of 53</b>	<b>54.72</b>
Non-Equity Reserves	0.19	11 of 25	56.00
Minority Interest	3.80	9 of 46	80.43
Common Equity	27.84	28 of 53	47.17
Common Stock	11.97	17 of 48	64.58
Capital Surplus	4.74	30 of 37	18.92
Other Appropriated Reserves	7.02	11 of 46	76.09
Unappropriated Reserves	3.46	15 of 29	48.28
Retained Earnings	6.22	26 of 51	49.02
Unrealized Foreign Exchange Gain/Loss	0.01	14 of 32	56.25
<b>Total Liabilities &amp; Shareholders Equity</b>	<b>100.00</b>		

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Accounts Payable

Countries	Value (total liabilities & equity = 100)	Rank	Percentile	Region
Spain	52.88	1	97.87	Europe
Czech Republic	44.33	2	95.74	Europe
Argentina	41.30	3	93.62	Latin America
Norway	32.51	4	91.49	Europe
Canada	28.00	5	89.36	North America
France	27.54	6	87.23	Europe
Japan	25.41	7	85.11	Asia
<b>Singapore</b>	<b>23.79</b>	<b>8</b>	<b>82.98</b>	<b>Asia</b>
the United Kingdom	22.91	9	80.85	Europe
South Africa	22.81	10	78.72	Africa
Portugal	22.29	11	76.60	Europe
Brazil	20.66	12	74.47	Latin America
Chile	19.66	13	72.34	Latin America
Germany	17.43	14	70.21	Europe
Malaysia	16.02	15	68.09	Asia
Belgium	15.40	16	65.96	Europe
Italy	14.88	17	63.83	Europe
Thailand	13.91	18	61.70	Asia
Denmark	13.60	19	59.57	Europe
Switzerland	13.19	20	57.45	Europe
Israel	12.46	21	55.32	the Middle East
Ireland	12.36	22	53.19	Europe
USA	11.50	24	48.94	North America
Luxembourg	11.41	25	46.81	Europe
Sweden	10.95	26	44.68	Europe
Austria	10.34	28	40.43	Europe
Taiwan	10.30	29	38.30	Asia
Peru	10.28	30	36.17	Latin America
South Korea	10.18	31	34.04	Asia
Philippines	9.86	32	31.91	Asia
China	8.52	33	29.79	Asia
Pakistan	8.38	34	27.66	the Middle East
Greece	7.76	36	23.40	Europe
New Zealand	7.20	38	19.15	Oceania
Hong Kong	7.06	39	17.02	Asia
Finland	6.10	40	14.89	Europe
Indonesia	5.24	41	12.77	Asia
Turkey	4.75	43	8.51	the Middle East
Mexico	4.74	44	6.38	Latin America
Netherlands	2.91	47	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Accounts Payable**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total liabilities & equity = 100)	Rank	Percentile
Macau	40.69	1	94.44
Japan	25.41	2	88.89
<b>Singapore</b>	<b>23.79</b>	<b>3</b>	<b>83.33</b>
Malaysia	16.02	4	77.78
Thailand	13.91	5	72.22
Mongolia	12.41	6	66.67
Brunei	11.91	7	61.11
Taiwan	10.30	8	55.56
South Korea	10.18	9	50.00
North Korea	9.98	10	44.44
Burma	9.89	11	38.89
Philippines	9.86	12	33.33
China	8.52	13	27.78
Hong Kong	7.06	14	22.22
Papua New Guinea	6.98	15	16.67
Indonesia	5.24	16	11.11
Maldives	4.77	17	5.56
Sri Lanka	3.77	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Current Liabilities - Total

Countries	Value (total liabilities & equity = 100)	Rank	Percentile	Region
Spain	75.86	1	98.11	Europe
Austria	71.63	2	96.23	Europe
Norway	66.09	3	94.34	Europe
Belgium	65.97	4	92.45	Europe
Japan	65.20	5	90.57	Asia
Italy	63.74	6	88.68	Europe
South Africa	62.93	7	86.79	Africa
Czech Republic	58.43	8	84.91	Europe
Brazil	57.01	9	83.02	Latin America
Finland	56.27	10	81.13	Europe
Portugal	55.31	11	79.25	Europe
Poland	55.05	12	77.36	Europe
Argentina	54.43	13	75.47	Latin America
China	54.29	14	73.58	Asia
Chile	54.25	15	71.70	Latin America
Pakistan	53.38	16	69.81	the Middle East
India	52.75	17	67.92	Asia
Canada	52.67	18	66.04	North America
France	51.80	19	64.15	Europe
Switzerland	51.60	20	62.26	Europe
Sweden	50.47	21	60.38	Europe
Israel	49.97	23	56.60	the Middle East
<b>Singapore</b>	<b>49.78</b>	<b>24</b>	<b>54.72</b>	<b>Asia</b>
Ireland	49.56	25	52.83	Europe
Russia	49.19	26	50.94	Europe
Denmark	48.70	27	49.06	Europe
the United Kingdom	48.55	28	47.17	Europe
Germany	47.29	29	45.28	Europe
Luxembourg	44.62	30	43.40	Europe
Hungary	44.20	31	41.51	Europe
Taiwan	41.30	32	39.62	Asia
South Korea	39.70	33	37.74	Asia
Malaysia	37.06	34	35.85	Asia
Greece	36.68	35	33.96	Europe
Philippines	34.98	36	32.08	Asia
Australia	34.78	37	30.19	Oceania
Thailand	30.78	38	28.30	Asia
Netherlands	28.73	40	24.53	Europe
USA	28.40	41	22.64	North America
New Zealand	28.27	42	20.75	Oceania
Hong Kong	27.70	43	18.87	Asia
Indonesia	27.55	44	16.98	Asia
Peru	22.75	48	9.43	Latin America
Turkey	14.53	51	3.77	the Middle East
Mexico	14.49	52	1.89	Latin America

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Current Liabilities - Total**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total liabilities & equity = 100)	Rank	Percentile
Japan	65.20	1	96.15
China	54.29	2	92.31
Macau	53.63	3	88.46
India	52.75	4	84.62
<b>Singapore</b>	<b>49.78</b>	<b>5</b>	<b>80.77</b>
Brunei	46.59	6	76.92
Seychelles	45.91	7	73.08
Taiwan	41.30	8	69.23
Cambodia	40.03	9	65.38
South Korea	39.70	10	61.54
Laos	38.60	11	57.69
Malaysia	37.06	12	53.85
Burma	35.10	13	50.00
Vietnam	35.02	14	46.15
Philippines	34.98	15	42.31
Thailand	30.78	16	38.46
Bangladesh	30.02	17	34.62
Bhutan	28.59	18	30.77
Hong Kong	27.70	19	26.92
Indonesia	27.55	20	23.08
Mongolia	27.46	21	19.23
Nepal	25.59	22	15.38
Maldives	25.12	23	11.54
North Korea	22.08	24	7.69
Sri Lanka	19.81	25	3.85
Papua New Guinea	15.44	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Long Term Debt

Countries	Value (total liabilities & equity = 100)	Rank	Percentile	Region
Indonesia	29.74	1	98.11	Asia
Netherlands	27.54	3	94.34	Europe
USA	25.42	4	92.45	North America
Philippines	22.72	5	90.57	Asia
Canada	22.26	6	88.68	North America
France	21.89	7	86.79	Europe
Australia	21.57	8	84.91	Oceania
Israel	21.35	10	81.13	the Middle East
Ireland	21.17	11	79.25	Europe
Sweden	19.59	12	77.36	Europe
<b>Singapore</b>	<b>17.84</b>	<b>14</b>	<b>73.58</b>	<b>Asia</b>
Taiwan	17.64	15	71.70	Asia
India	17.07	16	69.81	Asia
Finland	14.16	17	67.92	Europe
Denmark	14.04	18	66.04	Europe
Portugal	13.93	19	64.15	Europe
Russia	13.55	21	60.38	Europe
Norway	13.21	22	58.49	Europe
South Korea	12.46	23	56.60	Asia
Hungary	12.18	24	54.72	Europe
Japan	11.94	25	52.83	Asia
New Zealand	11.73	26	50.94	Oceania
Hong Kong	11.49	27	49.06	Asia
Thailand	10.44	28	47.17	Asia
Belgium	10.27	29	45.28	Europe
Italy	9.93	30	43.40	Europe
the United Kingdom	9.72	31	41.51	Europe
Malaysia	9.48	32	39.62	Asia
Turkey	9.36	33	37.74	the Middle East
Mexico	9.34	34	35.85	Latin America
Czech Republic	9.33	35	33.96	Europe
China	8.78	36	32.08	Asia
Argentina	8.69	38	28.30	Latin America
Pakistan	8.63	40	24.53	the Middle East
Germany	7.88	42	20.75	Europe
Peru	7.72	43	18.87	Latin America
Switzerland	6.58	44	16.98	Europe
Luxembourg	5.69	46	13.21	Europe
South Africa	5.16	47	11.32	Africa
Brazil	4.68	48	9.43	Latin America
Chile	4.45	49	7.55	Latin America
Austria	3.61	50	5.66	Europe
Spain	1.74	51	3.77	Europe
Poland	0.93	52	1.89	Europe
Greece	0.02	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Long Term Debt**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total liabilities & equity = 100)	Rank	Percentile
Indonesia	29.74	1	96.15
Maldives	27.11	2	92.31
Burma	22.79	3	88.46
Philippines	22.72	4	84.62
Sri Lanka	21.38	5	80.77
<b>Singapore</b>	<b>17.84</b>	<b>6</b>	<b>76.92</b>
Taiwan	17.64	7	73.08
India	17.07	8	69.23
Cambodia	12.95	9	65.38
Seychelles	12.65	10	61.54
Laos	12.49	11	57.69
South Korea	12.46	12	53.85
Japan	11.94	13	50.00
Hong Kong	11.49	14	46.15
Vietnam	11.33	15	42.31
Thailand	10.44	16	38.46
Bangladesh	9.71	17	34.62
Malaysia	9.48	18	30.77
Mongolia	9.32	19	26.92
Bhutan	9.25	20	23.08
China	8.78	21	19.23
Macau	8.56	22	15.38
Nepal	8.28	23	11.54
North Korea	7.49	24	7.69
Brunei	5.94	25	3.85
Papua New Guinea	5.24	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Total Liabilities

Countries	Value (total liabilities & equity = 100)	Rank	Percentile	Region
Austria	88.49	1	98.11	Europe
Canada	87.71	2	96.23	North America
France	86.26	3	94.34	Europe
Belgium	83.73	4	92.45	Europe
Norway	81.25	5	90.57	Europe
Japan	81.10	6	88.68	Asia
Italy	80.90	7	86.79	Europe
Spain	79.18	8	84.91	Europe
Portugal	76.97	9	83.02	Europe
Sweden	76.59	10	81.13	Europe
Indonesia	76.15	11	79.25	Asia
Germany	75.34	12	77.36	Europe
Israel	73.12	13	75.47	the Middle East
Czech Republic	72.77	14	73.58	Europe
Ireland	72.51	15	71.70	Europe
Finland	72.26	16	69.81	Europe
India	70.50	18	66.04	Asia
Denmark	70.24	19	64.15	Europe
South Africa	70.07	20	62.26	Africa
Netherlands	69.11	21	60.38	Europe
Switzerland	68.20	23	56.60	Europe
<b>Singapore</b>	<b>68.17</b>	<b>24</b>	<b>54.72</b>	<b>Asia</b>
Russia	67.82	25	52.83	Europe
Argentina	67.79	26	50.94	Latin America
South Korea	66.59	27	49.06	Asia
China	64.11	28	47.17	Asia
Brazil	63.48	29	45.28	Latin America
Pakistan	63.03	30	43.40	the Middle East
the United Kingdom	61.48	31	41.51	Europe
Hungary	60.93	32	39.62	Europe
Taiwan	60.43	33	37.74	Asia
Chile	60.40	34	35.85	Latin America
Philippines	60.13	35	33.96	Asia
Luxembourg	58.98	36	32.08	Europe
USA	57.34	37	30.19	North America
Poland	55.79	38	28.30	Europe
Malaysia	48.06	41	22.64	Asia
Thailand	46.78	42	20.75	Asia
Australia	45.45	43	18.87	Oceania
New Zealand	41.98	44	16.98	Oceania
Hong Kong	41.13	45	15.09	Asia
Greece	37.32	47	11.32	Europe
Turkey	34.91	49	7.55	the Middle East
Mexico	34.82	50	5.66	Latin America
Peru	34.57	51	3.77	Latin America

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Total Liabilities**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total liabilities & equity = 100)	Rank	Percentile
Japan	81.10	1	96.15
Indonesia	76.15	2	92.31
India	70.50	3	88.46
Maldives	69.43	4	84.62
<b>Singapore</b>	<b>68.17</b>	<b>5</b>	<b>80.77</b>
Macau	66.79	6	76.92
South Korea	66.59	7	73.08
China	64.11	8	69.23
Seychelles	63.29	9	65.38
Brunei	61.59	10	61.54
Taiwan	60.43	11	57.69
Burma	60.34	12	53.85
Philippines	60.13	13	50.00
Sri Lanka	54.76	14	46.15
Cambodia	53.49	15	42.31
Laos	51.58	16	38.46
Malaysia	48.06	17	34.62
Vietnam	46.81	18	30.77
Thailand	46.78	19	26.92
Mongolia	41.74	20	23.08
Hong Kong	41.13	21	19.23
Bangladesh	40.12	22	15.38
Bhutan	38.21	23	11.54
Nepal	34.20	24	7.69
North Korea	33.55	25	3.85
Papua New Guinea	23.46	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Common Equity

Countries	Value (total liabilities & equity = 100)	Rank	Percentile	Region
Greece	60.98	1	98.11	Europe
New Zealand	55.04	2	96.23	Oceania
Turkey	54.51	3	94.34	the Middle East
Mexico	54.36	4	92.45	Latin America
Hong Kong	53.93	5	90.57	Asia
Australia	51.96	6	88.68	Oceania
Thailand	51.71	7	86.79	Asia
Malaysia	49.86	9	83.02	Asia
USA	42.14	11	79.25	North America
Peru	38.21	13	75.47	Latin America
the United Kingdom	37.10	14	73.58	Europe
Poland	33.38	15	71.70	Europe
China	32.69	16	69.81	Asia
Pakistan	32.14	17	67.92	the Middle East
Switzerland	31.74	18	66.04	Europe
South Korea	31.37	19	64.15	Asia
Philippines	31.21	20	62.26	Asia
Netherlands	30.79	22	58.49	Europe
Russia	30.35	23	56.60	Europe
Denmark	29.72	24	54.72	Europe
India	29.50	25	52.83	Asia
South Africa	28.08	27	49.06	Africa
<b>Singapore</b>	<b>27.84</b>	<b>28</b>	<b>47.17</b>	<b>Asia</b>
Israel	27.72	29	45.28	the Middle East
Ireland	27.49	30	43.40	Europe
Luxembourg	27.45	31	41.51	Europe
Hungary	27.26	32	39.62	Europe
Brazil	25.44	34	35.85	Latin America
Czech Republic	24.72	35	33.96	Europe
Chile	24.20	36	32.08	Latin America
Germany	23.40	37	30.19	Europe
Indonesia	23.25	38	28.30	Asia
Argentina	23.03	39	26.42	Latin America
Taiwan	22.91	40	24.53	Asia
Portugal	22.11	41	22.64	Europe
Finland	21.41	43	18.87	Europe
Sweden	21.32	44	16.98	Europe
Spain	20.05	45	15.09	Europe
Japan	18.41	46	13.21	Asia
Norway	16.06	48	9.43	Europe
Belgium	15.56	49	7.55	Europe
Italy	15.03	50	5.66	Europe
Canada	12.62	51	3.77	North America
France	12.41	52	1.89	Europe
Austria	11.48	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Common Equity**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total liabilities & equity = 100)	Rank	Percentile
Hong Kong	53.93	1	96.15
Thailand	51.71	2	92.31
Malaysia	49.86	3	88.46
Mongolia	46.13	4	84.62
North Korea	37.09	5	80.77
China	32.69	6	76.92
South Korea	31.37	7	73.08
Burma	31.32	8	69.23
Philippines	31.21	9	65.38
India	29.50	10	61.54
Brunei	28.67	11	57.69
Seychelles	28.32	12	53.85
<b>Singapore</b>	<b>27.84</b>	<b>13</b>	<b>50.00</b>
Papua New Guinea	25.93	14	46.15
Indonesia	23.25	15	42.31
Taiwan	22.91	16	38.46
Macau	22.69	17	34.62
Cambodia	22.39	18	30.77
Laos	21.59	19	26.92
Maldives	21.20	20	23.08
Vietnam	19.59	21	19.23
Japan	18.41	22	15.38
Bangladesh	16.79	23	11.54
Sri Lanka	16.72	24	7.69
Bhutan	15.99	25	3.85
Nepal	14.31	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Retained Earnings

Countries	Value (total liabilities & equity = 100)	Rank	Percentile	Region
Turkey	50.26	1	98.04	the Middle East
Mexico	50.13	2	96.08	Latin America
USA	23.87	4	92.16	North America
New Zealand	22.48	5	90.20	Oceania
Hong Kong	22.03	6	88.24	Asia
the United Kingdom	21.55	7	86.27	Europe
Israel	19.05	8	84.31	the Middle East
Ireland	18.89	9	82.35	Europe
Finland	17.77	10	80.39	Europe
Malaysia	16.78	11	78.43	Asia
Taiwan	15.74	12	76.47	Asia
Denmark	15.01	13	74.51	Europe
Norway	14.33	14	72.55	Europe
South Korea	14.20	15	70.59	Asia
Thailand	12.59	16	68.63	Asia
Peru	9.31	19	62.75	Latin America
Czech Republic	8.86	20	60.78	Europe
Argentina	8.25	21	58.82	Latin America
Germany	8.23	22	56.86	Europe
Australia	7.09	23	54.90	Oceania
Japan	6.89	24	52.94	Asia
<b>Singapore</b>	<b>6.22</b>	<b>26</b>	<b>49.02</b>	<b>Asia</b>
Sweden	4.63	27	47.06	Europe
Spain	3.51	28	45.10	Europe
Russia	3.12	30	41.18	Europe
Switzerland	2.86	31	39.22	Europe
Hungary	2.81	32	37.25	Europe
Luxembourg	2.48	33	35.29	Europe
Austria	1.91	34	33.33	Europe
Greece	1.78	35	31.37	Europe
Canada	1.24	36	29.41	North America
France	1.22	37	27.45	Europe
China	0.78	38	25.49	Asia
Pakistan	0.77	39	23.53	the Middle East
South Africa	0.44	40	21.57	Africa
Brazil	0.40	41	19.61	Latin America
Chile	0.38	42	17.65	Latin America
Poland	0.03	43	15.69	Europe
Belgium	0.00	44	13.73	Europe
Italy	0.00	45	11.76	Europe
Portugal	-1.80	46	9.80	Europe
Philippines	-3.13	48	5.88	Asia
Indonesia	-7.08	51	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Retained Earnings  
(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total liabilities & equity = 100)	Rank	Percentile
Hong Kong	22.03	1	94.74
Malaysia	16.78	2	89.47
Taiwan	15.74	3	84.21
South Korea	14.20	4	78.95
Thailand	12.59	5	73.68
Mongolia	11.24	6	68.42
North Korea	9.03	7	63.16
Macau	8.13	8	57.89
Japan	6.89	9	52.63
Papua New Guinea	6.32	10	47.37
<b>Singapore</b>	<b>6.22</b>	<b>11</b>	<b>42.11</b>
Seychelles	2.91	12	36.84
Brunei	2.58	13	31.58
China	0.78	14	26.32
Philippines	-3.13	15	21.05
Burma	-3.14	16	15.79
Sri Lanka	-5.09	17	10.53
Maldives	-6.46	18	5.26
Indonesia	-7.08	19	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

## 3.4 FINANCIAL RETURNS IN SINGAPORE: INCOME STRUCTURE RATIOS

### 3.4.1 Overview

In this chapter we consider the income structure of companies operating in Singapore benchmarked against global averages. The chapter begins by defining relevant terms. A common-size statement, or vertical analysis of income is then presented for the proto-typical firm involved in general building contractors and operative builders operating in Singapore and the average global benchmarks (total revenue = 100 percent). For ratios where there are large deviations between Singapore and the benchmarks, graphics are provided. Then the distribution of ratios is presented in the form of ranks and percentiles. Certain key vertical analysis income ratios are highlighted across countries in the comparison group.

### 3.4.2 Income Statements – Definitions of Terms

The following definitions are provided for those less familiar with the income-side of financial statement analysis. As this chapter deals with the vertical analysis and global benchmarking of income, only definitions covering certain terms used in this chapter's tables and graphs are provided here. The glossary below reflects commonly accepted definitions across various countries and official sources.

- **Amortization.** Amortization generally refers to the depreciation, depletion, or charge-off to expense of intangible and tangible assets over a period of time. Amortization is commonly understood to be the taking as an expense (writing off) of the loss of value of an intangible asset such as a copyright, a patent, or a mailing list, in an accounting period.
- **Cost of Goods Sold (excluding depreciation).** For retail companies, cost of goods sold is generally defined as the equivalent of starting inventory plus purchases minus ending inventory. In manufacturing, cost of goods sold is defined to equal the starting inventory plus the cost of goods manufactured minus ending inventory. Most pure service firms do not generally have cost of goods sold.
- **Current Domestic Income Tax.** Current domestic income taxes are commonly defined as compulsory charges levied by the government where the company is located on current income.
- **Deferred Domestic Income Tax.** Deferred domestic income tax is defined as a compulsory charge from a previous accounting period which is yet unpaid to the government where the company is located on current income.
- **Depletion.** Depletion is commonly defined to be included as one of the elements of amortization, and is understood to be the portion of the carrying value (other than the portion associated with tangible assets) prorated in each accounting period for financial reporting purposes.
- **Depreciation.** Depreciation generally is defined as the expiration in the service life of fixed assets, other than depletable assets, attributable to wear and tear, deterioration, action of the physical elements, inadequacy and obsolescence. Depreciation is commonly defined as the portion of the cost of a fixed asset charged as an expense during a particular period. In accounting for depreciation, the cost of a fixed asset, less any salvage value, is prorated over the estimated service life of such an asset, and each period is

charged with a portion of such cost. Through this process, the cost of the asset is ultimately charged off as an expense.

- **Earnings Before Interest and Taxes (EBIT).** EBIT is a financial measure defined as revenues less cost of goods sold and selling, general, and administrative expenses. In other words, operating and non-operating profit before the deduction of interest and income taxes.
- **Equity in Earnings.** Equity in earnings is defined as a company's proportional share (based on ownership) of the net earnings or losses of an unconsolidated company.
- **Gross Income.** Gross income is commonly defined as all the money, goods, and property received by the company that must be included as taxable income.
- **Income Taxes.** Income taxes are defined to include those taxes levied by state, federal, and local governments on the company's reported accounting profit. Income taxes generally include both deferred and paid taxes. They are generally determined after the interest expense has been deducted.
- **Interest Expense on Debt.** Interest expenses on debt are those which are spent on current debt and added to the net income so avoid underestimating interest coverage.
- **Minority Interest.** Minority interest is the proportional share of the minority ownership's interest (less than 50 percent) in the earnings or losses.
- **Net Income Available to Common.** Net income available to common is defined as the net income available to common stockholders.
- **Net Income Before Preferred Dividends.** Net income before preferred dividends is generally calculated as the difference between total revenues and total expense prior to the granting of preferred dividends.
- **Net Sales or Revenues.** Revenues or net sales are defined as payments made to and received by an entity. May take the form of taxes, user fees, fines, fees for service, and so on.
- **Non-Operating Interest Income.** Non-operating interest income is generally understood to be any interest received (e.g., royalty, production payment, net profits interest) that does not involve the operation of the company.
- **Operating Expenses.** Operating expenses are generally defined as those incurred in paying for the company's day-to-day activities.
- **Operating Income.** Operating income is generally defined to equal operating revenues less operating expenses. It typically excludes items of other revenue and expense such as equity in earnings of unconsolidated companies, dividends, interest income and expense, income taxes, extraordinary items, and cumulative effect of accounting changes.
- **Pretax Equity In Earnings.** Pretax equity in earnings is generally defined to equal a company's proportional share (based on ownership) of the gross earnings or losses of an unconsolidated company.
- **Pretax Income.** Pretax income is generally defined as income before tax deductions.
- **Selling, General & Administrative Expenses.** Selling, general and administrative expenses are expenses independent from cost of sales for the purpose of illustrating the amount of the company's selling and

administrative costs. Generally included in this figure are the costs of employees' salaries, commissions, and travel expenses; company payroll and office costs; and advertising and promotion.

### 3.4.3 Income Structure: Outlook

Using the methodology described in the introduction, the following table summarizes income structure benchmarks for firms involved in general building contractors and operative builders in Singapore. To allow comparable benchmarking, a common index of Net Sales or Revenues = 100 is used. All figures are current-year projections for companies operating in Singapore based on latest financial results available.

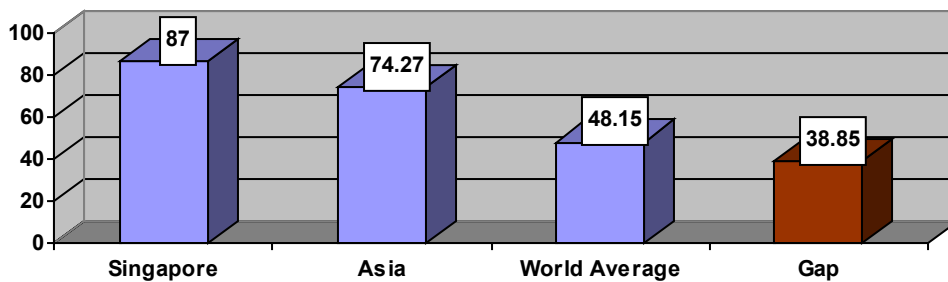
<b>Income Structure</b>	<b>Singapore</b>	<b>Asia</b>	<b>World Avg.</b>
Net Sales or Revenues	100.00	100.00	100.00
Cost of Goods Sold (Excluding Depreciation)	87.00	74.27	48.15
Depreciation, Depletion & Amortization	2.91	2.75	2.65
<b>Gross Income</b>	<b>10.08</b>	<b>13.56</b>	<b>13.85</b>
Selling, General & Administrative Expenses	5.77	6.99	6.28
Other Operating Expenses	98.81	85.41	56.54
Operating Expenses - Total	2.64	1.79	2.06
<b>Operating Income</b>	<b>1.70</b>	<b>5.03</b>	<b>7.21</b>
Extraordinary Charge - Pretax	0.36	0.41	0.18
Non-Operating Interest Income	0.09	1.00	0.72
Pretax Equity In Earnings	0.02	0.72	0.26
Other Income/Expense Net	1.93	3.48	2.14
<b>Earnings Before Interest and Taxes (EBIT)</b>	<b>3.56</b>	<b>9.50</b>	<b>10.15</b>
Interest Expense on Debt	2.18	4.42	4.21
<b>Pretax Income</b>	<b>1.38</b>	<b>5.12</b>	<b>6.08</b>
Income Taxes	0.50	1.68	1.10
Current Domestic Income Tax	0.44	0.96	1.05
Deferred Domestic Income Tax	-0.39	0.37	0.12
Minority Interest	0.66	0.12	0.15
Equity in Earnings	0.24	0.12	0.01
Net Income Before Extra Items/Prefer Dividends	1.20	3.72	4.59
Net Income Before Preferred Dividends	1.20	5.46	5.20
<b>Net Income Available to Common</b>	<b>1.20</b>	<b>3.72</b>	<b>4.58</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

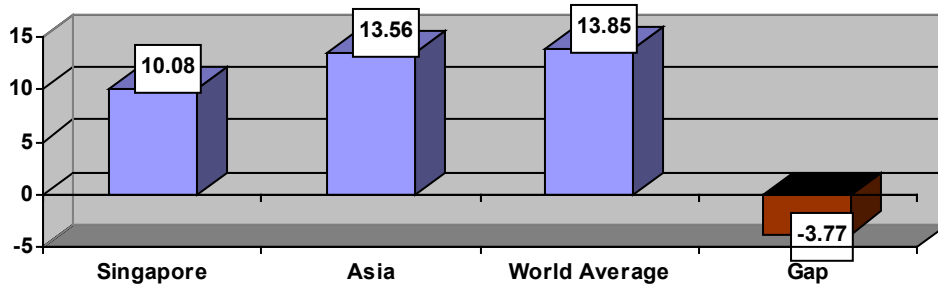
### 3.4.4 Large Variances: Income

The following graphics summarize for general building contractors and operative builders the large income structure gaps between firms operating in Singapore and the world average. A gap cannot necessarily be interpreted as a positive or negative reflection on performance. Gaps may signal areas of specialization, market focus, or expertise. More contextual information is required to fully interpret these gaps. The gaps highlighted here are simply those that are large.

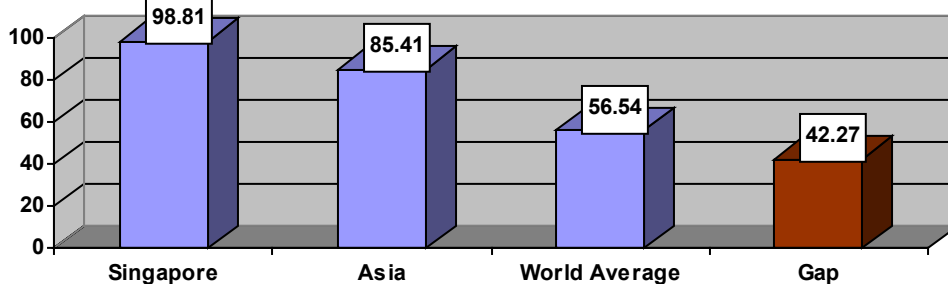
**Gap: Cost of Goods Sold (Excluding Depreciation)**



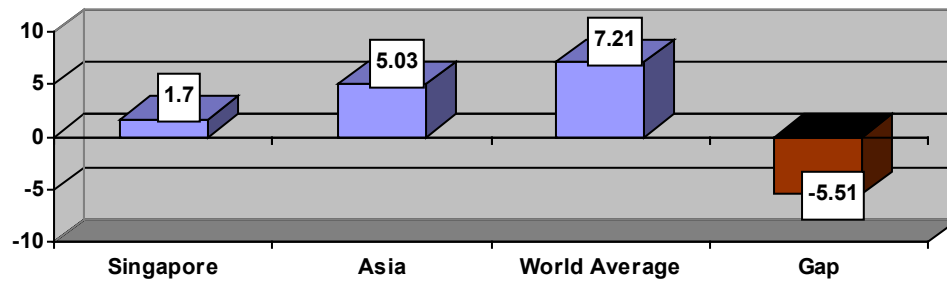
**Gap: Gross Income**



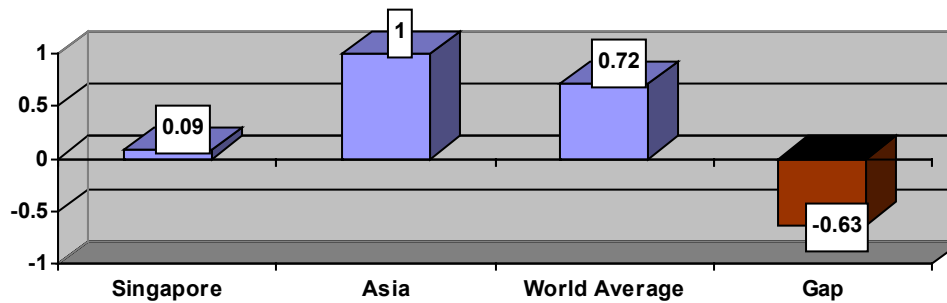
**Gap: Other Operating Expenses**



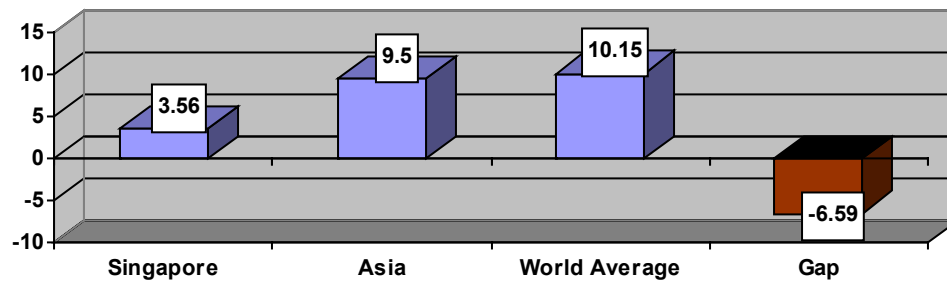
### Gap: Operating Income



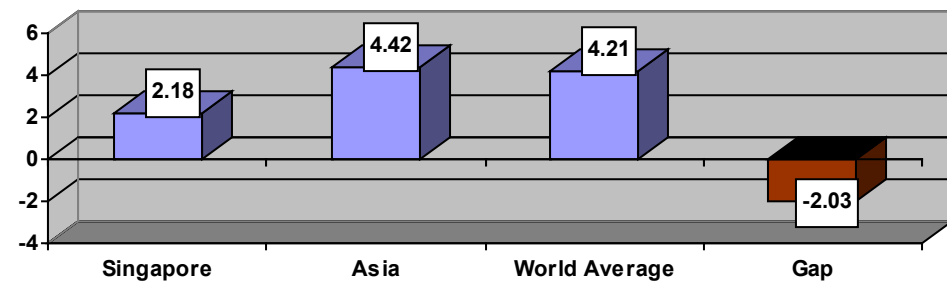
### Gap: Non-Operating Interest Income



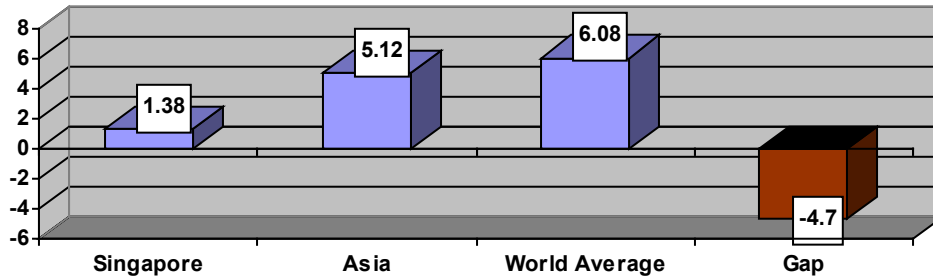
### Gap: Earnings Before Interest and Taxes (EBIT)



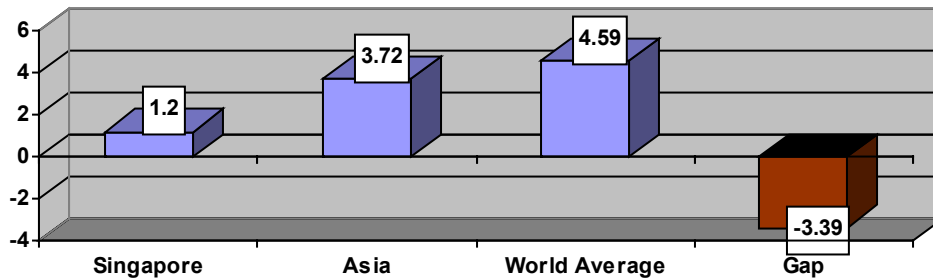
### Gap: Interest Expense on Debt



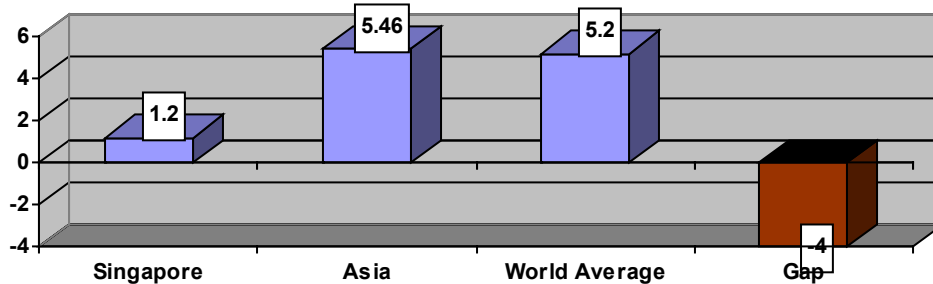
**Gap: Pretax Income**



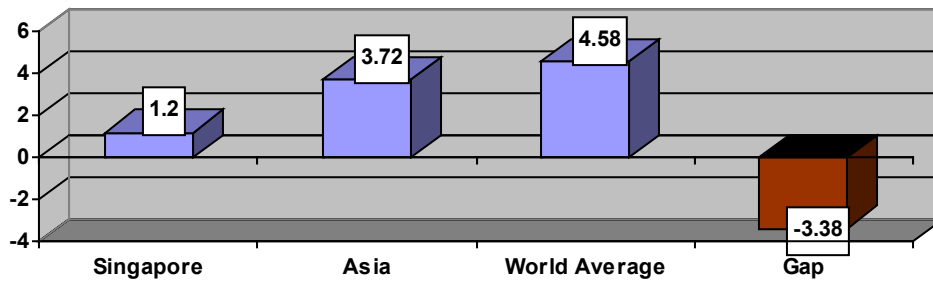
**Gap: Net Income Before Extra Items/Prefer Dividends**



**Gap: Net Income Before Preferred Dividends**



**Gap: Net Income Available to Common**



### 3.4.5 Key Percentiles and Rankings

We now consider the distribution of income ratios for general building contractors and operative builders using ranks and percentiles. What percent of countries have a value lower or higher than Singapore (what is the ratio's rank or percentile)? The table below answers this question with respect to the vertical analysis of income structure. The ranks and percentiles indicate, from highest to lowest, where a value falls within the distribution of all countries considered in the global benchmark (the number of countries in the benchmark per line item may vary, as indicated in the Rank). Again, a high or low figure does not necessarily indicate good or bad performance. After the summary table below, a few key vertical income ratios are highlighted in additional tables.

Income Structure	Singapore	Rank of Total	Percentile
Net Sales or Revenues	100.00		
Cost of Goods Sold (Excluding Depreciation)	87.00	11 of 49	77.55
Depreciation, Depletion & Amortization	2.91	17 of 53	67.92
<b>Gross Income</b>	<b>10.08</b>	<b>37 of 49</b>	<b>24.49</b>
Selling, General & Administrative Expenses	5.77	25 of 37	32.43
Other Operating Expenses	98.81	6 of 48	87.50
Operating Expenses - Total	2.64	22 of 44	50.00
<b>Operating Income</b>	<b>1.70</b>	<b>40 of 53</b>	<b>24.53</b>
Extraordinary Charge - Pretax	0.36	18 of 24	25.00
Non-Operating Interest Income	0.09	44 of 47	6.38
Pretax Equity In Earnings	0.02	23 of 32	28.13
<b>Other Income/Expense Net</b>	<b>1.93</b>	<b>16 of 53</b>	<b>69.81</b>
<b>Earnings Before Interest and Taxes (EBIT)</b>	<b>3.56</b>	<b>42 of 53</b>	<b>20.75</b>
Interest Expense on Debt	2.18	24 of 53	54.72
<b>Pretax Income</b>	<b>1.38</b>	<b>43 of 53</b>	<b>18.87</b>
Income Taxes	0.50	41 of 49	16.33
Current Domestic Income Tax	0.44	38 of 44	13.64
Deferred Domestic Income Tax	-0.39	34 of 38	10.53
Minority Interest	0.66	6 of 46	86.96
Equity in Earnings	0.24	5 of 19	73.68
Net Income Before Extra Items/Prefer Dividends	1.20	40 of 53	24.53
Net Income Before Preferred Dividends	1.20	40 of 53	24.53
<b>Net Income Available to Common</b>	<b>1.20</b>	<b>40 of 53</b>	<b>24.53</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Cost of Goods Sold (Excluding Depreciation)

Countries	Value (total revenue = 100)	Rank	Percentile	Region
Belgium	93.38	1	97.96	Europe
Portugal	93.28	2	95.92	Europe
Switzerland	92.96	3	93.88	Europe
Sweden	92.01	4	91.84	Europe
Italy	90.22	5	89.80	Europe
Czech Republic	90.06	6	87.76	Europe
Indonesia	89.09	7	85.71	Asia
Norway	88.64	8	83.67	Europe
Poland	88.05	9	81.63	Europe
Finland	87.85	10	79.59	Europe
<b>Singapore</b>	<b>87.00</b>	<b>11</b>	<b>77.55</b>	<b>Asia</b>
Japan	86.03	12	75.51	Asia
South Korea	85.74	13	73.47	Asia
Germany	85.13	14	71.43	Europe
South Africa	84.29	15	69.39	Africa
Argentina	83.89	16	67.35	Latin America
Spain	83.54	18	63.27	Europe
Netherlands	83.43	19	61.22	Europe
Canada	83.04	20	59.18	North America
Greece	82.90	21	57.14	Europe
Israel	82.75	22	55.10	the Middle East
Austria	82.61	23	53.06	Europe
Ireland	82.06	24	51.02	Europe
France	81.66	25	48.98	Europe
New Zealand	81.02	26	46.94	Oceana
Luxembourg	80.40	27	44.90	Europe
Denmark	80.33	28	42.86	Europe
the United Kingdom	79.75	29	40.82	Europe
Australia	79.55	30	38.78	Oceana
Hong Kong	79.39	31	36.73	Asia
Malaysia	78.51	32	34.69	Asia
Thailand	76.66	33	32.65	Asia
Brazil	76.37	34	30.61	Latin America
USA	76.08	35	28.57	North America
Philippines	73.97	36	26.53	Asia
Chile	72.66	37	24.49	Latin America
Turkey	70.14	38	22.45	the Middle East
Mexico	69.95	39	20.41	Latin America
Taiwan	68.39	40	18.37	Asia
China	64.16	42	14.29	Asia
Pakistan	63.08	45	8.16	the Middle East
Peru	56.64	48	2.04	Latin America

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Cost of Goods Sold (Excluding Depreciation)**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total revenue = 100)	Rank	Percentile
Indonesia	89.09	1	94.44
<b>Singapore</b>	<b>87.00</b>	<b>2</b>	<b>88.89</b>
Japan	86.03	3	83.33
South Korea	85.74	4	77.78
Brunei	83.95	5	72.22
Macau	82.65	6	66.67
Maldives	81.23	7	61.11
Hong Kong	79.39	8	55.56
Malaysia	78.51	9	50.00
Thailand	76.66	10	44.44
Burma	74.23	11	38.89
Philippines	73.97	12	33.33
Mongolia	68.39	13	27.78
Taiwan	68.39	14	22.22
China	64.16	15	16.67
Sri Lanka	64.06	16	11.11
North Korea	54.98	17	5.56
Papua New Guinea	38.44	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Selling, General & Administrative Expenses

Countries	Value (total revenue = 100)	Rank	Percentile	Region
Canada	16.33	1	97.30	North America
Denmark	16.30	2	94.59	Europe
France	16.06	3	91.89	Europe
China	14.76	4	89.19	Asia
Pakistan	14.51	5	86.49	the Middle East
USA	14.13	6	83.78	North America
New Zealand	11.29	7	81.08	Oceania
Hong Kong	11.06	8	78.38	Asia
Japan	9.91	9	75.68	Asia
Turkey	9.90	10	72.97	the Middle East
Mexico	9.87	11	70.27	Latin America
Norway	9.77	12	67.57	Europe
Philippines	9.40	13	64.86	Asia
the United Kingdom	8.88	15	59.46	Europe
Poland	8.50	16	56.76	Europe
Israel	7.78	18	51.35	the Middle East
Ireland	7.72	19	48.65	Europe
Greece	7.32	20	45.95	Europe
Malaysia	6.85	21	43.24	Asia
Taiwan	6.43	22	40.54	Asia
Thailand	6.15	23	37.84	Asia
Indonesia	6.02	24	35.14	Asia
<b>Singapore</b>	<b>5.77</b>	<b>25</b>	<b>32.43</b>	<b>Asia</b>
South Korea	5.67	26	29.73	Asia
Sweden	5.61	28	24.32	Europe
Switzerland	5.04	30	18.92	Europe
Peru	4.54	32	13.51	Latin America
Luxembourg	4.36	33	10.81	Europe
Finland	2.89	36	2.70	Europe
Germany	1.71	37	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Selling, General & Administrative Expenses  
(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total revenue = 100)	Rank	Percentile
China	14.76	1	94.12
Hong Kong	11.06	2	88.24
Japan	9.91	3	82.35
Burma	9.43	4	76.47
Philippines	9.40	5	70.59
Malaysia	6.85	6	64.71
Taiwan	6.43	7	58.82
Thailand	6.15	8	52.94
Indonesia	6.02	9	47.06
<b>Singapore</b>	<b>5.77</b>	<b>10</b>	<b>41.18</b>
South Korea	5.67	11	35.29
Maldives	5.49	12	29.41
Mongolia	5.49	13	23.53
Brunei	4.55	14	17.65
North Korea	4.41	15	11.76
Sri Lanka	4.33	16	5.88
Papua New Guinea	3.08	17	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Operating Expenses - Total

Countries	Value (total revenue = 100)	Rank	Percentile	Region
Austria	13.98	1	97.73	Europe
Germany	13.27	2	95.45	Europe
Spain	11.49	3	93.18	Europe
South Africa	8.85	4	90.91	Africa
Brazil	8.02	5	88.64	Latin America
Chile	7.63	6	86.36	Latin America
Philippines	6.29	7	84.09	Asia
Finland	5.58	8	81.82	Europe
Canada	5.49	9	79.55	North America
France	5.39	10	77.27	Europe
Belgium	4.13	12	72.73	Europe
Italy	3.99	13	70.45	Europe
Australia	3.62	14	68.18	Oceania
Netherlands	3.50	15	65.91	Europe
China	3.39	16	63.64	Asia
Pakistan	3.33	17	61.36	the Middle East
Malaysia	3.32	18	59.09	Asia
New Zealand	3.31	19	56.82	Oceania
Hong Kong	3.24	20	54.55	Asia
Denmark	3.06	21	52.27	Europe
<b>Singapore</b>	<b>2.64</b>	<b>22</b>	<b>50.00</b>	<b>Asia</b>
Czech Republic	2.57	23	47.73	Europe
Norway	2.52	24	45.45	Europe
Argentina	2.39	25	43.18	Latin America
Switzerland	2.37	26	40.91	Europe
Luxembourg	2.05	27	38.64	Europe
the United Kingdom	1.71	28	36.36	Europe
Portugal	1.14	29	34.09	Europe
Indonesia	0.82	30	31.82	Asia
South Korea	0.27	33	25.00	Asia
Turkey	0.24	34	22.73	the Middle East
Mexico	0.24	35	20.45	Latin America
Sweden	0.17	37	15.91	Europe
USA	0.07	38	13.64	North America
Thailand	0.04	39	11.36	Asia
Peru	0.03	42	4.55	Latin America
Japan	0.00	44	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Operating Expenses - Total**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total revenue = 100)	Rank	Percentile
Burma	6.31	1	94.12
Philippines	6.29	2	88.24
China	3.39	3	82.35
Malaysia	3.32	4	76.47
Hong Kong	3.24	5	70.59
<b>Singapore</b>	<b>2.64</b>	<b>6</b>	<b>64.71</b>
Macau	2.35	7	58.82
Brunei	2.14	8	52.94
Indonesia	0.82	9	47.06
Maldives	0.75	10	41.18
Sri Lanka	0.59	11	35.29
South Korea	0.27	12	29.41
Thailand	0.04	13	23.53
Mongolia	0.04	14	17.65
North Korea	0.03	15	11.76
Papua New Guinea	0.02	16	5.88
Japan	0.00	17	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Operating Income

Countries	Value (total revenue = 100)	Rank	Percentile	Region
Turkey	16.85	1	98.11	the Middle East
Mexico	16.80	2	96.23	Latin America
Thailand	14.11	4	92.45	Asia
China	13.83	5	90.57	Asia
Pakistan	13.59	6	88.68	the Middle East
Australia	13.39	7	86.79	Oceania
Peru	10.43	10	81.13	Latin America
Netherlands	10.17	11	79.25	Europe
Malaysia	10.12	12	77.36	Asia
Israel	9.48	13	75.47	the Middle East
Ireland	9.40	14	73.58	Europe
the United Kingdom	8.74	15	71.70	Europe
USA	8.66	16	69.81	North America
South Korea	8.17	17	67.92	Asia
Taiwan	7.84	18	66.04	Asia
India	6.29	20	62.26	Asia
Greece	5.88	21	60.38	Europe
Philippines	4.50	22	58.49	Asia
Finland	4.23	23	56.60	Europe
Canada	4.06	24	54.72	North America
France	4.00	25	52.83	Europe
South Africa	3.38	27	49.06	Africa
Spain	3.36	28	47.17	Europe
Brazil	3.06	29	45.28	Latin America
Sweden	2.97	30	43.40	Europe
Denmark	2.94	31	41.51	Europe
Chile	2.91	32	39.62	Latin America
New Zealand	2.71	33	37.74	Oceania
Hong Kong	2.66	34	35.85	Asia
Norway	2.58	35	33.96	Europe
Japan	2.45	36	32.08	Asia
Czech Republic	2.35	37	30.19	Europe
Argentina	2.19	38	28.30	Latin America
Switzerland	1.96	39	26.42	Europe
<b>Singapore</b>	<b>1.70</b>	<b>40</b>	<b>24.53</b>	<b>Asia</b>
Luxembourg	1.70	41	22.64	Europe
Portugal	1.62	42	20.75	Europe
Russia	0.77	44	16.98	Europe
Austria	0.76	45	15.09	Europe
Hungary	0.69	46	13.21	Europe
Poland	0.37	47	11.32	Europe
Indonesia	-1.28	50	5.66	Asia
Germany	-1.47	51	3.77	Europe
Italy	-1.61	52	1.89	Europe
Belgium	-1.66	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Operating Income**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total revenue = 100)	Rank	Percentile
Thailand	14.11	1	96.15
China	13.83	2	92.31
Mongolia	12.59	3	88.46
Malaysia	10.12	4	84.62
North Korea	10.12	5	80.77
South Korea	8.17	6	76.92
Taiwan	7.84	7	73.08
Papua New Guinea	7.08	8	69.23
India	6.29	9	65.38
Cambodia	4.77	10	61.54
Laos	4.60	11	57.69
Burma	4.52	12	53.85
Philippines	4.50	13	50.00
Vietnam	4.17	14	46.15
Bangladesh	3.58	15	42.31
Bhutan	3.41	16	38.46
Nepal	3.05	17	34.62
Hong Kong	2.66	18	30.77
Japan	2.45	19	26.92
Macau	2.15	20	23.08
Brunei	1.77	21	19.23
<b>Singapore</b>	<b>1.70</b>	<b>22</b>	<b>15.38</b>
Seychelles	0.72	23	11.54
Sri Lanka	-0.92	24	7.69
Maldives	-1.17	25	3.85
Indonesia	-1.28	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Earnings Before Interest and Taxes (EBIT)

Countries	Value (total revenue = 100)	Rank	Percentile	Region
Indonesia	31.82	1	98.11	Asia
Turkey	21.11	4	92.45	the Middle East
Mexico	21.06	5	90.57	Latin America
Thailand	16.69	7	86.79	Asia
Greece	15.84	8	84.91	Europe
China	15.74	9	83.02	Asia
Pakistan	15.47	10	81.13	the Middle East
Australia	15.12	11	79.25	Oceania
Malaysia	14.15	12	77.36	Asia
Netherlands	12.80	15	71.70	Europe
Peru	12.33	16	69.81	Latin America
the United Kingdom	10.99	17	67.92	Europe
Israel	9.55	18	66.04	the Middle East
Ireland	9.47	19	64.15	Europe
South Korea	9.27	20	62.26	Asia
USA	9.01	22	58.49	North America
Taiwan	7.89	23	56.60	Asia
New Zealand	7.72	24	54.72	Oceania
Hong Kong	7.57	25	52.83	Asia
India	6.91	26	50.94	Asia
Canada	6.61	27	49.06	North America
France	6.50	28	47.17	Europe
Philippines	5.79	29	45.28	Asia
Austria	5.49	30	43.40	Europe
Spain	5.33	31	41.51	Europe
Finland	5.24	32	39.62	Europe
Denmark	4.91	34	35.85	Europe
Sweden	4.81	35	33.96	Europe
South Africa	4.59	36	32.08	Africa
Norway	4.18	37	30.19	Europe
Brazil	4.16	38	28.30	Latin America
Chile	3.96	39	26.42	Latin America
Portugal	3.77	40	24.53	Europe
Czech Republic	3.62	41	22.64	Europe
<b>Singapore</b>	<b>3.56</b>	<b>42</b>	<b>20.75</b>	<b>Asia</b>
Argentina	3.37	43	18.87	Latin America
Poland	3.06	44	16.98	Europe
Russia	2.80	46	13.21	Europe
Belgium	2.74	47	11.32	Europe
Italy	2.65	48	9.43	Europe
Hungary	2.52	49	7.55	Europe
Switzerland	2.34	50	5.66	Europe
Luxembourg	2.03	51	3.77	Europe
Germany	0.83	52	1.89	Europe
Japan	0.74	53	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Earnings Before Interest and Taxes (EBIT)**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total revenue = 100)	Rank	Percentile
Indonesia	31.82	1	96.15
Maldives	29.01	2	92.31
Sri Lanka	22.88	3	88.46
Thailand	16.69	4	84.62
China	15.74	5	80.77
Mongolia	14.89	6	76.92
Malaysia	14.15	7	73.08
North Korea	11.97	8	69.23
South Korea	9.27	9	65.38
Papua New Guinea	8.37	10	61.54
Taiwan	7.89	11	57.69
Hong Kong	7.57	12	53.85
India	6.91	13	50.00
Burma	5.81	14	46.15
Philippines	5.79	15	42.31
Cambodia	5.25	16	38.46
Laos	5.06	17	34.62
Vietnam	4.59	18	30.77
Bangladesh	3.93	19	26.92
Bhutan	3.75	20	23.08
<b>Singapore</b>	<b>3.56</b>	<b>21</b>	<b>19.23</b>
Nepal	3.35	22	15.38
Macau	3.32	23	11.54
Seychelles	2.62	24	7.69
Brunei	2.12	25	3.85
Japan	0.74	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Pretax Income

Countries	Value (total revenue = 100)	Rank	Percentile	Region
Turkey	18.94	1	98.11	the Middle East
Mexico	18.89	2	96.23	Latin America
Greece	15.27	4	92.45	Europe
Thailand	15.16	5	90.57	Asia
Indonesia	14.26	6	88.68	Asia
Australia	13.12	8	84.91	Oceania
Malaysia	12.27	10	81.13	Asia
Peru	11.20	12	77.36	Latin America
China	10.55	13	75.47	Asia
Pakistan	10.37	14	73.58	the Middle East
the United Kingdom	8.50	16	69.81	Europe
Netherlands	8.38	17	67.92	Europe
USA	7.98	19	64.15	North America
Israel	7.41	20	62.26	the Middle East
Ireland	7.35	21	60.38	Europe
Taiwan	6.12	22	58.49	Asia
South Korea	4.86	23	56.60	Asia
New Zealand	4.10	24	54.72	Oceania
Hong Kong	4.01	25	52.83	Asia
Spain	3.90	26	50.94	Europe
India	3.63	27	49.06	Asia
South Africa	3.49	28	47.17	Africa
Brazil	3.16	29	45.28	Latin America
Denmark	3.10	30	43.40	Europe
Chile	3.01	31	41.51	Latin America
Czech Republic	2.91	32	39.62	Europe
Finland	2.89	33	37.74	Europe
Austria	2.75	34	35.85	Europe
Argentina	2.71	35	33.96	Latin America
Sweden	2.51	36	32.08	Europe
Poland	2.30	37	30.19	Europe
Canada	2.17	38	28.30	North America
France	2.14	39	26.42	Europe
Portugal	1.66	40	24.53	Europe
Norway	1.65	41	22.64	Europe
Switzerland	1.57	42	20.75	Europe
<b>Singapore</b>	<b>1.38</b>	<b>43</b>	<b>18.87</b>	<b>Asia</b>
Luxembourg	1.36	44	16.98	Europe
Belgium	1.35	45	15.09	Europe
Italy	1.31	46	13.21	Europe
Germany	-0.05	47	11.32	Europe
Japan	-0.16	48	9.43	Asia
Hungary	-3.08	49	7.55	Europe
Russia	-3.42	50	5.66	Europe
Philippines	-4.37	53	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Pretax Income**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total revenue = 100)	Rank	Percentile
Thailand	15.16	1	96.15
Indonesia	14.26	2	92.31
Mongolia	13.53	3	88.46
Maldives	13.00	4	84.62
Malaysia	12.27	5	80.77
North Korea	10.88	6	76.92
China	10.55	7	73.08
Sri Lanka	10.25	8	69.23
Papua New Guinea	7.60	9	65.38
Taiwan	6.12	10	61.54
South Korea	4.86	11	57.69
Hong Kong	4.01	12	53.85
India	3.63	13	50.00
Cambodia	2.75	14	46.15
Macau	2.67	15	42.31
Laos	2.65	16	38.46
Vietnam	2.41	17	34.62
Bangladesh	2.06	18	30.77
Bhutan	1.96	19	26.92
Nepal	1.76	20	23.08
Brunei	1.42	21	19.23
<b>Singapore</b>	<b>1.38</b>	<b>22</b>	<b>15.38</b>
Japan	-0.16	23	11.54
Seychelles	-3.20	24	7.69
Philippines	-4.37	25	3.85
Burma	-4.39	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Income Taxes

Countries	Value (total revenue = 100)	Rank	Percentile	Region
Greece	5.35	1	97.96	Europe
Indonesia	4.74	2	95.92	Asia
Malaysia	3.75	4	91.84	Asia
Australia	3.44	5	89.80	Oceania
USA	2.98	7	85.71	North America
Netherlands	2.81	8	83.67	Europe
Turkey	2.80	9	81.63	the Middle East
Mexico	2.79	10	79.59	Latin America
the United Kingdom	2.58	12	75.51	Europe
Thailand	2.35	13	73.47	Asia
Peru	1.74	16	67.35	Latin America
South Korea	1.63	17	65.31	Asia
Israel	1.51	18	63.27	the Middle East
Ireland	1.50	19	61.22	Europe
China	1.41	20	59.18	Asia
Pakistan	1.39	21	57.14	the Middle East
Taiwan	1.25	23	53.06	Asia
Spain	1.14	24	51.02	Europe
Finland	1.12	25	48.98	Europe
Czech Republic	0.93	26	46.94	Europe
Canada	0.93	27	44.90	North America
France	0.91	28	42.86	Europe
South Africa	0.91	29	40.82	Africa
Argentina	0.87	30	38.78	Latin America
Brazil	0.82	31	36.73	Latin America
Sweden	0.81	32	34.69	Europe
New Zealand	0.80	33	32.65	Oceania
Hong Kong	0.78	34	30.61	Asia
Chile	0.78	35	28.57	Latin America
Norway	0.76	36	26.53	Europe
Poland	0.73	37	24.49	Europe
Belgium	0.59	38	22.45	Europe
Italy	0.57	39	20.41	Europe
Denmark	0.54	40	18.37	Europe
<b>Singapore</b>	<b>0.50</b>	<b>41</b>	<b>16.33</b>	<b>Asia</b>
Portugal	0.44	42	14.29	Europe
Germany	0.41	43	12.24	Europe
Switzerland	0.40	44	10.20	Europe
Luxembourg	0.35	45	8.16	Europe
Japan	0.28	46	6.12	Asia
Austria	0.04	47	4.08	Europe
Philippines	-0.19	49	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Income Taxes**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (total revenue = 100)	Rank	Percentile
Indonesia	4.74	1	94.44
Maldives	4.32	2	88.89
Malaysia	3.75	3	83.33
Sri Lanka	3.41	4	77.78
Thailand	2.35	5	72.22
Mongolia	2.10	6	66.67
North Korea	1.68	7	61.11
South Korea	1.63	8	55.56
China	1.41	9	50.00
Taiwan	1.25	10	44.44
Papua New Guinea	1.18	11	38.89
Macau	0.85	12	33.33
Hong Kong	0.78	13	27.78
<b>Singapore</b>	<b>0.50</b>	<b>14</b>	<b>22.22</b>
Brunei	0.36	15	16.67
Japan	0.28	16	11.11
Philippines	-0.19	17	5.56
Burma	-0.19	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

## 3.5 FINANCIAL RETURNS IN SINGAPORE: PROFITABILITY RATIOS

### 3.5.1 Overview

In this chapter we consider additional financial ratios estimated for firms involved in general building contractors and operative builders operating in Singapore benchmarked against global averages. The chapter begins by defining relevant terms. Estimates are then presented for the proto-typical firm operating in Singapore compared to average global benchmarks. For ratios where there are large deviations between the average firm in Singapore and the benchmarks, graphics are provided. Then the distribution of ratios is presented in the form of ranks and percentiles. Certain key ratios are highlighted across countries in the comparison group.

### 3.5.2 Ratios – Definitions of Terms

The following definitions are provided for those less familiar with financial ratio analysis. As this chapter deals with the global benchmarking of ratios, only definitions covering certain terms used in this chapter's tables and graphs are provided here. The glossary below reflects commonly accepted definitions across various countries and official sources.

- **Accounts Receivables Days.** The number of days' receivable sales generally correlates to the amount of the accounts receivables to the average daily sales on account. Accounts receivables days is often determined by dividing the gross receivables by (net sales/365).
- **Cash Earnings Return On Equity (%).** Cash earnings return on equity generally measures the return of revenues to the shareholders. This ratio is generally calculated by dividing (net income before nonrecurring items minus preferred dividends) by the average common equity.
- **Cash Flow.** Cash flow is generally defined as being equal to the company's net income plus the charge-off amounts for depreciation, depletion, amortization, extraordinary charges to reserves. These are bookkeeping deductions which are not paid out as cash.
- **Current Ratio.** The current ratio is generally defined as a ratio of liquidity measuring the ability of a business to pay its current obligations when due. The current ratio is generally calculated by dividing total current assets by total current liabilities. Managers and lenders often want the current ratio to be 2.00 or greater. This ratio is often seen as an indication of short-term debt-paying ability. The higher the ratio, the more liquid the company.
- **Dividend Payout (% Earnings) - Total Dividends (%).** The dividend payout ratio is generally used to measure the amount of current earnings per common share which are paid out in dividends. This ratio is generally determined by dividing dividends per common share by diluted earnings per share.
- **Fixed Charge Coverage Ratio.** The fixed charge coverage ratio is generally seen as an indication of the company's ability to cover its fixed charges. This ratio is typically determined by dividing recurring earnings excluding interest expense, tax expense, equity earnings, and minority earnings plus interest from rentals by interest expense including capitalized interest and interest from rentals.
- **Gross Profit Margin (%).** The gross profit margin is typically defined to equals the difference, in percent, between net sales revenue and the cost of goods sold.

- **Inventories (# of Days) Held.** Inventory days held is generally determined by dividing the ending inventory by (the cost of goods held/365). The number of days held results in the average daily cost of goods held.
- **Inventory Turnover (%).** Inventory turnover is used as a measure of the balance of inventory. It generally compares the amount of inventory with the total sales for the year. The ratio can reflect both on the quality of the inventory and the efficiency of management. Typically, the higher the turnover rate, the greater the likelihood that profits would be larger and less working capital bound up in inventory.
- **Net Margin (%).** The net margin is the ratio of net income dollars generated by each dollar of sales.
- **Operating Profit Margin (%).** Operating profit margin percent is the ratio of operating profit to net sales. Operating profit (loss) is income or loss before taxes calculated by the difference between total revenues and total expense disregarding the effects of any extraordinary transactions.
- **Quick Ratio.** The quick ratio, also commonly known as the “acid test ratio”, is a refined current ratio and is often seen as a more conservative measure of liquidity. The quick ratio is generally determined by dividing cash and equivalents plus trade receivables by total current liabilities. The ratio shows the degree to which a company's current liabilities can be covered by the most liquid current assets. Financial management texts generally conclude that any value of less than 1 to 1 implies a reciprocal dependency on inventory or other current assets to liquidate short-term debt.
- **Reinvestment Rate - Total (%).** The reinvestment rate is typically defined as the rate at which an investor assumes interest payments made on a debt security can be reinvested over the life of that security.
- **Return on Assets (%).** Return on assets is generally used to measure a company's ability to use assets to create profit.
- **Return on Equity - Total (%).** The return on total equity ratio is often seen to reflect the profitability of the company's operations after income taxes. Return on equity is often considered to be a good measure of the company's profitability. Tax laws and tax loss carryovers can affect the net income and therefore can also affect the return on equity.
- **Return on Invested Capital (%).** The ratio of return on invested capital is typically defined as an evaluation of earnings performance without regard to the method of financing. This ratio measures the earnings on investment and is an indication of how well the company utilizes its asset base. Return on investment is a type of return on capital, therefore this ratio can be an indication of the company's ability to reward investors who provide long-term funds and to attract future investors.
- **Tax Rate (%).** The tax rate is typically defined as the average rate of domestic tax owed to government by the company.
- **Working Capital.** Net working capital equals the difference between total current assets and total current liabilities. Working capital often reflects a company's ability to expand volume and meet obligations. Since growth is usually one goal, the amount of working capital on this year's balance sheet should be greater than that of the previous year's. This is an efficiency, or turnover, ratio which benchmarks the rate at which current assets less current liabilities are used by the company in making sales. A low ratio can indicate a less profitable use of working capital in making sales. On the other hand, a very high ratio can indicate the company is wasting current assets which could be more efficiently deployed in production and in increasing sales and profits; or that the company may be undercapitalized, and thus vulnerable to liquidity problems in a period of weak business conditions.

### 3.5.3 Ratio Structure: Outlook

Using the methodology described in the introduction, the following table summarizes ratio structure benchmarks for firms involved in general building contractors and operative builders in Singapore. All figures are current-year projections for companies operating in Singapore based on latest financial results available.

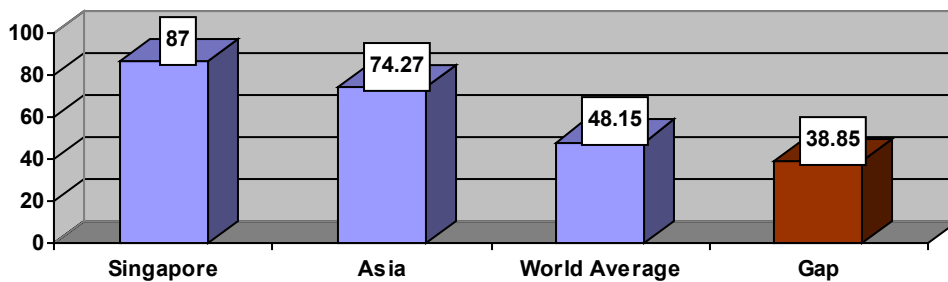
Ratios	Singapore	Asia	World Avg.
<b>Profitability</b>			
Return on Equity - Total (%)	3.43	10.11	10.96
Reinvestment Rate - Total (%)	2.89	9.29	9.44
Return on Assets (%)	1.99	6.09	6.13
Return on Invested Capital (%)	2.88	9.51	9.28
Cash Earnings Return On Equity (%)	9.68	7.75	17.19
Cash Flow % Sales	3.38	4.90	7.60
Cost Goods Sold / Sales (%)	87.00	74.27	48.15
Gross Profit Margin (%)	10.08	13.56	13.85
Selling, General & Administrative Expense/Net Sales (%)	5.77	6.96	6.26
Operating Profit Margin (%)	1.70	5.03	7.21
Operating Inc / Total Capital (%)	3.47	10.15	13.23
Pretax Margin (%)	1.38	5.12	6.08
Tax Rate (%)	88.37	30.15	19.61
Net Margin (%)	1.20	5.46	5.20
Total Asset Turnover (X) th USD	0.89	0.78	0.88
<b>Asset Utilization</b>			
Inventory Turnover (%)	9.02	7.74	6.47
Net Sales % Working Capital	11.09	3.72	4.91
Capital Expenditure % Gross Fixed Assets	4.12	7.19	10.25
Capital Expenditure % Total Assets	1.30	2.96	4.43
Capital Expenditure % Total Sales	1.76	4.52	9.31
Accumulated Depreciation % Gross Fixed Assets	25.10	28.05	20.06
<b>Leverage</b>			
Total Debt % Total Capital	53.99	36.72	40.87
Long Term Debt % Total Capital	29.81	25.93	25.88
Equity % Total Capital	62.44	56.13	62.09
Fixed Charge Coverage Ratio	2.04	6.83	5.00
Dividend Payout (% Earnings) - Total Dividends	14.55	8.65	17.22
Fixed Assets % Common Equity	118.91	105.82	87.54
Working Capital % Total Capital	5.21	19.81	24.90
<b>Liquidity</b>			
Quick Ratio	0.61	0.60	0.61
Current Ratio	0.92	1.22	1.36
Receivables % Total Current Assets	54.19	32.91	26.86
Inventories % Total Current Assets	25.76	27.99	37.58
Accounts Receivables Days	89.70	81.26	79.52
Inventories (# of Days) Held	46.08	112.51	242.39

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

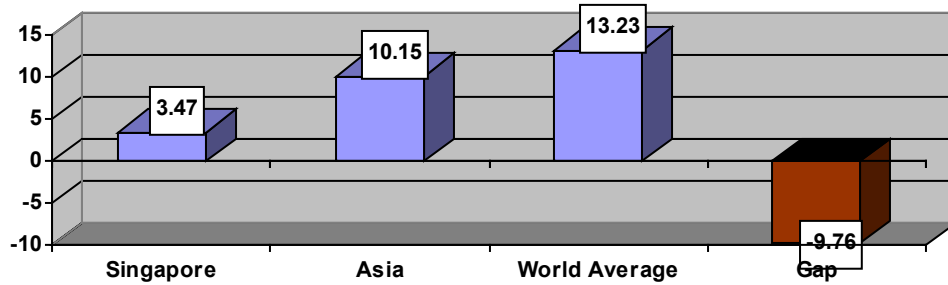
### 3.5.4 Large Variances: Ratios

The following graphics summarize for general building contractors and operative builders the large ratio structure gaps between firms operating in Singapore and the world average. A gap cannot necessarily be interpreted as a positive or negative reflection on performance. Gaps may signal areas of specialization, market focus, or expertise. More contextual information is required to fully interpret these gaps. The gaps highlighted here are simply those that are large.

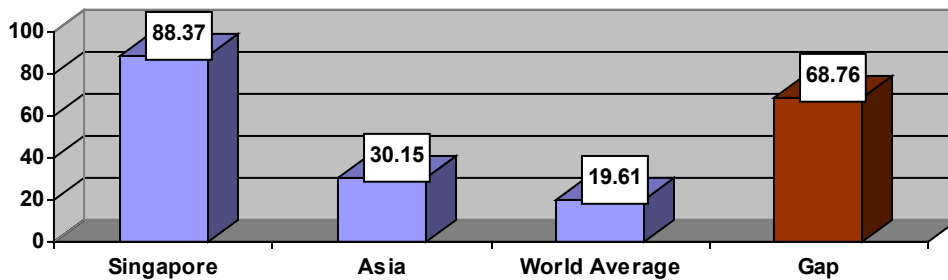
**Gap: Cost Goods Sold / Sales (%)**



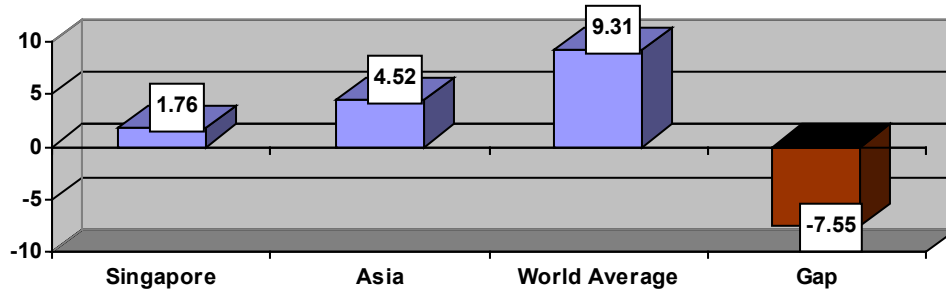
**Gap: Operating Inc / Total Capital (%)**



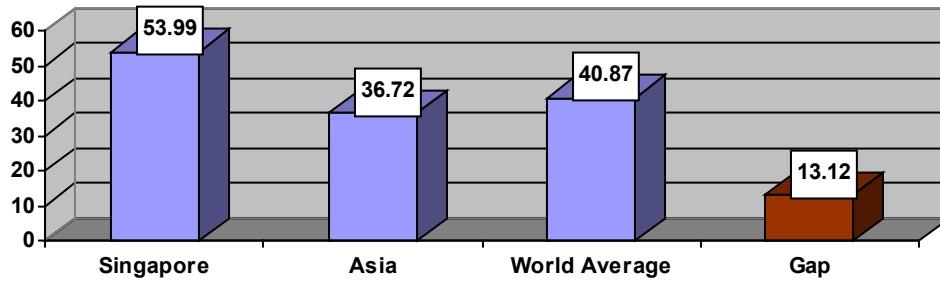
**Gap: Tax Rate (%)**



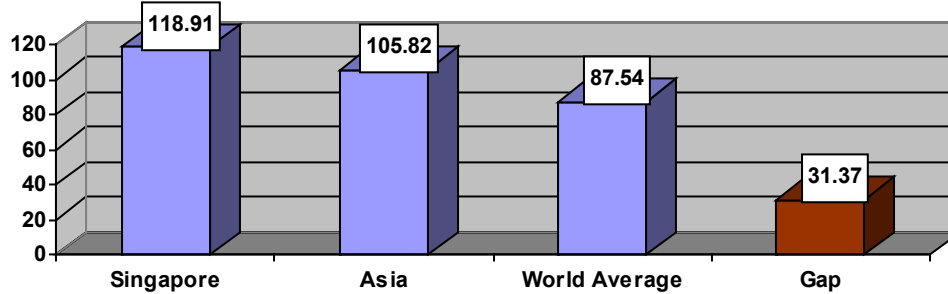
**Gap: Capital Expenditure % Total Sales**



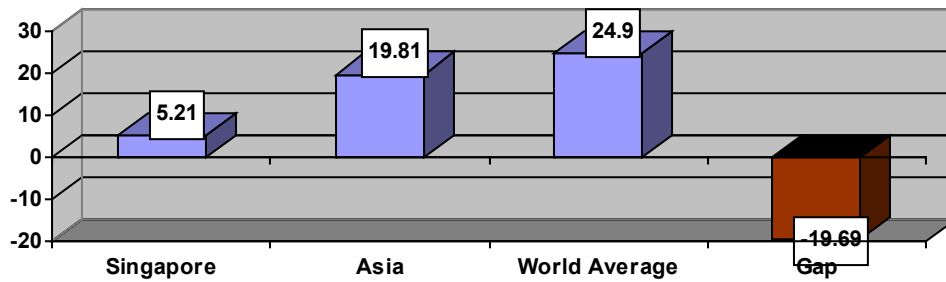
**Gap: Total Debt % Total Capital**



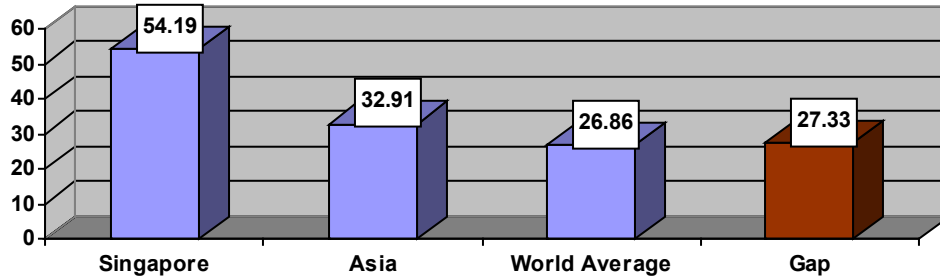
**Gap: Fixed Assets % Common Equity**



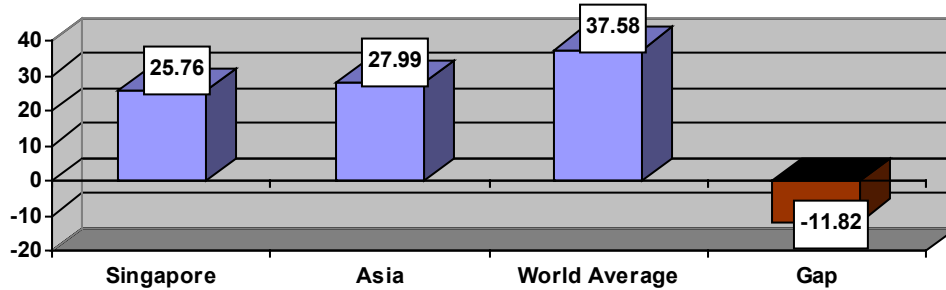
**Gap: Working Capital % Total Capital**



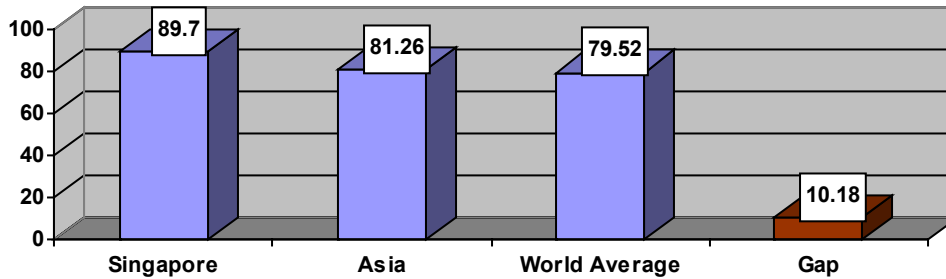
**Gap: Receivables % Total Current Assets**



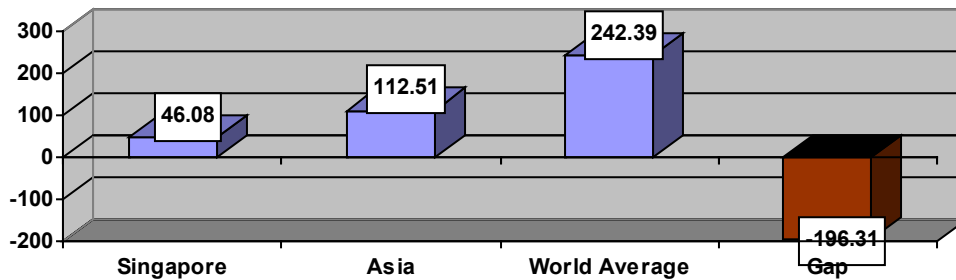
**Gap: Inventories % Total Current Assets**



**Gap: Accounts Receivables Days**



**Gap: Inventories (# of Days) Held**



### 3.5.5 Key Percentiles and Rankings

We now consider the distribution of financial ratios for general building contractors and operative builders using ranks and percentiles. What percent of countries have a value lower or higher than Singapore (what is the ratio's rank or percentile)? The table below answers this question with respect to financial ratios. The ranks and percentiles indicate, from highest to lowest, where a value falls within the distribution of all countries considered in the global benchmark (the number of countries in the benchmark per line item may vary, as indicated in the Rank). Again, a high or low figure does not necessarily indicate good or bad performance. After the summary table below, a few key financial ratios are highlighted in additional tables.

Ratios	Singapore	Rank of Total	Percentile
<b>Profitability</b>			
Return on Equity - Total (%)	3.43	42 of 53	20.75
Reinvestment Rate - Total (%)	2.89	36 of 53	32.08
Return on Assets (%)	1.99	40 of 53	24.53
Return on Invested Capital (%)	2.88	44 of 53	16.98
Cash Earnings Return On Equity (%)	9.68	40 of 53	24.53
Cash Flow % Sales	3.38	39 of 53	26.42
Cost Goods Sold / Sales (%)	87.00	11 of 49	77.55
Gross Profit Margin (%)	10.08	37 of 49	24.49
Selling, General & Administrative Expense/Net Sales (%)	5.77	25 of 37	32.43
Operating Profit Margin (%)	1.70	40 of 53	24.53
Operating Inc / Total Capital (%)	3.47	39 of 53	26.42
Pretax Margin (%)	1.38	43 of 53	18.87
Tax Rate (%)	88.37	3 of 47	93.62
Net Margin (%)	1.20	40 of 53	24.53
Total Asset Turnover (X) th USD	0.89	29 of 53	45.28
<b>Asset Utilization</b>			
Inventory Turnover (%)	9.02	24 of 53	54.72
Net Sales % Working Capital	11.09	17 of 53	67.92
Capital Expenditure % Gross Fixed Assets	4.12	40 of 46	13.04
Capital Expenditure % Total Assets	1.30	45 of 51	11.76
Capital Expenditure % Total Sales	1.76	41 of 51	19.61
Accumulated Depreciation % Gross Fixed Assets	25.10	37 of 48	22.92
<b>Leverage</b>			
Total Debt % Total Capital	53.99	9 of 53	83.02
Long Term Debt % Total Capital	29.81	23 of 53	56.60
Equity % Total Capital	62.44	32 of 53	39.62
Fixed Charge Coverage Ratio	2.04	41 of 53	22.64
Dividend Payout (% Earnings) - Total Dividends	14.55	27 of 42	35.71
Fixed Assets % Common Equity	118.91	12 of 53	77.36
Working Capital % Total Capital	5.21	45 of 53	15.09
<b>Liquidity</b>			
Quick Ratio	0.61	33 of 53	37.74
Current Ratio	0.92	49 of 53	7.55
Receivables % Total Current Assets	54.19	11 of 53	79.25
Inventories % Total Current Assets	25.76	28 of 53	47.17
Accounts Receivables Days	89.70	21 of 53	60.38
Inventories (# of Days) Held	46.08	33 of 53	37.74

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Gross Profit Margin (%)

Countries	Value	Rank	Percentile	Region
China	32.27	1	97.96	Asia
Pakistan	31.72	2	95.92	the Middle East
Turkey	26.99	3	93.88	the Middle East
Mexico	26.91	4	91.84	Latin America
USA	22.87	6	87.76	North America
Thailand	20.30	7	85.71	Asia
the United Kingdom	19.29	8	83.67	Europe
Malaysia	18.93	9	81.63	Asia
Australia	18.30	10	79.59	Oceania
New Zealand	17.31	11	77.55	Oceania
Israel	17.26	12	75.51	the Middle East
Ireland	17.12	13	73.47	Europe
Philippines	17.06	14	71.43	Asia
Hong Kong	16.96	16	67.35	Asia
Denmark	16.87	17	65.31	Europe
Canada	15.60	19	61.22	North America
France	15.34	20	59.18	Europe
Peru	15.00	21	57.14	Latin America
Spain	14.86	22	55.10	Europe
Austria	14.75	23	53.06	Europe
Taiwan	14.27	25	48.98	Asia
Netherlands	13.67	26	46.94	Europe
South Korea	13.52	27	44.90	Asia
Greece	13.20	28	42.86	Europe
Japan	13.06	29	40.82	Asia
South Africa	12.54	30	38.78	Africa
Germany	11.82	31	36.73	Europe
Brazil	11.36	32	34.69	Latin America
Poland	10.82	34	30.61	Europe
Chile	10.81	35	28.57	Latin America
Finland	10.53	36	26.53	Europe
<b>Singapore</b>	<b>10.08</b>	<b>37</b>	<b>24.49</b>	<b>Asia</b>
Norway	9.10	38	22.45	Europe
Czech Republic	9.07	39	20.41	Europe
Argentina	8.45	40	18.37	Latin America
Sweden	6.51	41	16.33	Europe
Indonesia	5.56	42	14.29	Asia
Switzerland	5.17	44	10.20	Europe
Luxembourg	4.47	45	8.16	Europe
Belgium	3.61	47	4.08	Europe
Italy	3.49	48	2.04	Europe
Portugal	2.77	49	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Gross Profit Margin (%)**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value	Rank	Percentile
China	32.27	1	94.44
Thailand	20.30	2	88.89
Malaysia	18.93	3	83.33
Mongolia	18.11	4	77.78
Burma	17.12	5	72.22
Philippines	17.06	6	66.67
Hong Kong	16.96	7	61.11
North Korea	14.56	8	55.56
Taiwan	14.27	9	50.00
South Korea	13.52	10	44.44
Japan	13.06	11	38.89
Papua New Guinea	10.18	12	33.33
<b>Singapore</b>	<b>10.08</b>	<b>13</b>	<b>27.78</b>
Macau	8.32	14	22.22
Indonesia	5.56	15	16.67
Maldives	5.07	16	11.11
Brunei	4.67	17	5.56
Sri Lanka	4.00	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Pretax Margin (%)

Countries	Value	Rank	Percentile	Region
Turkey	18.94	1	98.11	the Middle East
Mexico	18.89	2	96.23	Latin America
Greece	15.27	4	92.45	Europe
Thailand	15.16	5	90.57	Asia
Indonesia	14.26	6	88.68	Asia
Australia	13.12	8	84.91	Oceana
Malaysia	12.27	10	81.13	Asia
Peru	11.20	12	77.36	Latin America
China	10.55	13	75.47	Asia
Pakistan	10.37	14	73.58	the Middle East
the United Kingdom	8.50	16	69.81	Europe
Netherlands	8.38	17	67.92	Europe
USA	7.98	19	64.15	North America
Israel	7.41	20	62.26	the Middle East
Ireland	7.35	21	60.38	Europe
Taiwan	6.12	22	58.49	Asia
South Korea	4.86	23	56.60	Asia
New Zealand	4.10	24	54.72	Oceana
Hong Kong	4.01	25	52.83	Asia
Spain	3.90	26	50.94	Europe
India	3.63	27	49.06	Asia
South Africa	3.49	28	47.17	Africa
Brazil	3.16	29	45.28	Latin America
Denmark	3.10	30	43.40	Europe
Chile	3.01	31	41.51	Latin America
Czech Republic	2.91	32	39.62	Europe
Finland	2.89	33	37.74	Europe
Austria	2.75	34	35.85	Europe
Argentina	2.71	35	33.96	Latin America
Sweden	2.51	36	32.08	Europe
Poland	2.30	37	30.19	Europe
Canada	2.17	38	28.30	North America
France	2.14	39	26.42	Europe
Portugal	1.66	40	24.53	Europe
Norway	1.65	41	22.64	Europe
Switzerland	1.57	42	20.75	Europe
<b>Singapore</b>	<b>1.38</b>	<b>43</b>	<b>18.87</b>	<b>Asia</b>
Luxembourg	1.36	44	16.98	Europe
Belgium	1.35	45	15.09	Europe
Italy	1.31	46	13.21	Europe
Germany	-0.05	47	11.32	Europe
Japan	-0.16	48	9.43	Asia
Hungary	-3.08	49	7.55	Europe
Russia	-3.42	50	5.66	Europe
Philippines	-4.37	53	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Pretax Margin (%)**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value	Rank	Percentile
Thailand	15.16	1	96.15
Indonesia	14.26	2	92.31
Mongolia	13.53	3	88.46
Maldives	13.00	4	84.62
Malaysia	12.27	5	80.77
North Korea	10.88	6	76.92
China	10.55	7	73.08
Sri Lanka	10.25	8	69.23
Papua New Guinea	7.60	9	65.38
Taiwan	6.12	10	61.54
South Korea	4.86	11	57.69
Hong Kong	4.01	12	53.85
India	3.63	13	50.00
Cambodia	2.75	14	46.15
Macau	2.67	15	42.31
Laos	2.65	16	38.46
Vietnam	2.41	17	34.62
Bangladesh	2.06	18	30.77
Bhutan	1.96	19	26.92
Nepal	1.76	20	23.08
Brunei	1.42	21	19.23
<b>Singapore</b>	<b>1.38</b>	<b>22</b>	<b>15.38</b>
Japan	-0.16	23	11.54
Seychelles	-3.20	24	7.69
Philippines	-4.37	25	3.85
Burma	-4.39	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Quick Ratio

Countries	Value	Rank	Percentile	Region
Turkey	2.06	1	98.11	the Middle East
Mexico	2.05	2	96.23	Latin America
Greece	1.32	4	92.45	Europe
Malaysia	1.28	5	90.57	Asia
Poland	1.18	6	88.68	Europe
Canada	1.15	7	86.79	North America
France	1.13	8	84.91	Europe
USA	1.06	9	83.02	North America
New Zealand	1.06	10	81.13	Oceania
Hong Kong	1.03	11	79.25	Asia
Spain	0.96	12	77.36	Europe
Thailand	0.94	14	73.58	Asia
Russia	0.93	15	71.70	Europe
South Korea	0.91	16	69.81	Asia
Switzerland	0.91	17	67.92	Europe
Denmark	0.88	18	66.04	Europe
Philippines	0.84	19	64.15	Asia
Hungary	0.83	20	62.26	Europe
Czech Republic	0.82	21	60.38	Europe
Germany	0.79	22	58.49	Europe
Luxembourg	0.78	24	54.72	Europe
Argentina	0.76	25	52.83	Latin America
Portugal	0.76	26	50.94	Europe
Netherlands	0.75	27	49.06	Europe
Norway	0.74	28	47.17	Europe
Peru	0.69	31	41.51	Latin America
Sweden	0.69	32	39.62	Europe
<b>Singapore</b>	<b>0.61</b>	<b>33</b>	<b>37.74</b>	<b>Asia</b>
Belgium	0.60	34	35.85	Europe
Japan	0.60	35	33.96	Asia
Italy	0.58	36	32.08	Europe
the United Kingdom	0.57	37	30.19	Europe
Finland	0.57	38	28.30	Europe
India	0.52	39	26.42	Asia
Australia	0.51	40	24.53	Oceania
South Africa	0.45	42	20.75	Africa
Brazil	0.41	43	18.87	Latin America
Chile	0.39	44	16.98	Latin America
China	0.38	45	15.09	Asia
Pakistan	0.38	46	13.21	the Middle East
Indonesia	0.36	47	11.32	Asia
Austria	0.35	48	9.43	Europe
Israel	0.29	50	5.66	the Middle East
Ireland	0.29	51	3.77	Europe
Taiwan	0.24	53	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Quick Ratio**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value	Rank	Percentile
Malaysia	1.28	1	96.15
Hong Kong	1.03	2	92.31
Thailand	0.94	3	88.46
South Korea	0.91	4	84.62
Seychelles	0.87	5	80.77
Burma	0.84	6	76.92
Philippines	0.84	7	73.08
Mongolia	0.84	8	69.23
Brunei	0.82	9	65.38
Macau	0.75	10	61.54
North Korea	0.67	11	57.69
<b>Singapore</b>	<b>0.61</b>	<b>12</b>	<b>53.85</b>
Japan	0.60	13	50.00
India	0.52	14	46.15
Papua New Guinea	0.47	15	42.31
Cambodia	0.39	16	38.46
China	0.38	17	34.62
Laos	0.38	18	30.77
Indonesia	0.36	19	26.92
Vietnam	0.34	20	23.08
Maldives	0.33	21	19.23
Bangladesh	0.30	22	15.38
Bhutan	0.28	23	11.54
Sri Lanka	0.26	24	7.69
Nepal	0.25	25	3.85
Taiwan	0.24	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Current Ratio

Countries	Value	Rank	Percentile	Region
USA	3.59	1	98.11	North America
Thailand	2.71	2	96.23	Asia
Turkey	2.58	3	94.34	the Middle East
Mexico	2.57	4	92.45	Latin America
the United Kingdom	2.06	8	84.91	Europe
Peru	2.00	9	83.02	Latin America
Israel	1.78	10	81.13	the Middle East
Ireland	1.77	11	79.25	Europe
Sweden	1.75	12	77.36	Europe
Greece	1.70	13	75.47	Europe
Malaysia	1.64	14	73.58	Asia
Canada	1.52	15	71.70	North America
France	1.49	16	69.81	Europe
India	1.48	18	66.04	Asia
Poland	1.47	19	64.15	Europe
Taiwan	1.47	20	62.26	Asia
Germany	1.45	21	60.38	Europe
South Korea	1.45	22	58.49	Asia
Finland	1.45	23	56.60	Europe
Switzerland	1.43	24	54.72	Europe
New Zealand	1.40	25	52.83	Oceania
Hong Kong	1.37	26	50.94	Asia
Philippines	1.27	27	49.06	Asia
Denmark	1.26	28	47.17	Europe
Luxembourg	1.24	29	45.28	Europe
Australia	1.23	30	43.40	Oceania
Russia	1.20	32	39.62	Europe
Portugal	1.15	33	37.74	Europe
Belgium	1.15	34	35.85	Europe
Czech Republic	1.13	35	33.96	Europe
China	1.11	36	32.08	Asia
Italy	1.11	37	30.19	Europe
Netherlands	1.10	38	28.30	Europe
Pakistan	1.09	39	26.42	the Middle East
Spain	1.08	40	24.53	Europe
Hungary	1.08	41	22.64	Europe
Japan	1.06	43	18.87	Asia
Argentina	1.06	44	16.98	Latin America
South Africa	1.05	45	15.09	Africa
Norway	1.03	46	13.21	Europe
Austria	1.00	47	11.32	Europe
Brazil	0.95	48	9.43	Latin America
<b>Singapore</b>	<b>0.92</b>	<b>49</b>	<b>7.55</b>	<b>Asia</b>
Chile	0.90	50	5.66	Latin America
Indonesia	0.50	51	3.77	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Current Ratio**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value	Rank	Percentile
Thailand	2.71	1	96.15
Mongolia	2.42	2	92.31
North Korea	1.95	3	88.46
Malaysia	1.64	4	84.62
India	1.48	5	80.77
Taiwan	1.47	6	76.92
South Korea	1.45	7	73.08
Hong Kong	1.37	8	69.23
Papua New Guinea	1.36	9	65.38
Brunei	1.29	10	61.54
Burma	1.27	11	57.69
Philippines	1.27	12	53.85
Cambodia	1.12	13	50.00
Seychelles	1.12	14	46.15
China	1.11	15	42.31
Laos	1.08	16	38.46
Japan	1.06	17	34.62
Macau	1.04	18	30.77
Vietnam	0.98	19	26.92
<b>Singapore</b>	<b>0.92</b>	<b>20</b>	<b>23.08</b>
Bangladesh	0.84	21	19.23
Bhutan	0.80	22	15.38
Nepal	0.72	23	11.54
Indonesia	0.50	24	7.69
Maldives	0.46	25	3.85
Sri Lanka	0.36	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Inventories % Total Current Assets

Countries	Value	Rank	Percentile	Region
Israel	78.24	1	98.11	the Middle East
Ireland	77.59	2	96.23	Europe
Taiwan	64.66	3	94.34	Asia
China	59.77	4	92.45	Asia
USA	59.36	5	90.57	North America
the United Kingdom	58.94	6	88.68	Europe
Pakistan	58.77	7	86.79	the Middle East
Austria	55.95	8	84.91	Europe
Finland	54.56	9	83.02	Europe
Australia	48.18	10	81.13	Oceania
Belgium	45.92	11	79.25	Europe
Italy	44.37	12	77.36	Europe
Sweden	42.59	13	75.47	Europe
India	42.22	14	73.58	Asia
Thailand	38.87	15	71.70	Asia
Germany	38.10	16	69.81	Europe
Japan	35.53	17	67.92	Asia
South Africa	34.72	18	66.04	Africa
Brazil	31.46	20	62.26	Latin America
Chile	29.93	22	58.49	Latin America
South Korea	29.58	23	56.60	Asia
Peru	28.72	24	54.72	Latin America
Denmark	27.74	25	52.83	Europe
New Zealand	26.76	26	50.94	Oceania
Hong Kong	26.22	27	49.06	Asia
<b>Singapore</b>	<b>25.76</b>	<b>28</b>	<b>47.17</b>	<b>Asia</b>
Netherlands	25.55	29	45.28	Europe
Canada	23.06	30	43.40	North America
Greece	22.97	31	41.51	Europe
France	22.68	32	39.62	Europe
Switzerland	22.67	33	37.74	Europe
Czech Republic	22.45	34	35.85	Europe
Indonesia	22.00	35	33.96	Asia
Argentina	20.91	37	30.19	Latin America
Portugal	20.36	39	26.42	Europe
Malaysia	19.71	40	24.53	Asia
Luxembourg	19.60	41	22.64	Europe
Norway	19.34	42	20.75	Europe
Philippines	16.54	43	18.87	Asia
Russia	13.87	47	11.32	Europe
Hungary	12.46	48	9.43	Europe
Poland	11.82	49	7.55	Europe
Spain	9.40	50	5.66	Europe
Turkey	7.55	51	3.77	the Middle East
Mexico	7.53	52	1.89	Latin America

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Inventories % Total Current Assets**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value	Rank	Percentile
Taiwan	64.66	1	96.15
China	59.77	2	92.31
India	42.22	3	88.46
Thailand	38.87	4	84.62
Japan	35.53	5	80.77
Mongolia	34.68	6	76.92
Cambodia	32.04	7	73.08
Laos	30.89	8	69.23
South Korea	29.58	9	65.38
Vietnam	28.03	10	61.54
North Korea	27.88	11	57.69
Hong Kong	26.22	12	53.85
<b>Singapore</b>	<b>25.76</b>	<b>13</b>	<b>50.00</b>
Bangladesh	24.03	14	46.15
Bhutan	22.88	15	42.31
Indonesia	22.00	16	38.46
Macau	20.60	17	34.62
Nepal	20.48	18	30.77
Brunei	20.47	19	26.92
Maldives	20.06	20	23.08
Malaysia	19.71	21	19.23
Papua New Guinea	19.49	22	15.38
Burma	16.59	23	11.54
Philippines	16.54	24	7.69
Sri Lanka	15.82	25	3.85
Seychelles	12.94	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Accounts Receivables Days

Countries	Value	Rank	Percentile	Region
Philippines	234.96	1	98.11	Asia
Spain	182.53	3	94.34	Europe
Portugal	170.39	4	92.45	Europe
Malaysia	160.94	5	90.57	Asia
Belgium	153.22	6	88.68	Europe
Canada	149.54	8	84.91	North America
Russia	149.15	9	83.02	Europe
Italy	148.04	10	81.13	Europe
France	147.06	11	79.25	Europe
New Zealand	134.66	12	77.36	Oceana
Austria	134.07	13	75.47	Europe
Hungary	134.00	14	73.58	Europe
Hong Kong	131.95	15	71.70	Asia
Greece	111.38	16	69.81	Europe
South Korea	105.11	17	67.92	Asia
China	101.77	18	66.04	Asia
Pakistan	100.06	19	64.15	the Middle East
Japan	94.93	20	62.26	Asia
<b>Singapore</b>	<b>89.70</b>	<b>21</b>	<b>60.38</b>	<b>Asia</b>
Poland	87.87	22	58.49	Europe
Thailand	85.41	23	56.60	Asia
Netherlands	83.86	24	54.72	Europe
Sweden	72.55	25	52.83	Europe
Denmark	70.24	27	49.06	Europe
India	67.91	28	47.17	Asia
Finland	64.48	30	43.40	Europe
Peru	63.11	31	41.51	Latin America
Switzerland	61.72	32	39.62	Europe
Norway	59.22	33	37.74	Europe
Luxembourg	53.38	34	35.85	Europe
Czech Republic	51.82	35	33.96	Europe
Germany	50.86	36	32.08	Europe
Argentina	48.27	37	30.19	Latin America
Australia	48.27	38	28.30	Oceana
USA	46.48	40	24.53	North America
the United Kingdom	43.81	41	22.64	Europe
Indonesia	41.85	42	20.75	Asia
Turkey	40.44	43	18.87	the Middle East
Mexico	40.33	44	16.98	Latin America
South Africa	20.43	48	9.43	Africa
Israel	20.05	49	7.55	the Middle East
Ireland	19.88	50	5.66	Europe
Brazil	18.51	51	3.77	Latin America
Chile	17.62	52	1.89	Latin America
Taiwan	16.57	53	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Accounts Receivables Days  
(General Building Contractors and Operative Builders)**

Countries in Asia	Value	Rank	Percentile
Burma	235.78	1	96.15
Philippines	234.96	2	92.31
Malaysia	160.94	3	88.46
Seychelles	139.18	4	84.62
Hong Kong	131.95	5	80.77
South Korea	105.11	6	76.92
China	101.77	7	73.08
Japan	94.93	8	69.23
<b>Singapore</b>	<b>89.70</b>	<b>9</b>	<b>65.38</b>
Thailand	85.41	10	61.54
Mongolia	76.20	11	57.69
India	67.91	12	53.85
North Korea	61.26	13	50.00
Brunei	55.74	14	46.15
Cambodia	51.53	15	42.31
Laos	49.69	16	38.46
Macau	47.56	17	34.62
Vietnam	45.09	18	30.77
Papua New Guinea	42.83	19	26.92
Indonesia	41.85	20	23.08
Bangladesh	38.65	21	19.23
Maldives	38.16	22	15.38
Bhutan	36.81	23	11.54
Nepal	32.94	24	7.69
Sri Lanka	30.10	25	3.85
Taiwan	16.57	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Inventories (# of Days) Held

Countries	Value	Rank	Percentile	Region
China	783.90	1	98.11	Asia
Pakistan	770.74	2	96.23	the Middle East
Austria	266.48	3	94.34	Europe
Israel	260.06	4	92.45	the Middle East
Ireland	257.91	5	90.57	Europe
Thailand	255.13	6	88.68	Asia
the United Kingdom	239.13	7	86.79	Europe
Taiwan	214.93	8	84.91	Asia
Canada	189.08	11	79.25	North America
Peru	188.51	12	77.36	Latin America
France	185.95	13	75.47	Europe
New Zealand	185.56	14	73.58	Oceania
Hong Kong	181.82	15	71.70	Asia
USA	176.77	16	69.81	North America
Finland	168.87	17	67.92	Europe
Sweden	146.96	18	66.04	Europe
Belgium	144.74	19	64.15	Europe
Italy	139.84	20	62.26	Europe
Japan	115.88	22	58.49	Asia
Germany	115.54	23	56.60	Europe
Malaysia	112.05	24	54.72	Asia
South Korea	84.72	25	52.83	Asia
Australia	78.66	26	50.94	Oceania
India	65.07	27	49.06	Asia
Philippines	62.46	28	47.17	Asia
Portugal	60.76	29	45.28	Europe
Greece	55.11	30	43.40	Europe
South Africa	48.16	32	39.62	Africa
<b>Singapore</b>	<b>46.08</b>	<b>33</b>	<b>37.74</b>	<b>Asia</b>
Brazil	43.63	34	35.85	Latin America
Chile	41.52	35	33.96	Latin America
Netherlands	38.95	36	32.08	Europe
Switzerland	32.31	37	30.19	Europe
Indonesia	30.55	38	28.30	Asia
Spain	30.34	39	26.42	Europe
Denmark	28.87	41	22.64	Europe
Russia	28.76	42	20.75	Europe
Poland	28.41	44	16.98	Europe
Norway	28.05	45	15.09	Europe
Luxembourg	27.94	46	13.21	Europe
Hungary	25.84	47	11.32	Europe
Czech Republic	23.48	48	9.43	Europe
Argentina	21.87	50	5.66	Latin America
Turkey	21.83	51	3.77	the Middle East
Mexico	21.77	52	1.89	Latin America

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Inventories (# of Days) Held**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value	Rank	Percentile
China	783.90	1	96.15
Thailand	255.13	2	92.31
Mongolia	227.61	3	88.46
Taiwan	214.93	4	84.62
North Korea	182.98	5	80.77
Hong Kong	181.82	6	76.92
Papua New Guinea	127.95	7	73.08
Japan	115.88	8	69.23
Malaysia	112.05	9	65.38
South Korea	84.72	10	61.54
India	65.07	11	57.69
Burma	62.68	12	53.85
Philippines	62.46	13	50.00
Cambodia	49.37	14	46.15
Laos	47.61	15	42.31
<b>Singapore</b>	<b>46.08</b>	<b>16</b>	<b>38.46</b>
Vietnam	43.20	17	34.62
Bangladesh	37.03	18	30.77
Bhutan	35.27	19	26.92
Nepal	31.56	20	23.08
Indonesia	30.55	21	19.23
Brunei	29.18	22	15.38
Maldives	27.86	23	11.54
Seychelles	26.84	24	7.69
Sri Lanka	21.97	25	3.85
Macau	21.55	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

## **3.6 PRODUCTIVITY IN SINGAPORE: ASSET-LABOR RATIOS**

### **3.6.1 Overview**

In this chapter, we consider numerous asset-labor ratios for general building contractors and operative builders in Singapore benchmarked against global averages. Productivity and utilization ratios are presented for companies operating in Singapore and the average global benchmarks for general building contractors and operative builders. For ratios where there are large deviations between Singapore and the benchmarks, graphics are provided (sometimes referred to as a “gap” analysis). Then the distribution of ratios is presented in the form of ranks and percentiles. Certain asset-labor ratios are highlighted across countries in the comparison group.

In the case of asset-labor ratios, this report maintains comparability over time and across countries by using a common currency (the US dollar) and relates each measure to a “per employee basis”. Ratios are projected using raw financial statistics and, as ratios, are therefore comparable. Given a country’s human resource ratios, the resulting figures are benchmarked across regional and global averages.

We then report the larger asset-labor ratio gaps for general building contractors and operative builders that Singapore has vis-à-vis the worldwide average. Again, a gap need not be a bad sign. Rather, it is simply a substantial difference that might merit further attention or signal a firm’s relative incentive to invest locally. All figures are projections, so due caution is required.

### 3.6.2 Asset to Labor: Outlook

The following tables and graphs are prepared using the methodology described at the beginning of this section. All units are in thousands of US dollars per employee. All figures are current-year projections for general building contractors and operative builders in Singapore based on latest financial results available.

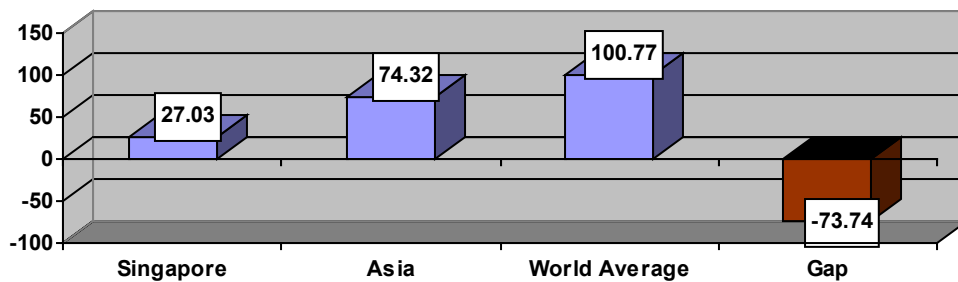
<b>Labor-asset Ratios (\$k/employee)</b>	<b>Singapore</b>	<b>Asia</b>	<b>World Avg.</b>
Cash & Short Term Investments	13.31	17.48	21.52
Cash	7.40	16.27	8.51
Short Term Investments	10.34	8.23	8.33
Receivables (Net)	44.75	35.28	30.50
Total Inventories	27.03	74.32	100.77
Work in Process	60.64	32.46	31.75
Progress Payments & Other	0.53	56.32	14.87
Prepaid Expenses	0.59	3.05	1.84
Other Current Assets	3.55	8.93	10.28
<b>Current Assets - Total</b>	<b>88.83</b>	<b>136.93</b>	<b>162.29</b>
Other Investments	0.17	21.38	7.04
Property Plant and Equipment - Net	91.75	44.69	36.51
Property Plant and Equipment - Gross	118.22	85.35	44.81
Buildings	10.30	21.54	18.86
Machinery & Equipment	25.97	16.21	9.10
Transportation Equipment	4.10	2.64	1.19
Other Property Plant & Equipment	2.89	16.86	13.74
Property Plant & Equipment Under Capitalized Leases	12.86	14.26	0.43
Accumulated Depreciation - Total	26.47	22.59	10.89
Accumulated Depreciation - Buildings	0.16	7.82	3.57
Accumulated Depreciation -Machinery & Equipment	19.51	7.42	4.07
Accumulated Depreciation - Transportation Equipment	2.53	1.29	0.70
Accumulated Depreciation - Other Prop & Equip	1.92	3.43	1.90
Accumulated Depreciation - PP&E Under Capitalized Leases	2.54	1.21	0.09
Other Assets	39.27	12.98	23.02
Intangible Other Assets	1.97	4.16	6.19
<b>Total Assets</b>	<b>219.90</b>	<b>219.88</b>	<b>236.60</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

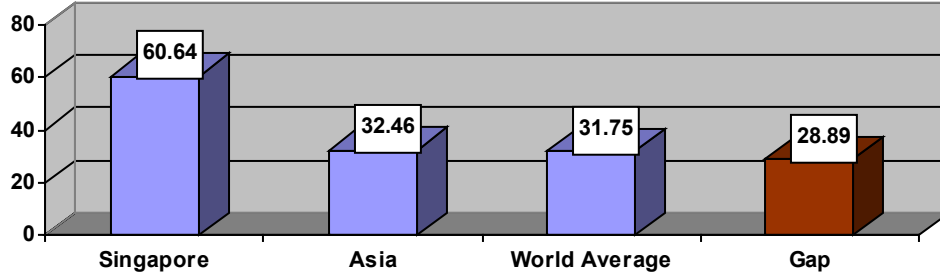
### 3.6.3 Asset to Labor: International Gaps

The following graphics summarize for general building contractors and operative builders the large labor-asset gaps between firms operating in Singapore and the world average. A gap cannot necessarily be interpreted as a positive or negative reflection on performance. Gaps may signal areas of specialization, market focus, or expertise. More contextual information is required to fully interpret these gaps. The gaps highlighted here are simply those that are large.

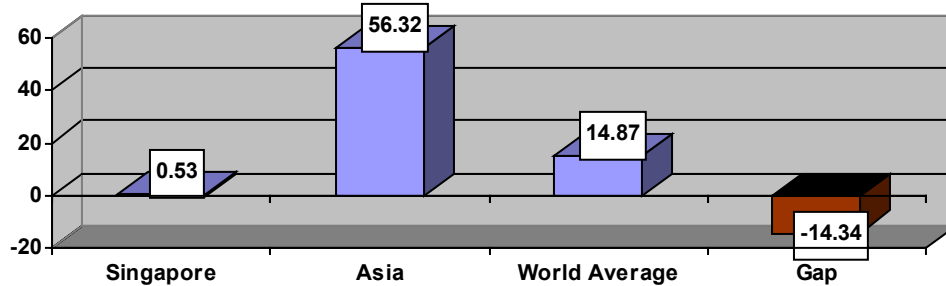
**Gap: Total Inventories (\$k/employee)**



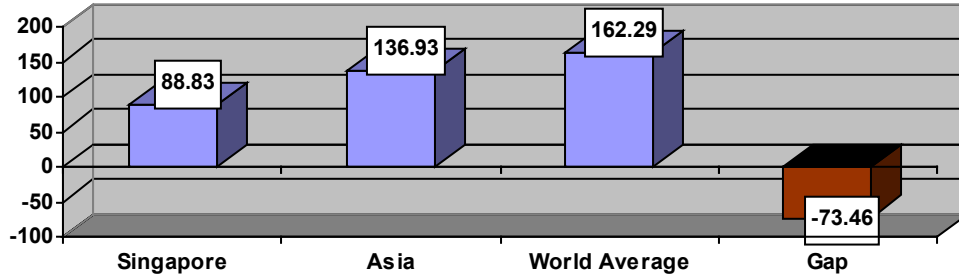
**Gap: Work in Process (\$k/employee)**



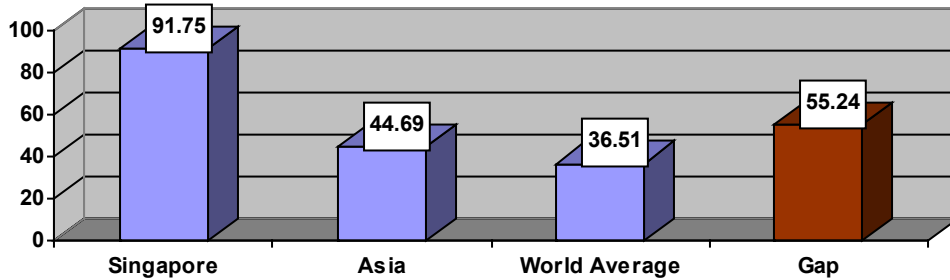
**Gap: Progress Payments & Other (\$k/employee)**



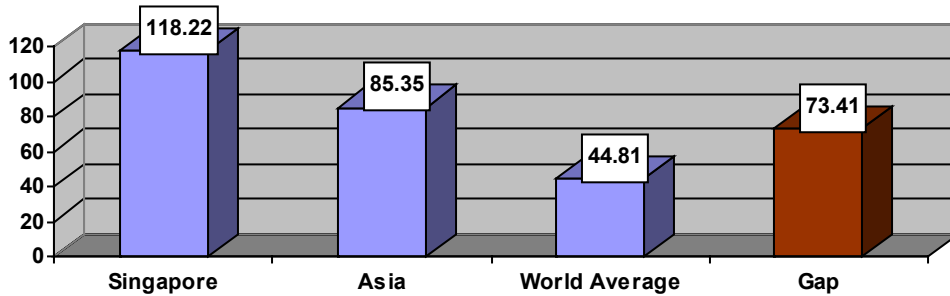
**Gap: Current Assets - Total (\$k/employee)**



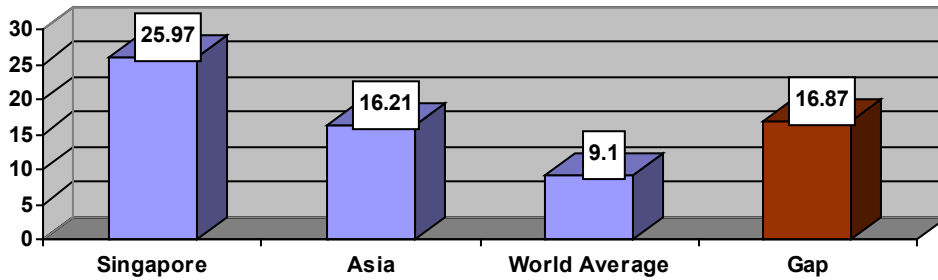
**Gap: Property Plant and Equipment - Net (\$k/employee)**



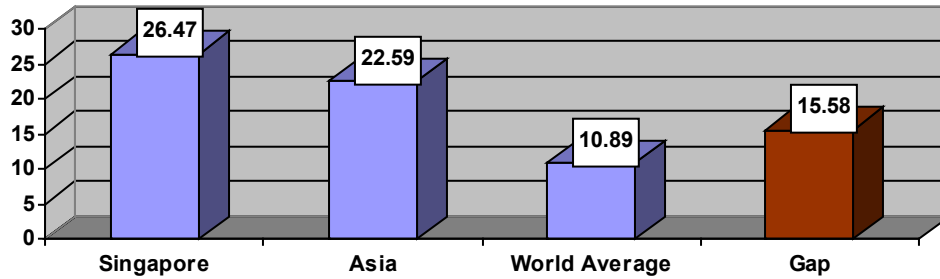
**Gap: Property Plant and Equipment - Gross (\$k/employee)**



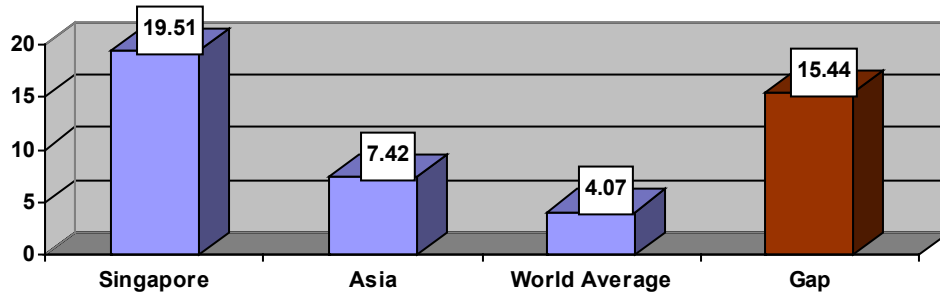
**Gap: Machinery & Equipment (\$k/employee)**



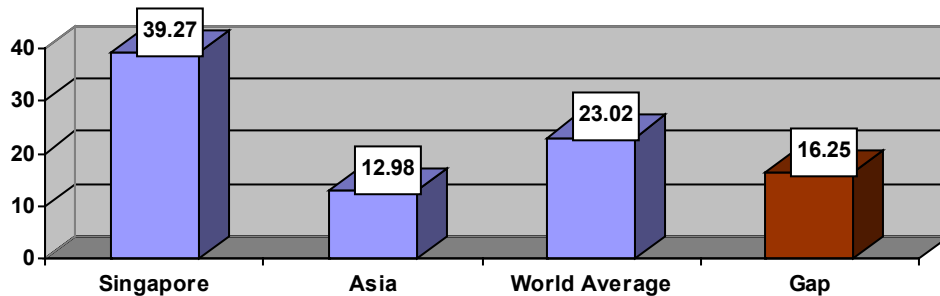
**Gap: Accumulated Depreciation - Total (\$k/employee)**



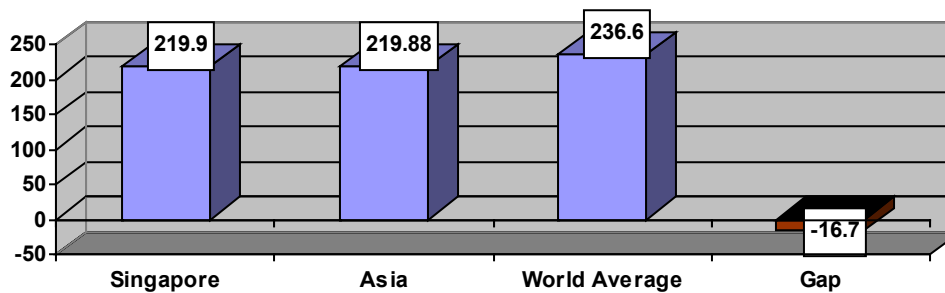
**Gap: Accumulated Depreciation -Machinery & Equipment (\$k/employee)**



**Gap: Other Assets (\$k/employee)**



**Gap: Total Assets (\$k/employee)**



### 3.6.4 Key Percentiles and Rankings

We now consider the distribution of asset-labor ratios using ranks and percentiles across . What percent of countries have a productivity indicator lower or higher than Singapore (what is the indicator's rank or percentile)? The table below answers this question with respect to asset-labor structure. The ranks and percentiles indicate, from highest to lowest, where a value falls within the distribution of all countries considered in the global benchmark (the number of countries in the benchmark per line item may vary, as indicated in the Rank). Again, a high or low figure does not necessarily indicate good or bad performance or productivity. After the summary table below, a few key asset-labor ratios are highlighted in additional tables.

Asset Structure (\$k/employee)	Singapore	Rank of Total	Percentile
Cash & Short Term Investments	13.31	31 of 53	41.51
Cash	7.40	30 of 48	37.50
Short Term Investments	10.34	13 of 40	67.50
Receivables (Net)	44.75	14 of 53	73.58
Total Inventories	27.03	29 of 53	45.28
Work in Process	60.64	14 of 47	70.21
Progress Payments & Other	0.53	32 of 47	31.91
Prepaid Expenses	0.59	14 of 29	51.72
Other Current Assets	3.55	30 of 48	37.50
<b>Current Assets - Total</b>	<b>88.83</b>	<b>30 of 53</b>	<b>43.40</b>
Other Investments	0.17	34 of 40	15.00
Property Plant and Equipment - Net	91.75	7 of 53	86.79
Property Plant and Equipment - Gross	118.22	6 of 48	87.50
Buildings	10.30	32 of 48	33.33
Machinery & Equipment	25.97	8 of 48	83.33
Transportation Equipment	4.10	10 of 32	68.75
Other Property Plant & Equipment	2.89	37 of 41	9.76
Property Plant & Equipment Under Capitalized Leases	12.86	4 of 15	73.33
Accumulated Depreciation - Total	26.47	13 of 48	72.92
Accumulated Depreciation - Buildings	0.16	41 of 45	8.89
Accumulated Depreciation -Machinery & Equipment	19.51	8 of 48	83.33
Accumulated Depreciation - Transportation Equipment	2.53	8 of 31	74.19
Accumulated Depreciation - Other Prop & Equip	1.92	27 of 40	32.50
Accumulated Depreciation - P P & E Under Capitalized Leases	2.54	1 of 14	92.86
Other Assets	39.27	9 of 53	83.02
Intangible Other Assets	1.97	27 of 47	42.55
<b>Total Assets</b>	<b>219.90</b>	<b>27 of 53</b>	<b>49.06</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Cash & Short Term Investments

Countries	Value (\$K/employee)	Rank	Percentile	Region
South Korea	119.33	1	98.11	Asia
Japan	70.88	2	96.23	Asia
Canada	54.06	3	94.34	North America
France	53.16	4	92.45	Europe
China	40.69	5	90.57	Asia
Pakistan	40.00	6	88.68	the Middle East
USA	39.93	7	86.79	North America
the United Kingdom	35.88	8	84.91	Europe
Israel	31.33	9	83.02	the Middle East
Ireland	31.07	10	81.13	Europe
Malaysia	30.55	11	79.25	Asia
Spain	30.46	12	77.36	Europe
Greece	29.25	13	75.47	Europe
Turkey	29.21	14	73.58	the Middle East
Mexico	29.13	15	71.70	Latin America
Taiwan	25.89	17	67.92	Asia
Germany	25.12	18	66.04	Europe
New Zealand	21.11	19	64.15	Oceania
Thailand	20.79	20	62.26	Asia
Hong Kong	20.69	21	60.38	Asia
Norway	19.94	22	58.49	Europe
Switzerland	17.29	24	54.72	Europe
Sweden	16.14	25	52.83	Europe
Peru	15.36	27	49.06	Latin America
Luxembourg	14.95	28	47.17	Europe
Belgium	14.55	29	45.28	Europe
Italy	14.05	30	43.40	Europe
<b>Singapore</b>	<b>13.31</b>	<b>31</b>	<b>41.51</b>	<b>Asia</b>
Australia	12.88	32	39.62	Oceania
Denmark	11.20	34	35.85	Europe
Czech Republic	9.38	35	33.96	Europe
Argentina	8.74	36	32.08	Latin America
Netherlands	8.51	37	30.19	Europe
Poland	8.34	38	28.30	Europe
Finland	7.99	39	26.42	Europe
Portugal	6.72	40	24.53	Europe
Austria	6.15	41	22.64	Europe
Indonesia	5.53	42	20.75	Asia
India	5.17	44	16.98	Asia
South Africa	2.40	46	13.21	Africa
Brazil	2.17	47	11.32	Latin America
Chile	2.07	48	9.43	Latin America
Philippines	2.01	49	7.55	Asia
Russia	1.20	52	1.89	Europe
Hungary	1.08	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Cash & Short Term Investments**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	119.33	1	96.15
Japan	70.88	2	92.31
China	40.69	3	88.46
Malaysia	30.55	4	84.62
Taiwan	25.89	5	80.77
Thailand	20.79	6	76.92
Hong Kong	20.69	7	73.08
Mongolia	18.55	8	69.23
Brunei	15.61	9	65.38
North Korea	14.91	10	61.54
<b>Singapore</b>	<b>13.31</b>	<b>11</b>	<b>57.69</b>
Papua New Guinea	10.43	12	53.85
Macau	8.61	13	50.00
Indonesia	5.53	14	46.15
India	5.17	15	42.31
Maldives	5.04	16	38.46
Sri Lanka	3.97	17	34.62
Cambodia	3.93	18	30.77
Laos	3.79	19	26.92
Vietnam	3.44	20	23.08
Bangladesh	2.94	21	19.23
Bhutan	2.80	22	15.38
Nepal	2.51	23	11.54
Burma	2.02	24	7.69
Philippines	2.01	25	3.85
Seychelles	1.12	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Receivables (Net)

Countries	Value (\$K/employee)	Rank	Percentile	Region
South Korea	266.35	1	98.11	Asia
Japan	187.18	2	96.23	Asia
Spain	174.07	3	94.34	Europe
Canada	136.99	4	92.45	North America
France	134.72	5	90.57	Europe
Australia	114.28	6	88.68	Oceania
Portugal	113.48	7	86.79	Europe
Belgium	99.81	8	84.91	Europe
Italy	96.43	9	83.02	Europe
Malaysia	83.75	10	81.13	Asia
Austria	58.57	11	79.25	Europe
USA	54.35	12	77.36	North America
the United Kingdom	46.75	13	75.47	Europe
<b>Singapore</b>	<b>44.75</b>	<b>14</b>	<b>73.58</b>	<b>Asia</b>
Sweden	42.39	15	71.70	Europe
Norway	41.63	16	69.81	Europe
Switzerland	40.58	17	67.92	Europe
New Zealand	40.21	18	66.04	Oceania
Greece	39.94	19	64.15	Europe
Hong Kong	39.40	20	62.26	Asia
Luxembourg	35.10	21	60.38	Europe
Germany	33.35	22	58.49	Europe
Netherlands	33.16	23	56.60	Europe
Finland	33.14	24	54.72	Europe
Denmark	29.64	25	52.83	Europe
Thailand	28.52	26	50.94	Asia
China	25.72	27	49.06	Asia
Czech Republic	25.40	28	47.17	Europe
Pakistan	25.29	29	45.28	the Middle East
Israel	24.60	30	43.40	the Middle East
Ireland	24.40	31	41.51	Europe
Argentina	23.66	33	37.74	Latin America
Peru	21.07	35	33.96	Latin America
Taiwan	20.33	36	32.08	Asia
Poland	15.90	37	30.19	Europe
Philippines	15.29	39	26.42	Asia
India	11.33	41	22.64	Asia
Turkey	9.45	42	20.75	the Middle East
Mexico	9.42	43	18.87	Latin America
Russia	8.40	46	13.21	Europe
Hungary	7.54	47	11.32	Europe
South Africa	4.08	48	9.43	Africa
Brazil	3.70	49	7.55	Latin America
Chile	3.52	50	5.66	Latin America
Indonesia	3.39	51	3.77	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Receivables (Net)**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	266.35	1	96.15
Japan	187.18	2	92.31
Malaysia	83.75	3	88.46
<b>Singapore</b>	<b>44.75</b>	<b>4</b>	<b>84.62</b>
Hong Kong	39.40	5	80.77
Brunei	36.65	6	76.92
Thailand	28.52	7	73.08
China	25.72	8	69.23
Mongolia	25.44	9	65.38
Macau	23.31	10	61.54
North Korea	20.45	11	57.69
Taiwan	20.33	12	53.85
Burma	15.34	13	50.00
Philippines	15.29	14	46.15
Papua New Guinea	14.30	15	42.31
India	11.33	16	38.46
Cambodia	8.60	17	34.62
Laos	8.29	18	30.77
Seychelles	7.84	19	26.92
Vietnam	7.52	20	23.08
Bangladesh	6.45	21	19.23
Bhutan	6.14	22	15.38
Nepal	5.50	23	11.54
Indonesia	3.39	24	7.69
Maldives	3.09	25	3.85
Sri Lanka	2.44	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Total Inventories

Countries	Value (\$K/employee)	Rank	Percentile	Region
USA	325.56	1	98.11	North America
the United Kingdom	306.22	2	96.23	Europe
Thailand	277.26	3	94.34	Asia
Israel	267.11	4	92.45	the Middle East
Ireland	264.91	5	90.57	Europe
China	228.92	7	86.79	Asia
Pakistan	225.07	8	84.91	the Middle East
Taiwan	220.76	9	83.02	Asia
Peru	204.87	11	79.25	Latin America
Japan	190.49	12	77.36	Asia
South Korea	184.58	13	75.47	Asia
Australia	156.75	14	73.58	Oceania
Austria	104.23	16	69.81	Europe
Sweden	100.57	17	67.92	Europe
Belgium	95.24	18	66.04	Europe
Canada	92.63	19	64.15	North America
Italy	92.01	20	62.26	Europe
France	91.09	21	60.38	Europe
Finland	80.21	22	58.49	Europe
Greece	78.25	23	56.60	Europe
New Zealand	42.35	24	54.72	Oceania
Hong Kong	41.50	25	52.83	Asia
Germany	39.68	26	50.94	Europe
Malaysia	38.51	27	49.06	Asia
Portugal	36.47	28	47.17	Europe
<b>Singapore</b>	<b>27.03</b>	<b>29</b>	<b>45.28</b>	<b>Asia</b>
Switzerland	22.68	30	43.40	Europe
Netherlands	22.44	31	41.51	Europe
Spain	21.17	32	39.62	Europe
India	19.86	33	37.74	Asia
Luxembourg	19.62	34	35.85	Europe
Denmark	16.79	35	33.96	Europe
Norway	14.12	36	32.08	Europe
Czech Republic	9.09	37	30.19	Europe
Argentina	8.47	38	28.30	Latin America
South Africa	5.29	39	26.42	Africa
Brazil	4.79	40	24.53	Latin America
Chile	4.56	41	22.64	Latin America
Turkey	3.66	42	20.75	the Middle East
Mexico	3.65	43	18.87	Latin America
Poland	3.57	44	16.98	Europe
Philippines	2.98	46	13.21	Asia
Indonesia	2.72	47	11.32	Asia
Russia	1.76	52	1.89	Europe
Hungary	1.58	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Total Inventories**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
Thailand	277.26	1	96.15
Mongolia	247.36	2	92.31
China	228.92	3	88.46
Taiwan	220.76	4	84.62
North Korea	198.86	5	80.77
Japan	190.49	6	76.92
South Korea	184.58	7	73.08
Papua New Guinea	139.05	8	69.23
Hong Kong	41.50	9	65.38
Malaysia	38.51	10	61.54
<b>Singapore</b>	<b>27.03</b>	<b>11</b>	<b>57.69</b>
Brunei	20.48	12	53.85
India	19.86	13	50.00
Cambodia	15.07	14	46.15
Laos	14.53	15	42.31
Vietnam	13.19	16	38.46
Bangladesh	11.30	17	34.62
Bhutan	10.77	18	30.77
Nepal	9.63	19	26.92
Macau	8.34	20	23.08
Burma	2.99	21	19.23
Philippines	2.98	22	15.38
Indonesia	2.72	23	11.54
Maldives	2.48	24	7.69
Sri Lanka	1.96	25	3.85
Seychelles	1.64	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Current Assets - Total

Countries	Value (\$K/employee)	Rank	Percentile	Region
South Korea	626.96	1	98.11	Asia
Japan	499.10	2	96.23	Asia
USA	424.80	3	94.34	North America
the United Kingdom	386.79	4	92.45	Europe
Israel	344.26	5	90.57	the Middle East
Ireland	341.41	6	88.68	Europe
Thailand	332.17	7	86.79	Asia
China	310.36	8	84.91	Asia
Pakistan	305.15	9	83.02	the Middle East
Canada	286.01	10	81.13	North America
Taiwan	284.51	11	79.25	Asia
France	281.27	12	77.36	Europe
Peru	245.44	15	71.70	Latin America
Spain	229.14	16	69.81	Europe
Belgium	210.36	17	67.92	Europe
Italy	203.24	18	66.04	Europe
Austria	186.31	19	64.15	Europe
Portugal	182.30	20	62.26	Europe
Sweden	174.65	22	58.49	Europe
Malaysia	153.98	23	56.60	Asia
Greece	148.96	24	54.72	Europe
Finland	127.38	25	52.83	Europe
Germany	103.93	26	50.94	Europe
New Zealand	103.70	27	49.06	Oceania
Hong Kong	101.62	28	47.17	Asia
Switzerland	89.27	29	45.28	Europe
<b>Singapore</b>	<b>88.83</b>	<b>30</b>	<b>43.40</b>	<b>Asia</b>
Norway	85.12	31	41.51	Europe
Luxembourg	77.20	32	39.62	Europe
Netherlands	66.13	33	37.74	Europe
Denmark	58.86	34	35.85	Europe
Turkey	48.43	35	33.96	the Middle East
Mexico	48.30	36	32.08	Latin America
Czech Republic	47.45	37	30.19	Europe
India	47.04	38	28.30	Asia
Argentina	44.20	40	24.53	Latin America
Philippines	34.84	41	22.64	Asia
Poland	30.24	42	20.75	Europe
Australia	28.54	44	16.98	Oceania
South Africa	16.22	45	15.09	Africa
Brazil	14.69	46	13.21	Latin America
Chile	13.98	47	11.32	Latin America
Russia	12.42	49	7.55	Europe
Indonesia	12.37	50	5.66	Asia
Hungary	11.16	52	1.89	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Current Assets - Total**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	626.96	1	96.15
Japan	499.10	2	92.31
Thailand	332.17	3	88.46
China	310.36	4	84.62
Mongolia	296.34	5	80.77
Taiwan	284.51	6	76.92
North Korea	238.24	7	73.08
Papua New Guinea	166.59	8	69.23
Malaysia	153.98	9	65.38
Hong Kong	101.62	10	61.54
<b>Singapore</b>	<b>88.83</b>	<b>11</b>	<b>57.69</b>
Brunei	80.61	12	53.85
India	47.04	13	50.00
Macau	43.55	14	46.15
Cambodia	35.70	15	42.31
Burma	34.97	16	38.46
Philippines	34.84	17	34.62
Laos	34.42	18	30.77
Vietnam	31.23	19	26.92
Bangladesh	26.77	20	23.08
Bhutan	25.50	21	19.23
Nepal	22.82	22	15.38
Indonesia	12.37	23	11.54
Seychelles	11.59	24	7.69
Maldives	11.28	25	3.85
Sri Lanka	8.89	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Property Plant and Equipment - Net

Countries	Value (\$K/employee)	Rank	Percentile	Region
Australia	392.16	1	98.11	Oceania
Netherlands	320.65	2	96.23	Europe
South Korea	233.44	3	94.34	Asia
Japan	148.21	4	92.45	Asia
New Zealand	98.51	5	90.57	Oceania
Hong Kong	96.53	6	88.68	Asia
<b>Singapore</b>	<b>91.75</b>	<b>7</b>	<b>86.79</b>	<b>Asia</b>
Indonesia	69.17	8	84.91	Asia
Malaysia	69.12	9	83.02	Europe
Portugal	67.62	10	81.13	Europe
Austria	66.39	11	79.25	Europe
China	55.02	13	75.47	Asia
Pakistan	54.09	14	73.58	the Middle East
Switzerland	38.40	16	69.81	Europe
Germany	38.26	17	67.92	Europe
Denmark	33.64	18	66.04	Europe
Luxembourg	33.21	19	64.15	Europe
Norway	31.06	20	62.26	Europe
Thailand	29.90	21	60.38	Asia
Belgium	29.17	22	58.49	Europe
Italy	28.18	23	56.60	Europe
Canada	25.83	24	54.72	North America
Sweden	25.79	25	52.83	Europe
France	25.41	26	50.94	Europe
Philippines	25.38	27	49.06	Asia
Greece	25.21	28	47.17	Europe
the United Kingdom	24.92	30	43.40	Europe
Czech Republic	23.72	31	41.51	Europe
Spain	22.62	33	37.74	Europe
Argentina	22.10	34	35.85	Latin America
Peru	22.09	35	33.96	Latin America
Israel	20.57	37	30.19	the Middle East
Ireland	20.40	38	28.30	Europe
Turkey	19.24	39	26.42	the Middle East
Mexico	19.19	40	24.53	Latin America
Taiwan	17.00	42	20.75	Asia
USA	15.98	44	16.98	North America
India	13.07	45	15.09	Asia
Finland	10.83	46	13.21	Europe
Russia	6.94	48	9.43	Europe
Poland	6.36	49	7.55	Europe
Hungary	6.24	50	5.66	Europe
South Africa	5.80	51	3.77	Africa
Brazil	5.26	52	1.89	Latin America
Chile	5.00	53	0.00	Latin America

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Property Plant and Equipment - Net**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	233.44	1	96.15
Japan	148.21	2	92.31
Hong Kong	96.53	3	88.46
<b>Singapore</b>	<b>91.75</b>	<b>4</b>	<b>84.62</b>
Indonesia	69.17	5	80.77
Malaysia	69.12	6	76.92
Maldives	63.06	7	73.08
China	55.02	8	69.23
Sri Lanka	49.74	9	65.38
Brunei	34.68	10	61.54
Thailand	29.90	11	57.69
Mongolia	26.68	12	53.85
Burma	25.47	13	50.00
Philippines	25.38	14	46.15
Macau	21.77	15	42.31
North Korea	21.45	16	38.46
Taiwan	17.00	17	34.62
Papua New Guinea	15.00	18	30.77
India	13.07	19	26.92
Cambodia	9.91	20	23.08
Laos	9.56	21	19.23
Vietnam	8.68	22	15.38
Bangladesh	7.44	23	11.54
Bhutan	7.08	24	7.69
Seychelles	6.48	25	3.85
Nepal	6.34	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Accumulated Depreciation - Total

Countries	Value (\$K/employee)	Rank	Percentile	Region
Portugal	70.15	1	97.92	Europe
Japan	61.81	2	95.83	Asia
South Korea	58.64	3	93.75	Asia
Belgium	56.04	4	91.67	Europe
Italy	54.14	5	89.58	Europe
Germany	47.53	6	87.50	Europe
Austria	37.42	7	85.42	Europe
Philippines	34.60	8	83.33	Asia
Switzerland	30.92	9	81.25	Europe
Thailand	27.78	11	77.08	Asia
Luxembourg	26.74	12	75.00	Europe
<b>Singapore</b>	<b>26.47</b>	<b>13</b>	<b>72.92</b>	<b>Asia</b>
Canada	24.71	14	70.83	North America
Netherlands	24.65	15	68.75	Europe
France	24.30	16	66.67	Europe
Norway	23.77	17	64.58	Europe
Turkey	20.84	20	58.33	the Middle East
Mexico	20.79	21	56.25	Latin America
Peru	20.53	22	54.17	Latin America
Spain	20.49	23	52.08	Europe
Denmark	20.12	24	50.00	Europe
New Zealand	17.09	26	45.83	Oceania
Hong Kong	16.75	27	43.75	Asia
Malaysia	16.58	28	41.67	Asia
Sweden	15.07	30	37.50	Europe
Finland	13.27	31	35.42	Europe
Greece	12.75	32	33.33	Europe
Czech Republic	12.06	33	31.25	Europe
USA	11.33	34	29.17	North America
Argentina	11.23	35	27.08	Latin America
the United Kingdom	10.39	36	25.00	Europe
Australia	9.26	37	22.92	Oceania
Indonesia	7.85	38	20.83	Asia
South Africa	6.62	40	16.67	Africa
China	6.38	41	14.58	Asia
Pakistan	6.27	42	12.50	the Middle East
Brazil	6.00	43	10.42	Latin America
Chile	5.71	44	8.33	Latin America
Israel	5.54	46	4.17	the Middle East
Ireland	5.50	47	2.08	Europe
Taiwan	4.58	48	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Accumulated Depreciation - Total**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
Japan	61.81	1	94.44
South Korea	58.64	2	88.89
Burma	34.72	3	83.33
Philippines	34.60	4	77.78
Brunei	27.92	5	72.22
Thailand	27.78	6	66.67
<b>Singapore</b>	<b>26.47</b>	<b>7</b>	<b>61.11</b>
Mongolia	24.79	8	55.56
North Korea	19.93	9	50.00
Hong Kong	16.75	10	44.44
Malaysia	16.58	11	38.89
Papua New Guinea	13.93	12	33.33
Macau	11.07	13	27.78
Indonesia	7.85	14	22.22
Maldives	7.16	15	16.67
China	6.38	16	11.11
Sri Lanka	5.64	17	5.56
Taiwan	4.58	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Intangible Other Assets

Countries	Value (\$K/employee)	Rank	Percentile	Region
South Korea	62.86	1	97.87	Asia
USA	34.08	2	95.74	North America
Australia	33.21	3	93.62	Oceania
Canada	22.62	4	91.49	North America
Israel	22.51	5	89.36	the Middle East
Ireland	22.32	6	87.23	Europe
France	22.25	7	85.11	Europe
Taiwan	18.60	8	82.98	Asia
Portugal	14.60	9	80.85	Europe
Finland	13.13	10	78.72	Europe
Greece	12.61	11	76.60	Europe
China	9.09	12	74.47	Asia
Pakistan	8.93	13	72.34	the Middle East
the United Kingdom	8.61	14	70.21	Europe
Norway	7.24	15	68.09	Europe
Belgium	5.20	16	65.96	Europe
Italy	5.03	17	63.83	Europe
Spain	4.70	18	61.70	Europe
Malaysia	4.36	19	59.57	Asia
Sweden	4.35	20	57.45	Europe
Netherlands	4.22	21	55.32	Europe
Japan	4.08	22	53.19	Asia
Germany	2.67	23	51.06	Europe
South Africa	2.16	24	48.94	Africa
Denmark	2.08	25	46.81	Europe
Indonesia	2.00	26	44.68	Asia
<b>Singapore</b>	<b>1.97</b>	<b>27</b>	<b>42.55</b>	<b>Asia</b>
Brazil	1.95	28	40.43	Latin America
Chile	1.86	30	36.17	Latin America
Turkey	1.41	32	31.91	the Middle East
Mexico	1.40	33	29.79	Latin America
Switzerland	1.21	35	25.53	Europe
Luxembourg	1.04	36	23.40	Europe
Austria	0.80	37	21.28	Europe
New Zealand	0.77	38	19.15	Oceania
Hong Kong	0.75	39	17.02	Asia
Philippines	0.37	40	14.89	Asia
Poland	0.16	42	10.64	Europe
Russia	0.11	44	6.38	Europe
Hungary	0.10	45	4.26	Europe
Argentina	-0.88	46	2.13	Latin America
Czech Republic	-0.94	47	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Intangible Other Assets  
(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	62.86	1	93.33
Taiwan	18.60	2	86.67
China	9.09	3	80.00
Malaysia	4.36	4	73.33
Japan	4.08	5	66.67
Indonesia	2.00	6	60.00
<b>Singapore</b>	<b>1.97</b>	<b>7</b>	<b>53.33</b>
Maldives	1.82	8	46.67
Sri Lanka	1.44	9	40.00
Brunei	1.09	10	33.33
Hong Kong	0.75	11	26.67
Burma	0.37	12	20.00
Philippines	0.37	13	13.33
Seychelles	0.10	14	6.67
Macau	-0.86	15	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

## **3.7 PRODUCTIVITY IN SINGAPORE: LIABILITY-LABOR RATIOS**

### **3.7.1 Overview**

In this chapter we consider the liability-labor ratios of companies operating in Singapore benchmarked against global averages for general building contractors and operative builders. For ratios where there are large deviations between Singapore and the benchmarks, graphics are provided (sometimes referred to as a “gap” analysis). Then the distribution of productivity ratios is presented in the form of ranks and percentiles. Certain key liability-labor ratios are highlighted for general building contractors and operative builders across countries in the comparison group. Definitions of liability statement terms are given in Chapter 3.

In the case of liability-labor ratios, this report maintains comparability over time and across countries by using a common currency (the US dollar) and relates each measure to a “per employee basis”. Ratios are projected using raw financial statistics and, as ratios, are therefore comparable. Given a country’s human resource ratios, the resulting figures are benchmarked across regional and global averages.

I then report the larger liability-labor ratio gaps for general building contractors and operative builders that Singapore has vis-à-vis the worldwide average. Again, a gap need not be a bad sign. Rather, it is simply a substantial difference that might merit further attention or signal a firm’s relative incentive to invest locally. All figures are projections, so due caution is required.

### 3.7.2 Liability to Labor: Outlook

The following tables and graphs are prepared using the methodology described at the beginning of this section. All units are in thousands of US dollars per employee. All figures are current-year projections for general building contractors and operative builders in Singapore based on latest financial results available.

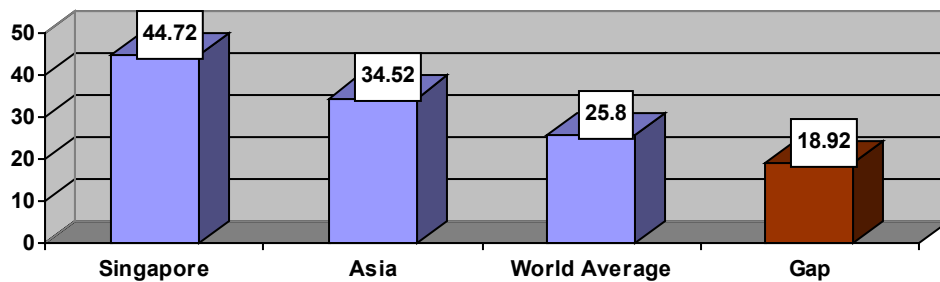
<b>Labor-liability Ratios (\$k/employee)</b>	<b>Singapore</b>	<b>Asia</b>	<b>World Avg.</b>
Accounts Payable	44.72	34.52	25.80
Short Term Debt & Current Portion of Long Term Debt	38.83	30.05	40.17
Income Taxes Payable	3.83	4.85	2.45
Other Current Liabilities	11.95	33.31	48.63
<b>Current Liabilities - Total</b>	<b>96.78</b>	<b>87.12</b>	<b>114.34</b>
Long Term Debt	47.53	34.62	34.47
Long Term Debt Excluding Capitalized Leases	46.93	34.28	34.16
Capitalized Lease Obligations	0.61	0.34	0.32
Deferred Taxes	0.80	0.12	0.31
Deferred Taxes - Credit	1.33	2.04	1.03
Deferred Taxes - Debit	0.69	4.69	1.62
Other Liabilities	0.52	9.01	8.95
<b>Total Liabilities</b>	<b>145.63</b>	<b>132.71</b>	<b>159.68</b>
Non-Equity Reserves	0.34	0.09	0.11
Minority Interest	7.23	3.74	4.12
Common Equity	66.70	83.19	72.49
Common Stock	17.89	39.12	17.99
Capital Surplus	7.09	45.40	23.09
Other Appropriated Reserves	20.97	9.59	9.75
Unappropriated Reserves	6.94	2.57	3.26
Retained Earnings	12.09	41.88	21.19
Unrealized Foreign Exchange Gain/Loss	0.02	-0.60	-0.14
<b>Total Liabilities &amp; Shareholders Equity</b>	<b>219.90</b>	<b>219.88</b>	<b>236.60</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

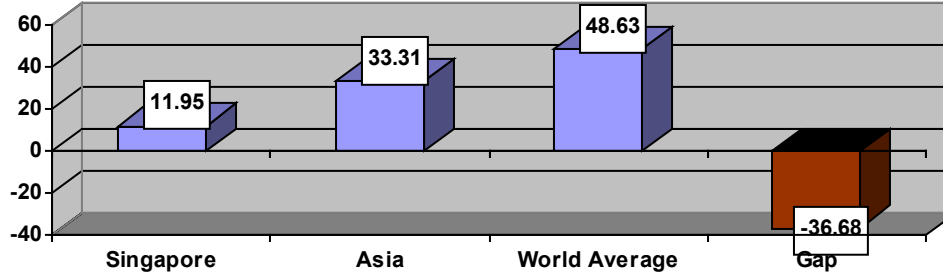
### 3.7.3 Liability and Equity to Labor: International Gaps

The following graphics summarize for general building contractors and operative builders the large labor-liability gaps between firms operating in Singapore and the world average. A gap cannot necessarily be interpreted as a positive or negative reflection on performance. Gaps may signal areas of specialization, market focus, or expertise. More contextual information is required to fully interpret these gaps. The gaps highlighted here are simply those that are large.

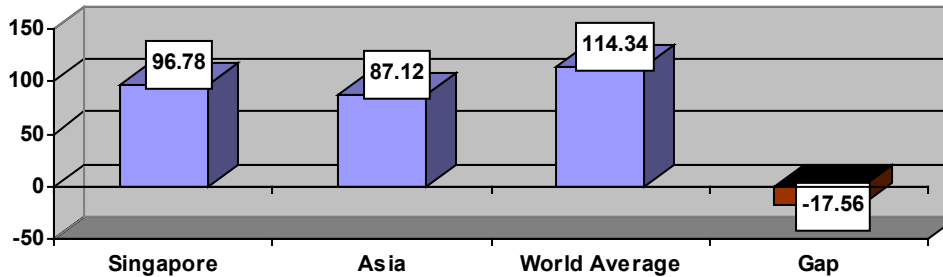
**Gap: Accounts Payable (\$k/employee)**



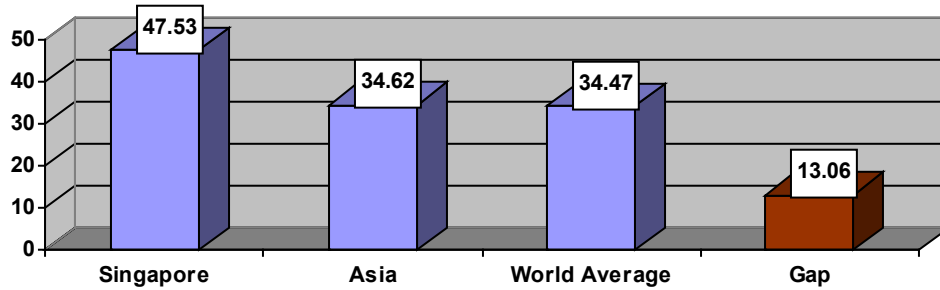
**Gap: Other Current Liabilities (\$k/employee)**



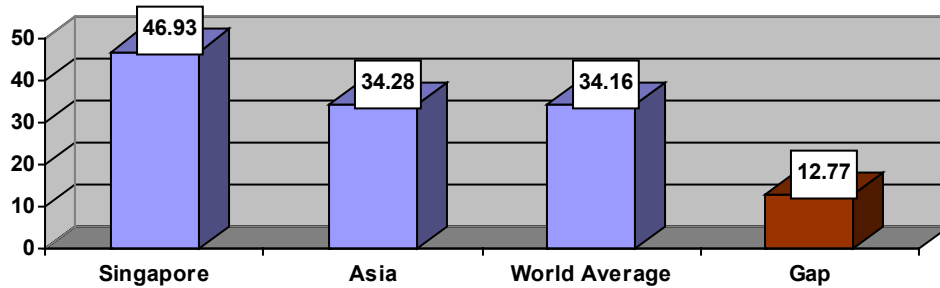
**Gap: Current Liabilities - Total (\$k/employee)**



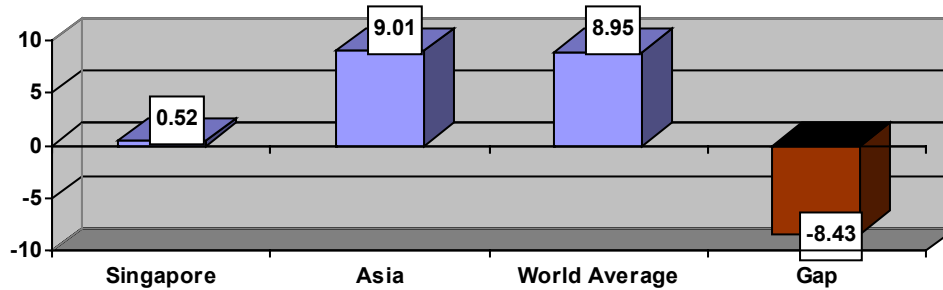
**Gap: Long Term Debt (\$k/employee)**



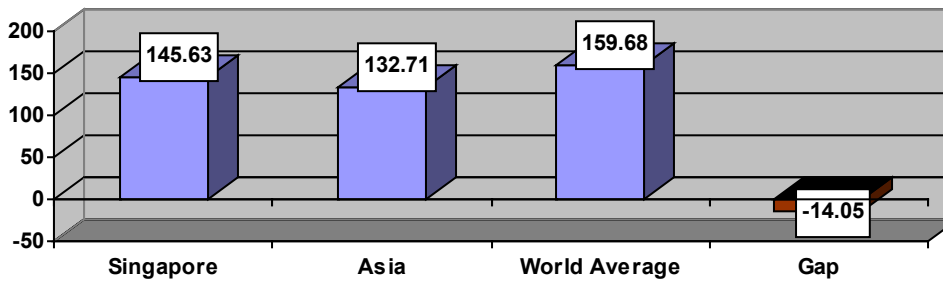
**Gap: Long Term Debt Excluding Capitalized Leases (\$k/employee)**



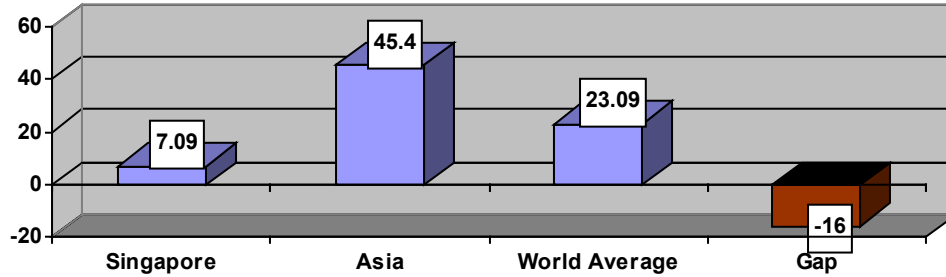
**Gap: Other Liabilities (\$k/employee)**



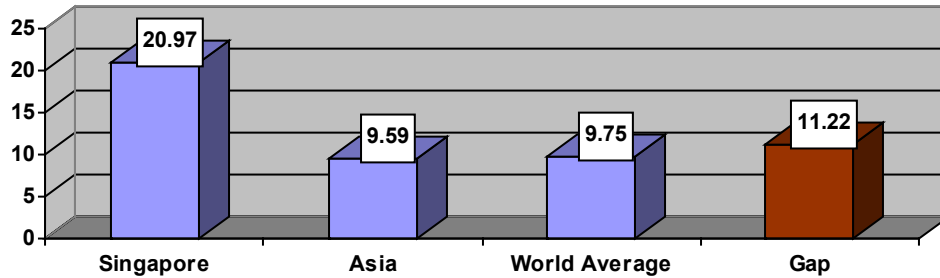
**Gap: Total Liabilities (\$k/employee)**



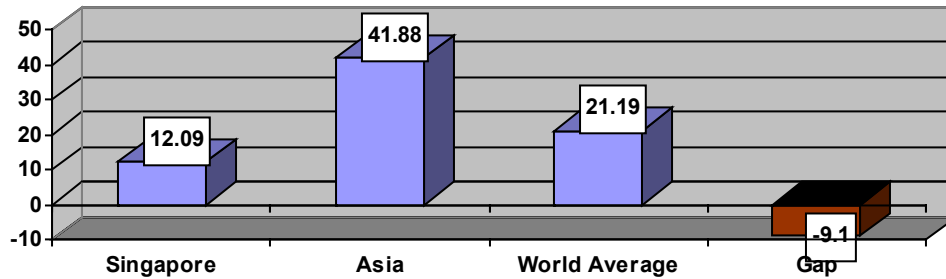
**Gap: Capital Surplus (\$k/employee)**



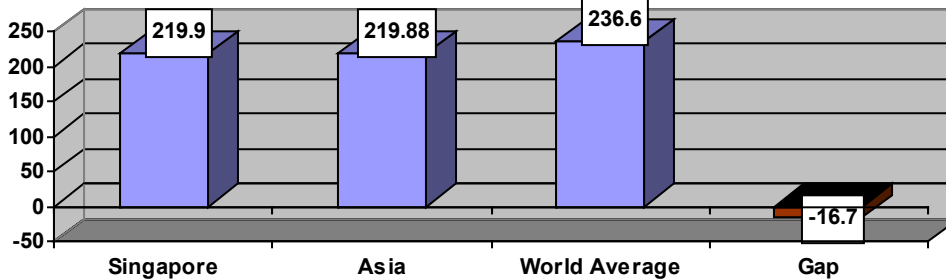
**Gap: Other Appropriated Reserves (\$k/employee)**



**Gap: Retained Earnings (\$k/employee)**



**Gap: Total Liabilities & Shareholders Equity (\$k/employee)**



### 3.7.4 Key Percentiles and Rankings

We now consider the distribution of liability-labor ratios using ranks and percentiles across . What percent of countries have a value lower or higher than Singapore (what is the indicator's rank or percentile)? The table below answers this question with respect to liability-labor ratios. The ranks and percentiles indicate, from highest to lowest, where a value falls within the distribution of all countries considered in the global benchmark (the number of countries in the benchmark per line item may vary, as indicated in the Rank). Again, a high or low figure does not necessarily indicate good or bad performance or productivity. After the summary table below, a few key liability-labor ratios are highlighted in additional tables.

Liability Structure (\$k/employee)	Singapore	Rank of Total	Percentile
Accounts Payable	44.72	11 of 47	76.60
Short Term Debt & Current Portion of Long Term Debt	38.83	10 of 52	80.77
Income Taxes Payable	3.83	17 of 45	62.22
Other Current Liabilities	11.95	37 of 52	28.85
<b>Current Liabilities - Total</b>	<b>96.78</b>	<b>17 of 53</b>	<b>67.92</b>
Long Term Debt	47.53	17 of 53	67.92
Long Term Debt Excluding Capitalized Leases	46.93	17 of 53	67.92
Capitalized Lease Obligations	0.61	9 of 24	62.50
Deferred Taxes	0.80	20 of 39	48.72
Deferred Taxes - Credit	1.33	10 of 21	52.38
Deferred Taxes - Debit	0.69	11 of 17	35.29
Other Liabilities	0.52	47 of 49	4.08
<b>Total Liabilities</b>	<b>145.63</b>	<b>21 of 53</b>	<b>60.38</b>
Non-Equity Reserves	0.34	10 of 25	60.00
Minority Interest	7.23	10 of 46	78.26
Common Equity	66.70	23 of 53	56.60
Common Stock	17.89	20 of 48	58.33
Capital Surplus	7.09	27 of 37	27.03
Other Appropriated Reserves	20.97	9 of 46	80.43
Unappropriated Reserves	6.94	7 of 29	75.86
Retained Earnings	12.09	24 of 51	52.94
Unrealized Foreign Exchange Gain/Loss	0.02	14 of 32	56.25
<b>Total Liabilities &amp; Shareholders Equity</b>	<b>219.90</b>	<b>27 of 53</b>	<b>49.06</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Accounts Payable

Countries	Value (\$K/employee)	Rank	Percentile	Region
Japan	186.12	1	97.87	Asia
Spain	148.39	2	95.74	Europe
Canada	132.04	3	93.62	North America
France	129.85	4	91.49	Europe
South Korea	122.06	5	89.36	Asia
the United Kingdom	71.85	6	87.23	Europe
Portugal	62.23	7	85.11	Europe
USA	55.62	8	82.98	North America
Israel	48.61	9	80.85	the Middle East
Ireland	48.20	10	78.72	Europe
<b>Singapore</b>	<b>44.72</b>	<b>11</b>	<b>76.60</b>	<b>Asia</b>
Malaysia	42.36	12	74.47	Asia
China	40.86	13	72.34	Asia
Norway	40.44	14	70.21	Europe
Pakistan	40.17	15	68.09	the Middle East
Taiwan	40.17	16	65.96	Asia
Belgium	38.70	17	63.83	Europe
Italy	37.39	18	61.70	Europe
Czech Republic	30.97	19	59.57	Europe
Argentina	28.85	20	57.45	Latin America
Germany	28.10	21	55.32	Europe
Austria	26.92	22	53.19	Europe
New Zealand	25.21	23	51.06	Oceania
Hong Kong	24.70	24	48.94	Asia
Netherlands	21.08	25	46.81	Europe
Sweden	19.94	26	44.68	Europe
Switzerland	16.97	27	42.55	Europe
Thailand	15.92	28	40.43	Asia
Greece	15.53	29	38.30	Europe
Luxembourg	14.67	30	36.17	Europe
Denmark	12.82	32	31.91	Europe
Peru	11.77	34	27.66	Latin America
Finland	9.14	35	25.53	Europe
South Africa	7.60	37	21.28	Africa
Philippines	7.31	38	19.15	Asia
Brazil	6.88	39	17.02	Latin America
Chile	6.55	40	14.89	Latin America
Turkey	6.14	42	10.64	the Middle East
Mexico	6.13	43	8.51	Latin America
Indonesia	4.71	45	4.26	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Accounts Payable**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
Japan	186.12	1	94.44
South Korea	122.06	2	88.89
<b>Singapore</b>	<b>44.72</b>	<b>3</b>	<b>83.33</b>
Malaysia	42.36	4	77.78
China	40.86	5	72.22
Taiwan	40.17	6	66.67
Macau	28.42	7	61.11
Hong Kong	24.70	8	55.56
Thailand	15.92	9	50.00
Brunei	15.32	10	44.44
Mongolia	14.21	11	38.89
North Korea	11.42	12	33.33
Papua New Guinea	7.99	13	27.78
Burma	7.34	14	22.22
Philippines	7.31	15	16.67
Indonesia	4.71	16	11.11
Maldives	4.29	17	5.56
Sri Lanka	3.39	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Current Liabilities - Total

Countries	Value (\$K/employee)	Rank	Percentile	Region
Japan	496.55	1	98.11	Asia
South Korea	443.15	2	96.23	Asia
China	263.19	3	94.34	Asia
Pakistan	258.77	4	92.45	the Middle East
Spain	212.04	5	90.57	Europe
Israel	194.95	6	88.68	the Middle East
Ireland	193.34	7	86.79	Europe
Belgium	190.77	8	84.91	Europe
Austria	186.44	9	83.02	Europe
Italy	184.32	10	81.13	Europe
Canada	174.29	11	79.25	North America
France	171.40	12	77.36	Europe
the United Kingdom	164.21	13	75.47	Europe
Taiwan	161.11	14	73.58	Asia
Portugal	159.79	15	71.70	Europe
USA	128.86	16	69.81	North America
<b>Singapore</b>	<b>96.78</b>	<b>17</b>	<b>67.92</b>	<b>Asia</b>
Greece	93.72	18	66.04	Europe
Sweden	93.39	19	64.15	Europe
Malaysia	90.76	20	62.26	Asia
Finland	89.14	21	60.38	Europe
Norway	86.87	22	58.49	Europe
Thailand	83.01	23	56.60	Asia
Germany	75.42	24	54.72	Europe
New Zealand	74.31	25	52.83	Oceania
Hong Kong	72.81	26	50.94	Asia
Switzerland	68.42	28	47.17	Europe
Peru	61.34	30	43.40	Latin America
Netherlands	60.47	31	41.51	Europe
Luxembourg	59.17	32	39.62	Europe
Denmark	46.29	33	37.74	Europe
Czech Republic	41.24	35	33.96	Europe
Argentina	38.42	36	32.08	Latin America
India	31.79	37	30.19	Asia
Philippines	28.50	38	28.30	Asia
Indonesia	24.78	39	26.42	Asia
Australia	23.22	42	20.75	Oceania
Poland	20.52	43	18.87	Europe
Turkey	18.78	44	16.98	the Middle East
Mexico	18.73	45	15.09	Latin America
South Africa	15.58	48	9.43	Africa
Brazil	14.12	49	7.55	Latin America
Chile	13.43	50	5.66	Latin America
Russia	10.16	52	1.89	Europe
Hungary	9.12	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Current Liabilities - Total**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
Japan	496.55	1	96.15
South Korea	443.15	2	92.31
China	263.19	3	88.46
Taiwan	161.11	4	84.62
<b>Singapore</b>	<b>96.78</b>	<b>5</b>	<b>80.77</b>
Malaysia	90.76	6	76.92
Thailand	83.01	7	73.08
Mongolia	74.06	8	69.23
Hong Kong	72.81	9	65.38
Brunei	61.79	10	61.54
North Korea	59.54	11	57.69
Papua New Guinea	41.63	12	53.85
Macau	37.85	13	50.00
India	31.79	14	46.15
Burma	28.60	15	42.31
Philippines	28.50	16	38.46
Indonesia	24.78	17	34.62
Cambodia	24.13	18	30.77
Laos	23.26	19	26.92
Maldives	22.59	20	23.08
Vietnam	21.11	21	19.23
Bangladesh	18.09	22	15.38
Sri Lanka	17.82	23	11.54
Bhutan	17.23	24	7.69
Nepal	15.42	25	3.85
Seychelles	9.48	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Long Term Debt

Countries	Value (\$K/employee)	Rank	Percentile	Region
Australia	172.06	1	98.11	Oceania
USA	163.33	2	96.23	North America
South Korea	146.41	3	94.34	Asia
Canada	132.79	4	92.45	North America
France	130.59	5	90.57	Europe
Netherlands	111.74	6	88.68	Europe
Japan	105.79	7	86.79	Asia
Israel	83.29	8	84.91	the Middle East
Ireland	82.60	9	83.02	Europe
Thailand	79.95	10	81.13	Asia
the United Kingdom	72.73	11	79.25	Europe
Taiwan	68.83	12	77.36	Asia
Peru	59.08	15	71.70	Latin America
Sweden	48.27	16	69.81	Europe
<b>Singapore</b>	<b>47.53</b>	<b>17</b>	<b>67.92</b>	<b>Asia</b>
New Zealand	46.16	18	66.04	Oceania
Hong Kong	45.23	19	64.15	Asia
Portugal	40.70	21	60.38	Europe
Malaysia	40.33	22	58.49	Asia
China	39.12	23	56.60	Asia
Pakistan	38.47	24	54.72	the Middle East
Indonesia	26.75	25	52.83	Asia
Belgium	25.69	26	50.94	Europe
Italy	24.82	28	47.17	Europe
Finland	21.39	29	45.28	Europe
Norway	18.67	31	41.51	Europe
Denmark	15.41	32	39.62	Europe
Germany	13.25	33	37.74	Europe
Turkey	12.11	34	35.85	the Middle East
Mexico	12.07	35	33.96	Latin America
India	10.29	37	30.19	Asia
Philippines	9.87	38	28.30	Asia
Switzerland	9.70	39	26.42	Europe
Austria	9.38	40	24.53	Europe
Czech Republic	8.55	41	22.64	Europe
Luxembourg	8.39	42	20.75	Europe
Argentina	7.96	44	16.98	Latin America
Spain	4.91	45	15.09	Europe
Russia	2.80	47	11.32	Europe
Hungary	2.51	48	9.43	Europe
South Africa	1.49	49	7.55	Africa
Brazil	1.35	50	5.66	Latin America
Chile	1.28	51	3.77	Latin America
Poland	0.35	52	1.89	Europe
Greece	0.03	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Long Term Debt**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	146.41	1	96.15
Japan	105.79	2	92.31
Thailand	79.95	3	88.46
Mongolia	71.33	4	84.62
Taiwan	68.83	5	80.77
North Korea	57.34	6	76.92
<b>Singapore</b>	<b>47.53</b>	<b>7</b>	<b>73.08</b>
Hong Kong	45.23	8	69.23
Malaysia	40.33	9	65.38
Papua New Guinea	40.10	10	61.54
China	39.12	11	57.69
Indonesia	26.75	12	53.85
Maldives	24.39	13	50.00
Sri Lanka	19.23	14	46.15
India	10.29	15	42.31
Burma	9.91	16	38.46
Philippines	9.87	17	34.62
Brunei	8.76	18	30.77
Macau	7.85	19	26.92
Cambodia	7.81	20	23.08
Laos	7.53	21	19.23
Vietnam	6.83	22	15.38
Bangladesh	5.85	23	11.54
Bhutan	5.58	24	7.69
Nepal	4.99	25	3.85
Seychelles	2.61	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Total Liabilities

Countries	Value (\$K/employee)	Rank	Percentile	Region
South Korea	730.47	1	98.11	Asia
Japan	634.60	2	96.23	Asia
Australia	343.76	3	94.34	Oceania
Canada	331.13	4	92.45	North America
France	325.64	5	90.57	Europe
China	314.58	6	88.68	Asia
Pakistan	309.30	7	86.79	the Middle East
USA	300.83	8	84.91	North America
Israel	285.23	9	83.02	the Middle East
Ireland	282.87	10	81.13	Europe
the United Kingdom	256.97	11	79.25	Europe
Netherlands	244.44	12	77.36	Europe
Belgium	243.14	13	75.47	Europe
Taiwan	235.73	14	73.58	Asia
Italy	234.91	15	71.70	Europe
Austria	230.32	16	69.81	Europe
Portugal	225.06	17	67.92	Europe
Spain	222.14	18	66.04	Europe
Thailand	166.19	19	64.15	Asia
Sweden	157.80	20	62.26	Europe
<b>Singapore</b>	<b>145.63</b>	<b>21</b>	<b>60.38</b>	<b>Asia</b>
Malaysia	136.79	23	56.60	Asia
New Zealand	126.25	25	52.83	Oceania
Hong Kong	123.71	26	50.94	Asia
Peru	122.80	27	49.06	Latin America
Germany	120.36	28	47.17	Europe
Finland	112.28	29	45.28	Europe
Norway	107.21	30	43.40	Europe
Greece	95.50	31	41.51	Europe
Switzerland	91.05	32	39.62	Europe
Luxembourg	78.74	34	35.85	Europe
Denmark	69.23	35	33.96	Europe
Indonesia	68.49	36	32.08	Asia
Czech Republic	52.74	38	28.30	Europe
Argentina	49.13	40	24.53	Latin America
Turkey	45.13	41	22.64	the Middle East
Mexico	45.01	42	20.75	Latin America
Philippines	43.02	43	18.87	Asia
India	42.49	44	16.98	Asia
Poland	20.79	47	11.32	Europe
South Africa	17.48	48	9.43	Africa
Brazil	15.83	49	7.55	Latin America
Chile	15.07	50	5.66	Latin America
Russia	14.00	52	1.89	Europe
Hungary	12.58	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Total Liabilities**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	730.47	1	96.15
Japan	634.60	2	92.31
China	314.58	3	88.46
Taiwan	235.73	4	84.62
Thailand	166.19	5	80.77
Mongolia	148.27	6	76.92
<b>Singapore</b>	<b>145.63</b>	<b>7</b>	<b>73.08</b>
Malaysia	136.79	8	69.23
Hong Kong	123.71	9	65.38
North Korea	119.20	10	61.54
Papua New Guinea	83.35	11	57.69
Brunei	82.22	12	53.85
Indonesia	68.49	13	50.00
Maldives	62.45	14	46.15
Sri Lanka	49.25	15	42.31
Macau	48.40	16	38.46
Burma	43.17	17	34.62
Philippines	43.02	18	30.77
India	42.49	19	26.92
Cambodia	32.24	20	23.08
Laos	31.09	21	19.23
Vietnam	28.21	22	15.38
Bangladesh	24.18	23	11.54
Bhutan	23.03	24	7.69
Nepal	20.61	25	3.85
Seychelles	13.07	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Common Equity

Countries	Value (\$K/employee)	Rank	Percentile	Region
Australia	373.52	1	98.11	Oceania
South Korea	329.96	2	96.23	Asia
Thailand	299.94	3	94.34	Asia
the United Kingdom	227.89	6	88.68	Europe
Peru	221.63	7	86.79	Latin America
USA	207.48	8	84.91	North America
Netherlands	152.38	10	81.13	Europe
Malaysia	138.46	11	79.25	Asia
New Zealand	134.41	12	77.36	Oceania
Hong Kong	131.70	13	75.47	Asia
China	108.44	14	73.58	Asia
Israel	108.13	15	71.70	the Middle East
Ireland	107.24	16	69.81	Europe
Pakistan	106.62	17	67.92	the Middle East
Greece	102.67	18	66.04	Europe
Japan	102.04	19	64.15	Asia
Taiwan	89.36	20	62.26	Asia
Turkey	70.47	21	60.38	the Middle East
Mexico	70.28	22	58.49	Latin America
<b>Singapore</b>	<b>66.70</b>	<b>23</b>	<b>56.60</b>	<b>Asia</b>
Portugal	64.44	25	52.83	Europe
Canada	53.57	26	50.94	North America
Sweden	53.46	27	49.06	Europe
France	52.68	28	47.17	Europe
Spain	51.93	29	45.28	Europe
Switzerland	44.11	30	43.40	Europe
Belgium	39.05	31	41.51	Europe
Luxembourg	38.15	32	39.62	Europe
Italy	37.73	33	37.74	Europe
Germany	35.48	34	35.85	Europe
Denmark	32.31	35	33.96	Europe
Philippines	30.57	36	32.08	Asia
Austria	29.89	37	30.19	Europe
Finland	25.76	39	26.42	Europe
Indonesia	20.91	40	24.53	Asia
Norway	18.67	42	20.75	Europe
Czech Republic	18.30	43	18.87	Europe
India	17.78	44	16.98	Asia
Argentina	17.05	45	15.09	Latin America
Poland	12.44	47	11.32	Europe
South Africa	7.34	48	9.43	Africa
Brazil	6.65	49	7.55	Latin America
Chile	6.33	51	3.77	Latin America
Russia	6.26	52	1.89	Europe
Hungary	5.63	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Common Equity**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	329.96	1	96.15
Thailand	299.94	2	92.31
Mongolia	267.59	3	88.46
North Korea	215.13	4	84.62
Papua New Guinea	150.42	5	80.77
Malaysia	138.46	6	76.92
Hong Kong	131.70	7	73.08
China	108.44	8	69.23
Japan	102.04	9	65.38
Taiwan	89.36	10	61.54
<b>Singapore</b>	<b>66.70</b>	<b>11</b>	<b>57.69</b>
Brunei	39.83	12	53.85
Burma	30.67	13	50.00
Philippines	30.57	14	46.15
Indonesia	20.91	15	42.31
Maldives	19.06	16	38.46
India	17.78	17	34.62
Macau	16.79	18	30.77
Sri Lanka	15.04	19	26.92
Cambodia	13.49	20	23.08
Laos	13.01	21	19.23
Vietnam	11.81	22	15.38
Bangladesh	10.12	23	11.54
Bhutan	9.64	24	7.69
Nepal	8.63	25	3.85
Seychelles	5.85	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Retained Earnings

Countries	Value (\$K/employee)	Rank	Percentile	Region
Thailand	152.52	1	98.04	Asia
the United Kingdom	134.65	2	96.08	Europe
USA	130.94	3	94.12	North America
South Korea	129.84	4	92.16	Asia
Peru	112.70	7	86.27	Latin America
Australia	97.45	8	84.31	Oceania
Israel	74.32	10	80.39	the Middle East
Ireland	73.70	11	78.43	Europe
Turkey	64.98	12	76.47	the Middle East
Mexico	64.80	13	74.51	Latin America
Taiwan	61.42	14	72.55	Asia
Malaysia	53.71	16	68.63	Asia
New Zealand	40.82	17	66.67	Oceania
Hong Kong	40.00	18	64.71	Asia
Japan	31.23	19	62.75	Asia
Finland	17.23	20	60.78	Europe
Denmark	15.38	21	58.82	Europe
Germany	13.65	22	56.86	Europe
Norway	12.37	23	54.90	Europe
<b>Singapore</b>	<b>12.09</b>	<b>24</b>	<b>52.94</b>	<b>Asia</b>
Canada	10.52	25	50.98	North America
France	10.35	26	49.02	Europe
Sweden	7.35	27	47.06	Europe
Spain	7.21	28	45.10	Europe
China	6.89	29	43.14	Asia
Pakistan	6.77	30	41.18	the Middle East
Czech Republic	6.55	31	39.22	Europe
Argentina	6.10	32	37.25	Latin America
Austria	4.98	33	35.29	Europe
Switzerland	3.78	34	33.33	Europe
Greece	3.67	35	31.37	Europe
Luxembourg	3.27	36	29.41	Europe
Russia	0.64	38	25.49	Europe
Hungary	0.58	39	23.53	Europe
South Africa	0.15	40	21.57	Africa
Brazil	0.13	41	19.61	Latin America
Chile	0.13	42	17.65	Latin America
Belgium	0.01	43	15.69	Europe
Italy	0.01	44	13.73	Europe
Poland	0.01	45	11.76	Europe
Philippines	-3.57	47	7.84	Asia
Portugal	-5.70	49	3.92	Europe
Indonesia	-6.37	51	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Retained Earnings**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
Thailand	152.52	1	94.74
Mongolia	136.08	2	89.47
South Korea	129.84	3	84.21
North Korea	109.40	4	78.95
Papua New Guinea	76.49	5	73.68
Taiwan	61.42	6	68.42
Malaysia	53.71	7	63.16
Hong Kong	40.00	8	57.89
Japan	31.23	9	52.63
<b>Singapore</b>	<b>12.09</b>	<b>10</b>	<b>47.37</b>
China	6.89	11	42.11
Macau	6.01	12	36.84
Brunei	3.41	13	31.58
Seychelles	0.60	14	26.32
Philippines	-3.57	15	21.05
Burma	-3.58	16	15.79
Sri Lanka	-4.58	17	10.53
Maldives	-5.81	18	5.26
Indonesia	-6.37	19	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

## **3.8 PRODUCTIVITY IN SINGAPORE: INCOME-LABOR RATIOS**

### **3.8.1 Overview**

In this chapter we consider the income-labor ratios for general building contractors and operative builders in Singapore benchmarked against global averages. For ratios where there are large deviations between the average firm operating in Singapore and the benchmarks, graphics are provided (sometimes referred to as a “gap” analysis). Then the distribution of ratios is presented in the form of ranks and percentiles. Certain key income-labor ratios are highlighted across countries in the comparison group.

In the case of income-labor ratios, this report maintains comparability over time and across countries by using a common currency (the US dollar) and relates each measure to a “per employee basis”. Ratios are projected using raw financial statistics and, as ratios, are therefore comparable. Given a country’s human resource ratios, the resulting figures are benchmarked across regional and global averages.

We then report the larger income-labor ratio gaps for general building contractors and operative builders that Singapore has vis-à-vis the worldwide average. Again, a gap need not be a bad sign. Rather, it is simply a substantial difference that might merit further attention or signal a firm’s relative incentive to invest locally. All figures are projections, so due caution is required.

### 3.8.2 Income to Labor: Outlook

The following tables and graphs are prepared using the methodology described at the beginning of this section. All units are in thousands of US dollars per employee. All figures are current-year projections for general building contractors and operative builders in Singapore based on latest financial results available.

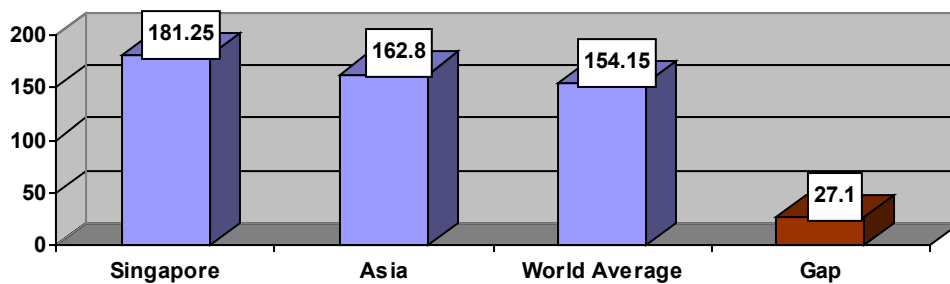
<b>Labor-income Ratios (\$k/employee)</b>	<b>Singapore</b>	<b>Asia</b>	<b>World Avg.</b>
Net Sales or Revenues	181.25	162.80	154.15
Cost of Goods Sold (Excluding Depreciation)	156.15	176.53	109.36
Depreciation, Depletion & Amortization	5.53	2.53	2.24
<b>Gross Income</b>	<b>19.56</b>	<b>38.31</b>	<b>25.56</b>
Selling, General & Administrative Expenses	10.94	16.12	11.20
Other Operating Expenses	191.88	197.88	113.63
Operating Expenses - Total	5.12	1.63	2.00
<b>Operating Income</b>	<b>3.93</b>	<b>15.64</b>	<b>13.23</b>
Extraordinary Charge - Pretax	0.71	2.31	1.02
Non-Operating Interest Income	0.18	1.20	0.80
Pretax Equity In Earnings	0.02	0.78	0.23
Other Income/Expense Net	2.62	1.86	1.60
<b>Earnings Before Interest and Taxes (EBIT)</b>	<b>6.38</b>	<b>17.99</b>	<b>15.11</b>
Interest Expense on Debt	4.24	4.21	4.43
<b>Pretax Income</b>	<b>2.14</b>	<b>13.81</b>	<b>11.26</b>
Income Taxes	1.16	4.21	2.21
Current Domestic Income Tax	0.85	1.23	2.20
Deferred Domestic Income Tax	-0.76	0.04	0.09
Minority Interest	0.93	0.31	0.34
Equity in Earnings	0.53	0.40	0.08
Net Income Before Extra Items/Prefer Dividends	2.23	10.80	8.65
Net Income Before Preferred Dividends	2.23	11.80	8.97
<b>Net Income Available to Common</b>	<b>2.23</b>	<b>10.80</b>	<b>8.62</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

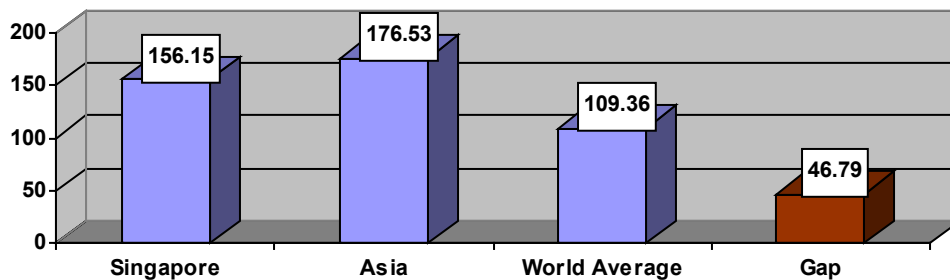
### 3.8.3 Income to Labor: Gaps

The following graphics summarize for general building contractors and operative builders the large labor-income gaps between firms operating in Singapore and the world average. A gap cannot necessarily be interpreted as a positive or negative reflection on performance. Gaps may signal areas of specialization, market focus, or expertise. More contextual information is required to fully interpret these gaps. The gaps highlighted here are simply those that are large.

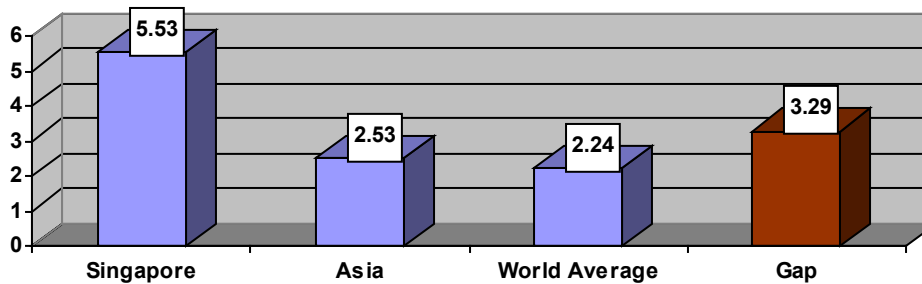
**Gap: Net Sales or Revenues (\$k/employee)**



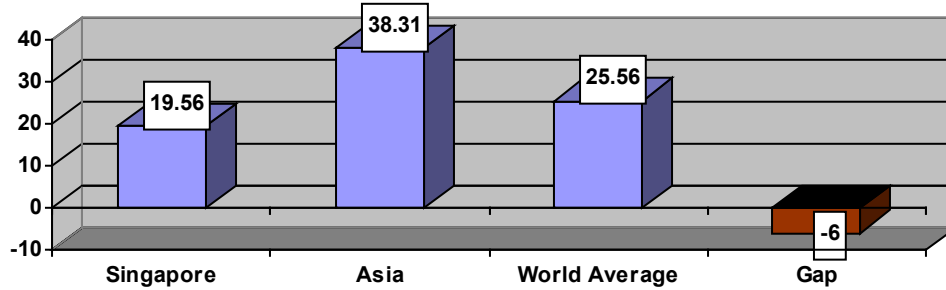
**Gap: Cost of Goods Sold (Excluding Depreciation) (\$k/employee)**



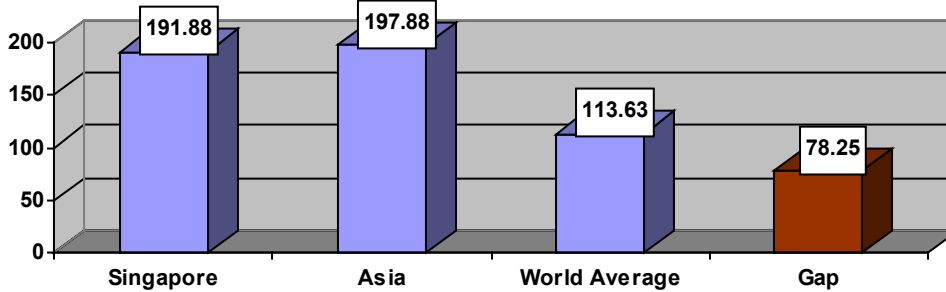
**Gap: Depreciation, Depletion & Amortization (\$k/employee)**



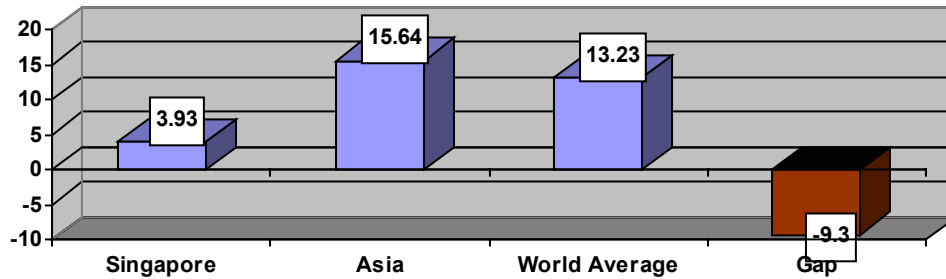
**Gap: Gross Income (\$k/employee)**



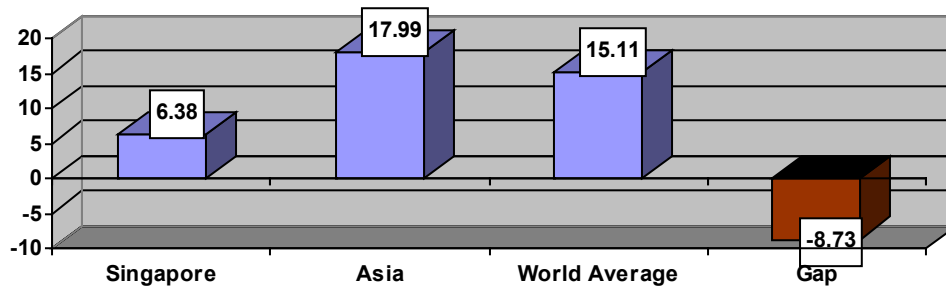
**Gap: Other Operating Expenses (\$k/employee)**



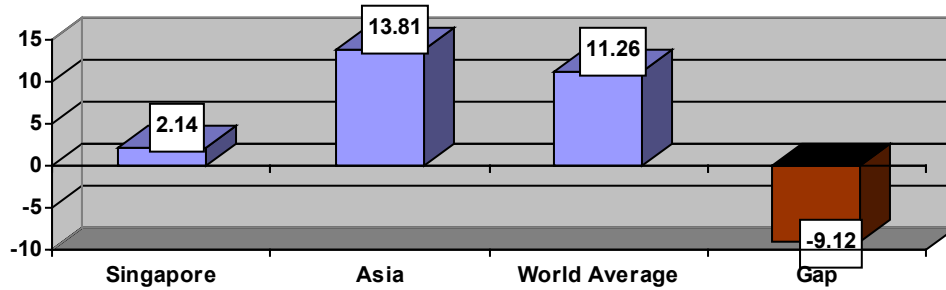
**Gap: Operating Income (\$k/employee)**



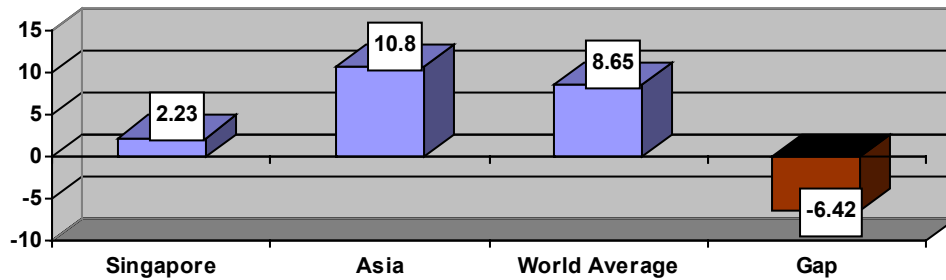
**Gap: Earnings Before Interest and Taxes (EBIT) (\$k/employee)**



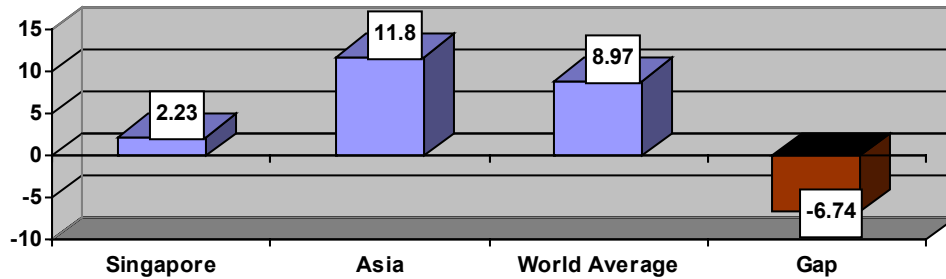
**Gap: Pretax Income (\$k/employee)**



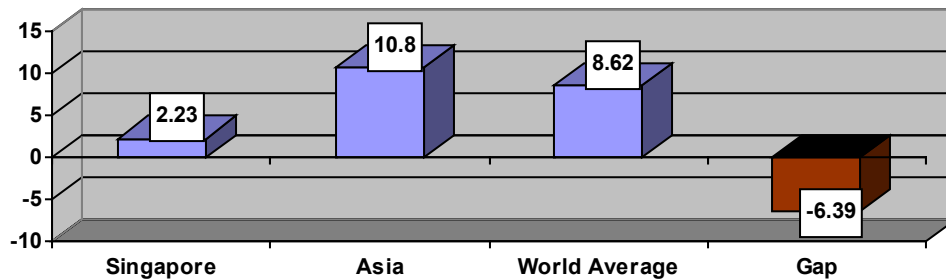
**Gap: Net Income Before Extra Items/Prefer Dividends (\$k/employee)**



**Gap: Net Income Before Preferred Dividends (\$k/employee)**



**Gap: Net Income Available to Common (\$k/employee)**



### 3.8.4 Key Percentiles and Rankings

We now consider the distribution of income-labor ratios using ranks and percentiles across . What percent of countries have a value lower or higher than Singapore (what is the ratio's rank or percentile)? The table below answers this question with respect to income-labor ratios. The ranks and percentiles indicate, from highest to lowest, where a value falls within the distribution of all countries considered in the global benchmark (the number of countries in the benchmark per line item may vary, as indicated in the Rank). Again, a high or low figure does not necessarily indicate good or bad performance or productivity. After the summary table below, a few key income-labor ratios are highlighted in additional tables.

Income Structure (\$k/employee)	Singapore	Rank of Total	Percentile
Net Sales or Revenues	181.25	26 of 53	50.94
Cost of Goods Sold (Excluding Depreciation)	156.15	22 of 49	55.10
Depreciation, Depletion & Amortization	5.53	9 of 53	83.02
<b>Gross Income</b>	<b>19.56</b>	<b>27 of 49</b>	<b>44.90</b>
Selling, General & Administrative Expenses	10.94	24 of 37	35.14
Other Operating Expenses	191.88	22 of 48	54.17
Operating Expenses - Total	5.12	14 of 44	68.18
<b>Operating Income</b>	<b>3.93</b>	<b>34 of 53</b>	<b>35.85</b>
Extraordinary Charge - Pretax	0.71	19 of 24	20.83
Non-Operating Interest Income	0.18	38 of 47	19.15
Pretax Equity In Earnings	0.02	24 of 32	25.00
<b>Other Income/Expense Net</b>	<b>2.62</b>	<b>17 of 53</b>	<b>67.92</b>
<b>Earnings Before Interest and Taxes (EBIT)</b>	<b>6.38</b>	<b>34 of 53</b>	<b>35.85</b>
Interest Expense on Debt	4.24	20 of 53	62.26
<b>Pretax Income</b>	<b>2.14</b>	<b>42 of 53</b>	<b>20.75</b>
Income Taxes	1.16	30 of 49	38.78
Current Domestic Income Tax	0.85	26 of 44	40.91
Deferred Domestic Income Tax	-0.76	31 of 38	18.42
Minority Interest	0.93	7 of 46	84.78
Equity in Earnings	0.53	7 of 19	63.16
Net Income Before Extra Items/Prefer Dividends	2.23	38 of 53	28.30
Net Income Before Preferred Dividends	2.23	39 of 53	26.42
<b>Net Income Available to Common</b>	<b>2.23</b>	<b>38 of 53</b>	<b>28.30</b>

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Cost of Goods Sold (Excluding Depreciation)

Countries	Value (\$K/employee)	Rank	Percentile	Region
South Korea	888.99	1	97.96	Asia
Japan	583.04	2	95.92	Asia
USA	545.87	3	93.88	North America
Australia	401.95	4	91.84	Oceania
the United Kingdom	348.76	5	89.80	Europe
Belgium	330.48	6	87.76	Europe
Italy	319.30	7	85.71	Europe
Israel	316.02	8	83.67	the Middle East
Ireland	313.41	9	81.63	Europe
Taiwan	261.17	10	79.59	Asia
Canada	258.65	11	77.55	North America
France	254.36	12	75.51	Europe
Switzerland	235.21	13	73.47	Europe
Portugal	226.55	14	71.43	Europe
Norway	221.76	15	69.39	Europe
Spain	218.84	16	67.35	Europe
Sweden	207.45	17	65.31	Europe
Greece	206.99	18	63.27	Europe
Luxembourg	203.42	19	61.22	Europe
Germany	188.01	20	59.18	Europe
Thailand	186.26	21	57.14	Asia
<b>Singapore</b>	<b>156.15</b>	<b>22</b>	<b>55.10</b>	<b>Asia</b>
Netherlands	153.99	24	51.02	Europe
Finland	151.18	25	48.98	Europe
Peru	137.63	27	44.90	Latin America
Austria	135.05	28	42.86	Europe
Czech Republic	130.50	29	40.82	Europe
Denmark	129.79	30	38.78	Europe
Malaysia	123.99	31	36.73	Asia
Argentina	121.56	32	34.69	Latin America
China	80.02	34	30.61	Asia
Pakistan	78.67	35	28.57	the Middle East
New Zealand	77.50	36	26.53	Oceania
Hong Kong	75.94	37	24.49	Asia
Poland	50.12	38	22.45	Europe
Turkey	48.18	39	20.41	the Middle East
Mexico	48.05	40	18.37	Latin America
South Africa	44.59	42	14.29	Africa
Brazil	40.40	43	12.24	Latin America
Chile	38.44	44	10.20	Latin America
Indonesia	22.90	45	8.16	Asia
Philippines	18.17	47	4.08	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Cost of Goods Sold (Excluding Depreciation)  
(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	888.99	1	94.44
Japan	583.04	2	88.89
Taiwan	261.17	3	83.33
Brunei	212.41	4	77.78
Thailand	186.26	5	72.22
Mongolia	166.18	6	66.67
<b>Singapore</b>	<b>156.15</b>	<b>7</b>	<b>61.11</b>
North Korea	133.60	8	55.56
Malaysia	123.99	9	50.00
Macau	119.78	10	44.44
Papua New Guinea	93.41	11	38.89
China	80.02	12	33.33
Hong Kong	75.94	13	27.78
Indonesia	22.90	14	22.22
Maldives	20.87	15	16.67
Burma	18.23	16	11.11
Philippines	18.17	17	5.56
Sri Lanka	16.46	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Selling, General & Administrative Expenses

Countries	Value (\$K/employee)	Rank	Percentile	Region
USA	72.11	1	97.30	North America
South Korea	58.04	2	94.59	Asia
Japan	57.18	3	91.89	Asia
Canada	43.54	4	89.19	North America
France	42.82	5	86.49	Europe
the United Kingdom	34.43	6	83.78	Europe
Israel	29.72	7	81.08	the Middle East
Denmark	29.65	8	78.38	Europe
Ireland	29.47	9	75.68	Europe
Greece	25.21	10	72.97	Europe
Taiwan	24.56	11	70.27	Asia
Thailand	21.21	12	67.57	Asia
Norway	18.38	13	64.86	Europe
Peru	15.67	16	56.76	Latin America
Sweden	14.89	17	54.05	Europe
Switzerland	13.78	18	51.35	Europe
Malaysia	12.57	19	48.65	Asia
China	12.34	20	45.95	Asia
Pakistan	12.13	21	43.24	the Middle East
Luxembourg	11.92	22	40.54	Europe
<b>Singapore</b>	<b>10.94</b>	<b>24</b>	<b>35.14</b>	<b>Asia</b>
New Zealand	10.92	25	32.43	Oceania
Hong Kong	10.70	26	29.73	Asia
Finland	7.30	27	27.03	Europe
Turkey	6.80	28	24.32	the Middle East
Mexico	6.78	29	21.62	Latin America
Germany	5.90	31	16.22	Europe
Poland	4.84	32	13.51	Europe
Philippines	2.58	33	10.81	Asia
Indonesia	1.55	35	5.41	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Selling, General & Administrative Expenses  
(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	58.04	1	94.12
Japan	57.18	2	88.24
Taiwan	24.56	3	82.35
Thailand	21.21	4	76.47
Mongolia	18.92	5	70.59
North Korea	15.21	6	64.71
Malaysia	12.57	7	58.82
Brunei	12.44	8	52.94
China	12.34	9	47.06
<b>Singapore</b>	<b>10.94</b>	<b>10</b>	<b>41.18</b>
Hong Kong	10.70	11	35.29
Papua New Guinea	10.64	12	29.41
Burma	2.59	13	23.53
Philippines	2.58	14	17.65
Indonesia	1.55	15	11.76
Maldives	1.41	16	5.88
Sri Lanka	1.11	17	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Operating Expenses - Total

Countries	Value (\$K/employee)	Rank	Percentile	Region
Spain	34.36	1	97.73	Europe
Germany	29.04	2	95.45	Europe
Austria	22.86	3	93.18	Europe
Belgium	15.46	4	90.91	Europe
Italy	14.94	5	88.64	Europe
Canada	14.15	6	86.36	North America
France	13.91	7	84.09	Europe
Australia	11.97	8	81.82	Oceania
Netherlands	11.22	9	79.55	Europe
Finland	10.52	10	77.27	Europe
Switzerland	7.40	11	75.00	Europe
Luxembourg	6.40	12	72.73	Europe
Norway	6.27	13	70.45	Europe
<b>Singapore</b>	<b>5.12</b>	<b>14</b>	<b>68.18</b>	<b>Asia</b>
South Africa	4.68	15	65.91	Africa
Brazil	4.24	16	63.64	Latin America
Chile	4.04	17	61.36	Latin America
New Zealand	3.68	18	59.09	Oceania
Malaysia	3.62	19	56.82	Asia
Hong Kong	3.61	20	54.55	Asia
Denmark	3.41	21	52.27	Europe
South Korea	3.10	22	50.00	Asia
Portugal	2.75	23	47.73	Europe
the United Kingdom	2.74	24	45.45	Europe
Czech Republic	2.60	25	43.18	Europe
Argentina	2.42	26	40.91	Latin America
China	1.74	27	38.64	Asia
Pakistan	1.71	28	36.36	the Middle East
Philippines	0.94	29	34.09	Asia
Thailand	0.27	31	29.55	Asia
Sweden	0.26	32	27.27	Europe
Indonesia	0.21	34	22.73	Asia
Peru	0.20	36	18.18	Latin America
Turkey	0.17	38	13.64	the Middle East
Mexico	0.17	39	11.36	Latin America
USA	0.13	43	2.27	North America
Japan	-0.19	44	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Operating Expenses - Total**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
Brunei	6.68	1	94.12
<b>Singapore</b>	<b>5.12</b>	<b>2</b>	<b>88.24</b>
Malaysia	3.62	3	82.35
Hong Kong	3.61	4	76.47
South Korea	3.10	5	70.59
Macau	2.38	6	64.71
China	1.74	7	58.82
Burma	0.94	8	52.94
Philippines	0.94	9	47.06
Thailand	0.27	10	41.18
Mongolia	0.24	11	35.29
Indonesia	0.21	12	29.41
North Korea	0.19	13	23.53
Maldives	0.19	14	17.65
Sri Lanka	0.15	15	11.76
Papua New Guinea	0.13	16	5.88
Japan	-0.19	17	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Operating Income

Countries	Value (\$K/employee)	Rank	Percentile	Region
South Korea	75.93	1	98.11	Asia
Thailand	70.22	2	96.23	Asia
USA	67.47	3	94.34	North America
Australia	60.43	4	92.45	Oceania
Peru	51.89	7	86.79	Latin America
the United Kingdom	51.28	8	84.91	Europe
Israel	36.21	10	81.13	the Middle East
Ireland	35.91	11	79.25	Europe
Netherlands	30.24	12	77.36	Europe
Taiwan	29.93	13	75.47	Asia
Canada	18.93	14	73.58	North America
France	18.61	15	71.70	Europe
Greece	18.26	16	69.81	Europe
Malaysia	15.85	17	67.92	Asia
Japan	15.80	18	66.04	Asia
Turkey	11.57	19	64.15	the Middle East
Mexico	11.54	20	62.26	Latin America
China	10.80	21	60.38	Asia
Pakistan	10.62	23	56.60	the Middle East
Finland	9.28	24	54.72	Europe
Spain	8.41	25	52.83	Europe
Sweden	7.39	26	50.94	Europe
Norway	6.37	27	49.06	Europe
India	5.17	28	47.17	Asia
Switzerland	4.99	29	45.28	Europe
Portugal	4.56	30	43.40	Europe
Luxembourg	4.31	31	41.51	Europe
Denmark	4.25	32	39.62	Europe
Czech Republic	4.04	33	37.74	Europe
<b>Singapore</b>	<b>3.93</b>	<b>34</b>	<b>35.85</b>	<b>Asia</b>
Argentina	3.76	35	33.96	Latin America
New Zealand	2.51	36	32.08	Oceania
Hong Kong	2.46	37	30.19	Asia
South Africa	1.61	38	28.30	Africa
Brazil	1.46	39	26.42	Latin America
Chile	1.39	40	24.53	Latin America
Austria	1.25	41	22.64	Europe
Philippines	0.73	42	20.75	Asia
Poland	0.21	44	16.98	Europe
Russia	0.19	46	13.21	Europe
Hungary	0.17	47	11.32	Europe
Indonesia	-0.33	50	5.66	Asia
Italy	-1.98	51	3.77	Europe
Belgium	-2.05	52	1.89	Europe
Germany	-2.27	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Operating Income**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	75.93	1	96.15
Thailand	70.22	2	92.31
Mongolia	62.65	3	88.46
North Korea	50.37	4	84.62
Papua New Guinea	35.22	5	80.77
Taiwan	29.93	6	76.92
Malaysia	15.85	7	73.08
Japan	15.80	8	69.23
China	10.80	9	65.38
India	5.17	10	61.54
Brunei	4.50	11	57.69
<b>Singapore</b>	<b>3.93</b>	<b>12</b>	<b>53.85</b>
Cambodia	3.92	13	50.00
Laos	3.78	14	46.15
Macau	3.70	15	42.31
Vietnam	3.43	16	38.46
Bangladesh	2.94	17	34.62
Bhutan	2.80	18	30.77
Nepal	2.51	19	26.92
Hong Kong	2.46	20	23.08
Burma	0.74	21	19.23
Philippines	0.73	22	15.38
Seychelles	0.18	23	11.54
Sri Lanka	-0.24	24	7.69
Maldives	-0.30	25	3.85
Indonesia	-0.33	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Earnings Before Interest and Taxes (EBIT)

Countries	Value (\$K/employee)	Rank	Percentile	Region
South Korea	83.16	1	98.11	Asia
Thailand	75.94	2	96.23	Asia
Australia	65.02	3	94.34	Oceania
USA	64.65	4	92.45	North America
Peru	56.11	7	86.79	Latin America
the United Kingdom	55.73	8	84.91	Europe
Israel	36.47	10	81.13	the Middle East
Ireland	36.17	11	79.25	Europe
Netherlands	33.29	12	77.36	Europe
Taiwan	30.14	13	75.47	Asia
Greece	28.18	14	73.58	Europe
Canada	23.95	15	71.70	North America
France	23.55	16	69.81	Europe
Malaysia	22.23	17	67.92	Asia
Turkey	14.50	18	66.04	the Middle East
Mexico	14.46	19	64.15	Latin America
China	13.66	20	62.26	Asia
Pakistan	13.43	22	58.49	the Middle East
Spain	12.88	23	56.60	Europe
Sweden	12.09	24	54.72	Europe
Norway	10.26	25	52.83	Europe
Portugal	9.87	26	50.94	Europe
Finland	9.18	27	49.06	Europe
Austria	8.97	28	47.17	Europe
Indonesia	8.18	29	45.28	Asia
New Zealand	7.79	30	43.40	Oceania
Hong Kong	7.63	32	39.62	Asia
Denmark	7.35	33	37.74	Europe
<b>Singapore</b>	<b>6.38</b>	<b>34</b>	<b>35.85</b>	<b>Asia</b>
Belgium	6.00	35	33.96	Europe
Switzerland	6.00	36	32.08	Europe
Italy	5.80	38	28.30	Europe
India	5.68	39	26.42	Asia
Japan	5.49	40	24.53	Asia
Czech Republic	5.43	41	22.64	Europe
Luxembourg	5.19	42	20.75	Europe
Argentina	5.06	43	18.87	Latin America
Germany	2.88	44	16.98	Europe
South Africa	2.23	45	15.09	Africa
Brazil	2.02	46	13.21	Latin America
Chile	1.92	47	11.32	Latin America
Poland	1.74	48	9.43	Europe
Philippines	1.68	49	7.55	Asia
Russia	0.69	52	1.89	Europe
Hungary	0.62	53	0.00	Europe

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Earnings Before Interest and Taxes (EBIT)**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	83.16	1	96.15
Thailand	75.94	2	92.31
Mongolia	67.75	3	88.46
North Korea	54.46	4	84.62
Papua New Guinea	38.08	5	80.77
Taiwan	30.14	6	76.92
Malaysia	22.23	7	73.08
China	13.66	8	69.23
Indonesia	8.18	9	65.38
Hong Kong	7.63	10	61.54
Maldives	7.46	11	57.69
<b>Singapore</b>	<b>6.38</b>	<b>12</b>	<b>53.85</b>
Sri Lanka	5.88	13	50.00
India	5.68	14	46.15
Japan	5.49	15	42.31
Brunei	5.42	16	38.46
Macau	4.99	17	34.62
Cambodia	4.31	18	30.77
Laos	4.16	19	26.92
Vietnam	3.77	20	23.08
Bangladesh	3.23	21	19.23
Bhutan	3.08	22	15.38
Nepal	2.76	23	11.54
Burma	1.69	24	7.69
Philippines	1.68	25	3.85
Seychelles	0.64	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Pretax Income

Countries	Value (\$K/employee)	Rank	Percentile	Region
Thailand	72.50	1	98.11	Asia
USA	60.54	3	94.34	North America
Australia	60.15	4	92.45	Oceania
Peru	53.57	6	88.68	Latin America
South Korea	47.50	7	86.79	Asia
the United Kingdom	46.95	8	84.91	Europe
Israel	28.29	10	81.13	the Middle East
Ireland	28.05	11	79.25	Europe
Greece	26.63	12	77.36	Europe
Netherlands	25.23	13	75.47	Europe
Taiwan	23.38	14	73.58	Asia
Malaysia	19.28	15	71.70	Asia
Turkey	13.01	16	69.81	the Middle East
Mexico	12.98	17	67.92	Latin America
Canada	12.45	18	66.04	North America
France	12.24	19	64.15	Europe
China	9.17	21	60.38	Asia
Pakistan	9.01	22	58.49	the Middle East
Spain	8.68	23	56.60	Europe
Sweden	6.35	24	54.72	Europe
Finland	5.32	25	52.83	Europe
Portugal	4.54	26	50.94	Europe
Denmark	4.53	27	49.06	Europe
Austria	4.49	28	47.17	Europe
Czech Republic	4.28	29	45.28	Europe
Switzerland	4.17	30	43.40	Europe
Norway	4.09	31	41.51	Europe
Argentina	3.99	32	39.62	Latin America
New Zealand	3.96	33	37.74	Oceania
Hong Kong	3.88	34	35.85	Asia
Indonesia	3.66	35	33.96	Asia
Luxembourg	3.61	36	32.08	Europe
India	2.98	38	28.30	Asia
Belgium	2.62	40	24.53	Europe
Italy	2.54	41	22.64	Europe
<b>Singapore</b>	<b>2.14</b>	<b>42</b>	<b>20.75</b>	<b>Asia</b>
South Africa	1.66	43	18.87	Africa
Brazil	1.51	44	16.98	Latin America
Chile	1.43	45	15.09	Latin America
Poland	1.31	46	13.21	Europe
Germany	0.92	47	11.32	Europe
Philippines	-0.57	49	7.55	Asia
Hungary	-0.75	50	5.66	Europe
Russia	-0.84	51	3.77	Europe
Japan	-1.35	53	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Pretax Income**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
Thailand	72.50	1	96.15
Mongolia	64.68	2	92.31
North Korea	52.00	3	88.46
South Korea	47.50	4	84.62
Papua New Guinea	36.36	5	80.77
Taiwan	23.38	6	76.92
Malaysia	19.28	7	73.08
China	9.17	8	69.23
Macau	3.93	9	65.38
Hong Kong	3.88	10	61.54
Brunei	3.77	11	57.69
Indonesia	3.66	12	53.85
Maldives	3.34	13	50.00
India	2.98	14	46.15
Sri Lanka	2.63	15	42.31
Cambodia	2.26	16	38.46
Laos	2.18	17	34.62
<b>Singapore</b>	<b>2.14</b>	<b>18</b>	<b>30.77</b>
Vietnam	1.98	19	26.92
Bangladesh	1.70	20	23.08
Bhutan	1.61	21	19.23
Nepal	1.45	22	15.38
Philippines	-0.57	23	11.54
Burma	-0.57	24	7.69
Seychelles	-0.78	25	3.85
Japan	-1.35	26	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

### Income Taxes

Countries	Value (\$K/employee)	Rank	Percentile	Region
USA	23.31	1	97.96	North America
Australia	16.85	2	95.92	Oceania
South Korea	15.26	3	93.88	Asia
the United Kingdom	14.37	4	91.84	Europe
Thailand	13.50	5	89.80	Asia
Peru	9.97	8	83.67	Latin America
Greece	9.31	9	81.63	Europe
Netherlands	8.84	10	79.59	Europe
Malaysia	5.93	12	75.51	Asia
Israel	5.76	13	73.47	the Middle East
Ireland	5.72	14	71.43	Europe
Canada	5.31	15	69.39	North America
France	5.22	16	67.35	Europe
Taiwan	4.76	17	65.31	Asia
Spain	2.17	18	63.27	Europe
Japan	2.13	19	61.22	Asia
Finland	2.05	20	59.18	Europe
Sweden	1.97	21	57.14	Europe
Turkey	1.92	22	55.10	the Middle East
Mexico	1.92	23	53.06	Latin America
Norway	1.78	25	48.98	Europe
Czech Republic	1.36	26	46.94	Europe
Argentina	1.27	27	44.90	Latin America
Indonesia	1.22	28	42.86	Asia
Belgium	1.16	29	40.82	Europe
<b>Singapore</b>	<b>1.16</b>	<b>30</b>	<b>38.78</b>	<b>Asia</b>
Switzerland	1.12	32	34.69	Europe
Italy	1.12	33	32.65	Europe
Portugal	1.12	34	30.61	Europe
Luxembourg	0.97	35	28.57	Europe
Germany	0.91	36	26.53	Europe
Denmark	0.86	38	22.45	Europe
New Zealand	0.81	39	20.41	Oceania
Hong Kong	0.80	40	18.37	Asia
South Africa	0.48	41	16.33	Africa
Brazil	0.44	42	14.29	Latin America
Chile	0.41	43	12.24	Latin America
Poland	0.41	44	10.20	Europe
Austria	0.07	45	8.16	Europe
Philippines	-0.30	47	4.08	Asia
Pakistan	-1.12	48	2.04	the Middle East
China	-1.14	49	0.00	Asia

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

**Income Taxes**  
**(General Building Contractors and Operative Builders)**

Countries in Asia	Value (\$K/employee)	Rank	Percentile
South Korea	15.26	1	94.44
Thailand	13.50	2	88.89
Mongolia	12.04	3	83.33
North Korea	9.68	4	77.78
Papua New Guinea	6.77	5	72.22
Malaysia	5.93	6	66.67
Taiwan	4.76	7	61.11
Japan	2.13	8	55.56
Macau	1.25	9	50.00
Indonesia	1.22	10	44.44
<b>Singapore</b>	<b>1.16</b>	<b>11</b>	<b>38.89</b>
Maldives	1.11	12	33.33
Brunei	1.01	13	27.78
Sri Lanka	0.88	14	22.22
Hong Kong	0.80	15	16.67
Philippines	-0.30	16	11.11
Burma	-0.30	17	5.56
China	-1.14	18	0.00

Source: Philip M. Parker, Professor, INSEAD, copyright 2007

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## **4 MACRO-ACCESSIBILITY IN SINGAPORE**

### **4.1 EXECUTIVE SUMMARY**

The USSFTA brings a new chapter to U.S.-Singapore partnership and it is now an excellent time for U.S. firms to explore doing business here. The USSFTA provides a secure, predictable legal framework for protecting U.S. investments in Singapore, including a basic set of substantive protections that are similar to those Singaporean investors in the U.S. currently enjoyed under U.S. laws. There is a groundbreaking chapter on competition policy and government enterprises and includes extensive enhancement to the protection of intellectual property rights. The USSFTA includes extensive coverage of services. U.S. services firms will enjoy fair and non-discriminatory treatment through strong disciplines on both cross-border supply of services (including those delivered electronically) and the right to invest and establish a local service presence. There is also increased market access in the insurance sector.

The Singapore government has developed an outward-looking, export-oriented economic policy that encourages two-way flows of trade and investment. It has excellent infrastructure, including an airport and seaport that are among the best in the world, an extensive road network and subway system, state-of-the-art telecommunications facilities and reliable public utilities.

Not only is Singapore a great place to do business, it also serves as the gateway to the region. There are more than 1,300 U.S. firms already operating in Singapore, many of which have their Asia Pacific overseas headquarters here. Singapore's role as a regional commercial hub is underscored by the fact that more than 52% of Singapore's imports are re-exported.

### **4.2 POLITICAL RISKS**

#### **4.2.1 Economic Relationship with the United States**

The U.S. and Singapore have a close relationship that is underpinned by co-operation on security issues and active economic ties.

#### **4.2.2 Politics and the Business Environment**

Singapore is a parliamentary republic, with a multi-ethnic population. It prides itself on political and social stability and the predictability this atmosphere offers to foreign investors and traders.

#### **4.2.3 Political System**

Opposition parties, which hold two regularly contested parliamentary seats and one additional seat formally reserved to the opposition by the Constitution, do not usually espouse views that are radically different from the mainstream of Singapore political opinion. The expression of political differences takes place predominantly in a non-confrontational way. There has been no political violence in Singapore in over thirty years. Tough internal security laws (e.g., the Internal Security Act) have not been used for politically-related detentions in recent years. Such laws remain a factor in the maintenance of political order but are secondary to other economic, social and cultural factors.

## **4.3      MARKETING STRATEGIES**

### **4.3.1      Creating a Sales Office**

The Singapore Registry of Companies and Businesses (RCB) published an excellent guide that takes the first time registrant through the process of establishing an office. General information on establishing a business in Singapore can be viewed at [www.rcb.gov.sg](http://www.rcb.gov.sg). The process takes about one day for a sole proprietorship, while more complex business entities can take up to six weeks and require the assistance of lawyers and accountants to help with incorporation documents. One point to bear in mind is that registration of a company does not automatically mean that expatriate staff can be assigned to Singapore. Foreign staff must obtain employment passes from the Singapore Ministry of Manpower.

### **4.3.2      Joint Ventures and Licensing Options**

Most Singaporean companies are open to joint venture proposals, and many are interested in manufacturing under license. The Commercial Service at the U.S. Embassy in Singapore is active in matching American and Singapore firms for joint ventures not only in Singapore but also for third country markets.

### **4.3.3      Use of Agents and Distributors**

Many American exporters use agents or distributors to serve the Singapore market and other markets in Southeast Asia. Finding prospective partners presents no problem. Singapore firms are aggressive when it comes to representing new products and usually respond enthusiastically to new opportunities. Most American companies that use the U.S. Commercial Service (CS Singapore) business programs in Singapore find an array of interested agents or distributors. CS Singapore offers a wide range of business programs and has an excellent record of success in introducing U.S. firms to the market. A list of business programs offered by CS Singapore can be obtained from our Web site at [www.buyusa.gov/singapore](http://www.buyusa.gov/singapore).

### **4.3.4      Hiring Local Counsel**

U.S. and other foreign law firms are not allowed to practice Singapore law, cannot employ Singapore lawyers to practice Singapore law, and cannot litigate in local courts. Legal matters involving Singapore law must be handled by a local attorney. A list of local law firms is available through CS Singapore.

### **4.3.5      Performing Due Diligence**

Anyone wanting to carry out a business in Singapore must register with the RCB. U.S. firms can run a check on Singapore companies by accessing the RCB database via [www.bizfile.gov.sg](http://www.bizfile.gov.sg). Other credit agencies include crimsonlogic Pte Ltd ([www.crimsonlogic.com.sg](http://www.crimsonlogic.com.sg)), Yellow Pages Singapore Pte Ltd ([www.yellowpages.com.sg](http://www.yellowpages.com.sg)), and DP Information Network ([www.dpgroup.com.sg](http://www.dpgroup.com.sg)).

### **4.3.6 Distribution Channel Options**

Singapore's distribution and sales channels are simple and direct. Most consumer goods are imported by stocking distributors who resell to retailers. Some goods are imported directly for sale in the importer's own retail outlets.

### **4.3.7 Pricing Issues**

Depending on the type of product, importer mark-ups range from 20-40%, while retail mark-ups are often more than 100%. Industrial goods are brought in by stocking distributors, who add on at least 20% before sale to end-users, or by agents whose commissions generally run about 7-10%. These mark-ups are approximate, and will vary widely, depending on the product and the contractual relationship in question.

### **4.3.8 Franchising Activities**

Franchising is growing in popularity. Many Singaporean firms are looking for new growth opportunities and are interested in investing in foreign franchise concepts. Franchisees usually buy franchise licenses for the Southeast Asian region and not for Singapore alone. Most franchisees finance their purchases of franchises through bank loans, personal savings or pooling resources from family members.

### **4.3.9 Direct Marketing Options**

The direct marketing industry in Singapore began about 14 years ago and now includes direct mail, telemarketing, television sales, mail order, call centers, fulfillment and e-commerce firms. The Direct Marketing Association of Singapore represents users and service providers who are engaged in database marketing, call center activity, fulfillment and e-commerce. There are many creative consultants in Singapore who provide advice, market research, mailing lists, printing and mailing services. Several companies provide telemarketing services and are involved in direct marketing through television. Typical products sold through direct marketing in Singapore include consumer goods such as gifts, cosmetics, health supplements, stationery, fitness equipment, household appliances, bags and accessories. The direct marketing industry is well supported by service companies including Singapore Post, Singapore Telecom Call Center, Teledirect, TNT International Mail, Dun & Bradstreet, Ogilvy One and MMS Consultancy. The Singapore government also actively supports the industry through its Direct Marketing Program by assisting companies (through financial incentives) in using direct marketing for their trading activities.

### **4.3.10 Direct Selling Options**

Direct selling entails the sale of a consumer product or service in a face-to-face manner, away from a fixed retail location.

The Direct Selling Association of Singapore (DSAS), a self-regulatory body, was set up 27 years ago in 1976. It provides a forum for all direct-selling companies in Singapore to discuss problems of common concern and to codify a high standard of business practices throughout the industry. The DSAS has adopted a Code of Conduct by which member-companies in the Association are to adhere to in every aspect of the business. Through the Code of Conduct, DSAS aims to further inculcate the spirit and practice of ethical direct-selling within its member-companies, setting examples for others to follow.

In Singapore, the Direct Selling practices comes under The Multi-Level Marketing and Pyramid Selling (Prohibition) (Amendment) Act 2000, which came into operation on June 1, 2000. An Exclusion Order was made at the same time that the Act was amended. Under the Order, there are classes of programs that are automatically allowed to operate. Any company could, on the strength of the legal advice they presumably sought and received, make the case that they are excluded by the Order, as long as they fulfill the criteria for one of the excluded classes of programs. There is no application for approval required for any of these excluded programs. The following are criteria that a company might be looking at when evaluating whether they can operate in Singapore. Note that the onus of making sure a compensation plan complies with the Exclusion Order lies with the company.

Under Exclusion Order 2 (1) (c), any program or arrangement, or any class of such program or arrangement, must satisfy the following conditions:

1. Any benefit received by any promoter or participant in the program or arrangement accrues as a result of the sale, lease, license or other distribution of a commodity to any other person, and not as a result of the recruitment of one or more persons to be additional participants in the program or arrangement
2. Promoter of the program or arrangement shall not knowingly make, or cause to be made:
  - (a) Any representation relating to the program or arrangement, or relating to the commodity, which is false or misleading
  - (b) Any omission in a material particular relating to the program or arrangement, or relating to the commodity
3. Promoter of the program or arrangement shall not make, or cause to be made, any representation to any person that benefits will accrue under the program or arrangement in a manner other than as specified in sub-paragraph (1)
4. Commodity shall be distributed with a refund or buy-back guarantee that is exercised on reasonable commercial terms, and every participant in the program or arrangement and every consumer of the commodity shall be informed of the existence of the guarantee and the manner in which it can be exercised.

### 4.3.11 Selling Strategies

Price, quality and service are the main selling factors in Singapore. Prospective exporters to Singapore should be aware that competition is strong and that buyers expect good after-sales service. Selling techniques vary according to the industry or, the product involved, but are comparable to the techniques used in any other sophisticated market.

### 4.3.12 Advertising and Trade Promotion

There are many specialized trade magazines in Singapore and scores of trade fairs that can be used to promote U.S. goods and services. The major English-language daily newspapers are the Straits Times and the Business Times. They are available at <http://straitstimes.asia1.com.sg> and <http://business-times.asia1.com.sg>. The leading business magazine is Asian Business and Asia Inc. The major Chinese daily is Lianhe Zaobao (<http://www.zaobao.com>). E-commerce Web sites can be found at [www.ida.gov.sg](http://www.ida.gov.sg) and at [www.sg](http://www.sg). Leads for local advertising and promotional service agencies can be found at [www.yellowpages.com.sg](http://www.yellowpages.com.sg). Contact CS Singapore for a list of specialized trade magazines and trade fairs.

### **4.3.13 Pricing Issues**

Pricing is very competitive. Major department stores and retail chains offer fixed-price merchandise, while the smaller shops expect buyers to bargain. Hard bargaining is common in the commercial and industrial sectors as well, where buyers usually want a discount and vendors inflate their initial offers accordingly. Credit terms of 30-60-90 days are common. Buyers will often retain 10% of the sales price for major electronic equipment purchases until the vendor has installed the machine and it is performing according to specifications.

#### **Supplying**

Good sales and customer support are vital in Singapore. The market is so price competitive that good sales support or customer service can make a big difference. Singapore distributors respond well to training on new products, and if properly supported by the U.S. manufacturer will do a good job cultivating old customers and developing new ones.

### **4.3.14 Public Sector Marketing**

U.S. firms generally find Singapore to be a receptive, open and lucrative market. The Singaporean government procurement system is considered by most American firms to be fair and transparent. Bidders must meet the specifications set out in the tender and offer a competitive price in order to be successful. Government procurement regulations are contained in Instruction Manual 3, available from the Ministry of Finance or through CS Singapore. The Singapore Government also advertises its tenders on their Web site at [www.gebiz.gov.sg](http://www.gebiz.gov.sg).

## **4.4 IMPORT AND EXPORT REGULATION RISKS**

### **4.4.1 Trade Barrier Risks**

Singapore has very few trade barriers. There are restrictions in a few sectors, such as in broadcasting, news media, legal services, some financial and banking services, professional engineering services, trade in tobacco products and residential property. However, the telecommunications, power, financial and legal services sectors are slowly being liberalized, allowing more freedom for market forces in the economy. In the area of intellectual property rights, the Singapore Government does have laws to protect against piracy and copyright infringement, but it relies on the private sector to take the lead against transgressors. Under the US-Singapore FTA, Singapore has agreed to implement changes to the “self-help” policy, while committing that the government will continue to assume primary responsibility for enforcement. In general, Singapore maintains one of the most liberal trading regimes in the world.

### **4.4.2 Customs Regulations**

In Singapore, valuation for customs purposes is based on the Brussels Definition of Value (BDV). The basic principle of the BDV is that dutiable value is the normal price or import price of goods at the port or place of importation. It pre-supposes that the sale has taken place in the open market between an independent buyer and seller.

Where goods are dutiable, ad valorem or specific rates may be applied. An ad valorem rate, which is the most commonly applied, is a percentage of the assessed value of the imported goods. A specific rate is a particular amount per unit of weight or other quantity.

Cost, insurance, freight, handling charges and all other charges incidental to the sale and delivery of the goods are taken into account when duty is assessed.

Exporters are required to ensure that the declared values of goods for customs purposes are correct. If the goods have been undervalued, the Customs and Excise Department will increase the values declared. Severe penalties may be imposed on traders attempting to evade duty.

### **4.4.3 Tariff Rates**

Singapore is generally a free port and an open economy. More than 99% of all imports into Singapore enter the country duty-free. The only exceptions are heavy tariffs on the import of motor vehicles, liquor, petrol, and cigarettes / tobacco products.

### **4.4.4 Import Tariffs and License Requirements**

The Singapore Goods and Services Tax (GST) is a tax on domestic consumption within Singapore. It is paid whenever customers buy goods or services from GST-registered businesses within Singapore. The GST Act says, "...Goods and Services Tax shall be charged on the supply of goods and services in Singapore...and on the importation of goods and services...to Singapore."

GST is a multi-stage tax and is collected at every stage of the production and distribution chain. A registered trader/company will be able to claim credits from the Comptroller for GST paid on goods or services imported and used within the production chain.

All imported goods (whether for domestic sale or re-exports), are taxable unless the goods are specifically given GST relief by the Comptroller of GST (A list of GST reliefs is available from the Inland Revenue Authority of Singapore). If the goods are kept in the Free Trade Zones (Changi Airport and the seaports of Pasir Panjang, Keppel, Jurong and Sembawang) they are not treated as imports; GST is not charged until the goods leave the Free Trade Zones (FTZ) for sale in Singapore (re-exported goods from the FTZ are exempt from all GST).

Outside the FTZ, when goods are imported, GST (Input Tax) must be paid to the Customs and Excise Department at the point of importation, irrespective of whether the importer is a trader or a final consumer. At the point of importation, GST is charged, on the landed CIF (Cost of Insurance and Freight) value inclusive of actual duty (if dutiable and as assessed by Customs).

When a Singapore company/agent imports goods on behalf of an overseas non-taxable person who has no business establishment in Singapore, the Singapore company will be treated as the principal importing the goods, irrespective of whether the Singapore company calls itself an agent or not. The Singapore company must pay GST Input Tax to Customs and Excise Department.

Assuming that the non-resident person is liable for GST because of an agent agreement with the Singapore company/agent importing on behalf of a non-resident person, it is required to account for GST Input Tax on behalf of that non-resident. A liable non-resident person is defined as having a business turnover of more than S\$1 million and not physically operating in Singapore but conducts trading activities through a Singapore agent. Turnover of less than S\$1 million will mean that the agent is liable for payment of the GST Input Tax. The agent must register in the name of the non-resident exporter whose turnover exceeds S\$1 million. Separate accounts must be kept for the taxable non-resident.

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For more information on GST-related topics pertaining to U.S. exporters, please contact the following (Chinese family names often precede given names; they are indicated in upper case letters):

Inland Revenue Authority of Singapore  
55 Newton Road  
Revenue House  
Singapore 307987  
Tel: (65) 6356-8633  
Fax: (65) 6351-3553  
E-mail: [gst\\_ge@iras.gov.sg](mailto:gst_ge@iras.gov.sg)  
Web site: [www.iras.gov.sg](http://www.iras.gov.sg)  
Contact: Mrs. ENG Li Ming, Director, Tax Payer Audit

Singapore Customs  
55, Newton Road  
#07-01 Revenue House  
Singapore 307987  
Tel: (65) 6355-2000  
Fax: (65) 6250-9606  
E-mail: [customs\\_documentation@customs.gov.sg](mailto:customs_documentation@customs.gov.sg)  
Web site: [www.customs.gov.sg](http://www.customs.gov.sg)  
Contact: Mr. LEE Nee Chiat, Deputy Head, (Permits, Manifest & GST), Documentation Branch

#### 4.4.5 Licenses Required for Imports

Companies must make an inward declaration for all goods imported into Singapore. Most goods can be imported freely without licenses. The import of a few items such as lighters in the shape of pistols or revolvers and fire crackers is prohibited. Generally, the import of goods which the government says pose a threat to health, security, safety and social decency are controlled. Licenses are required for pharmaceuticals, hazardous chemicals, films and videos, arms and ammunition. Companies wanting to export controlled items to Singapore must apply for licenses from the appropriate government agencies.

#### 4.4.6 Entering Temporary Imports

For goods entering Singapore on a temporary basis, companies can apply for an ATA Carnet with the Singapore International Chamber of Commerce. The ATA Carnet serves as a guarantee against payment of import duties/taxes should the temporary admission period be exceeded. Goods imported under a carnet may not be sold and must be re-exported within the temporary admission period. If the items to be imported are subject to controls, companies must obtain endorsement/approvals from the relevant Government agencies before importing the goods into Singapore.

Bona fide trade samples may be imported without payment of duty if they are imported solely:

- For the purpose of soliciting orders for goods to be supplied from abroad; or
- For demonstration in Singapore to enable manufacturers in Singapore to produce such articles to fulfil orders from abroad; or
- By a manufacturer for the purpose of copying, testing or experimenting before he produces such articles in Singapore.

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#### 4.4.7 Import Regulations for Health Supplements

Vitamins with very high dosages of certain nutrients must be licensed or registered. However, most over-the-counter vitamins and dietary supplements need not be licensed. If a U.S. company has any concerns regarding licensing of its products, these can be addressed by contacting the Health Sciences Authority or by requesting its potential distributor to submit samples to the Health Sciences Authority.

There is also labeling and advertising legislation which applies to the sale of vitamins and dietary supplements. Generally, labeling laws require that:

- Composition of the products be disclosed in English
- Labels/packaging materials do not contain any reference to diseases/conditions as specified in the schedule to the Medicines (Advertisement & Sale) Act
- Advertising/sales promotion of the product in the public media be approved by the Health Sciences Authority's Centre for Pharmaceutical Administration

The Regulations which govern the sale of vitamins and dietary supplements in Singapore include:

- The Medicines Act 1975 & Its Subsidiary Legislation,
- The Medicines (Advertisement & Sales) Act,
- The Sale of Drugs Act and Its Regulations,
- The Consumer Protection (Trade Description & Safety Requirements) Act 1975,
- The Poisons Act and The Poisons Rules

The sale of Vitamin B15 (Pangamic Acid) and Vitamin B17 (Amygdalin) is prohibited under the Sale of Drugs (Prohibited Drugs) Regulations 1985.

#### 4.4.8 Pharmaceuticals Imports Regulations

All medicinal products, prescription and over-the-counter drugs, imported or sold in Singapore are required to be licensed by the Centre for Pharmaceutical Administration, Health Sciences Authority. The onus of applying for a product license rests with the license holder, ie; a locally registered company that is responsible for the safety, quality and efficacy of the product.

#### 4.4.9 Labeling Issues

Labels are required on imported food, drugs, liquors, paints and solvents and must specify the country of origin. Repackaged foods must be labelled to show (in English) the appropriate designation of the food content printed in capital letters at least 1/16 inch high; whether foods are compounded, mixed or blended; the minimum quantity stated in metric net weight or measure; the name and address of the manufacturer or seller; and the country of origin.

A description (in English) of the contents of the package may be added to the face of the label, providing the additional language is not contrary to or a modification of any statement on the label. Pictorial illustrations must not mislead about the true nature or origin of the food. Foods having defined standards must be labelled to conform to those standards and be free from added foreign substances. Packages of food described as "enriched", "fortified",

“vitaminized” or in any other way which implies that the article contains added vitamins or minerals must show the quantity of vitamins or minerals added per metric unit.

Special labels are required for certain foods, medicines and goods such as edible and non-edible animal fats as well as liquors, paints and solvents. Processed foods and pharmaceuticals must be inspected and approved by the Health Sciences Authority and the Ministry of Environment’s Food Control Section. Electrical goods must be checked by Singapore Power before they can be installed, while paints and solvents are the responsibility of the Chief Inspector of Factories, Ministry of Manpower.

#### **4.4.10 Restrictions on Imports**

A full list of prohibited products and controlled goods can be obtained from the Singapore Customs Web site, [www.tradenet.gov.sg](http://www.tradenet.gov.sg), under “Imports & Exports, List of Controlled Goods - Imports.”

#### **4.4.11 Warranty and Non-Warranty Repairs**

Dutiable goods are allowed to be imported for repair without payment of duty on condition that they are re-exported within three months of the date of importation. If the goods are not re-exported after the expiration of the given period, duty will become payable. This facility/provision is also extended to dutiable goods which are imported for trade exhibitions, fashion shows and displays.

#### **4.4.12 Controls on Exports**

Companies must make an outward declaration to export or re-export their goods out of Singapore. Except for selected items, there are very few controls on exports of goods from Singapore. Quantitative restrictions exist for certain textiles and textile products to Canada, EU countries and the U.S. Items such as rubber, timber, granite, satellite dishes and receivers, and chlorofluorocarbons are subject to export control and licensing. Items under export control must be endorsed or licensed by the appropriate government agencies before they can be exported. More information may be obtained at [www.tradenet.gov.sg](http://www.tradenet.gov.sg).

#### **4.4.13 Local Standards**

Singapore uses the metric system. While industrial standards applied in the engineering and construction fields are basically those used by other developed countries, PSB Corporation, a corporatized entity of the Standards, Productivity and Innovation for Growth (SPRING) Singapore, has developed standards for certain electrical, sanitary and building products. PSB Corporation assists the industries by providing independent testing and certification of products through the Product Listing Program (PLS). PLS is a third-party product quality assurance program where the safety and performance of a product is subjected to type-testing and surveillance testing/inspection. Under the program, products which comply with the relevant standards, will be listed and issued with a PSB Certificate of Conformity and provided with a PLS Label.

PSB Certification Pte Ltd, as Singapore’s national certification body, provides third party ISO 9000 certification. It gives recognition to companies that have properly designed and implemented quality management systems by awarding them the relevant part of the SS ISO 9000 series of standards.

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Under the Consumer Protection (Safety Requirements) Registration Program 2002 which initially came into effect in 1991, 45 products are listed as controlled goods. These include adaptors, LPG systems, cooking ranges, electric irons, gas cookers, hair dryers, microwave ovens, televisions, video display units, video cassette recorders, table fans, high-fidelity equipment, immersion water heaters, kettles, refrigerators, rice cookers, room air-conditioners, vacuum cleaners and washing machines which are considered potentially hazardous to consumers, must be registered and declared safe before they can be sold in Singapore. For more information, please visit [www.spring.gov.sg](http://www.spring.gov.sg).

The “safety mark” is a compulsory stamp of approval given by the Government of Singapore safety regulator, SPRING Singapore, to ensure that consumers are safe from hazards such as fire, explosion and electrical shock when using these appliances. However, test reports issued by accredited testing laboratories and national certification bodies are recognised by SPRING Singapore. A list of accredited laboratories and national certification bodies is also available from SPRING Singapore. U.S. suppliers of these products planning to expand sales into Singapore should check with the Consumer Protection Agency and SPRING Singapore before exporting. More information can be obtained from the Web site, [www.safety.org.sg](http://www.safety.org.sg).

Similarly, telecommunications equipment imported for use in Singapore is subject to “Type-Approval” by the Infocomm Development Authority of Singapore.

For the construction industry, the Building and Construction Authority uses the Construction Quality Assessment System (CONQUAS) to objectively rate building works. Details of the system are available at their Web site, [www.bca.gov.sg](http://www.bca.gov.sg).

#### **4.4.14 Free Trade Zone Options**

Singapore has seven Free Trade Zones (FTZ); six for sea borne cargo and one for air cargo (Singapore Changi Airport), within which a wide range of facilities and services are provided for storage and re-export of dutiable and controlled goods. Goods can be stored within the zones without any customs documentation until they are released in the market, and they can also be processed and re-exported with minimum customs formalities.

The FTZ’s at the port facilitate entrepôt trade and promote the handling of transshipment cargo. They offer free 72-hour storage for import/export of conventional and containerized cargo and 14-day free storage for transshipment/re-export cargo.

The Port Authority of Singapore (PSA) is the single largest owner of warehouse space in Singapore, managing over 500,000 sq. meters of space. It manages the Tanjong Pagar, Alexandra and Pasir Panjang Distriparks. Located close to the port and within easy reach of the airport and Jurong Industrial hub, the PSA distriparks are home to many established multinationals. The distriparks in varying designs and sizes cater to a host of Central Distribution Center operators, manufacturers, traders, forwarders and others.

#### **4.4.15 Adherence to Free Trade Agreements**

Singapore is a party to the World Trade Organization (WTO). Since January 1993, Singapore has participated in the ASEAN Common Effective Preferential Tariff (CEPT) program for the ASEAN Free Trade Area (AFTA). The program involves the application of preferential tariffs to goods of ASEAN origin as defined under the Rules of Origin for CEPT. Under the rules, a product is of ASEAN origin if it is wholly produced or obtained from an ASEAN country. The product can also be deemed to originate from ASEAN Member States if at least 40% of its content originates from any member states. The 40% local content requirement refers to both single country and cumulative ASEAN content. To date, Singapore has signed FTAs with New Zealand (ANZSCEP), Japan (JSEPA) and European Free Trade Association (EFTA), Australia (SAFTA), and the U.S.A. (USSFTA). Singapore has also

initiated FTA discussions with other strategic partners like Mexico, Canada, ASEAN and the People's Republic of Korea and India.

## 4.5 INVESTMENT CLIMATE

Foreign investments, combined with investments through government-linked companies (GLCs), underpin Singapore's open, heavily trade-dependent economy. With the exception of restrictions in the financial services, professional services, and media sectors, Singapore maintains an open investment regime.

The government is strongly committed both to maintaining a free market and to taking a leadership role in planning Singapore's economic development. That role has traditionally relied heavily on industrial policy; the government's active use of the public sector as both an investor and catalyst for development has given rise to the characterization of Singapore as 'Singapore Inc.' The dominant role of GLCs in the commanding heights of the economy has been criticized by some observers, who charge it has displaced private entrepreneurship. In the midst of its worst unemployment in 15 years and coping with structural changes in the employment market, the government is now stressing measures to encourage such entrepreneurship, while still continuing a heavy state role in the economy.

Attracting foreign investment into the country - initially to spearhead industrialization and subsequently to climb the technological and value-added ladders - has been the other key economic strategy of the government. Through it, Singapore has evolved into a base for multinational companies (MNCs) to engage in high-end manufacturing and product development, and coordinate regional procurement, production, marketing, and distribution operations. Singapore continues to have a sophisticated investment promotion strategy designed to attract major investment in knowledge-intensive manufacturing and service activities.

The Economic Development Board (EDB), Singapore's investment promotion agency, has a reputation for being highly responsive to changing business conditions and investor needs.

### 4.5.1 Openness to Foreign Investment

The country's legal framework and public policies are in general very friendly to foreign investors. Foreign investors are not required to enter into joint ventures or cede management control to local interests, and local and foreign investors are subject to the same basic laws. Apart from regulatory requirements in some sectors (financial and telecom services), the government screens investment proposals only to determine eligibility for various incentive regimes. Singapore places no restrictions on reinvestment or repatriation of earnings or capital. The judicial system upholds the sanctity of contracts, and decisions are effectively enforced.

### 4.5.2 Limits on National Treatment and Other Restrictions

Exceptions to Singapore's general openness to foreign investment exist in broadcasting, the domestic news media, retail banking, legal and other professional services, multi-level marketing, and property ownership. In addition, under Singapore law, corporate Articles of Incorporation may include shareholding limits that restrict ownership by foreign persons. Some, but not many, companies include such shareholding restrictions.

#### Legal Services

Foreign law firms with offices in Singapore face significant restrictions, and are unable to practice Singapore law, cannot employ Singapore lawyers to practice Singapore law, and cannot litigate in local courts. In general, foreign

law firms and foreign lawyers can only advise clients on the laws of their home country or international law; most foreign law firms have set up offices in Singapore mainly to advise multinational clients on third country matters or financial transactions in Singapore's offshore market.

U.S. law firms can only provide legal services in relation to Singapore law through a Joint Law Venture or Formal Law Alliance with a Singapore law firm, subject to a series of conditions and requirements. Joint law ventures are for work in banking and finance, and foreign lawyers in such associations may practice Singapore law if they are registered to do so by the Attorney General, but they are not allowed to do litigation. Formal alliances allow foreign lawyers to prepare all the documents relating to matters not exclusively concerning Singapore law. The US-Singapore FTA relaxes conditions on the formation of joint law ventures between U.S. and Singapore law firms.

With the exception of law degrees from certain UK/Australian/New Zealand universities, no foreign university law degrees are recognized for purposes of admission to practice law in Singapore. The US-Singapore FTA will result in Singapore recognizing degrees from four U.S. law schools.

## **Engineering and Architectural Services**

Professional engineering firms also face restrictions. While engineering firms can be 100% foreign-owned, the chairman and two-thirds of the firm's board of directors must comprise engineers, architects, or land surveyors registered with local professional bodies. Professional engineering work in Singapore must be under the control and management of a director of the corporation who (1) is a registered owner of at least one share of the corporation if it is an unlimited corporation; (2) is a registered professional engineer ordinarily resident in Singapore; and (3) has a valid practicing certificate. In the case of a partnership, only registered engineers may have a beneficial interest in the capital assets and profits of the firm, and the business of the partnership must be under the control and management of a registered professional engineer who ordinarily resides in Singapore. Similar requirements apply to architectural firms. The US-Singapore FTA reduces the Board of Director requirements for architectural and engineering firms to 51%.

## **Real Estate**

There are restrictions on foreign ownership of real estate in Singapore. Under the Residential Property Act, foreigners may purchase freehold condominiums, but are not permitted to own landed homes (houses) and apartments in buildings of fewer than six stories, unless approval is first obtained from the Minister of Law. Such approvals are granted very selectively; an example where approval may be granted is a foreign MNC buying properties to house its executives. There are no restrictions on foreign ownership of industrial and commercial real estate.

## **Screening Mechanisms**

There is no overarching vetting requirement for foreign investment, although investments in certain sectors require the advance approval of certain regulatory agencies. For example, telecom firms must be licensed by the Infocommunications Development Authority (IDA), while firms in the financial services sector require approval by the Monetary Authority of Singapore (MAS). In both cases, license approval is not automatic, and may depend on agreement to performance requirements or commitments to transfer certain additional functions to Singapore. MAS meets with applicants both before and during the period of documentary processing, to discuss their applications.

### **4.5.3 Conversion and Transfer Policies**

Singapore places no restrictions on reinvestment or repatriation of earnings and capital, and maintains no significant restrictions on remittances, foreign exchange transactions and capital movements. The US-Singapore FTA reflects the shared commitment of the U.S. and Singapore to the free transfer of capital, unimpeded by controls. (Note: See

the section on Efficient Capital Markets for a discussion of certain restrictions on the borrowing of Singapore Dollars (SGD) for use offshore. End Note.)

#### **4.5.4 Expropriation and Compensation**

To date, there have been no significant disputes between the government and foreign investors. The government has not taken expropriatory actions against foreign investors and there are no laws that force foreign investors to transfer ownership to local interests.

Singapore has signed investment promotion and protection agreements with a wide range of countries. These agreements mutually protect nationals or companies of either country against war and non-commercial risks of expropriation and nationalization for an initial period of 15 years and continue thereafter unless otherwise terminated.

The US-Singapore FTA contains strong investor protection provisions related to expropriation and due process, and the right to receive a fair market value for property in the event of an expropriation.

#### **4.5.5 Dispute Settlement**

Singapore has institutionalized and internationalized arbitration through the creation of arbitration bodies and ratification of international conventions. The Singapore International Arbitration Center (SIAC), a non-profit organization, was set up in 1991 to promote the settlement of disputes by arbitration and conciliation.

All core obligations of the US-Singapore FTA will be subject to the dispute settlement provisions of the Agreement. The dispute settlement procedures promote compliance through consultation and trade-enhancing remedies, rather than rely solely on trade sanctions. The procedures also set new and higher standards of openness and transparency.

#### **4.5.6 Performance Requirements**

In general, Singapore complies with WTO TRIMS obligations. However, in a number of past cases the approval of licenses in the facilities-based telecom sector and the retail banking sector has been conditioned on performance requirements or the transfer/development of certain functions to Singapore. The US-Singapore FTA prohibits and removes certain performance-related restrictions on US investors, such as limitations on the number of locations.

In all cases where a foreign investor requests investment incentives, the company's track record, the amount of its investment, and its contributions to Singapore's goal of becoming a knowledge-based economy become important considerations in the selection process.

There are no discriminatory or preferential export or import policies affecting foreign investors. The government does not require investors to purchase from local sources or specify a percentage of output for export. The government also does not require local equity ownership in the investment. There are no general rules forcing the transfer of technology. Foreign investors face no requirement to reduce equity over time and are free to obtain their necessary financing from any source.

Employment of host country nationals is not required. Visa and residency policies are generally foreign-investor friendly. While the government discourages dependency on unskilled foreign labor (by setting quantitative limits and imposing special monthly levies), it actively seeks to attract highly-skilled foreigners to work in Singapore, including

by offering companies a double tax deduction on approved hiring and relocation expenses related to hiring talent from abroad.

### **4.5.7 Right to Private Ownership and Establishment**

Foreign and local entities may easily establish, operate, and dispose of their own enterprises in Singapore. Except for representative offices, where foreign firms maintain a local representative but do not conduct commercial transactions in Singapore, there are no restrictions on carrying out remunerative activities.

All businesses in Singapore must be registered with the Registry of Companies and Businesses. Foreign investors can operate their businesses in one of the following forms:

- Sole proprietorship: An individual operating as a sole trader regulated under the Business Registration Act with a manager who can be a Singapore Citizen or foreigner with right of residence in Singapore (e.g. Employment Pass holder or Singapore Permanent resident);
- Partnership: Two to 20 persons, regulated under the Business Registration Act;
- Incorporated company: Which could be a private or public company limited by shares or guarantee, or as an unlimited company regulated by the provisions of the Companies Act;
- Foreign company: Registered as a branch of the parent company under the Companies Act but not incorporated as a Singapore company; or
- Representative office: Offices of foreign corporations, which undertake promotional and liaison activities on their parent company's behalf. They must not engage in business, conclude contracts, provide consultancy for a fee, undertake transshipment of goods, or open or negotiate any letters of credit directly or on behalf of their parent companies.

Private businesses, both local and foreign, compete on a generally equal basis with government-linked companies (GLCs), although some observers speculate that government-linked corporations have benefited from cheaper financing due to an implicit government-guarantee. Government officials reject such assertions, saying the government does not interfere with the operations of the GLCs, or grant them special privileges, preferential treatment or hidden subsidies. However, many observers have been critical of cases where GLCs had entered into new lines of business, or where government agencies have corporatized certain functions, in both cases entering into competition with already existing private businesses.

### **4.5.8 Intellectual Property Risks**

Singapore's legal system is based on UK law and offers effective means for enforcing property rights. Common law protects and facilitates the acquisition and disposition of all property. Secured interests in property are recognized and enforced.

Intellectual property protection has improved significantly since the late 1990s, leading to Singapore's removal from the U.S. Special 301 Watch List in April 2001. Nevertheless, some problems have remained, including the availability of pirated optical discs, use of unlicensed software by businesses, the transshipment of pirated material through Singapore, and a burdensome process to get infringing material removed from Internet sites. The US-Singapore FTA addresses these and other issues and provide enhanced protection for U.S. rights owners. While not an FTA commitment, in September 2002 Singapore set up a specialized court (IP Court), which comes under the Singapore Supreme Court, to deal with IP disputes.

On enforcement, although the production of pirated material and blatant storefront piracy have been sharply reduced (piracy rates for motion pictures and music are now around 20%), pirated optical discs and counterfeit goods continue to be available from vendors in some street markets, outside metro stations, and other high pedestrian locations. The Intellectual Property Branch of the Singapore Police is working to address such activities, but targeting the highly mobile pirates is a challenge. The software piracy rate in Singapore, while among the lowest in Asia, remains largely static, and is almost double the level in the U.S. The absence of criminal penalties for the use of unlicensed software means that many businesses use unlicensed software, resulting in estimated losses by the business software industry of over \$30 million annually. Under the US-Singapore FTA, Singapore would rectify this problem by amending its law.

Singapore's continued retention of its "self-help" policy on IPR enforcement, which treats IP infringement differently than other theft crimes, places an undue and expensive burden on rights holders to initiate raids and prosecute pirates. Although robust government enforcement action represents an important step away from this approach, the "self-help" policy continues to send the wrong message that IP offenses are not crimes against the public interest.

Until recently, most educational institutions (the majority government-operated) were out of compliance with their legal obligations to pay royalty fees to publishers in exchange for the right to duplicate copyrighted printed works for use in course materials.

Although it is a major transshipment and transit point for sea and air cargo, Singapore does not collect information on the contents and destinations of most transshipment and transit trade, which account for 80% of cargo coming through Singapore. This lack of information prevents the use of modern customs enforcement techniques, such as risk analysis and profiling, thereby making enforcement against transshipment or transit trade in illegal goods, including infringing products, extremely difficult. In addition, it is unclear whether Singapore law provides for the seizure of infringing products that are being transshipped or are in transit.

There is no specific legislation in Singapore on trade secrets. Rather, investors' commercially valuable proprietary information is protected under common law by the Law of Confidence. The US-Singapore FTA protects test data and trade secrets submitted to the government for the purpose of product approval will be protected against disclosure for a period of five years for pharmaceuticals and ten years for agricultural chemicals. The Official Secrets Act and the Internal Security Act protect all government trade secrets.

## 4.5.9 Transparency of the Regulatory System

The Singapore government promotes its regulatory environment as business-friendly, with transparent and clear regulations. Tax, labor, banking and finance, industrial health and safety, arbitration, wage and training rules and regulations are formulated and reviewed with the interests of foreign investors and local enterprises in mind, and the government is usually open to comments from interested businesses.

With some important exceptions, Singapore has not had a system whereby proposed regulations are published for public comment in a government gazette, although, in general the government usually consults relevant stakeholders prior to implementing any new law or regulation (though this consultative process may not necessarily be conducted in public). Local laws give regulatory bodies wide discretion to modify regulations and impose new conditions, but in practice agencies use this in a positive way, such as adapting incentives or other services on a case-by-case basis to meet the needs of foreign companies. In April 2003, the Singapore government established a centralized Internet portal (<http://app.feedback.gov.sg/asp/ocp/ocp01a.asp>) to seek feedback on selected draft legislation and regulations.

Procedures for obtaining licenses and permits are generally transparent and not burdensome, but there have been occasional exceptions. Procedures appear faster in areas considered by the government as national priorities.

Investors in areas not considered priorities, or in new areas that may be unfamiliar to the government, may experience a longer process.

#### **4.5.10 Capital Market Risks**

Policies in Singapore facilitate the free flow of financial resources. Credit is allocated on market terms, and foreign investors can access credit on the local market, both U.S. dollars, Singapore dollars (SGD), and other foreign currencies. The legal, regulatory and accounting systems are transparent and either already match or are being upgraded to match international norms and best practices.

The Monetary Authority of Singapore (MAS) formulates and implements the country's monetary and exchange rate policy, and supervises and regulates the country's sophisticated financial and capital markets. Since 1999, MAS has been moving away from a regulatory approach based on prescriptive rule-making to one based on risk-based supervision. MAS guidelines on risk management are based on best practices and are similar to those issued by regulatory authorities in other advanced jurisdictions.

Singapore's banking system is sound and well-regulated. Local Singapore banks remain relatively small in Asian terms, but are more profitable and have stronger credit ratings than many of their Asian peers.

The Embassy is not aware of any attempts by the private sector or the government to restrict foreign participation in industry standards-setting consortia or organizations; indeed, the participation of foreign investors is often actively solicited.

#### **4.5.11 Corporate Governance**

Rules on mergers and acquisitions (M&A) are generally aligned with international standards, particularly after the recent release of a revised Code on Takeovers and Mergers. The new Code provides better protection to minority shareholders and more time to consider offers (28 days vice 21 days previously). However, there have been instances where companies violated the spirit of the rule designed to protect minorities, while adhering to its text, but these actions were not targeted at foreign investors.

The Council on Corporate Disclosure and Governance (CCDG) prescribes accounting standards in Singapore. Formally termed 'Financial Reporting Standards' (FRS), Singapore's prescribed accounting standards are aligned with the accounting standards issued by the International Accounting Standards Board. Companies can deviate from the prescribed accounting standards if such deviations are required to present a 'true and fair' set of financial statements. Singapore-incorporated companies whose shares are publicly traded can use certain alternative standards, if they are listed on foreign stock exchanges that require these standards. These companies do not need to reconcile their accounts with Singapore accounting standards. Thus, a listed Singapore-incorporated company that is also listed in the U.S. can prepare its accounts based on US GAAP. It does not need to prepare a parallel set of accounts based on Singapore accounting standards. All other Singapore-incorporated companies must use the prescribed accounting standards, unless they are exempted by the Registry of Companies and Businesses.

#### **4.5.12 Political Violence**

Singapore's political environment is stable, and there is no history of incidents involving politically-motivated damage to foreign investments in Singapore. The ruling People's Action Party (PAP) has dominated Singapore's parliamentary democracy since 1959, and currently controls 81 of the 83 regularly contested parliamentary seats.

Opposition parties, which currently hold two regularly contested parliamentary seats and one additional seat reserved to the opposition by the constitution, do not usually espouse views that are radically different from the mainstream of Singapore political opinion.

### **4.5.13 Corruption**

Transparency International ranks Singapore as the least corrupt country in Asia, and one of the least corrupt in the world, a view shared by most observers and foreign investors. Singapore has and actively enforces strong anti-corruption laws. The Prevention of Corruption Act and the Corruption, Drug Trafficking and Other Serious Crimes (Confiscation of Benefits) Act provide the legal basis for government action by the Corrupt Practices Investigation Bureau (a division of the Prime Minister's Office). These laws cover acts of corruption both within Singapore as well as those committed by Singaporeans abroad. When cases of corruption are uncovered, whether in the public or private sector, the government deals with them firmly, swiftly and publicly, as they do in cases where public officials are involved in dishonest and illegal behavior.

Singapore is not a party to the OECD Convention on Combating Bribery, but the Prevention of Corruption Act makes it a crime for a Singapore citizen to bribe a foreign official or any other person, whether within or outside Singapore.

### **4.5.14 Bilateral Investment Agreements**

Singapore has signed General Investment Guarantee Agreements (IGA's) with ASEAN member nations, the Belgo-Luxembourg Economic Union and the following 27 economic partners: Belarus, Cambodia, Canada, China, the Czech Republic, Egypt, France, Germany, Hungary, Laos, Latvia, Mauritius, Mongolia, The Netherlands, Pakistan, Peru, Poland, the Riau Province of Indonesia, Slovenia, Sri Lanka, Switzerland, Taiwan, the United Kingdom and the United States, Uzbekistan Vietnam and Zimbabwe. These agreements mutually protect nationals or companies of either country against war and non-commercial risks of expropriation and nationalization.

The US-Singapore FTA provides important protections for investors, and will protect all forms of investment. The Agreement guarantees U.S. investors treatment no less favorable than Singaporean investors or any other foreign investor, except in certain sectors that are specifically exempted. This so-called "negative list" approach is the most comprehensive way to protect the interests of U.S. investors in Singapore. Singapore has tax treaties with a number of countries, but not with the United States.

### **4.5.15 OPIC and Other Investment Insurance**

Under a 1966 investment guarantee agreement with Singapore, the U.S. Overseas Private Investment Corporation (OPIC) offers insurance to U.S. investors in Singapore against currency inconvertibility, expropriation and losses arising from war. Singapore became a member of the Multilateral Investment Guarantee Agency (MIGA) in 1998.

### **4.5.16 Labor**

Singapore's labor market totals about two million persons, including nearly half a million unskilled and semi-skilled foreign workers and about 70,000 foreign professionals. Local labor laws are flexible, allow for relatively free hiring and firing practices.

Labor-management relations in Singapore are excellent. About 29% of the workforce is unionized. The vast majority of unions are affiliated with the National Trades Union Congress (NTUC), which maintains a symbiotic relationship with the ruling party. Although workers, other than those employed in the three essential services of water, gas and electricity, have the legal right to strike, there has not been any strike since 1986. Industrial disputes, when they exist, are usually settled through mediation by the government. When this fails, the matter is decided by the Industrial Arbitration Court (IAC), whose rulings are binding. Once the IAC recognizes a dispute, strikes or lockouts are illegal under the Trade Disputes Act.

Singapore has no minimum wage law; the government follows a policy of allowing free market forces to determine wage levels. Singapore has a flexible wage system in which the National Wage Council (NWC) recommends non-binding wage adjustments on an annual basis, and largely based on prevailing economic and employment conditions. The NWC comprises of 30 members: ten trade union leaders, ten employer group leaders, and ten government officials. The NWC recommendations apply to all employees in both domestic and foreign firms, and across the private and public sectors. While the NWC wage guidelines are not mandatory, they are widely implemented. The level of implementation is generally higher among unionized companies compared to non-unionized companies.

To help companies adjust employment costs, the government has urged companies to include an “annual variable component” of up to 20% of wages; after discussion with employees, firms in difficulty could lower wages by up to the amount. The NWC has also recommended that companies and employers agree to set aside an additional 10% of wages in a “monthly variable component,” allowing for quicker wage cost adjustments. Only a minority of firms has implemented the monthly variable component.

The government places a ceiling on the ratio of unskilled/semi-skilled foreign workers local workers that a company can employ, and charges a monthly levy for each unskilled or semi-skilled foreign worker. At the same time, the government provides incentives and assistance to firms to automate and invest in labor-saving technology.

Firms pay a levy equivalent to one percent of wages paid to employees earning S\$1,500 per month (about US\$833) or less, to the Skills Development Fund (SDF), a pool from which the government draws to provide incentives and grants for manpower training.

## **4.6 TRADE AND PROJECT FINANCING**

### **4.6.1 The Banking System**

Singapore is a well-established international financial center. It is a leading world foreign exchange trading center and trader in derivatives. There are about 700 local and foreign banking and financial institutions in Singapore that provide services relating to trade financing, foreign exchange, derivatives products, capital markets activities, loan syndication, underwriting, mergers and acquisitions, asset management, securities trading, financial advisory services and specialized insurance services.

The Monetary Authority of Singapore (MAS) performs all the functions of a central bank including the issuance of currency. The unit of legal tender is the Singapore dollar. The MAS is a wholly owned and controlled statutory board under the Ministry of Finance; it is responsible for all matters relating to banks and financial institutions. Besides regulating financial institutions, the MAS has a Financial Sector Promotion Department that promotes new financial activities, develops IT infrastructure and manpower resources for the financial sector, and designs appropriate incentives to attract international financial firms to conduct activities in Singapore.

## 4.6.2 Foreign Exchange Control Risks

There is free movement of capital and profits in Singapore. Restrictions placed on Singapore-dollar loans to non-residents (aimed at preventing the internationalization of the Singapore currency) have recently been significantly reduced. Banks can grant Singapore dollar credit facilities to non-residents for trading or investment purposes in Singapore, and to fund offshore activities if the Singapore Dollar proceeds are swapped into foreign currency.

## 4.6.3 General Availability of Financing

Several large commercial banks offer a variety of banking services to manufacturing firms and other clients. Most banks extend credit for five to ten years at competitive interest rates, covering up to 50% of plant and machinery costs and up to 65% of the value of factory buildings. Higher percentage loans are available for particularly desirable projects and for expansion loans. Many larger Singapore banks have subsidiaries that carry out merchant banking, insurance, property development, securities trading as members of the stock exchange, and underwriting issues of government bonds. 55 merchant banks provide a wide range of services not covered by some commercial banks, including investment portfolio management, investment advisory services, advice on corporate restructuring, mergers and acquisitions, financing, lending or participating in syndicated loans, capital equipment leasing, and underwriting and floating bond and stock issues.

The exchange rate is the MAS' most important tool for controlling inflation. It engages in limited money market operations to influence interest rates and ensure adequate liquidity in the banking system. The Government does not set targets for monetary aggregates. Money supply and domestic interest rates are primarily determined by international, rather than local conditions.

## Financing Export Strategies

Singapore has a well-developed financial system, and Singapore offers the complete range of export finance instruments. Shipments are generally made under letters of credit and sight drafts, depending on the exporter's preference and the extent of past dealings with the purchaser. Standard credit terms are generally 30 to 90 days. Quotations are generally made on a C.I.F. basis. The prices given are in U.S. dollars but should be clearly stated. Exporters making quotations in Singapore dollars should consult their banks for the prevailing exchange rate. Singapore uses the metric system, so it is often beneficial for price/quantity quotations to be prepared accordingly.

## Export Financing Options

U.S. government agencies like the Export-Import Bank of the United States and the U.S. Department of Agriculture, OPIC, as well as state and local bodies like the Small Business Administration offer a variety of programs to assist exporters with their financing and insurance needs. Firms seeking such assistance should contact the nearest Export Assistance Center.

## Types of Projects Receiving Financing

Singapore is considered a developed country and does not receive development assistance from multilateral institutions.

## Banks in Singapore

American Express Bank Ltd.  
16 Collyer Quay  
Hitachi Tower

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Singapore 049318  
Tel: (65) 6538-4833  
Fax: (65) 6534-3022  
Web site: **www.americanexpress.com**  
General Manager: Mr. S Lachlan Hough

Bank of America  
9 Raffles Place  
Republic Plaza Tower 1  
#18-00  
Singapore 048619  
Tel: (65) 6239-3888  
Fax: (65) 6239-3137  
Web site: **www.bankofamerica.com**  
President Asia: Mr. Colm McCarthy

Citibank 1 Raffles Link  
#01-01 One Raffles Link Building  
Singapore 039393  
Tel: (65) 6224-2611  
Fax: (65) 6328-5880  
Web site: **www.citibank.com.sg**  
Country Chief Officer: Mr. Sanjiv Misra

Development Bank of Singapore Ltd.  
6, Shenton Way,  
DBS Building, Tower 1, 46th Floor,  
Singapore 068809  
Tel: (65) 6878-8888  
Fax : (65) 6445-1267  
Web site: **www.dbs.com.sg**  
Chairman: Mr. Jackson TAI

HSBC Republic Bank (Suisse) SA  
21 Collyer Quay  
#01-00 HSBC Building  
Singapore 049320  
Tel: (65) 6224-0077  
Fax: (65) 6225-5769  
Web site: **www.hsbc.com.sg**  
Chief Executive: Mr. John C. Hanson  
Merrill Lynch International Bank Ltd 2 Raffles Link  
Marina Bayfront  
Singapore 039392  
Tel: (65) 6331-3888  
Fax: (65) 6331-3500  
Web site: **www.ml.com**  
Chairman: Mr. Raymundo YU

Overseas-Chinese Banking Corporation Ltd.  
65, Chulia Street  
OCBC Centre, #01-00  
Singapore 049513

Tel: (65) 6535-7222  
Fax: (65) 6533-7955  
Web site: **www.ocbc.com.sg**  
Chairman: Dr. CHEONG Chong Kong

The Bank of New York  
1 Temasek Avenue  
#02-01 Millenia Tower  
Singapore 039192  
Tel: (65) 6432-0222  
Fax: (65) 6338-4736  
Web site: **www.bankofny.com**  
Managing Director: Mr. Jai Arya

The JPMorganChase Bank  
168 Robinson Road  
#15-00 Capital Tower  
Singapore 068912  
Tel: (65) 6882-2888  
Fax: (65) 6392-7375  
Web site: **www.jpmorganchase.com**  
Regional Manager: Mr. Bart Broadman

The Northern Trust Company  
80 Raffles Place  
46<sup>th</sup> Floor, UOB Plaza 1  
Singapore 048624  
Tel: (65) 6437-6666  
Fax: (65) 6437-6619  
Web site: **www.ntrs.com**  
Branch Manager and Senior Vice President: Mr. Lawrence AU

United Overseas Bank Group Ltd.  
80, Raffles Place,  
UOB Plaza 1  
Singapore 048624  
Tel: (65) 6539-2705  
Fax: (65) 6535-1069  
Web site: **www.uobgroup.com**  
Chairman: Mr. WEE Cho Yaw

Wachovia Bank  
80 Raffles Place  
UOB Plaza 2, #11-20  
Singapore 048624  
Tel: (65) 6395-2525  
Fax: (65) 6395-2526  
Web site: **www.firstunion.com/international**  
Director and Regional Manger-Southeast Asia: Ms. Gwynne Master

## Asian Development Bank

Asia's premier non-profit financial institution, the Asian Development Bank (ADB), is headquartered in Manila, Philippines. ADB was founded in 1966 and is owned by 61 member countries. The United States and Japan are the largest shareholders. Singapore is one of the original founding members and has now graduated to donor status. The Bank's regional membership extends from the Far East to South Asia, through the Pacific Islands up to Central Asia.

ADB's lending portfolio generates commercial opportunities in borrowing countries for consultants, equipment suppliers, contractors, banks and project sponsors from the bank's member countries. The United States maintained its number one ranking in total procurement awards for the year among donor countries.

Aside from its public sector operations, ADB also lends directly to the private sector where its participation serves to mobilize further investments for projects that have a high developmental impact.

ADB maintains resident offices in Bangladesh, Cambodia, China, India, Indonesia, Laos, Kyrgyz Republic, Nepal, Pakistan, Philippines, Sri Lanka, Vietnam, Vanuatu (for the South Pacific), Uzbekistan, Kazakhstan and Mongolia; a field office in Gujarat, India, and a country office in the Philippines. The bank also maintains three representative offices in Tokyo, Washington, D.C. and Frankfurt.

The U.S. Department of Commerce maintains a Congressionally-mandated Commercial Liaison Office for the ADB (CS ADB). The Office's mission is to help American firms access, enter and expand in Asian markets that benefit from ADB assistance. For example, the office provides counseling, advocacy, project information and conducts outreach programs in the region as well as in the United States to help U.S. firms take advantage of commercial opportunities in countries borrowing from the ADB.

The office's contact information:

The U.S. Commercial Liaison Office for ADB (CS/ADB)  
American Business Center  
25th Floor, Ayala Life-FGU Building  
6811 Ayala Avenue,  
Makati City, Philippines 1226

U.S. mailing address:

PSC 500 Box 33,  
FPO AP 96515-1000  
E-mail: manila.adb.office.box@mail.doc.gov  
Telephones: (632) 887-1345(-6); (632) 888 4088 (extn. 5853, 5854, 5889)  
Fax: (632) 887-1164

## 4.7 TRAVEL ISSUES

### 4.7.1 Local Business Practices

Business discussions are usually conducted in a very straightforward manner. English is widely spoken, and most businesspeople are skilled and technically knowledgeable. Most agents/distributors have visited the United States and often handle several U.S. product lines. Corruption is virtually non-existent.

Many Singapore business people are of ethnic Chinese background, and many of them will have “Christian” first names (e.g., Nancy Goh). Those who do not will have only their Chinese name on their business card, in which case the family name is listed first. Mr. Ho Weng Hee would be addressed as “Mr. Ho” and Ms. Wong Ai Lan as “Ms. Wong.” For the sake of politeness and respect, it is wise to address a business person by the last name rather than the first name - unless an immediate rapport is developed.

Business cards are a must as they are immediately exchanged during business and social meetings. The East Asian practice of presenting a business card with both hands is observed. There is no need to have special business cards printed in Chinese, however.

## **4.7.2 Travel Advisory and Visas**

While in a foreign country, a U.S. citizen is subject to that country’s laws and regulations which sometimes differ significantly from those in the United States and do not afford the same protections available to the individual under U.S. law. Penalties for breaking the law can be more severe than in the United States for similar offences. Persons violating the law, even unknowingly, may be expelled, arrested or imprisoned. Visitors should be aware of Singapore’s strict laws and penalties for a variety of offences that might be considered minor in the United States, including jaywalking, littering and spitting.

Singapore imposes a mandatory caning sentence on males for vandalism offences. Caning may also be imposed for immigration violations and other offences. Penalties for possession, use, or trafficking in illegal drugs are strict, and convicted offenders can expect jail sentences and fines. Singapore has a mandatory death penalty for many narcotics offences. Commercial disputes that may be handled as civil suits in the U.S. can escalate to criminal cases in Singapore and result in heavy fines and prison sentences. There are no jury trials in Singapore. Judges hear cases and decide sentencing. The Singapore Government does not provide legal assistance except in capital crime cases.

A valid U.S. passport is required for tourist and business travel to Singapore. No visa is necessary for U.S. citizens visiting Singapore. To facilitate regional travel, it is advisable to replace any passport that has less than six months validity.

Business travelers to Singapore seeking appointments with U.S. Embassy Singapore officials are encouraged to schedule an appointment with Commercial Officers prior to departure from the U.S. The Commercial section may be reached by telephone at 65/6476-9037, fax at 65/6476-9080, or E-mail at [commerce@pacific.net.sg](mailto:commerce@pacific.net.sg).

## **4.7.3 Work Week**

Singapore is twelve hours ahead of Eastern Daylight Savings (or thirteen hours ahead of E.S.T). Business hours normally are 8:30 a.m. - 5:00 p.m., Monday-Friday, 8:30 am - 1:00 p.m., Saturday. Shops are normally open from 10:00 am - 9:00 p.m.

## **4.7.4 Infrastructure for Conducting Business**

Taxis are abundant, metered, inexpensive and air-conditioned, and most drivers speak English. Drivers should be given place names for the destination as these are often more familiar than street names. Traffic flow is quite good. The Government limits the total number of cars on the road through heavy fees/taxes and imposes a surcharge on vehicles entering the Central Business District during much of the day. In addition, an exceptionally clean, efficient, subway system links the major business/shopping areas.

Singapore's unit of currency is the Singapore dollar. Travelers' checks and currency may be exchanged in the baggage claim area at Changi Airport (at a reasonable rate) or at any hotel (at a less favorable rate). Singapore features dozens of Government-authorized "money changers" located in major shopping centers, who offer competitive rates and will usually accept U.S. travelers' checks as well as major currencies. International credit cards are widely accepted in hotels, restaurants and retail shops.

In addition to having one of the world's best airports and container ports, Singapore features an exceptionally modern telecommunications system. Public telephones accepting cash cards or cash are located throughout. 'Cyber cafes' are also gaining in popularity, and internet connections are available in most hotels. Electrical current is 220V, 50HZ.

Located a few degrees from the Equator, Singapore has a constant tropical climate year-round. Daytime temperatures average between 85 and 90 degrees Fahrenheit. Humidity is very high and rain showers are frequent. Temperatures at night average between 76 and 80 degrees. All public buildings, indoor restaurants and taxis are air-conditioned.

Summer-weight suits/dresses, several dress-shirts, an umbrella and swimsuit are recommended for the traveler. Singapore business dress is shirt and tie for men, although one will not be out of place occasionally wearing a jacket. Businesswomen wear conservative, lightweight attire. Evening dinner-dress is a shirt and tie for men, a dress for women.

Tipping is not customary in Singapore. Restaurants automatically add a 10% service charge and a goods and services tax (GST) to the bill.

## **4.7.5 Temporary Entry of Goods**

There is no restriction on the temporary entry of laptop computers, software and exhibition materials into the country.

## **4.7.6 Country Data**

### **Geography**

- Total Land Area: 685 sq km
- Climate: Tropical; hot, humid, rainy; two distinct monsoon seasons - Northeastern monsoon from December to March, Southwestern monsoon from June to September; inter-monsoon - frequent afternoon and early evening thunderstorms

### **People**

- Population: Total - 4.2 million (mid-year 2002); Singapore residents - 3.4 million
- Population growth rate: 1.8%
- Crude birth rate: 11.0 births/1,000 population
- Crude death rate: 4.4 deaths/1,000 population

- Total population: 993 males/1,000 female
- Infant mortality rate: 2.5 deaths/1,000 live births
- Life expectancy at birth: 78.7 years (2002)
- Total fertility rate: 1,370 children born/1,000 female population 15-44 years
- Ethnic groups: Chinese 76.9%, Malay 14%, Indian 7.9%, other 1.4%
- Language: English (principal language), Mandarin, Malay and Tamil
- Religion: Buddhist, Taoist, Muslim, Christian, Hindu
- Literacy: 93.2% (2001)

## Government Activities and Policies

- Type: Parliamentary republic.
- Constitution: June 3, 1959 (amended 1965 and 1991).
- Independence: August 9, 1965.
- Branches: Executive--president (head of state, 4-yr. Term); prime minister (head of government). Legislative--unicameral 83-member parliament (maximum 5-yr. Term). Judicial--High Court, Court of Appeal, subordinate courts.
- Political parties: People's Action Party (PAP), Singapore Democratic Party (SDP), Workers' Party (WP), Singapore's Peoples Party (SPP).
- Suffrage: Universal and compulsory at 21.
- Flag: Two equal horizontal sections, red over white, with a white crescent and five stars in the upper left corner.

## Work Week

The work week is typically 44 hours.

### 4.7.7 Transportation

Changi Airport and Singapore's seaport are among the best facilities in the world. There is an extensive road network and a modern, efficient Mass Rapid Transit (MRT) system serving major business and shopping districts as well as principal residential districts.

## 4.8 KEY CONTACTS

### 4.8.1 Important U.S. Government Contacts in the United States

TPCC Trade Information Centre in Washington  
 1-800-USA-TRADE (1-800-872-8723)  
 Monday – Friday: 8.30 am - 5.30 pm (EST)

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U.S. Department of State Office of Business Affairs  
Country Desk Officer: Diane Bean  
Tel: 202/647-2927  
Fax: 202/736-4559

U.S. Department of Commerce MAC Country Desk Officer:  
Ms. Georgia Creech  
Tel: 202/482-3832  
Fax: 202/482-3316  
E-mail: georgia\_creech@ita.doc.gov

U.S. Department of Agriculture, Foreign Agricultural Service, Trade Assistance and Promotion Office (Exporter Assistance)  
Tel: 202/720-7420  
Fax: 202/690-4374

Overseas Private Investment Corporation  
Tel: 800/424-6742 or 800/424-OPIC, 202/336-8799  
Fax: 202/408-5155

## 4.8.2 Useful Contacts in the U.S.

Embassy of the Republic of Singapore  
3501 International Place, N.W.  
Washington, D.C. 20008  
Tel: 202/537-3100  
Fax: 202/537-0876  
Ambassador: Prof. CHAN Heng Chee  
E-mail: singemb@bellatlantic.net

Singapore Economic Development Board  
Boston  
8th Floor, One International Place, Boston, MA 02110-2600  
Tel: 617/261-9981  
Fax: 617/261-9983  
Centre Director: Mr. BEH Kian Teik  
E-mail: kiantaik@edb.gov.sg  
Web site: [www.sedb.com](http://www.sedb.com)

Singapore Economic Development Board  
ChicagoTwo Prudential Plaza, 180 North Stetson Ave., Suite 970  
Chicago, IL 60601-6712  
Tel: 312/565-1100  
Fax: 312/565-1994

Centre Directors: Damian CHAN Chee Weng, CHOO Heng Tong, GOH Chee Kiong  
E-mail: damianc@edb.gov.sg, hengtong@edb.gov.sg, ckgoh@edb.gov.sg  
Web site: [www.sedb.com](http://www.sedb.com)

Singapore Economic Development Board  
Los Angeles

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2029 Century Park East, Suite 438, Los Angeles, CA 90067  
Tel: 310/553-0199  
Fax: 310/557-1044  
Centre Director: Mr. Adrian CHAN Chee Shan  
E-mail: [adrian@edb.gov.sg](mailto:adrian@edb.gov.sg)  
Web site: [www.sedb.com](http://www.sedb.com)

Singapore Economic Development Board  
New York  
55 East 59th Street, Suite 21B  
New York, NY 10022-1112  
Tel: 212/421-2200  
Fax: 212/421-2206  
Centre Director: Mr. CHIK Wai Chiew  
E-mail: [waichiew@edb.gov.sg](mailto:waichiew@edb.gov.sg)  
Web site: [www.sedb.com](http://www.sedb.com)

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San Francisco  
210 Twin Dolphin Drive, Redwood City, CA 94065-1402  
Tel: 650/591-9102  
Fax: 650/591-1328  
Centre Directors: Mr. KOK Ping Soon, Mr. Clarence TI Boon Wee  
E-mail: [pingsoon@edb.gov.sg](mailto:pingsoon@edb.gov.sg) , [cti@edb.gov.sg](mailto:cti@edb.gov.sg)  
Web site: [www.sedb.com](http://www.sedb.com)

Singapore Economic Development Board  
Washington  
1909 K Street, N.W., Suite 730  
Washington DC 20006  
Tel: 202/223-2571  
Fax: 202/223-2572  
Centre Director: Mr. Jonathan LIM Sing En  
Web site: [www.sedb.com](http://www.sedb.com)

International Enterprise Singapore  
New York  
55 East 59th Street, Suite 21B  
New York 10022  
Tel: 212/421-2207  
Fax: 212/888-2897  
Centre Director: Ms. Jacelyn TEO  
E-mail: [newyork@iesingapore.gov.sg](mailto:newyork@iesingapore.gov.sg)  
Web site: [www.iesingapore.com](http://www.iesingapore.com)

International Enterprise Singapore  
Washington  
C/o Embassy of the Republic of Singapore-USA  
3501 International Place, NW  
Washington DC 20008  
Tel: 202/537-3100  
Fax: 202/537-0876  
Regional Director/Counsellor (Economics): Mr. Balagopal NAIR

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E-mail: [washington@iesingapore.gov.sg](mailto:washington@iesingapore.gov.sg)  
Web site: [www.iesingapore.com](http://www.iesingapore.com)

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1101, 17<sup>th</sup> Street, N.W., Suite 411  
Washington, D.C. 20036  
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Fax: (202) 289-0519  
Chairman and CEO, Mr. Chuck Williamson  
President: Mr. Ernest Bower

U.S. Chamber of Commerce  
International Division  
1615, H Street N.W., Washington, D.C. 20062-2000  
Tel: (202) 659-6000  
Fax: (202) 202-463-3173  
President: Thomas J. Donohue  
Chairman: Larry A. Liebenow

### 4.8.3 Trade Associations and Chambers of Commerce

American Chamber of Commerce in Singapore  
1 Scotts Road  
#23-03/04 Shaw Centre  
Singapore 228208  
Tel: 65/6235-0077  
Fax: 65/6732-5917  
Web site: [www.amcham.org.sg](http://www.amcham.org.sg)  
Managing Director: Mr. Nicholas De Boursac

Association of Small and Medium Enterprises  
141 Market Street,  
#04-03/04 International Factors Building  
Singapore 048944  
Tel: 65/6224-0868  
Fax: 65/6224-1507  
Web site: [www.asme.org.sg](http://www.asme.org.sg)  
E-mail: [sme@asme.org.sg](mailto:sme@asme.org.sg)  
President: Dr. Diana Young

Singapore Chinese Chamber of Commerce and Industry  
47 Hill Street, #09-00 Chinese Chamber of Commerce Building  
Singapore 179365  
Tel: 65/6337-8381  
Fax: 65/6339-0605  
Web site: [www.sccci.org.sg](http://www.sccci.org.sg)  
President: Mr. KWEK Leng Joo

Singapore Indian Chamber of Commerce and Industry  
101 Cecil Street, #23-01 Tong Eng Building  
Singapore 069533

Tel: 65/6222-2855  
Fax: 65/6223-1707  
Web site: **www.sicci.com**  
Chairman: Mr. Shabbir H. Hassan Bhai

Singapore International Chamber of Commerce  
6 Raffles Quay, #10-01 John Hancock Tower  
Singapore 048580  
Tel: 65/6224-1255  
Fax: 65/6224-2785  
Web site: **www.sicc.com.sg**  
Chairman: Mr. Patrick H. Wale

Singapore Malay Chamber of Commerce  
72A Bussorah Street  
Singapore 199485  
Tel: 65/6297-9296  
Fax: 65/6392-4527 (6459-2888 DID)  
E-mail: smcci@singnet.com.sg  
President: Mr. Umar Abdul Hamid

Singapore Confederation of Industries  
No. 1, Science Centre Road,  
#02-02 The Enterprise  
Singapore 609077  
Tel: 65/6826-3000  
Fax: 65/6822-8828  
Web site: **www.sci.org.sg**  
President: Mr. Lew Sin Pau

Singapore Retailers Association  
76 Shenton Way, #17-01  
Singapore 079119  
Tel: 65/6223-6221  
Fax: 65/6223-6621  
Web site: **www.sra.org.sg**  
President: Dr. Jannie Tay

Singapore/US Business Council  
C/o Singapore Economic Development Board  
250 North Bridge Road #24-00  
Raffles City Tower  
Singapore 179101  
Tel: 65/6336-2288  
Fax: 65/6339-6077  
Web site: **www.sedb.com**  
Chairman: Dr. Tony Tan

Singapore Business Federation  
19, Tanglin Road  
#07-01 Tanglin Shopping Centre  
Singapore 247909  
Tel: 65/6827-6828

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Fax: 65/6827-6807  
Web site: [www.sbf.org.sg](http://www.sbf.org.sg)  
Chairman: Mr. Stephen Lee

#### 4.8.4 American Organizations in Singapore

##### American States and Ports Association

Commonwealth of Pennsylvania  
200 Cantonment Road  
#02-05 Southpoint  
Singapore 089763  
Tel: 65/6225-8667  
Fax: 65/6225-8330  
E-mail: [pastate@singnet.com.sg](mailto:pastate@singnet.com.sg)  
Web site: <http://www.inventpa.com>  
Contact Person: Sarath Kumar Menon, Associate Director, ASEAN

California Office of Trade & Investment-Singapore  
200 Cantonment Road  
#02-05 Southpoint  
Singapore 089763  
Tel: 65/6324-0363  
Fax: 65/6225-8330  
Mobile: 9658-3062  
E-mail: [calsing@orissa.com.sg](mailto:calsing@orissa.com.sg)  
Web site: <http://www.commerce.ca.gov>  
Contact Person: Osith Ramanathan, Director

State of Mississippi  
7 Temasek Boulevard  
Suntec City Tower One, #12-02C  
Singapore 038987  
Tel: 65/6338-6377  
Fax: 65/6337-6377  
H/P: 9815-6223  
E-mail: [simonbeh@singnet.com.sg](mailto:simonbeh@singnet.com.sg); [msasean@singnet.com.sg](mailto:msasean@singnet.com.sg)  
Web site address: <http://www.mississippi.org>  
Contact Person: Simon Beh Chong Hwee, Director-Asia

States of Georgia & Arkansas  
Ste. 6, Level 2, Mines Exhibition Centre  
Jalan Dulang, Seri Kembangan  
43300 Selangor, Malaysia  
Tel: 03-8945-9400  
Fax: 03-8945-9004  
E-mail: [boonwt@pc.jaring.my](mailto:boonwt@pc.jaring.my); [chungtan@pd.jaring.my](mailto:chungtan@pd.jaring.my)  
Web site: <http://www.1-800-arkansas.com> or <http://www.georgia.org>  
Contact Person: Boon W Tan, Director - Asean

State of Utah  
200 Cantonment Road

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#02-05 Southpoint  
Singapore 089763  
Tel: 65/6225-8667  
Fax: 65/6225-8330  
E-mail: [osithr@orissa.com.sg](mailto:osithr@orissa.com.sg)  
Web site: <http://www.international.state.ut.us>  
Contact Person: Osith Ramanathan, Representative

States of Indiana, Maryland & Wisconsin  
70A Prinsep Street  
Singapore 188662  
Tel: 65/6339-8885  
Fax: 65/6339-1982  
E-mail: [inasean@pacific.net.sg](mailto:inasean@pacific.net.sg); [usasean@pacific.net.sg](mailto:usasean@pacific.net.sg); [wiasean@pacific.net.sg](mailto:wiasean@pacific.net.sg)  
Contact Person: Stephen Pattillo, Director - Singapore Office  
E-mail: [spasean@pacific.net.sg](mailto:spasean@pacific.net.sg)  
Membership Type: Ordinary  
Mobile: 9782-6014

State of New Hampshire  
246 Sukhumvit Road  
#25-03  
Bangkok 10110  
Thailand  
Tel: 66-2-653-3887 E-mail: [gerrycrawford@mediaone.net](mailto:gerrycrawford@mediaone.net)  
Contact Person: Gerald E. Crawford

State of Ohio of East & Southeast Asia  
Unit 1501, Eton Tower  
8 Hysan Avenue  
Causeway Bay, Hong Kong  
Tel: (852) 2877-6111  
Fax: (852) 2877-9937  
E-Mail: [ohko@hk.net](mailto:ohko@hk.net)  
Contact Person: Ms. Shirley Co, Managing Director

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Port Authority of New York and New Jersey  
30 Old Toh Tuck Road, #04-09  
Sembawang Kimtrans Logistics Center  
Singapore 597654  
Tel: 65/6466-2929  
Fax: 65/6463-2929  
H/P: 9634-9671  
E-mail: [hupcheng@singnet.com.sg](mailto:hupcheng@singnet.com.sg)  
Contact Person: Capt. Tan Hup Cheng, Regional Director, South & SEA

Port of Tacoma  
9 Changi South Street 3, #06-01  
Freight Links Express Districentre  
Singapore 486361  
Tel: 9731-4771

Fax: 65/6254-7251  
E-mail: k\_hillier@pacific.net.sg  
Contact Person: Keith Hillier

Virginia Port Authority  
9 Changi South Street 3, #06-09  
Freight Links Express Districentre  
Singapore 486361  
Tel: 65/6545-5660  
Fax: 65/6545-2755  
H/P: 9007-1118  
E-mail: vpassin@mbox4.singnet.com.sg  
Web site: <http://www.vaports.com>  
Contact Person: Sunny How Keok Pin, Director - Singapore Office

Port of Los Angeles  
Block 334 Kreta Ayer Road  
#03-10Singapore 080334  
Tel: 65/6324-6823  
Fax: 65/6324-6825  
H/P: 9675-9197  
E-mail: corporate@piers.com.sg; port\_reprs@piers.com.sg  
Contact Person: Tan Kean Chee

Port of Seattle  
171 Chin Swee Road, #09-01  
San CentreSingapore 169877  
Tel: 65/6538-3988  
Fax: 65/6538-3386  
H/P: 9682-6904  
E-mail: krvi@singnet.com.sg; windmill@windmill.com.sg  
Contact Person: Kirpa Ram Vij, Representative

Georgia Ports Authority - Savannah  
No. 1 Kim Seng Promenade  
Great World City West Tower, #16-09/12  
Singapore 237994  
Tel: 6379-5033/6379-5100/5102  
Fax: 6379-5102  
Mobile: 9662-7058  
E-mail: peter.sak@barwill.com  
Contact Person: Peter Sak, Representative

Port of Charleston  
70 Shenton Way  
#02-03, Marina House  
Singapore 079118  
Tel: 65/6275-5755  
Fax: 65/6275-3098  
H/P: 9627-2721  
E-mail: joey.lim@jtsjsa.com.sg  
Contact Person: Joey Lim Chuang

Port of Long Beach S.E.A. Representative  
200 Cantonment Road  
#12-02 Southpoint  
Singapore 089763  
Tel: 65/6222-3222  
Fax: 65/6735-7830  
Mobile: 9001-5391  
E-mail: [harry.chan@collyer.com.sg](mailto:harry.chan@collyer.com.sg); [harryceh@singnet.com.sg](mailto:harryceh@singnet.com.sg)  
Contact Person: Harry Chan Eng Hock

Kansas Department of Commerce & Housing  
Suite 802, 135 Macquarie Street  
Sydney 2000  
Australia  
Tel: 61-2-9247-5828  
Fax: 61-2-9251-4327  
E-mail: [issint@ozE-mail.com.au](mailto:issint@ozE-mail.com.au)  
Contact Person: F.R.B. Toby Forwood, Representative - SEA

United States Education Information Center  
12 Prince Edward Road  
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Singapore 079212  
Tel: 65/6226-6996  
Fax: 65/6223-0550/4533  
E-mail: [head@useic.com.sg](mailto:head@useic.com.sg)  
Head of U.S. EIC: Ms. Carolyn Gerber

U.S. Asean Business Council Inc.  
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Singapore 188662  
Tel: 65/6339-8885  
Fax: 65/6339-1982  
Contact Person: Stephen Pattillo, Director - Singapore Office  
E-mail: [srpasean@pacific.net.sg](mailto:srpasean@pacific.net.sg)

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