

# 9th Asia Construct Conference

## SUMMARY

### 1. Asia-Oceania Macroeconomies and Construction Markets

#### (1) Asia-Oceania Macroeconomies

##### *Recovery Delayed Past FY2004*

Exports from the Asian countries slowed due to the rapid increase in SARS (Severe Acute Respiratory Syndrome) cases spreaded in Asia since the middle of March 2003. Economic recovery was thwarted despite the signs of recovery in FY2002. The second half of 2003 is expected to move Asian economies further toward a path of recovery led by an increase in exports resulting from a resurgent U.S. economy and increased IT investment. Corporate earnings rebounded somewhat but personal consumption remained sluggish due to continued high unemployment and flat incomes.

South Korea in particular is expected to fall significantly short of its initial target of 5% growth for the national Gross Domestic Product (GDP). China's economy remained robust, with personal consumption recovering rapidly as concerns about the SARS epidemic eased. According to official government figures, the Chinese economy grew by 9.1% in 2003. The economy in Thailand was relatively unaffected by the SARS epidemic, and personal consumption remained high. Thailand's exports to other ASEAN nations and China increased. Furthermore, its exports are expected to continue rising as a result of Free Trade Agreements (FTA) signed with other nations.

Australia downgraded its growth forecast for 2003 due to poor crop production resulting from the continuing drought conditions that have affected the country since 2002, but the Australian economy continues to grow at a rate of approximately 3%. However, the Australian construction market is faced with rapidly rising housing prices and a lack of governmental action. New Zealand is faced with a similar situation in which its construction market is on the verge of overheating.

Table1: GDP Growth by Nation

Country/Area	1998	1999	2000	2001	2002	2003	2004
China	7.8	7.1	8	7.3	8	9.1	over7.0
Hong Kong	-4.7	-3.1	10.5	0.9	-0.3	2	4
Taiwan	4.6	5.4	5.9	-2.2	3.5	2.7	-
India	5	9	4.4	5.5	6.5	5.3	7.4
Indonesia	-13.6	0.8	4.8	3.4	3.7	3.4	4
Japan	-0.7	0.9	3	-1.2	1.2	1.9	1.7
Korea	-6.7	10.9	9.3	3	6.3	2.9	5
Malaysia	-7.4	5.8	8.5	0.4	4.2	4.5	5.4
Phillipines	-0.6	3.4	4.4	3.2	4.6	4	4.5
Singapore	-0.9	6.4	9.4	-2.4	2.2	0.5	3.0~5.0
Sri Lanka	4.7	4.3	6	-1.4	4	5.5	6
Vietnam	5.8	4.8	6.8	6.8	6.5	7.2	8
Thailand	-10.5	4.4	4.6	1.9	5.3	5	6.3~7.3
Australia	5.4	4.1	1.3	4.2	4	2.8	-
New Zealand	2	0.4	4.9	2.7	3.4	4.3	-

Note) 1. The 2003 growth rate adopts an announcement value, when a country report differs from an announcement.

2. For Hong Kong, India, Japan and Malaysia, the 9th Asia Construct Conference Data was used for growth rate.

Other countries and areas are based on a source below.

China: Announced government target(over 7%), Indonesia: Asia Development Bank's forecast,

Korea: Government forecast, Phillipines: Asia Development Bank's forecast,

Singapore: The prime minister's speech(target3-5%), Sri Lanka: IMF's forecast,

Vietnam: The prime minister's speech(target), Thailand: Bank of Thailand' forecast(6.3-7.3%)

## (2) Construction Investment in Asian Nations

### *Continued Growth Forecasted for Construction Markets in Asia*

Construction investment among all Asian nations was estimated at US\$933.6 billion in 2002. Excluding Japan, construction investment accounted for 14.9% of the GDP in Asian nations, which was comparatively higher than in Europe or the United States. The mid-term outlook for the Asian region suggests that construction investment will continue to account for a large percentage of Asian region GDPs due to continued infrastructure construction, although the situation in terms of public finances and the pace of development varies widely from nation to nation. Construction investment in Singapore and Hong Kong dropped sharply as both economies continued to struggle, but construction investment in other Asian nations increased as their economies began to rebound. Construction

investment in Malaysia has increased despite the sluggish performance of the economy, owing to the Malaysian government's attempts to stimulate domestic construction demand in order to achieve economic recovery.

China has large influence for the construction industry in the Asian region. The country is rapidly developing its large-scale rail, highway, port, and airport infrastructure. Urban and residential construction in China is also booming. The West China Development Project is expected to pump 700 billion RMB in investment into the region, while the 2008 Beijing Olympics and 2010 Shanghai Exposition will spur further construction demand. Furthermore, infrastructure development in China is expected to encourage further direct investment.

The increasing adoption of Free Trade Agreements among Asian nations is expected to provide significant benefits to the Asian region in terms of better procurement of construction materials, hiring of qualified workers, and allowing investment to move freely between Asian nations.

Table 2: 2002 Construction Investment by Nation

Country/Area	2002 GDP (100millionUS\$)	Construction Investment (100millionUS\$)	Construction Investment Rate to GDP(%)	Population (1,000)	Per Capita Construction Investment (US\$)
China	12,656	2,260	17.9	1,284,304	176
Hong Kong	1,615	135	8.4	7,303	1,852
Taiwan	2,815	327	11.6	22,548	1,452
India	4,613	695	15.1	1,055,000	66
Indonesia	1,729	126	7.3	228,438	55
Japan	39,796	4,506	11.3	127,286	3,540
Korea	4,767	763	16	47,639	1,603
Malaysia	945	125	13.3	22,662	553
Phillipines	780	54	7	84,526	64
Singapore	869	126	14.5	4,453	2,839
Sri Lanka	162	17	10.3	19,007	88
Vietnam	301	40	13.2	79,710	50
Thailand	1,265	161	12.7	62,310	258
Summary	72,313	9,336	12.9	3,045,186	307
excluding Japan	32,517	4,830	14.9	2,917,900	166

Australia	4,245	–	–	19,663	–
New Zealand	736	54	7.4	3,942	1,377

\*GDP, Construction Investment: at current prices

References: The 9th Asia Construction Conference, CIA The World Fact Book

Notice: For the construction investment values, the most recent data is adopted;

being 2000 for Philippine, Taiwan and Thailand; 1999 for China;

and 1998 for Indonesia and Vietnam.

For Malaysia, the value of construction orders placed is adopted as an

Alternative to the construction investment value.

For India, forecast value is adopted.

## 2. Country Reports

Note: GDP growth rates and construction investment data quoted in the following country reports are based on actual data.

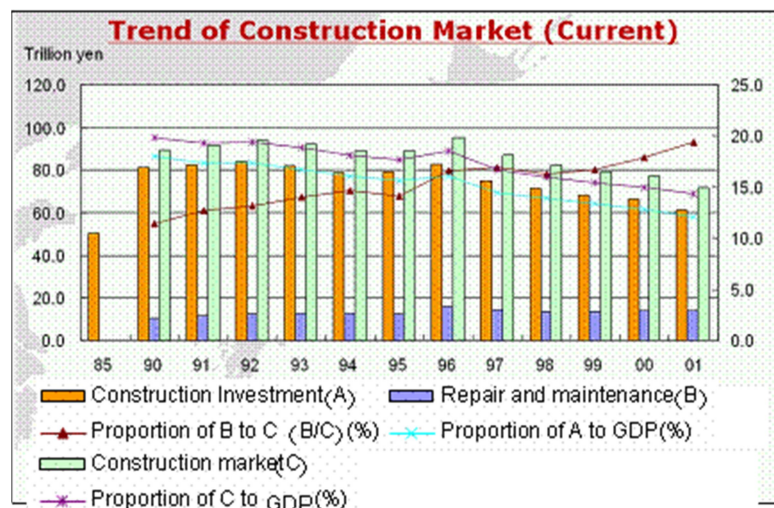
### Japan Country Report

#### *Macroeconomic Review and Overview*

After the burst of Japanese bubble economy in the 90's, the Japanese economy has grown at a slower pace than other economies. In 1996, the Japanese government raised the national consumption tax rate and reduced spending on public projects as part of structural reforms aimed at improving the nation's public finances. However, the Japanese economy and its public finances took a further downturn due to the Japanese banking crisis in 1997 and the Asian economic crisis that occurred from 1997 to 1998. Construction investment in Japan has shrunk to approximately 60% of its prior peak

The most pressing issue for the Japanese government is the deflationary state of the Japanese economy. The actual GDP is forecasted to grow at a rate of 2% during FY2003, but the nominal GDP is expected to continue shrinking. Japan also suffers from sluggish private consumption and an appreciating yen. The Japanese government is hoping to stem the deflationary tide of the economy by cleaning up the bad loan situation and stimulating domestic demand in an attempt to improve the nation's public finances and spur economic recovery.

During the 90's, the Japanese government lowered tax rates and reduced spending on public projects, although it increased the national consumption tax rate. In this decade,



the Japanese government has undertaken numerous strategies aimed at achieving structural reform and deregulation without deepening its public debt. In spite of these efforts, long-term government debt far outweighs the national GDP. Japan has many outstanding problems that it needs to resolve. From now on, especially public works, the national government is attempting to improve the efficiency of public works projects by introducing private capital and transferring funds and decision-making authority to local governments.

### *Construction Industry*

Private construction investment in Japan continued to decline during the 90's, while public construction investment increased as a result of government stimulus packages. However, both private and public construction investment have declined in the current decade. Total construction investment in Japan is expected fall to 52 trillion yen in FY2004.

Many private sector firms continue to be weighed down with excessive debt, and private construction investment is expected to remain depressed for the foreseeable future. Japanese firms must diversify or pursue collaboration and mergers with other firms in order to ensure their future survival.

### **Indonesia Country Report**

The Indonesian government is moving away from a centralized system of decision-making in favor of decision-making at the regional level.

The construction industry has played an important role in terms of the economic, social and cultural development of Indonesia, but has declined significantly as a percentage of the national GDP following the Asian currency crisis began in 1997. Employment by the construction sector has also dropped following the Asian currency crisis.

The Indonesian government has taken several steps to revitalize the construction industry. The government enacted Construction Service Law No. 18 in 1999 and Government Procurement Policy No. 80 in 2003 in an attempt to increase the competitiveness of the Indonesian construction industry both domestically and abroad. The Indonesian government also created the Construction Service Development Board (CSDB) in order to boost competitiveness in the construction sector, taking its cue from CIDB Malaysia. The CSDB conducts research, provides skills training, and regulates licensing within the construction industry. It also provides protection for workers in the construction industry and for foreign construction firms.

The Indonesian construction industry continues to suffer from a shortage of capital and skilled workers. In addition, foreign-owned firms control the Indonesian construction market. In spite of these obstacles, several Indonesian firms have successfully bid on road and hotel projects in ASEAN member nations. Indonesian firms are also involved in developing new construction technology.

Many Indonesian construction firms are faced with a significant gap in capital funds and technology when compared with foreign-owned construction firms. However, domestic construction firms are actively looking for opportunities to collaborate with foreign business partners in order to better position themselves for the future.

Indonesia holds great potential as a construction market. The regions of Sumatra, Kalimantan, Sulawesi, and Papua have been identified as prime targets for future construction investment due to a lack of existing infrastructure. In 2003, the potential market for construction in Indonesia was estimated at 156 trillion rupiah.

The Indonesian government is interested in promoting harmonization of construction skills throughout Asia and Australia. Furthermore, it is actively seeking to collaborate on exchange projects with construction service companies and professional associations. Other areas of focus include joint training programs and apprenticeships with foreign construction service companies and industry organizations.

## **New Zealand Country Report**

The small island nation of New Zealand has a population of four million people. The construction industry in New Zealand lacks an infrastructure and is currently in a transitional period. The New Zealand construction industry is notable for conducting extensive research prior to the introduction of new products.

### **Macro Economic Review and Outlook**

<b>GDP &amp; Components</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
GDP at real prices(1995/1996 base year)	97,694	102,446	106,177	108,777	113,509
GDP growth (%)	0.4	4.9	2.7	3.4	4.3
Agriculture % growth	-6.3	5.7	1.8	1.2	1.2
Forestry,Fishing and Mining % growth	-1.1	3.2	2.4	1.4	4.5
Manufacturing % growth	-3.8	4.4	2.0	1.3	5.6
Service industries % growth	2.3	4.4	3.7	4.7	3.7
Construction sector % growth	-7.8	13.8	-9.6	2.0	11.5
<b>Demographic Indicators</b>					
Population	3,835,100	3,857,800	3,880,500	3,939,100	4,009,100
Population growth rate(%)	0.53	0.59	0.59	1.51	1.78
Total labour force	1,876,000	1,885,000	1,906,000	1,970,000	1,994,000
Unemployment rate	7.2	6.4	5.4	5.3	5.0
<b>Financial Indicators</b>					
Changes in consumer price index	-0.1	1.5	3.1	2.6	2.5
Base lending rate (Commercial banks)	8.49	10.22	9.88	9.81	9.98
Change against US\$	-2.60%	-5.00%	-6.40%	2.50%	10.50%

### *Macroeconomic Review and Outlook*

New Zealand's GDP is expected to grow by just over 4% in 2003. Like Australia, the construction industry in New Zealand is on the verge of overheating. Construction investment tends to be less of a priority during a strong economy like New Zealand's economy, although it is not directly linked to GDP growth. The New Zealand government is focused on keeping inflation low, which has resulted in an annual inflation rate of about 2%.

New Zealand has historically sent skilled workers to Australia. However, the New Zealand population has started to climb in recent years as emigration to Australia has declined.

### *Challenges and Future Outlook for the Construction Industry*

As the construction market in New Zealand continues to grow, it is expected to suffer from labor shortages,

particularly in terms of skilled labor and those with supervising experience. New Zealand currently suffers from a shortage of workers with construction-related training, as well as a lack of training facilities.

Until now, the nation's Building Act has been kept relatively unregulated based on a strict government policy of deregulation. Unfortunately, the government's hands-off policy has led to numerous problems with the construction quality in New Zealand including noiseproofing, insulation, and leaky construction problems. These issues have prompted the national government to make changes to the Building Act.

In 2002, the New Zealand government enacted the Construction Contracts Act in response to the bankruptcy of a leading construction firm, which led to a major ripple effect among its suppliers and subcontractors. The government will introduce a licensing system for the construction industry in 2004, and will introduce revised legislation to provide consumer protection.

During the 80's, the New Zealand government embarked on a deregulation effort that led to the privatization of public businesses including the national railway and electric power businesses. However, the privatized electric power business was unable to consistently deliver power to its customers, which has led the New Zealand government to consider the concept of mixed private and state-owned enterprises.

The Building Research Association of New Zealand Incorporated (BRANZ Inc.) is the leading research body for the New Zealand construction industry. However, government support for the construction industry lags behind that of other industries, although the national government has recently begun to recognize the need for research prompted by the issues plaguing its construction industry.

### **Malaysia Country Report**

Malaysia's GDP grew by 0.4% in 2001 and later recorded 4.2% growth in 2002. By the 3rd quarter of 2003, the GDP had further grown by 5.1%. In 2004, the Malaysian GDP is expected to grow by approximately 5%. The International Monetary Fund (IMF) has predicted 5.0% growth for the nation, while the Malaysian Institute of Economic Research (MIER) has forecasted 5.4% growth in 2004.

Malaysian Sectoral Performance									
GDP by Sector (in 1987 prices) 2001 – Third Quarter 2003									
SECTOR	2001	2002					2003		
	%								
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3
Agriculture	1.8	-3.6	1.4	8.3	5.5	3.0	3.4	10.4	6.2
Mining	1.6	1.4	-1.6	7.9	7.1	3.7	4.5	11.1	-0.7
Manufacturing	-6.2	-2.3	5.5	7.3	5.7	4.0	5.9	6.5	8.5
Construction	2.3	2.9	3.4	2.6	0.5	2.3	1.2	1.4	2.4
Services	5.7	4.5	4.0	3.4	4.6	4.1	4.5	2.9	4.2
Real GDP	0.4	1.3	4.0	5.8	5.4	4.2	4.6	4.5	5.1

The construction sector in Malaysia was particularly hard hit by the Asian currency crisis and recorded minus growth in 1998, but has since rebounded to grow by 2.3% in both 2001 and 2002. By the 3rd quarter of 2003, the construction sector had grown by a further 2.4% and was expected to end the year with a gain of 1.9%. Further

growth in the construction sector is expected in 2004 due to the commencement of large-scale construction projects.

Prior to the Asian currency crisis in 1997, the construction sector in Malaysia had been growing at an average rate of 14.4% during the period from 1980 to 1996. This period of exceptional growth reached its peak in 1995, when the sector grew by 21.1%. During this period, Malaysian infrastructure grew rapidly and the construction sector was faced with a shortage of both materials and labor, which resulted in the hiring of many foreign workers. However, during the years from 1997 to 1999, the Asian currency crisis caused a major devaluation of the Malaysian currency and the country developed a bad debt problem. During this period, the construction sector was affected by project delays and an exodus of foreign laborers from the country. The Malaysian construction industry has since recovered at a better-than-expected pace following the end of the Asian currency crisis, but has not fully rebounded, partly due to the effects of the September 11, 2001 terrorist attacks.

The Malaysian government has established the Construction Industry Development Board (CIDB) to serve as a government statutory body for regulating the nation's construction industry. CIDB Malaysia is also a participant of the AsiaConstruct Conference. Under CIDB regulations, any contractor undertaking construction work valued at over RM 500,000 per contract must register with CIDB. In 2002, a total of 49,437 contractors were registered with CIDB, which grew to 55,744 contractors by June 2003. In 2002, 5,026 contracts were registered with CIDB, while 1,309 contracts were registered in the six months covering January to June 2003. Infrastructure and non-residential construction accounted for the majority of construction work, while maintenance construction accounted for only a small proportion of all construction work.

In the Malaysian system, the ratio of local and foreign capital affects how construction firms are treated. Firms with foreign equity not exceeding 30% are treated as Malaysian-owned firms, while firms with over 30% foreign equity are treated as foreign-owned firms, which restricts the types of projects they can participate in. Firms with foreign equity originating from ASEAN countries are allowed up to 45% foreign equity. In 2001 and 2002, the percentage of foreign-owned construction firms remained at 4%, and had grown to 9% by September 2003.

## **Sri Lanka Country Report**

### *Macroeconomic Review and Outlook*

During 2001, all sectors except for the construction sector recorded minus growth for the first time since 1984. However, the Sri Lankan economy improved significantly in 2002 as a result of economic reforms implemented by the national government. The upturn in the Sri Lankan economy was further aided by the cessation of civil hostilities and the positive performance of the services sector spurred by healthy domestic demand. In 2002, the construction sector in Sri Lanka gained slightly but investment remains depressed and unemployment continues to rise.

The Sri Lankan economy continuously has problems. However, the Sri Lanka will be able to expect economic growth and lower unemployment in 2003, if government's policy succeed. The major challenges for the Sri Lankan government will be to improve productivity, encourage investment, and continue to implement structural reforms. The national government has established a target of 5.5% GDP growth in 2003.

### *Construction Industry*

The construction sector in 2002 accounted for 7.2% of the national GDP. Domestic fixed capital accounted for over 40% of the national GDP, with the construction sector directly responsible for employing 300,000 workers and indirectly employing a further one million workers. However, the importance of the construction industry has been overlooked as yet. Currently, Sri Lankan government organizations and industry groups are engaged in efforts to expand the construction market and provide more construction-related training, as well as improve the quality of construction.

The Sri Lankan government has opened up its construction market to global competition, but its construction firms continue to suffer from a lack of competitiveness that has resulted in preferential treatment for domestic construction firms.

## **Hong Kong Region Report**

### *Macroeconomic Review and Outlook*

Hong Kong has a population of approximately 6.8 million people and a labor pool of 3.5 million workers. The Hong Kong economy is dominated by the services sector, which accounted for 86.6% of GDP in 2001 and 85% of all workers employed.

In the first half of 2003, the Hong Kong economy was severely affected by the SARS epidemic but later recovered in the second half of 2003. GDP was estimated to have grown by 4% in 2003, with unemployment further declining to 8.3% due to an increase in visitors from mainland China. The influx of visitors has also had a positive effect on private investment such as the project to upgrade the Kowloon-Canton Railway. However, the Hong Kong dollar remains weak, since it is pegged to the weak U.S. dollar.

Hong Kong asset prices and rentals had dropped severely, but asset prices appear to have bottomed out starting from the 3rd quarter of 2003.

### *Construction Industry*

As a characteristic of the construction industry,



construction investment is composed of 49% residential construction, 29% civil engineering construction and 22% non-residential construction. And the construction sector accounted for 4.85% of Hong Kong's GDP in 2001 and 8.7% of all workers employed. The percentage of construction services exported outside of Hong Kong to areas such as mainland China ranged from 10 to 15%.

Hong Kong is a member of the General Agreement on Tariffs and Trade (GATT). Government procurement is currently conducted under World Trade Organization (WTO) guidelines. Hong Kong has no regulatory barriers to foreign investment. The majority of residential construction work is carried out by Hong Kong firms, but foreign firms account for a large proportion of civil engineering projects and other infrastructure construction. Foreign capital is generally introduced through Build-Operate-Transfer (BOT) arrangements and joint venture agreements. Design-build processes and general contractor arrangements are also being used on an experimental basis. The signing of the Closer Economic Partnership Agreement (CEPA) between Hong Kong and mainland China has also strengthened the level of collaboration between the two regions. Under the agreement, Hong Kong construction firms may bid on projects in mainland China. Furthermore, foreign construction firms can enter the mainland China market in partnership with Hong Kong construction firms or through mergers and acquisitions of Hong Kong construction firms.

Construction investment in Hong Kong reached its peak in 1998, when it reached an estimated value of US\$17.877 billion. However, construction investment has since plummeted to an estimated value of US\$9.474 billion in 2002, when it declined by 10% over the previous year. Similarly, public investment fell by 23% in 2002, although private investment grew by 3.5%. Amount of construction investment per capita reached to US\$1,396, and it was ranked 4th trailing Japan, South Korea, and Singapore.

In 2003, residential investment declined by 11.5%, although non-residential construction investment rose significantly during the same period. However, civil engineering investment declined to its lowest level since 2001.

Construction sector employment fell by 5% in 2003, while the number of site workers employed by the construction sector fell sharply by 20%. Construction sector wages have tumbled, with the average monthly wage estimated at US\$1,408 in 2002. Productivity in the construction sector is lower than the manufacturing sector, and is about half that of services sector. On average, labor costs account for approximately 25% of standard construction, compared with a rate of 20% in Singapore and 40% in the United States.

The cost of construction materials dropped by 12% in 2001, but rose by 7% from 2002 to the 1st quarter of 2003. The cost of residential construction was estimated at US\$1,000 per square meter, while commercial office construction was estimated at US\$1,200 per square meter. Industrial construction was estimated at US\$600 per square meter and five-star hotel construction at US\$2,000 per square meter.

The Hong Kong construction industry is increasing its adoption of IT tools, but suffers from a lack of industry

standardization.

## **South Korea Country Report**

### *Macroeconomic Review and Outlook*

The South Korean GDP has grown since the Asian currency crisis of 1997. The national GDP in 2002 was estimated at US\$477.6 billion, which was significantly higher than the 1998 national GDP of US\$317.7 billion. The GDP growth rate has also picked up since 1997, and the economy appears to be on the verge of a healthy recovery.

• Gross Domestic Product Indices								
	(unit : KRW tril., USD bil., %)							
	1996	1997	1998	1999	2000	2001	2002	2003.6
GDP in KRW	418.5	453.3	444.4	482.7	522.0	545.0	596.3	147.4
(GDP in USD)	420.0	476.6	317.7	405.8	461.7	422.2	477.6	117.4
Annual Average increase rate	6.8	5.0	-6.7	10.9	9.3	3.0	6.3	3.7
* 2003.06 exchange rate to U.S dollar, 1,193.1 won / \$								

### *Construction Industry*

The construction industry in South Korea has undergone considerable changes since 1998, when construction investment fell by 10.23% to end a streak of eight consecutive years of construction investment growth. Starting from 1999, the South Korean government introduced its economic recovery action plan. As a result of the stimulus plan, construction investment began to show signs of recovery in 1999 with a modest 0.9% growth rate, but later fell by 4.2% in 2000 before growing by 5.4% in 2001 and a further 3.3% in 2002. In the first half of 2003, construction investment in South Korea continued to show signs of recovery with a growth rate of 3.6%.

Residential construction investment in South Korea has grown considerably, despite having declined by 11.1% in 2000. Recently, residential construction investment grew by 11.7% in 2001, followed by 14.5% growth in 2002. Non-residential construction investment was affected by the Asian currency crisis and continued to decline through 1999 as a result of construction delays and aborted projects. However, non-residential construction investment has since recovered to record gains of 15.2% in 2000, followed by 4.6% growth in 2001 and 14.4% growth in 2002. Civil engineering construction investment rose by 9.5% in 1999 as a result of the economic recovery action plan implemented by the national government, but later fell by 7.6% in 2000. Civil engineering construction investment grew by 2.3% in 2001 to hint at a possible recovery, but later fell by 6.7% in 2002. Recent figures have indicated that civil engineering construction investment has so far grown by 4.6% in 2003.

In 1970, the construction sector employed just 280,000 workers, or 2.9% of all workers. Employment in the construction sector has continued to rise since that time, and in 2002 the construction industry employed over 1.7 million workers, or 7.8% of all workers. Currently, over 1.8 million workers are employed in the construction sector.

The South Korean government is presently enforcing a registration system for the construction industry based on amendments to the Framework Act that came into effect in 1996. Under the South Korean registration system, construction firms must register as either a general contractor or specialty contractor. General contractors must register with the Ministry of Construction and Transportation (MOCT), while specialty contractors are required to register with local authorities. Registration under either category requires that construction firms meet specific criteria relating to technology, capital funding, facilities, and equipment. The registration system enables project managers to better select an appropriate construction firm for their needs. Subcontracting work is also regulated under this system.

The South Korean government has only recently begun to open up the construction market, although the number of tenders from foreign construction firms has increased. Foreign construction firms have already undertaken work on several projects including the railway connecting Seoul and Pusan.

## **Australia Country Report**

### *Macroeconomic Review and Outlook*

The government of Australia is three-tiered, consisting of federal, state, and local authorities. Australia is notable for its long-standing labor system, which has traditionally favored the nation's laborers.

<b>The Australian Economy</b>					
	<b>99</b>	<b>00</b>	<b>01</b>	<b>02</b>	<b>03</b>
GDP	4.1	1.3	4.2	4.0	2.8
Labour-force	2.3	3.0	1.1	1.9	1.9
Unemployment	6.9	6.3	6.8	6.3	6.0
Inflation	1.5	4.5	4.4	3.0	2.7

In recent years, the Australian economy has been notable for its low work productivity measured against the national GDP. The manufacturing sector accounts for 13% of the national GDP, followed by the services sector at 12.4% and the construction industry at 5.5%. During the last 25 years, the manufacturing sector has grown at a slower rate than the average for all sectors, and has been outperformed by the construction industry.

<b>House Prices</b>			
	<b>Median</b>	<b>2002-03</b>	<b>15 years</b>
Sydney	448,000	20.6	11.1
Melbourne	343,000	10.0	9.3
Brisbane	264,300	26.3	10.2
.....			
Hobart	156,900	15.9	5.0

Housing prices in Australia have risen sharply in the last two to three years. In 2003, the median price of a house in Sydney rose by over 20% on an annual basis, while rising 11.1% during the period from 1999 to 2003. The boom in housing prices indicates that asset prices have risen, but the healthy Australian economy will be hard-pressed to avoid rising interest rates and a stronger Australian dollar in the future.

The Australian government has taken little action to protect the economy beyond lowering interest rates to prevent inflation. In general, the national government has taken a passive role in responding to global economic trends, which does not bode well in terms of maintaining continued growth for the Australian economy.

## *Construction Industry*

The Australian government has recently implemented various legislative changes that have dramatically reduced the number of industry associations and labor unions in the construction sector. These changes have effectively served to reduce the friction between labor and management. In addition, the government has made changes to the registration system for construction firms, which has resulted in an increase in the number of registered construction firms from 100,000 firms to 194,000 firms. Only 2% of all construction firms employ more than 100 persons.

Government regulation of the construction industry is aimed at increasing productivity, but has failed to produce significant productivity gains due to the severe competitive environment faced by construction firms and an already high rate of productivity in the sector. In addition, the government has failed to provide government incentives for firms to increase their productivity. The Australian government has also been less than proactive in terms of funding R&D for the construction industry. Less than 2% of the nation's total R&D budget is directed at the construction sector, which amounts to no more than 0.2% of revenue generated by the construction sector. The construction industry in Australia also suffers from high worker turnover occurring in a four- to five-year cycle, which further hurts productivity. Currently, the Australian government is looking at ways to improve construction-related training and change its licensing system for the construction industry.

The Australian government also must act to implement environmental conservation measures. It has failed to ratify the Kyoto Protocol and has not taken steps to reduce the nation's CO<sub>2</sub> production.

Australia offers broad market access to foreign firms, as long as firms comply with the nation's regulatory environment and licensing requirements. In recent years, several foreign firms have entered the construction market through acquisitions of Australian firms.

### **Presentation on Cooperative Research Centre for Construction Innovation (CRC CI)**

Speaker: Carole Green, Business Manager, CRC CI

Australia's Cooperative Research Centre (CRC) system comprises numerous research organizations established and funded through the partnership of the government, industry associations, and private sector firms. The CRCs conduct research both domestically and abroad.

During the late nineties, the Australian government implemented structural reforms aimed at various sectors of the economy. The CRC system was established as part of this effort in order to draft and implement action plans for structural reform. Currently, Australia has approximately 70 CRCs covering a wide range of industries. The Cooperative Research Centre for Construction Innovation (CRC CI) is the only CRC devoted to the construction

industry. As part of its role in helping to bring structural reform to the construction industry, the CRC CI provides construction-related training and promotes technology transfer.

The CRC CI is focused on three areas: long-term technology research; collaboration between government, academia and industry; and the development of tools, technologies, and management systems that contribute to the sustained profitability of the construction industry. Research is conducted through the collaborative efforts of universities, private sector organizations, and government at both the federal and state level. Among its many projects, the CRC CI is conducting research aimed at revising the Building Code of Australia.

Research in the construction industry generally comprises long-term research that requires interdisciplinary involvement or short-term research conducted between the private sector and the government. The CRC CI, which mainly conducts mid-term research, fills the gap between these two poles by providing a third option for private sector firms that may lack the resources to conduct their own research, thereby enabling research to be conducted efficiently with the assistance of government funding.

Research conducted by the CRC CI is focused on three areas consisting of business and industry development, sustainable built assets, and delivery and management of built assets. All research is managed using a common IT platform, so that information can be shared to improve efficiency and prevent overlapping research. The CRC CI is strictly an R&D organization and does not produce forecasts regarding future construction investment.

