#### THE 15TH ASIACONSTRUCT CONFERENCE

#### SINGAPORE-COUNTRY REPORT

Prepared by

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# BUILDING AND CONSTRUCTION AUTHORITY SINGAPORE

#### **EXECUTIVE SUMMARY**

Due to the impact of global financial crisis which led to the economic slowdown in the second half of 2008, Singapore's economic growth moderated significantly from the 7% to 9% annual growth posted during the period 2004-2007 to 1.1% in 2008. Although there are indications of global economic recovery, the rising unemployment in US and Europe still remain a concern. In view of these uncertain economic conditions and the absence of clear signs of a strong, demand-led recovery, the Ministry of Trade and Industry has projected Singapore's GDP growth forecast for the full year of 2009 at between -6.0% to -4.0%.

Strong expansion in the first three quarters of 2008 led construction demand for the whole year to reach a record high of \$34.6 billion. The exceptionally high level of contracts awarded was largely propelled by continued strong growth in private sector construction demand as well as an upswing in the total value of public housing and infrastructural projects. Given the slowdown of growth momentum in the economy and continued uncertainties in world economic outlook, BCA projected construction demand for 2009 at between \$18 billion to \$24 billion, and the bulk of this demand will be driven by public sector projects.

#### 2 Macro Economic Review and Outlook

## 2.1.1 Overview of the Singapore Economy in 2008<sup>1</sup>

In 2008, the economy grew by 1.1% (Chart 2.1.1), down from 7.8% in 2007. The construction sector led the growth with 20%, following an 18% growth in 2007. Growth in the services producing industries moderated to 4.7%, down from 8.1% in 2007, with all major sectors, except the information and communications sector, registering lower growth rates. The manufacturing sector contracted by 4.1%, down from an expansion of 5.9 % in 2007.

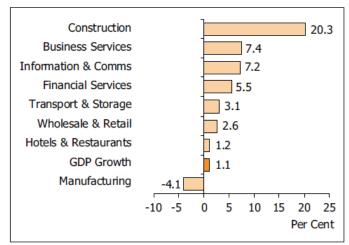


Chart 2.1.1: GDP and Sectoral Growth Rates in 2008

#### 2.1.2 Economy in the First Half of 2009<sup>1</sup>

The Singapore economy contracted by 6.5% year-on-year in the first half of 2009, undermined by the 9.5% contraction in GDP in the first quarter of 2009 as economic activity slowed down sharply. Nevertheless, the economic performance in the second quarter of 2009 rebounded and improved by a seasonally adjusted 20.7% compared to the previous quarter. The construction sector remained the star performer and grew by a robust 19% year-on-year, the performances of most other sectors also improved.

Despite the improved performance in the second quarter, the Ministry of Trade and Industry views that without a decisive turnaround in final demand in advanced economies, any economic recovery in the second half of the year will probably be sluggish and modest. Therefore, it is maintaining the 2009 GDP growth forecast at between -6.0% to -4.0%.

<sup>&</sup>lt;sup>1</sup> Source: Economic Survey of Singapore, 2008 and second quarter 2009, Ministry of Trade and Industry Singapore.

# 2.2 Main Economic Indicators

| Year  | 2004              | 2005    | 2006      | 2007    | 2008     |
|---|-------------------|---------|-----------|---------|----------|
| GDP and Components  |                   |         |           |         |          |
| GDP at real prices  | 184,257           | 197,721 | 214,234   | 230,871 | 233,525  |
| (Base Year=2000) (S\$Million)   |                   |         |           |         |          |
| GDP at current market prices  | 185,365           | 201,313 | 221,143   | 251,610 | 257,418  |
| GDP growth (%)  | 9.3               | 7.3     | 8.4       | 7.8     | 1.1      |
| Manufacturing sector (Base Year=2000) (S\$Million)                        | 46,205            | 50,592  | 56,623    | 59,987  | 57,511   |
| % growth  | 13.9              | 9.5     | 11.9      | 5.9     | -4.1     |
| Wholesale & Retail Trade Sector (Base Year=2000) (S\$Million)             | 28,656            | 31,477  | 34,719    | 37,303  | 38,271   |
| % growth  | 17.1              | 9.8     | 10.3      | 7.4     | 2.6      |
| Transport & Storage Sector (Base Year=2000) (S\$Million)                  | 17,554            | 18,567  | 19,703    | 20,696  | 21,334   |
| % growth  | 11.0              | 5.8     | 6.1       | 5.0     | 3.1      |
| Financial Services (Base Year=2000) (S\$Million)                          | 19,870            | 21,536  | 24,054    | 27,821  | 29,360   |
| % growth  | 4.4               | 8.4     | 11.7      | 15.7    | 5.5      |
| Business Services (Base Year=2000) (S\$Million)                           | 21,328            | 22,598  | 23,798    | 25,966  | 27,877   |
| % growth  | 3.4               | 6.0     | 5.3       | 9.1     | 7.4      |
| Construction sector (Base Year=2000) (S\$Million)                         | 6,654             | 6,703   | 6,943     | 8,208   | 9,873    |
| % growth  | -5.5              | 0.7     | 3.6       | 18.2    | 20.3     |
| Demographic Indicators  |                   |         |           |         |          |
| Population – Singapore Residents <sup>1</sup> ('000)                      | 3,413.3           | 3,467.8 | 3,525.9   | 3,583.1 | 3,642.7. |
| Population growth rate (%)  | 1.4               | 1.6     | 1.7       | 1.6     | 1.7      |
| Total labour force ('000)   | 2,341.9           | 2,367.3 | 2,594.1   | 2,710.3 | 2,939.9  |
| Labour force growth rate (%)  | 1.3               | 1.1     | 9.6       | 4.5     | 8.5      |
| Unemployment rate (%) – Seasonally adjusted as in June                    | 3.6               | 3.4     | 2.7       | 2.3     | 2.2      |
| Financial Indicators  |                   |         |           |         |          |
| Savings deposits (%) (Average quotes from 10 leading banks)               | 0.23              | 0.26    | 0.25      | 0.25    | 0.22     |
| Prime lending rates (%) (Average quotes from 10 leading                   | 5.30              | 5.30    | 5.33      | 5.33    | 5.38     |
| banks) Changes in consumer price index (Base period = 2004, % change over | 1.7               | 0.5     | 1.0       | 2.1     | 6.5      |
| previous year) Annual average exchange rate with \$US                     | 1.69              | 1.66    | 1.59      | 1.51    | 1.41     |
| (Singapore Dollar Per US Dollar)  | internal Transfer |         | 114:: ( 6 | 14 0:   |          |

Sources: Singapore Department of Statistics, Ministry of Trade and Industry and Ministry of Manpower Singapore.

<sup>&</sup>lt;sup>1</sup> Singapore resident population comprises Singapore citizens and permanent residents.

## 3.1 Overview of the Construction Industry

#### 3.1.1 Construction Demand Review for 2008

The construction demand<sup>2</sup> in 2008 reached a record high of \$34.6 billion. The exceptional high demand was fuelled by continued strong private sector construction demand as well as significant growth in the public sector construction demand on account of increased housing and infrastructure construction contracts last year.

#### **Public Sector**

Total public sector construction demand in 2008 expanded remarkably to \$14.5 billion, from \$5.7 billion in 2007. Of the \$4.2 billion worth of public housing construction contracts awarded in 2008, about \$3 billion of them were for the construction of new HDB (public housing) flats at various housing estates on the back of the strong take up rates for new HDB flats. Institutional construction demand increased from \$1.5 billion to \$2.9 billion, contributed by MOE's Programme for Rebuilding and Improving Existing Schools (PRIME), upgrading of Changi Airport Terminal 1, construction of the Khoo Teck Puat Hospital in Yishun and various military-related facilities.

The award of various major contracts for the construction of MRT Downtown Line Stage 1 and Marina Coastal Expressway pushed civil engineering construction demand in 2008 to a new high of \$7.2 billion. In additional, major infrastructure contracts at Marina South were also awarded to support the development of the Marina Bay area.

#### **Private Sector**

Sustained by continued strong construction demand for committed residential and commercial developments, private sector construction demand remained at a strong level, at \$20.1 billion, in 2008.

Residential construction demand reached \$6.4 billion in 2008 despite weakening property market in the second half of 2008, buoyed by the construction commencement of various committed projects launched during the bullish property market in 2007. Similarly, fuelled by the award of additional contracts for the development of Marina Bay Sands Integrated Resort and Resorts World at Sentosa, Phase 2 of Marina Bay Financial Centre, Ocean Financial Centre, mixed commercial

<sup>&</sup>lt;sup>2</sup> Construction demand is measured by total value of construction contracts awarded. All construction demand figures in this paper exclude reclamation projects.

development at Vista Exchange and other hotel developments, private commercial construction demand shot up to a record high of \$8.4 billion.

Industrial construction demand moderated from a high base of \$6.8 billion in 2007 to about \$3.7 billion. Apart from conventional factories, business park developments and warehouses, notable industrial projects awarded were Renewable Energy Corporation's solar panel manufacturing complex and JTC's two PPP (public-private-partnership) projects, Fusionopolis Phase 2B and Biopolis Phase 3.

#### 3.1.2 Construction Demand Forecast for 2009

Based on the recent feedback from developers and public sector agencies on their upcoming development plans, the Building and Construction Authority has revised the construction demand forecast for 2009, from between \$22 billion and \$28 billion (announced in January 2009), to between \$18 billion and \$24 billion (see table 3.1.2a). The downward revision was due to the softening of tender prices amidst lower costs of construction resources, re-scheduling of some public sector projects and the prevailing economic recession.

Due to the current global financial crisis, private sector construction demand is likely to soften significantly in 2009. Hence, the public sector will be the key construction demand driver and is anticipated to award between \$14.4 billion and \$15.6 billion worth of projects in 2009. Strong expansion in institutional and civil engineering construction is anticipated to lead public sector construction demand to a new high in 2009.

Given the slowdown of growth momentum in the economy, the negative sentiments and continued uncertainties in world economic outlook, BCA projects private sector construction demand to soften to between \$3.6 billion and \$8.4 billion in 2009, which is significantly lower than the annual demand recorded since 2006. Construction demand for all types of building developments is expected to fall in 2009.

#### **Residential Construction Demand**

## **Public Housing**

Public residential construction demand is projected to be between \$2.8 billion and \$3 billion in 2009, with bulk of the demand coming from the construction of new HDB flats to meet the ongoing public housing demand. In additional to new flats to be constructed under the BTO (Build-To-Order) and redevelopment schemes, HDB is also planning to build more rental flats in 2009 in response to their increasing demand. The on-going lift-upgrading programme is also expected to support the construction demand.

#### **Private Housing**

Private residential construction demand is projected to drop to between \$1.5 billion and \$2.5 billion, similar to the level recorded after the Asia Financial Crisis in 1997/98. Nevertheless, on the back of the nascent sign of market recovery, the second quarter saw a strong improvement in private residential construction demand compared to previous two quarters, with about \$500 million worth of contracts awarded.

#### **Commercial Construction Demand**

In view of the current economic slowdown, falling rental and rising vacancy rate, commercial demand is forecast to fall back nearer to the underlying demand level, at between \$1 billion and \$1.9 billion, following two years of record high demand at \$5-8 billion per annum.

#### **Industrial Construction Demand**

Business sentiments in the manufacturing sector remain weak. On the back of weakening outlook, total industrial construction demand is projected to amount to between \$0.9 billion and \$3.1 billion in 2009. Despite the anticipated reduction in foreign investments, the construction of the first liquefied natural gas (LNG) receiving terminal in Singapore and the various plans to upgrade the facilities of domestic energy sector will provide some support to industrial construction demand in the year ahead. For the public sector, the demand is expected to stay low since most of the industrial buildings are built by the private sector nowadays.

## **Institutional & Other Building Construction Demand**

Total institutional & other building construction demand is forecast to remain strong in 2009, with about \$3 billion to \$4.1 billion worth of projects to be awarded. This category will continue to be led by the public sector, underpinned by projects to upgrade various educational and healthcare facilities.

## **Civil Engineering Construction Demand**

Civil engineering construction demand is expected to be the bright spot in 2009 and will likely reach an all-time high of between \$8.9 billion and \$9.4 billion. Several strategic projects have been slated to proceed this year to expand Singapore's road and rail networks. These include MRT contracts for Downtown Line Stage 2, North-South Line Extension and Jurong East Connection, as well as various road contracts.

Table 3.1.2a: Breakdown of Construction Demand

# Contracts Awarded by Sector and Type of Work (2002 to 2009\*) (Excluding Reclamation Works)

|                        |      |      |      |      |      |      | Billion Sir | gapore | Dolla       | ers  |
|------------------------|------|------|------|------|------|------|-------------|--------|-------------|------|
|                        |      |      |      |      |      |      |             |        | 2009        |      |
|                        |      |      |      |      |      |      |             |        | reca        |      |
|                        | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008        | (mi    |             |      |
|                        |      |      |      |      |      |      |             | Revie  | 9W)<br>\$b) | (in  |
|                        |      |      |      |      |      |      |             |        | φυ          |      |
| Both Sectors           | 14.5 | 10.0 | 10.3 | 11.5 | 16.8 | 24.5 | 34.6        | 18     | -           | 24   |
| Building Work          | 11.1 | 8.7  | 7.5  | 9.8  | 14.9 | 21.5 | 26.7        | 9.1    |             | 14.6 |
| Residential            | 3.6  | 3.0  | 3.9  | 3.7  | 5.3  | 7.4  | 10.6        | 4.3    | -           | 5.5  |
| Commercial             | 1.2  | 0.5  | 1.1  | 1.0  | 2.4  | 5.2  | 8.5         | 1      | -           | 1.9  |
| Industrial             | 2.4  | 2.0  | 1.0  | 3.1  | 5.5  | 7.0  | 3.7         | 0.9    | -           | 3.1  |
| Institutional & Others | 3.8  | 3.1  | 1.5  | 1.9  | 1.7  | 1.9  | 3.9         | 3      |             | 4.1  |
| manunonar & Ourers     | 3.0  | 3.1  | 1.5  | 1.9  | 1.7  | 1.9  | 5.9         | 3      | -           | 4.1  |
| Civil Engineering Work | 3.4  | 1.3  | 2.8  | 1.7  | 1.9  | 3.0  | 7.9         | 8.9    | -           | 9.4  |
| Private                | 4.8  | 4.6  | 5.7  | 7.5  | 13.1 | 18.8 | 20.1        | 3.6    |             | 8.4  |
| Private                | 4.8  | 4.0  | 5.7  | 7.5  | 13.1 | 18.8 | 20.1        | 3.0    | •           | 8.4  |
| Building Work          | 4.7  | 4.5  | 4.9  | 6.8  | 12.3 | 17.9 | 19.3        | 3.4    | _           | 7.9  |
| Residential            | 2.5  | 1.9  | 2.6  | 2.6  | 4.1  | 5.6  | 6.4         | 1.5    | _           | 2.5  |
| Commercial             | 1.0  | 0.4  | 1.0  | 0.9  | 2.3  | 5.1  | 8.4         | 0.9    | _           | 1.7  |
| Industrial             | 0.7  | 1.4  | 1.0  | 2.7  | 5.4  | 6.8  | 3.7         | 0.8    |             | 3    |
| Institutional & Others | 0.4  | 0.7  | 0.3  | 0.5  | 0.5  | 0.4  | 0.9         | 0.2    | -           | 0.6  |
| Civil Engineering Work | 0.2  | 0.2  | 0.8  | 0.7  | 0.8  | 0.9  | 0.7         | 0.2    |             | 0.5  |
| Civil Engineering Work | 0.2  | 0.2  | 0.8  | 0.7  | 0.8  | 0.9  | 0.7         | 0.2    | -           | 0.5  |
| Public                 | 9.6  | 5.4  | 4.6  | 4.0  | 3.7  | 5.7  | 14.5        | 14.4   | -           | 15.6 |
|                        |      |      |      |      |      |      |             |        |             |      |
| Building Work          | 6.4  | 4.2  | 2.6  | 3.0  | 2.6  | 3.6  | 7.3         | 5.7    | -           | 6.7  |
| Residential            | 1.1  | 1.1  | 1.3  | 1.1  | 1.2  | 1.8  | 4.2         | 2.8    | -           | 3    |
| Commercial             | 0.3  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1         | 0.1    | -           | 0.2  |
| Industrial             | 1.7  | 0.6  | 0.1  | 0.4  | 0.1  | 0.2  | 0.0         | 0.1    | -           | 0.1  |
| Institutional & Others | 3.4  | 2.4  | 1.1  | 1.4  | 1.2  | 1.5  | 3.0         | 2.8    | -           | 3.4  |
| Civil Engineering Work | 3.2  | 1.2  | 2.0  | 1.0  | 1.1  | 2.1  | 7.2         | 8.7    | -           | 8.9  |

Source: BCA as at 1 July 2009

"Forecast

Table 3.1.2b: Number of Major Projects in the Pipeline

Number of Construction Tenders To Be Called By Public Sector Agencies

(Tentative schedules subject to changes)

| Residential Upgrading (e.g. Neighbourhood Renewal Programme) Education (e.g. Retrofitting of teaching facilities including Institutes of Higher Learning (IHL)) Dther Buildings (e.g. Retrofitting of government amenities) Sub-Total (Building) Road & Bridge (e.g. Pedestrian walkways, road widening) Sewerage & Drainage (e.g. Drainage improvement) Dther CMI Engineering (e.g. Parks, waterway and utilities projects) Sub-Total (Civil Engineering)  Total  Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels) Education (e.g. Retrofiting of teaching facilities including IHL) Dther Buildings (e.g. Retrofiting or buildings) | 4<br>16<br>42<br>62<br>18<br>6<br>8<br>32<br>94   | 2<br>3<br>26<br>31<br>10<br>6<br>11<br>27<br>58   | 1<br>0<br>13<br>14<br>4<br>1<br>10<br>15  | 3<br>0<br>12<br>15<br>4<br>1<br>5<br>10   |
|--|---|---|---|---|
| Other Bulldings (e.g. Retrofitting of government amenities) Sub-Total (Bullding) Road & Bridge (e.g. Pedestrian walkways, road widening) Sewerage & Dratinage (e.g. Drainage improvement) Other CNII Engineering (e.g. Parks, waterway and utilities projects) Sub-Total (CNII Engineering)  Fotal Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels) Education (e.g. Retrofitting of teaching facilities including IHL)  | 42<br>62<br>18<br>6<br>8<br>32<br>94  | 26<br>31<br>10<br>6<br>11<br>27<br>58   | 13<br>14<br>4<br>1<br>10<br>15  | 12<br>15<br>4<br>1<br>5   |
| Sub-Total (Building)  Road & Bridge (e.g. Pedestrian walkways, road widening)  Sewerage & Drainage (e.g. Drainage improvement)  Other Civil Engineering (e.g. Parks, waterway and utilities projects)  Sub-Total (Civil Engineering)  Fotal  Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels)  Education (e.g. Retrofitting of teaching facilities including IHL)   | 62<br>18<br>6<br>8<br>32<br>94  | 31<br>10<br>6<br>11<br>27   | 14<br>4<br>1<br>10<br>15  | 15<br>4<br>1<br>5   |
| Road & Bridge (e.g. Pedestrian walkways, road widening) Sewerage & Drainage (e.g. Drainage improvement) Other CNII Engineering (e.g. Parks, waterway and utilities projects) Sub-Total (CNII Engineering)  Total Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels) Education (e.g. Retrofitting of teaching facilities including IHL)  | 18<br>6<br>8<br>32<br>94  | 10<br>6<br>11<br>27   | 4<br>1<br>10<br>15  | 4<br>1<br>5   |
| Dewerage & Drainage (e.g. Drainage improvement)  Other CNII Engineering (e.g. Parks, waterway and utilities projects)  Sub-Total (CNII Engineering)  Fotal  Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels)  Education (e.g. Retrofitting of teaching facilities including IHL)  | 6<br>8<br>32<br>94  | 6<br>11<br>27<br>58   | 1<br>10<br>15   | 1<br>5<br>10  |
| Dewerage & Drainage (e.g. Drainage improvement)  Other CNII Engineering (e.g. Parks, waterway and utilities projects)  Sub-Total (CNII Engineering)  Fotal  Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels)  Education (e.g. Retrofitting of teaching facilities including IHL)  | 6<br>8<br>32<br>94  | 6<br>11<br>27<br>58   | 1<br>10<br>15   | 1<br>5<br>10  |
| Dewerage & Drainage (e.g. Drainage improvement)  Other CNII Engineering (e.g. Parks, waterway and utilities projects)  Sub-Total (CNII Engineering)  Fotal  Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels)  Education (e.g. Retrofitting of teaching facilities including IHL)  | 8<br>32<br>94   | 11<br>27<br>58  | 10<br>15  | 5<br>10   |
| Other Civil Engineering (e.g Parks, waterway and utilities projects)  Sub-Total (Civil Engineering)  Fotal  Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels)  Education (e.g Retrofitting of teaching facilities including IHL)   | 32<br>94<br>3   | 27<br>58  | 15  | 10  |
| Fotal  Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels) Education (e.g Retrofitting of teaching facilities including IHL)   | 32<br>94<br>3   | 58  | 600   | 10  |
| Residential & Upgrading (Lift Upgrading Programme, Home Improvement Programme, student/staff hostels) Education (e.g Retrofitting of teaching facilities including IHL)  | 3   | - 60  | 29  | 25  |
| Education (e.g Retrofitting of teaching facilities including IHL)  |   | e   |   |   |
| Education (e.g Retrofitting of teaching facilities including IHL)  |   | <u>C</u>  |   |   |
|  | 5   |   | 8   | 6   |
| Other Buildings (e.g. Retrofitting or building of government amenities)  |   | 6   | 3   | 0   |
|  | 3   | 4   | 2   | 1   |
| Sub-Total (Building)   | 11  | 16  | 13  | 7   |
| Road & Bridge (e.g. Widening of expressways or roads)  |   | 5   | 2   | 2   |
|  |   |   |   | ō   |
|  |   | -   |   | 1   |
| Sub-Total (Civil Engineering)  | 12  | 10  | 8   | 3   |
|  |   |   |   |   |
| Total  | 23  | 26  | 21  | 10  |
| Residential (e.g Public housing, student hostels for IHL)  | 2   | 2   | 3   | 9   |
| Education (Campus expansion for IHL)   | 3   | 1   | 2   | 0   |
| Other Buildings (e.g. Building of business park, new hospital facilities, recreational facilities)   | 3   | 5   | 4   | 3   |
| Sub-Total (Building)   | 8   | 8   | 9   | 12  |
| Road & Bridge (e.g. Widening of expressways, construction of flyover)  | 2   | 2   | 0   | 3   |
|  | 0   | 0   | 0   | 1   |
|  | 0   | 2   | 11  | 7   |
|  |   | 0   | 0   | 0   |
|  |   | 1   |   | 3   |
| Sub-Total (Civil Engineering)  | 11  | 5   | 12  | 14  |
| Total  | 19  | 13  | 21  | 26  |
| REDS   | oad & Bridge (e.g. Widening of expressways or roads)  ewerage & Dralnage (e.g. Canal and drainage improvement)  ther CNII Engineering (e.g. Waterworks and utilities projects)  ub-Total (CIVII Engineering)  ootal  esidential (e.g Public housing, student hostels for IHL)  ducation (Campus expansion for IHL)  ther Buildings (e.g. Building of business park, new hospital facilities, recreational facilities)  ub-Total (Building)  ood & Bridge (e.g. Widening of expressways, construction of flyover)  ewerage & Dralnage (e.g. Drainage improvement)  all & Related (e.g. New MRT lines, trackworks)  & E- Ralls and Roads (e.g. M&E for MRT or expressways)  ther CNII Engineering (e.g. Water pipeline works, infrastructure upgrading)  ub-Total (CivII Engineering) | oad & Bridge (e.g. Widening of expressways or roads)  4 ewerage & Dralnage (e.g. Canal and drainage improvement)  4 ther CNII Engineering (e.g. Waterworks and utilities projects)  4 ub-Total (CIVII Engineering)  12  23  esidential (e.g. Public housing, student hostels for IHL)  2 ducation (Campus expansion for IHL)  3 ther Buildings (e.g. Building of business park, new hospital facilities, recreational facilities)  3 ub-Total (Building)  a8  a0d & Bridge (e.g. Widening of expressways, construction of flyover)  2 ewerage & Dralnage (e.g. Drainage improvement)  all & Related (e.g. New MRT lines, trackworks)  4 E- Ralls and Roads (e.g. M&E for MRT or expressways)  5 ther CNII Engineering (e.g. Water pipeline works, infrastructure upgrading)  11 | oad & Bridge (e.g. Widening of expressways or roads)  4 5  ewerage & DraInage (e.g. Canal and drainage improvement) 4 4 1  ther CNII Engineering (e.g. Water pipeline works, infrastructure upgrading) 4 1  23 26  esidential (e.g. Public housing, student hostels for IHIL.) 3 1  ther Buildings (e.g. Building of business park, new hospital facilities, recreational facilities) 3 5  ub-Total (Building) 8 8  8 9  ewerage & DraInage (e.g. Widening of expressways, construction of flyover) 2 2  ewerage & DraInage (e.g. Drainage improvement) 0 0  all & Related (e.g. New MRT lines, trackworks) 4 5  ther CNII Engineering (e.g. Water pipeline works, infrastructure upgrading) 1 1  5 | oad & Bridge (e.g. Widening of expressways or roads)         4         5         2           ewerage & Dralnage (e.g. Canal and drainage improvement)         4         4         1         1         5         1         1         5         2         2         4         1         5         2         2         1         1         5         1         2         1         1         5         1         2         1         8         0         2         2         1         2         2         2         3         1         2         2         3         1         2         2         3         3         1         2         2         3         3         1         2         2         3         3         1         2         2         3         3         1         2         2         3         3         1         2         2         3         3         1         2         2         3         3         1         2         2         3         3         1         2         2         3         3         1         2         2         4         1         1         4         1         1         4         1 <t< td=""></t<> |

Source: BCA as at 14 August 2009

# 3.2 Construction Companies

The total number of companies registered under BCA Contractors Registry has been on an uptrend and reached 7,396 firms by end June 2009. Of these, 60 firms are A1 contractors with unlimited tendering limit for public sector projects.

**Table 3.2: Trend of Registered Contractor** 

| Year (calendar)               | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009* |
|-------------------------------|------|------|------|------|------|------|-------|
| No. of registered contractors | 4739 | 5167 | 5621 | 5942 | 6346 | 7021 | 7396  |

Note: Firm with multiple workheads registered is considered as a single registered entity.

## 3.3 Construction Manpower

Underpinned by the high level of construction activities, construction employment has continued to grow though at slower rate compared to previous quarter. According to the latest employment statistics released by MOM, construction employment grew by 8,300 in the first quarter of 2009 to 368,300 as at March 2009. This brings total employment gains in the construction sector since January 2006 to a significant 133,200 jobs.

<sup>\*</sup>No. of registered contractors as at 30 June 2009

## 3.4 Productivity

Due to surge of construction demand in 2008 and influx of less experienced foreign workers, the labour productivity of the construction sector (in terms of value-added per employee) dropped by 0.6% in 2008.

Table 3.4.1: % Change in Value-Added Per Employee

|                     | 2004 | 2005 | 2006 | 2007 | 2008 |
|---------------------|------|------|------|------|------|
| Construction Sector | -0.6 | -0.1 | -2.6 | 7.6  | -0.6 |

Source: Singapore Department of Statistics

#### 3.5 Construction Cost

## 3.5.1 Tender Price Index

BCA Building Works Tender Price Index (TPI)<sup>3</sup> increased by about 12% year-on-year in 2008, lower than the 19% increase in 2007. The increase was largely contributed by the steep surge in construction costs in the first half of 2008 due to strong global demand and inflation. With the softening of global construction materials and oil prices, BCA Building Works TPI has, since 4<sup>th</sup> quarter of 2008, dropped by a cumulative 14% by mid-2009.

## 3.5.2 Average Construction Material Prices

### Concrete

In tandem with the rising volume of construction activities, the demand for ready-mixed concrete increased by a significant 32.3% in 2008 compared to 2007 (Table 3.5.2a). On the other hand, the demand for cement in 2008 rose by a lower 18.2%, which could be due to the higher stock level carried over from 2007. The key import sources for cement in 2008 were Japan (44%), Taiwan (26%), Malaysia (19%) and Thailand (11%).

The market price for ready-mixed concrete<sup>4</sup> reduced by about 4% year-on-year to \$122 per cubic metre by end Dec 2008, and dropped by a further 16% by Jul 2009. In contrast, cement<sup>5</sup> (bulk) price was at \$120 per tonne as at end Dec 2008, up by 4.3% compared to Dec 2007, but it has since softened by 16% by Jul 2009.

<sup>&</sup>lt;sup>3</sup> BCA TPI excludes piling works, sub-structure works and mechanical & electrical works as these cost items are either project specific or not feasible to compile due to lack of data.

<sup>&</sup>lt;sup>4</sup> The price (inclusive of both delivery & GST) refers to Grade 35 pump ready-mixed concrete.

<sup>&</sup>lt;sup>5</sup> The price (inclusive of both delivery & GST) refers to Ordinary Portland cement.

Riding on the projected heightened construction activities in 2009, the estimated demands for cement and ready-mixed concrete are expected to increase by 16% and 15% respectively this year. With anticipated lower construction raw materials costs arising from the easing of global freight and fuel costs, ready-mixed concrete prices are likely to remain competitive in the second half of the year.

## **Reinforcement Bars (Rebars)**

On the back of rising local construction activities, demand for rebars in 2008 rose by 62.2% to 1.3 million tones (Table 3.5.2a). The key import sources of rebars were China (about 52%), Turkey (about 23%), Malaysia (about 11%) and other countries like Taiwan, Vietnam, Japan and Korea etc. For 2009, the demand for rebars is expected to increase by about 15% in anticipation of higher volume of construction activities.

Influenced by strong global demand in China, India and the Middle East, coupled with high raw material costs up till July 2008, the average market price for rebar<sup>6</sup> had surged by close to 60% since beginning of 2008 to reach about \$1,700 per tonne in Jul 2008. A slackened market demand impacted by the credit crunch since September 2008 had seen the average market price for rebar dropped to about \$1,000 per tonne in Dec 2008, and subsequently to \$742 per tonne in Jul 2009.

## 3.5.3 Construction Industry Salaries and Wages

With the higher demand for construction manpower, construction professionals such as engineers and associate professionals and technicians enjoyed higher wage increases in 2008 (Table 3.5.3b). Compared to most other economic sectors, the average monthly earnings per employee in the construction industry was still relatively lower (Table 3.5.3c).

<sup>&</sup>lt;sup>6</sup> The price (inclusive of both delivery & GST) refers to 20mm High Tensile rebar.

**Table 3.5.2a: Basic Construction Materials** 

| Demand                |                          |             |   |             |                                 |             |  |
|-----------------------|--------------------------|-------------|---|-------------|---------------------------------|-------------|--|
| Year                  | Cement<br>(Mil tonnes)   | %<br>Change | Ready-Mixed<br>Concrete<br>(Mil m³)                       | %<br>Change | Steel Bars<br>(Mil tonnes)      | %<br>Change |  |
| 2007                  | 3.85                     | -           | 7.53  | -           | 0.82                            | -           |  |
| 2008                  | 4.55                     | 18.2%       | 9.96  | 32.3%       | 1.33                            | 62.2%       |  |
| Current Market Prices |                          |             |   |             |                                 |             |  |
| Year                  | Cement<br>(\$ per tonne) | %<br>Change | Ready-Mixed<br>Concrete (Grade<br>35 Pump)<br>(\$ per m³) | %<br>Change | Steel Bars<br>(\$ per<br>tonne) | %<br>Change |  |
| Dec 2007              | \$115                    | -           | \$127   | -           | \$1,055                         | -           |  |
| Dec 2008              | \$120                    | 4.3%        | \$122   | -3.9%       | \$913                           | -13.5%      |  |
| Jul 2009              | \$101                    | -15.9%      | \$103   | -15.6%      | \$742                           | -18.8%      |  |

Table 3.5.3b: Mean Monthly Gross Wages in Construction

| Category   | 2005  | 2006  | 2007  | 2008  |
|--|-------|-------|-------|-------|
| Professionals (\$/month)                           | 3,155 | 3,237 | 3,400 | 3,737 |
| Associate Professionals and Technicians (\$/month) | 2,565 | 2,646 | 2,736 | 2,808 |

Source: Report on Wages in Singapore, various years, Ministry of Manpower

Table 3.5.3c: Average Monthly Earnings Per Employee (\$ per month)

| Industry                              | 2005  | 2006  | 2007  | 2008  |
|---------------------------------------|-------|-------|-------|-------|
| Average                               | 3,444 | 3,554 | 3,773 | 3,977 |
|                                       |       |       |       |       |
| Manufacturing                         | 3,495 | 3,618 | 3,764 | 3,955 |
| Construction                          | 2,513 | 2,517 | 2,646 | 2,861 |
| Wholesale and Retail Trade            | 3,017 | 3,101 | 3,262 | 3,441 |
| Transport and Storage                 | 3,507 | 3,525 | 3,797 | 3,989 |
| Hotels & Restaurants                  | 1,360 | 1,381 | 1,442 | 1,504 |
| Information & Communications          | 4,553 | 4,745 | 5,018 | 5,304 |
| Financial Services                    | 5,949 | 6,291 | 6,768 | 7,153 |
| Retail Estate and Leasing Services    | 2,732 | 3,053 | 3,355 | 3,513 |
| Community, Social & Personal Services | 3,704 | 3,831 | 4,074 | 4,168 |

Source: Yearbook of Statistics Singapore, 2009.

## 3.6 Import and Export of Construction Services

#### 3.6.1 Import of Construction Services

Singapore has one of the most open construction markets in the world, with no special restrictions applied to foreign construction firms, for instance, the BCA's Contractors' Registry applies to all contractors, regardless of local or foreign firms. Foreign construction firms from countries such as Japan, South Korea and China have been undertaking many significant projects in Singapore.

## 3.6.2 Export of Construction Services

## **Construction Consultancy Services**

Following a 13% year-on-year increase in the number of consultancy projects clinched in 2007, Singapore consultants remained active overseas by securing a total of 423 projects in 39 countries in 2008 (Chart 3.6.2a). The moderated 4% year-on-year increase in the number of overseas projects secured in 2008 could be due to the exceptionally high domestic construction volume and also, to a certain extent, affected by the start of global financial crisis in the later part of 2008 which caused a slowdown of growth momentum in the global economy.

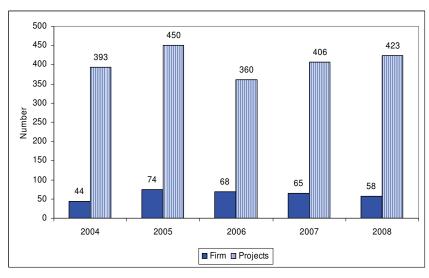


Chart 3.6.2a: Number of Consultancy Firms and Projects, 2004 - 2008

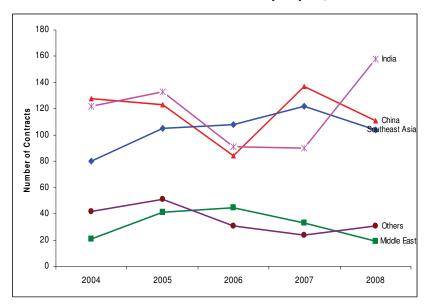


Chart 3.6.2b: Trend of Overseas Consultancy Projects, 2004 - 2008

## **Construction Services**

Singapore construction and engineering firms clinched \$1.6 billion worth of overseas contracts in 2008 (Chart 3.6.2c). Except for petrochemical and power plant projects, the volume of all types of overseas contract had dropped significantly. The exceptionally high volume of construction activities in the domestic market coupled with the onset of global financial crisis were the likely causes to lower construction export level in 2008 as Singapore firms were constrained by the available contracting resources as well as higher risks in undertaking overseas projects.

In tandem with the drop in export volume, the number of firms that had clinched projects overseas recorded a sharp fall by about 17% in 2008 after staying relatively stable over the years (Chart 3.6.2d).

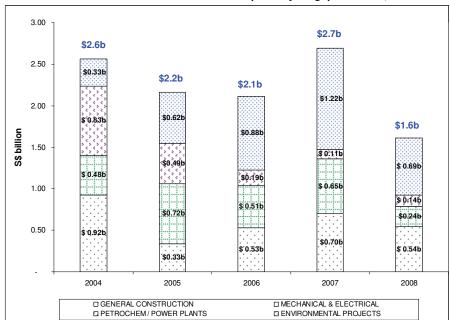


Chart 3.6.2c: Value of Construction Exports by Singapore Firms, 2008



