



## Chapter 10

# CONSTRUCTION

### OVERVIEW

The construction sector grew by 24 per cent in the final quarter of 2007, higher than the 20 per cent in the previous quarter. For the whole of 2007, growth in the construction sector reached 20 per cent, a significant increase over the 3.6 per cent in 2006. The year saw broad-based growth in construction demand in the residential, commercial, industrial and civil engineering segments, for both public and private sectors.

### CONSTRUCTION DEMAND

[Tables 10.1, A10.1 and Chart 10.1]

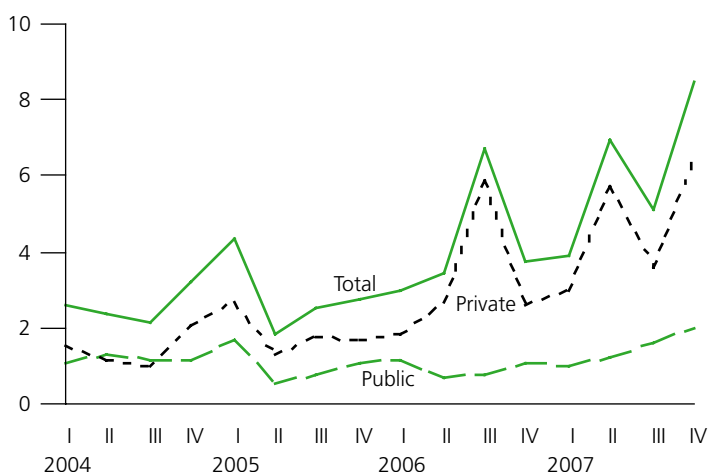
*Demand surged in 2007...*

Contracts awarded<sup>1</sup> surged by 128 per cent in the fourth quarter. For all of 2007, construction demand increased by 46 per cent to \$24.5 billion. The upsurge was mainly propelled by a record high private sector construction demand. The public sector construction demand also strengthened on account of increased public housing, institutional and civil engineering contracts.

### CONTRACTS AWARDED

[Chart 10.1]

\$ Billion



<sup>1</sup> Excluding reclamation works.

## CONTRACTS AWARDED

[TABLE 10.1]

\$ Billion

	2005			2006			2007p		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
<b>TOTAL</b>	11.5	4.0	7.5	16.8	3.7	13.1	24.5	5.7	18.8
<b>Residential</b>	3.7	1.1	2.6	5.3	1.2	4.1	7.4	1.8	5.6
<b>Commercial</b>	1.0	0.1	0.9	2.4	0.1	2.3	5.2	0.1	5.1
<b>Industrial</b>	3.1	0.4	2.7	5.5	0.1	5.4	7.0	0.2	6.8
<b>Institutional &amp; Others</b>	1.9	1.4	0.5	1.7	1.2	0.5	1.9	1.5	0.4
<b>Civil Engineering Works</b>	1.7	1.0	0.7	1.9	1.1	0.8	3.0	2.1	0.9

Source: Building and Construction Authority

## PUBLIC SECTOR


*Public sector demand reversed its decline...*

Public sector construction demand rose by 80 per cent in the fourth quarter. Growth was mainly due to steep increases in the public civil engineering and residential segments, which offset contractions in the much smaller public industrial and commercial segments.

For 2007 as a whole, public sector construction demand increased by 52 per cent to \$5.7 billion, after hitting a low of \$3.7 billion in 2006. All development types enjoyed expansions.

The public residential segment grew by 56 per cent to \$1.8 billion, driven by various HDB's new housing developments and upgrading projects as well as the second Design, Build & Sell Scheme (DBSS) at Boon Keng Road.

Public institutional construction demand increased from \$1.2 billion to \$1.5 billion, driven by MOE's Programme for Rebuilding and Improving Existing Schools (PRIME) and other educational building projects such as the School of the Arts Singapore and the Duke-NUS Graduate Medical School.



*Broad-based expansion  
in public sector  
demand.*

Public civil engineering construction demand in 2007 increased to \$2.1 billion, almost doubling from 2006's level of \$1.1 billion. The increase was largely contributed by contracts awarded for the construction of Stage 1 of the Downtown Line MRT, and was supported by major road projects such as upgrading of Woodsville Interchange and an iconic bridge structure along Marina Bay.

## **PRIVATE SECTOR**

*Broad-based growth in private construction demand...*

Private sector construction demand surged by 147 per cent in the fourth quarter. Growth was broad-based in the residential, commercial, industrial and civil engineering segments.

2007 saw private sector construction demand continued its strong growth momentum to rise by 44 per cent to \$18.8 billion. The surge was upheld by a significant pick-up in construction demand on the back of a buoyant property market and strong foreign investments.

Riding on the buoyant property market, private residential construction demand grew strongly by 34 per cent to \$5.6 billion in 2007. Some notable projects awarded included the Marina Bay Residences, One Shenton, Sky@Eleven, and The Seafront on Meyer.

Private commercial construction demand swelled 122 per cent to a record of \$5.1 billion, fuelled by developments such as the Marina Bay Sands Integrated Resort, Resorts World at Sentosa, Marina Bay Financial Centre, Somerset Central and other hotel developments.

In the private industrial segment, demand continued its upward trend in 2007 to reach a record \$6.8 billion. High-tech industrial developments and petrochemical plants were the key feature. Notable contracts awarded included ExxonMobil's Singapore Parallel Train petrochemicals plant, IM Flash's memory chip fabrication factory, Jurong Aromatics Corporation's aromatics complex, Neste Oil's biodiesel plant, Island Power's power generation plant, and PowerSeraya's co-generation combined cycle plant.

## CONSTRUCTION ACTIVITIES

[Table A10.1]

*Output grew strongly in tandem with demand...*

Construction output rose by 35 per cent in the fourth quarter of 2007, up from 31 per cent growth in the previous quarter. The residential, commercial and industrial segments saw healthy growth.

For 2007 as a whole, total construction output increased by 28 per cent to \$16.5 billion. This was largely due to a broad-based expansion in private sector construction activities. On the other hand, public sector construction activities registered flat performance and dipped by 0.1 per cent, as performances of various development types were mixed.

### PUBLIC SECTOR

*Flat growth in public sector construction activities...*

Public sector construction output grew by 2.9 per cent in the fourth quarter, a slight improvement over the 1.4 per cent rise in the previous quarter. Activity rose in the public industrial, residential and civil engineering segments.

Total public sector construction output in 2007 was comparable to that in the previous year, at \$5.3 billion. While growth was seen in the public residential and industrial segments, output fell in other segments. Some on-going construction projects that contributed to public sector construction output were public housing projects (such as Pinnacle@Duxton and The Premiere), Fusionopolis at One-North, various contracts under the Deep Tunnel Sewerage System, the access shafts & start galleries of Jurong Rock Caverns Phase 1, various Circle Line MRT projects, the Punggol-Serangoon reservoir scheme and the Kallang-Paya Lebar Expressway.

*Public sector construction activity maintained its previous level.*

### PRIVATE SECTOR

*Broad-based expansion in private sector output...*

Private sector construction output surged in the fourth quarter by 55 per cent, accelerating from the 49 per cent seen in the previous quarter. This was due to growth in all segments except for institutional building projects.

For all of 2007, private sector construction output increased by 48 per cent to \$11.2 billion. Output growth was mainly led by the private industrial, commercial and residential segments. Projects supporting the growth included various condominium developments, commercial developments such as the Marina Bay Sands Integrated Resort, the Marina Bay Financial Centre, Ion Orchard and the St Regis hotel mixed development, as well as industrial developments such as the Universal Terminal and the Shell Eastern Petrochemicals Complex. Institutional output also expanded while civil engineering activities slowed.

## **CONSTRUCTION MATERIALS**

*Higher material costs due largely to increasing local and global demand...*

The demand for construction materials rose in tandem with an expansion of construction activity in 2007. Demand for ready-mixed concrete rose by 5 per cent. The demand for cement rose by 16 per cent, mainly driven by increased stockpiles in anticipation of increases in cement prices in 2008. Similarly, demand for steel reinforcement bars rose by 14 per cent to 0.8 million tonnes.

Sand and granite supply disruptions in February 2007 caused significant cost increases in the prices of basic construction materials. Nonetheless, the price of ready-mixed concrete (a product of sand and granite) has gradually dropped since then and stabilised at \$130 per cubic metre in December 2007. In contrast, cement prices remained on a firm uptrend and rose to \$115 per tonne in December 2007. Market prices for steel reinforcement bars also rose to around \$1,000 per tonne in December 2007 due to stronger demand and soaring raw material costs.

## **CONSTRUCTION COSTS**

*Construction costs continued to rise...*

Strong domestic construction demand coupled with escalating costs of construction materials, fuel and transportation has led to rising cost pressures. BCA's Building Works Tender Price Index (TPI) is estimated to have increased by about 16 per cent in 2007 compared to a year ago, partly on account of sand and granite supply disruptions in early 2007. However, the TPI does not take into account the costs of sub-structure works and mechanical & electrical (M&E) works. According to leading quantity surveyor firms and general industry feedback, overall construction costs rose by 20 per cent to 30 per cent in 2007 if sub-structure and M&E works were factored in.

**PROJECTED CONSTRUCTION DEMAND IN 2008**

[TABLE 10.2]

Sector/Type of Demand	\$ Billion
<b>Public Sector</b>	<b>8.5 – 10.6</b>
Building Construction Sub-total	5.7 – 7.1
Residential	2.3 – 3.0
Commercial	0.2 – 0.2
Industrial	0.9 – 0.9
Institutional & Others	2.4 – 3.0
Civil Engineering Works Sub-total	2.8 – 3.5
<b>Private Sector</b>	<b>14.5 – 16.4</b>
Building Construction Sub-total	13.8 – 15.7
Residential	4.4 – 5.3
Commercial	4.4 – 4.5
Industrial	4.1 – 4.6
Institutional & Others	0.9 – 1.2
Civil Engineering Works Sub-total	0.7 – 0.7
<b>TOTAL CONSTRUCTION DEMAND</b>	<b>23.0 – 27.0</b>

Source: Building and Construction Authority

**CONSTRUCTION OUTLOOK IN 2008**

*Construction demand is expected to remain robust...*

BCA forecasts total construction demand would be between \$23 billion and \$27 billion in 2008, if all planned projects proceed as scheduled. Private sector construction demand will remain strong, although it is expected to moderate to between \$14.5 billion and \$16.4 billion. On the other hand, public sector construction demand is anticipated to increase to between \$8.5 billion and \$10.6 billion, with expansions in all development types.

With construction demand expected to remain robust, BCA projects construction output to grow to between \$19 billion and \$21 billion in 2008. Riding on the projected higher output level in 2008, demand for cement, ready-mixed concrete and steel reinforcement bars is expected to increase by between 26 per cent and 36 per cent.

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