

### Box 3.1: Business Costs of Singapore's Manufacturing and Services Industries

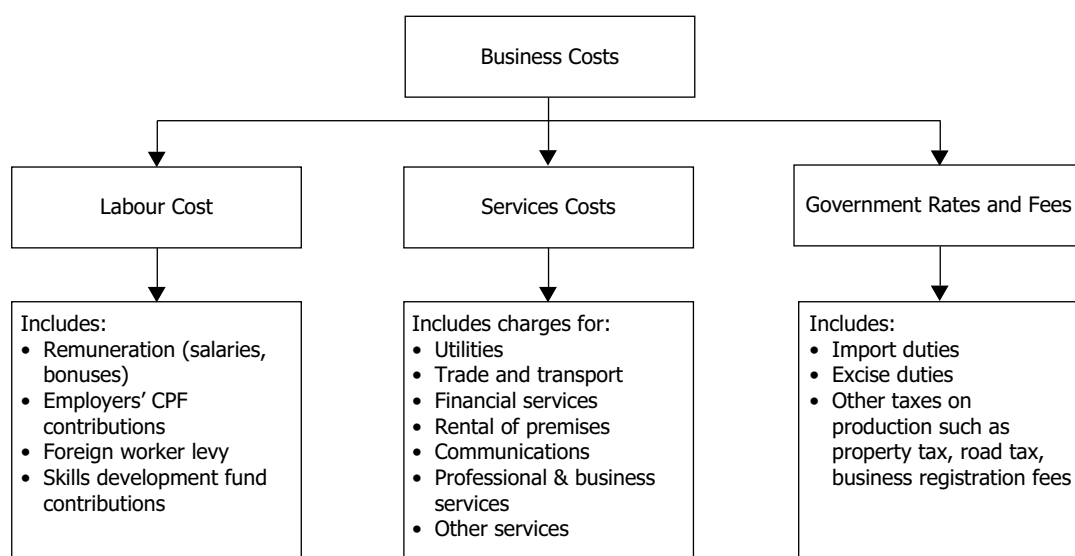
#### Aim

This box examines the business cost structure of various manufacturing and services industries to identify the key drivers of their business costs.

#### Methodology and Data

Business costs for both manufacturing and services industries can be divided into "labour cost", "services cost", and "government rates and fees" (Exhibit 1)<sup>1</sup>. This follows the definition adopted by the Department of Statistics (DOS) in its computation of the Unit Business Cost for Manufacturing<sup>2</sup>.

**Exhibit 1: Components of Business Costs**



Source: Singapore Department of Statistics Information Paper on Economic Statistics, "Unit Business Cost Index of the Manufacturing Sector: Rebasing to Year 2000", July 2006.

To derive the business cost structure of manufacturing industries, we have used data from the Economic Development Board (EDB)'s Census of Manufacturing Activities for 2006. The manufacturing industries are grouped into the following clusters: electronics, chemicals, biomedical manufacturing, precision engineering, transport engineering, and general manufacturing.

For the key services industries, we have used operating expenditure data from the Annual Survey of Services (reference year 2006) conducted by DOS and the Monetary Authority of Singapore (MAS). The industries covered are wholesale trade, retail trade, hotels and restaurants, transport and storage, financial services, information and communications, real estate, and business services.

<sup>1</sup> In line with DOS's methodology, the cost of raw materials is not included as part of business costs. Construction cost, though a critical factor for new investments, is also excluded as it does not feature significantly in the business costs of existing firms, which are more recurrent and operational in nature.

<sup>2</sup> See Singapore Department of Statistics Information Paper on Economic Statistics, "Unit Business Cost Index of the Manufacturing Sector: Rebasing to Year 2000", July 2006.

### Key Cost Components for Manufacturing Industries

The distribution of cost components in the various manufacturing clusters is shown in [Exhibit 2](#).

**Exhibit 2: Business Cost Structure of Manufacturing Clusters, 2006**

% Share of Total Business Costs	Total Manufacturing	Electronics	Chemicals	Biomedical Manufacturing	Precision Engineering	Transport Engineering	General Manufacturing Industries
Labour Cost <sup>1</sup>	46.9	52.1	19.7	39.7	60.4	63.9	51.2
Services Costs	52.4	47.4	79.4	59.6	38.8	35.5	47.9
<i>Utilities<sup>2</sup></i>	<i>15.8</i>	<i>10.8</i>	<i>41.0</i>	<i>7.9</i>	<i>6.4</i>	<i>4.3</i>	<i>8.0</i>
<i>Trade &amp; Transport<sup>3</sup></i>	<i>14.9</i>	<i>16.6</i>	<i>14.2</i>	<i>14.1</i>	<i>14.6</i>	<i>14.1</i>	<i>14.5</i>
<i>Financial Services<sup>4</sup></i>	<i>6.3</i>	<i>7.8</i>	<i>8.3</i>	<i>4.3</i>	<i>5.1</i>	<i>3.2</i>	<i>5.6</i>
<i>Communications</i>	<i>0.7</i>	<i>0.5</i>	<i>0.4</i>	<i>0.4</i>	<i>1.1</i>	<i>0.6</i>	<i>0.9</i>
<i>Warehousing</i>	<i>0.9</i>	<i>1.3</i>	<i>1.9</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>
<i>Real Estate, Including Rental</i>	<i>3.5</i>	<i>2.4</i>	<i>2.6</i>	<i>2.2</i>	<i>3.9</i>	<i>3.9</i>	<i>6.5</i>
<i>Business and Other Services<sup>5</sup></i>	<i>10.4</i>	<i>8.1</i>	<i>11.0</i>	<i>30.6</i>	<i>7.5</i>	<i>9.2</i>	<i>12.1</i>
Government Rates & Fees <sup>6</sup>	0.7	0.4	0.9	0.7	0.8	0.6	0.8

Source: Singapore Economic Development Board, Census of Manufacturing Activities 2006

Note: Business Costs exclude purchases of goods and materials.

<sup>1</sup> Comprises remuneration (i.e. wages & salaries, employers' contribution to CPF, other benefits and insurance premiums to employees), foreign worker levy and skills development fund contributions.

<sup>2</sup> Comprises electricity, gas and water.

<sup>3</sup> Comprises margins paid to wholesalers, freight transport costs, crane and container services.

<sup>4</sup> Comprises bank services and insurance premiums on property and equipment.

<sup>5</sup> Comprises accounting, consultancy, legal, engineering, architectural, advertising and other professional services, and other services.

<sup>6</sup> Includes taxes on production such as road tax, property tax, stamp duties, etc.

For the overall manufacturing sector, services costs account for slightly more than half (52 per cent) of total business costs. Within services costs, payments for utilities take up the largest share at 16 per cent of total business costs. This is followed by trade and transport at 15 per cent, while real estate cost (including rental) accounts for only 3.5 per cent. Labour cost accounts for slightly less than half (47 per cent) of manufacturing business costs.

For most of the clusters, apart from chemicals and biomedical manufacturing (BMS), labour costs form the bulk of business costs. The chemicals cluster is highly capital intensive with a large part of its costs coming from utilities (41 per cent). As for the BMS cluster, "business and other services" costs, which include knowledge-intensive items such as business consultancy fees, constitute a large share of its total business costs, at 31 per cent.

Trade and transport costs are significant for all clusters, due to the export-oriented nature of manufacturing. On the other hand, government rates and fees, including property tax and registration fees, account for a very small proportion of business costs.

### Key Cost Components for Services Industries

Exhibit 3 shows the business cost structure for the key services industries. The cost structures vary substantially, reflecting the different nature of activities.

**Exhibit 3: Business Cost Structure for Key Services Sectors, 2006**

% Share of Total Business Costs	Wholesale Trade	Retail Trade	Hotels & Restaurants	Transport & Storage	Financial Services	Information & Communications	Real Estate	Business Services
Labour Cost <sup>1</sup>	28.0	36.3	42.4	11.9	41.8	22.6	12.5	38.1
Services Costs	71.9	63.0	56.8	87.1	57.8	76.8	82.0	61.7
<i>Utilities<sup>2</sup></i>	<i>0.6</i>	<i>3.0</i>	<i>7.0</i>	<i>0.5</i>	<i>0.4</i>	<i>0.8</i>	<i>4.7</i>	<i>0.7</i>
<i>Freight &amp; Transport Charges<sup>3</sup></i>	<i>22.0</i>	<i>1.6</i>	<i>0.3</i>	<i>37.5</i>	<i>0.0</i>	<i>0.2</i>	<i>0.0</i>	<i>2.0</i>
<i>Financial Services<sup>4</sup></i>	<i>1.7</i>	<i>2.2</i>	<i>1.5</i>	<i>1.0</i>	<i>10.5</i>	<i>0.2</i>	<i>0.3</i>	<i>0.5</i>
<i>Communications</i>	<i>1.2</i>	<i>0.9</i>	<i>0.6</i>	<i>0.3</i>	<i>1.2</i>	<i>8.0</i>	<i>0.3</i>	<i>1.1</i>
<i>Renting of Premises</i>	<i>3.9</i>	<i>28.5</i>	<i>17.9</i>	<i>1.4</i>	<i>2.6</i>	<i>2.0</i>	<i>1.7</i>	<i>3.1</i>
<i>Professional Services<sup>5</sup></i>	<i>8.4</i>	<i>7.0</i>	<i>3.4</i>	<i>1.4</i>	<i>8.2</i>	<i>8.8</i>	<i>11.6</i>	<i>8.6</i>
<i>Subcontract Work &amp; Commission Fees</i>	<i>10.7</i>	<i>4.5</i>	<i>2.7</i>	<i>6.2</i>	<i>10.4</i>	<i>17.0</i>	<i>35.1</i>	<i>15.6</i>
<i>Other Services</i>	<i>23.4</i>	<i>15.3</i>	<i>23.4</i>	<i>38.8</i>	<i>24.4</i>	<i>39.8</i>	<i>28.3</i>	<i>30.1</i>
Government Taxes & Fees <sup>6</sup>	0.3	0.8	0.9	0.8	0.4	0.7	5.4	0.2

Source: Singapore Department of Statistics and Monetary Authority of Singapore, Annual Survey of Services 2006

Note: Business Costs exclude purchases of goods and materials.

<sup>1</sup> Comprises remuneration (i.e. wages & salaries, employers' contribution to CPF, other benefits and insurance premiums to employees), foreign worker levy and skills development fund contributions.

<sup>2</sup> Comprises electricity, gas and water.

<sup>3</sup> Comprises freight charges, charter fees, cargo handling fees and port & airport charges.

<sup>4</sup> Comprises bank services and insurance premiums on property and equipment.

<sup>5</sup> Comprises accounting, consultancy, legal, engineering, architectural, advertising and other professional services.

<sup>6</sup> Includes taxes on production such as road tax, property tax, stamp duties, etc.

With the exception of the transport & storage and real estate sectors, labour cost forms the largest cost component at 20-40 per cent for most of the services industries. If subcontract work and commission fees are included, the proportion of labour-related cost would be higher, even for the real estate sector, bringing it to a range of 40-50 per cent. The relatively low share of labour cost in the transport & storage sector reflects the capital intensive nature of its operations.

Freight and transport charges account for a large proportion of business costs for the wholesale trade and transport & storage sectors, at 22 per cent and 38 per cent respectively. For the latter, cargo handling & port charges constitute around 55 per cent of the sector's total freight & transport cost.

Rental of premises accounts for 20-30 per cent of business costs for the hotels & restaurants and retail trade sectors.

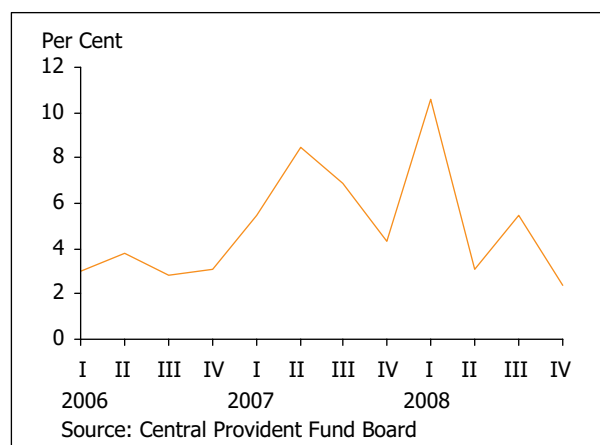
Utilities do not feature prominently for most of the services sectors, with the exception of the hotels & restaurants sector for which utilities account for 7.0 per cent of its business costs.

Government taxes & fees generally constitute less than 1 per cent of total business costs, except for the real estate sector in which the higher share is due to property-related rates and fees.

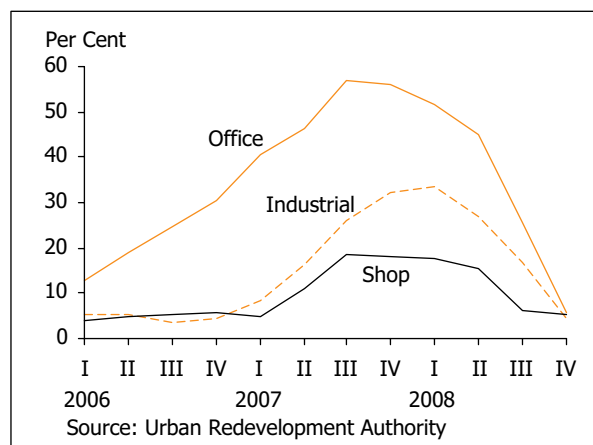
### Key Drivers of Business Cost Increases

Strong economic growth from 2004 up to the first quarter of 2008 led to a tightening of the markets for labour and commercial and industrial space, which contributed to higher business costs. In 2008, average monthly earnings increased by 5.4 per cent (Exhibit 4). Shop, office and industrial rental indices rose by 5.1 per cent, 5.8 per cent, and 4.2 per cent respectively after double-digit increases in 2007 (Exhibit 5). The increase in the global oil prices also drove up business costs directly through higher utility costs and indirectly through higher transportation costs.

**Exhibit 4: Growth in Average Monthly Earnings**



**Exhibit 5: Growth in Rental Price Index**



Given the weak economic outlook for 2009, labour costs are expected to moderate as firms have to manage their costs (both wage and non-wage) carefully in order to remain competitive and save jobs. According to the latest survey by the Singapore Human Resource Institute, overall pay packages will decrease by 2 per cent on average in 2009<sup>3</sup>. Rental cost would also moderate as the demand for retail, office and industrial space is likely to be lower given the prevailing economic conditions.

Furthermore, oil prices have come down from a peak of US\$147 per barrel in mid-July 2008 to below US\$45 per barrel in February 2009. Given the global economic slowdown, analysts expect oil prices to average US\$40-50 per barrel in 2009. Cost pressures from oil prices are thus expected to stay low in 2009.

### Conclusion

Against the backdrop of strong economic growth from 2004 up to the first quarter of 2008 and global commodity price increases, both manufacturing and services industries experienced rising business costs up to the first half of 2008. Much of the rise in business costs was driven by labour cost, and also the cost of utilities and rentals. However, with slower economic growth expected in the near term, commodity prices coming down from their peaks, and new supply of commercial space coming on-stream, we should see a moderation of cost pressures this year. In addition, the government has announced a package of measures to help firms manage their costs, including wage and rental costs, during the downturn.

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<sup>3</sup> Straits Times, 30 January 2009, "Total pay to fall by 2% on average: Poll"