BUSINESS COST CONDITIONS IN SINGAPORE'S MANUFACTURING AND SERVICES SECTORS

OVERVIEW

In 2021, unit business cost (UBC) in the manufacturing sector fell, while that in the overall services sector rose.

DEFINITION OF UBC

 $UBC = \frac{\text{Total Business Cost}}{\text{Gross Real Value-Added}}$





UBC for Services *Refers to first three quarters of 2021

KEY DRIVERS

The fall in manufacturing UBC in 2021 was mainly on account of declines in the "others" component, work given out and royalties.

CONTRIBUTION TO MANUFACTURING UBC IN 2021





Utilities

The increase in services UBC in 2021 came on the back of an increase in both unit labour cost and other services costs.

CONTRIBUTION TO SERVICES UBC IN 2021



OUTLOOK

Royalties

Looking ahead, the overall unit labour cost for the economy is likely to continue to rise in 2022 on account of sustained wage growth in line with economic growth. Meanwhile, commercial rentals are projected to see a gradual recovery, even as industrial rental is likely to remain relatively stable in 2022. At the same time, the costs of utilities, fuel and transportation are expected to increase due to higher global oil prices, although upward pressures could ease over the course of the year.





BOX 3.1: BUSINESS COST CONDITIONS IN SINGAPORE'S MANUFACTURING AND SERVICES SECTORS

This box article highlights the latest trends in business costs for firms in Singapore's manufacturing and services sectors, as well as the outlook for key components of business costs in 2022.

(1) Unit Business Cost¹ in the Manufacturing and Services Sectors

In 2021, unit business cost in the manufacturing sector fell, while that in the overall servicessector rose

In 2021, the unit business cost index for the manufacturing sector (UBCI) fell by 3.3 per cent (Exhibit 1).² The main contributors to the decline were a fall in the costs of the "others" component³, work given out and royalties⁴, with their contributions collectively accounting for 4.0 percentage-points (pp) of the decline in the UBCI. In addition, a drop in the manufacturing ULC also contributed 0.3pp to the decline in the UBCI. These declines more than offset the positive contribution of utilities cost (+0.9pp) to the UBCI. Utilities cost had increased in tandem with the rebound in global oil prices, which was in turn due to the global economic recovery amidst tight supply conditions.

Meanwhile, the other cost components such as non-labour production taxes⁵ (e.g., property, road and other indirect taxes) and rental costs had a relatively small impact on the UBCI, in part because of their low share of business costs. (Please refer to Annex A for the business cost structure of firms in the manufacturing and services sectors.)





Source: Department of Statistics

Note: "Others" consists of sub-components such as professional fees, advertising, commission and agency fees, sundry expenses, etc.

¹ Unit business cost measures the business costs incurred to produce one unit of output. Only operating expenses (without material costs and depreciation) are included in business costs. This follows the definition adopted by the Department of Statistics (DOS) in its computation of the Unit Business Cost for Manufacturing. See DOS' Information Paper, "Methodological Review on the Unit Business Cost Index for Manufacturing Industry (Base Year 2010=100)", at https://www.singstat. gov.sg/-/media/files/publications/economy/ip-e38.pdf.

² Business costs tend to increase when firms produce a higher amount of output to meet demand. Unit business cost accounts for this by measuring the business costs incurred to produce one unit of output.

^{3 &}quot;Others" consists of sub-components such as professional fees, advertising, commission and agency fees, sundry expenses, etc.

⁴ Royalties cost refers to payments made to another party (the licensor or franchisor who owns a particular asset) for the right to the ongoing use of that asset.

⁵ Labour-related taxes on production (e.g., foreign worker levy) are classified under labour cost. Taxes on income (e.g., corporate income tax) are not included in business cost.

On the other hand, the unit business cost index for the overall services sector (UBC-Services Index)⁶ rose by 1.5 per cent in the first three quarters of 2021 compared to the same period a year ago (Exhibit 2).⁷ This was due to an increase in both the ULC of the overall services sector (+1.4pp contribution) and other services costs (+0.2pp).⁸ In turn, the increase in other services costs could be attributed to a steep increase in freight and transport charges faced by services firms, in part due to global supply bottlenecks.



Exhibit 2: Contribution to UBC-Services Index Changes by Cost Components

Source: Monetary Authority of Singapore

Notes: (1) The UBC-Services Index for 2021 refers to the average of the index for the first three quarters; (2) Detailed cost component breakdowns for the UBC-Services Index are not available; (3) Other services costs include air & sea freight costs, cargo handling costs and warehousing & storage costs.

(II) Latest Trends and Outlook for Key Cost Components

The ULC for the overall economy increased in 2021, but remained below its pre-COVID level in 2019

The ULC for the overall economy rose by 4.2 per cent in 2021, a turnaround from the 8.9 per cent decline in 2020.⁹ The increase in the ULC was due to a rise in the total labour cost¹⁰ (TLC) per worker (13.8 per cent) which outpaced labour productivity growth¹¹ (9.2 per cent) (Exhibit 3). In turn, the increase in TLC per worker was driven by a pickup in remuneration, as well as the tapering of wage subsidies provided by the Government through support measures such as the Jobs Support Scheme.¹² Specifically, the increase in remuneration per worker and fall in wage subsidies per worker contributed 6.1pp and 5.9pp to the rise in TLC per worker in 2021 respectively. Nonetheless, the ULC for the overall economy remained 5.1 per cent below its pre-COVID level in 2019.

At the sectoral level, most sectors experienced an increase in their ULCs in 2021 (Exhibit 4). The ULC for the overall services sector rose by 5.5 per cent as the increase in its TLC per worker outpaced labour productivity growth. Among the services producing industries, most saw a higher ULC, with the food & beverage services (17.1 per cent) and administrative & support services (16.6 per cent) sectors registering the largest increases in ULC. In turn, these increases were on account of a pickup in TLC per worker and a slight decline in labour productivity in both sectors.

⁶ The UBC-Services Index is estimated by MAS to assess cost conditions in the services sector. It is a composite index of proxy cost indicators for each component of business cost, combined using weights estimated from expenditure data in DOS' Services Survey Series 2019: The Services Sector, as well as the 2016 Input-Output tables.

⁷ Latest available UBC-Services Index is up to the third quarter of 2021.

⁸ The pp contributions do not sum to the overall change in the UBC-Services Index due to rounding.

⁹ A change in the ULC can be approximately decomposed as the change in total labour cost per worker minus the change in labour productivity (proxied by gross real value-added per worker). The approximation holds better when the changes are small.

¹⁰ TLC comprises remuneration, wage subsidies and other labour-related costs, which include the skills development levy, foreign worker levy, and recruitment and net training cost. An example of the wage subsidies provided to companies was the Jobs Support Scheme, which provided wage support of up to 75 per cent of the first \$4,600 of gross monthly wages paid to local employees to help employers retain their local employees during the COVID-19 pandemic.

¹¹ As labour productivity in this decomposition exercise is proxied by real gross value-added per worker, its magnitude of change may be different from that based on official labour productivity statistics.

¹² In a given year, wage subsidies would reduce the TLC per worker. However, the tapering of wage subsidies from one year to the next would contribute positively to changes in TLC per worker.



The ULC for the construction sector rose (0.9 per cent) as its TLC per worker grew at a slightly faster pace than labour productivity. By contrast, the ULC for the manufacturing sector decreased by 1.3 per cent, as labour productivity growth in the sector more than offset an increase in its TLC per worker.

For 2022, the ULC for the overall economy is likely to continue to rise on the back of sustained wage growth in line with economic growth.



Exhibit 4: ULC Change by Sectors, 2021



Source: MTI Staff estimates using data from the Department of Statistics and Ministry of Manpower

Industrial rental is likely to remain relatively stable in 2022, while commercial rentals are expected to recover

Industrial rental rose by 2.0 per cent in 2021 due to an increase in demand for industrial space in tandem with the recovery of the economy, amidst continued delays in new completions (Exhibit 5). The industrial occupancy rate, which remained stable over the course of 2021, was slightly higher when compared to a year ago (Exhibit 6).

For 2022, the demand for industrial space is projected to be robust as the economy continues to recover. At the same time, around 2.8 million gross square metres of industrial space are expected to be completed¹³ in 2022 (Annex B, Exhibit B1), which is higher than the average annual supply of industrial space between 2016 and 2021 (approximately 1.0 million gross square metres). As such, any potential increase in occupancy may be tempered by new completions. Against this backdrop, industrial rental is likely to remain relatively stable in 2022, with upsides in the near future if demand picks up more strongly than anticipated or there are delays in expected completions.



Exhibit 5: Industrial Rental Index, 1021-4021



Exhibit 6: Industrial Occupancy Rate, 1021-4021

Source: JTC Corporation

Note: Both the industrial rental index and the industrial occupancy rate cover multiple-user factory space, single-user factory space, business parks and warehouses

In terms of commercial space, the rental of office space increased by 1.9 per cent in 2021, a reversal from the 8.5 per cent decline in 2020, even though this remained 9.1 per cent below its average pre-pandemic level in 2019 (Exhibit 7). Looking ahead, continued economic recovery, positive business sentiments and the gradual resumption of in-office work in 2022 may lend some support to the demand for office space, even as companies review their medium- to longer-term workplace practices and office space needs. Meanwhile, the supply of office space expected to come on-stream this year is expected to moderate. Specifically, 0.08 million gross square metres of office space are projected to come on-stream within the year, lower than the annual average of 0.21 million gross square metres completed between 2016 and 2021 (Annex B, Exhibit B2). The continued recovery in demand, alongside the moderation in supply, may lead to upward pressures on office space rental in 2022.

As for retail space, rental fell by 6.8 per cent in 2021, as the demand for retail space continued to be weighed down by weak sentiments among retailers due to global travel restrictions and domestic safe management measures (SMMs). Retail rental conditions in 2022 may benefit from an improvement in business sentiments amidst the continued economic recovery, progressive easing of SMMs and the prospect of an increase in tourist demand with the expansion of Vaccinated Travel Lanes. The moderation in retail space supply coming on-stream could also lend further support to retail rental. In particular, 0.08 million gross square metres of retail space are expected to come on-stream in 2022, lower than the annual average of 0.15 million gross square metres completed between 2016 and 2021.







Source: Urban Redevelopment Authority

Costs of utilities, fuel and transportation are likely to increase in 2022

The cost of utilities borne by firms is closely linked to electricity prices,¹⁴ which are in turn influenced by movements in global oil prices.¹⁵ Oil prices also contribute to business costs through fuel and transportation costs.

In 2021, the average wholesale electricity price rose by 179 per cent on the back of a rebound in global oil prices and a corresponding pickup in natural gas prices (Exhibit 8)¹⁶. The price increases for oil and natural gas came amidst a global energy crunch caused by a surge in energy demand fuelled by the global economic recovery alongside tight supply conditions. Disruptions to the supply of Piped Natural Gas (PNG) into Singapore in the second half of 2021 also added to the volatility of Singapore's wholesale electricity market, leading to a sharper increase in wholesale electricity prices.

Looking ahead, global oil prices are projected to remain elevated amidst tight supply conditions, as well as geopolitical tensions between Russia and Ukraine and in the Middle East region. For 2022 as a whole, the US Energy Information Administration has projected that global oil prices will average US\$83 per barrel (/bbl)¹⁷, higher than the 2021 average of US\$71/bbl as well as the 5-year annual average prior to 2021.¹⁸ In turn, higher oil prices will lead to an increase in the domestic costs of utilities, fuel and transportation in 2022. Nonetheless, barring a sharp escalation in geopolitical tensions, oil prices are expected to ease gradually over the course of the year on the back of the unwinding of production cuts by the Organisation of Petroleum Exporting Countries & Partner Countries (OPEC+) and an anticipated increase in non-OPEC oil supply. Correspondingly, upward pressures on the domestic costs of utilities, fuel and transportation should moderate over the course of the year.

¹⁴ Electricity cost is a component of utilities cost, which forms a relatively small share of total business costs. For example, utilities cost accounts for 2.4 per cent to 3.1 per cent of business costs for SMEs and non-SMEs in the manufacturing sector respectively (refer to Annex A for details). Similarly, utilities cost is a relatively small cost component for firms in the services sectors, accounting for less than 3 per cent of the business costs of firms in most sectors.

¹⁵ Around 95 per cent of our electricity is generated from natural gas, the price of which is indexed to oil prices. This is a common market practice in Asia.

¹⁶ This is based on the average half-hourly Uniform Singapore Energy Price (USEP), which is a proxy for average wholesale energy prices in the National Electricity Market of Singapore.

¹⁷ EIA Short-Term Energy Outlook Report, February 2022.

¹⁸ Between 2015 and 2019, global oil prices averaged US\$57/bbl.



Exhibit 8: Global Oil Prices and Uniform Singapore Energy Prices, 1Q21 - 4Q21

Source: International Monetary Fund, CEIC, Energy Market Company

CONCLUSION

In 2021, the unit business cost for the manufacturing sector fell, in large part due to declines in the costs of the "others" component, work given out and royalties. Meanwhile, the unit business cost for the overall services sector rose in the first three quarters of 2021 on the back of increases in both the services ULC and other services costs.

Looking ahead, the overall ULC for the economy is likely to continue to rise in 2022 on account of sustained wage growth in line with economic growth. Meanwhile, commercial rentals are projected to see a gradual recovery, even as industrial rental is likely to remain relatively stable in 2022. At the same time, the costs of utilities, fuel and transportation are expected to increase due to higher global oil prices, although upward pressures could ease over the course of the year.

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REFERENCES

Singapore Department of Statistics (2014), "Methodological Review on the Unit Business Cost Index for Manufacturing Industry (Base Year 2010=100)" November. https://www.singstat.gov.sg/-/media/files/publications/economy/ip-e38.pdf.

U.S. Energy Information Administration (2022), "Short-Term Energy Outlook (STEO)" February. https://www.eia.gov/outlooks/steo/.



ANNEX A: BUSINESS COST STRUCTURE OF MANUFACTURING AND SERVICES SECTORS

Manufacturing Sector

In the manufacturing sector, labour cost, work given out and "others" constitute the largest components of business costs. These three components collectively account for around 88 per cent of the business costs of small- and medium-sized enterprises (SMEs) and around 76 per cent of the business costs of non-SMEs in the sector.

The remaining services cost components, including utilities, fuel, rental of building/premises and charges paid to other firms for inland transportation and ocean/air/other freight, make up a smaller share of business costs, at around 24 per cent for non-SMEs and 12 per cent for SMEs. Non-labour production taxes, which include property, road and other indirect taxes, account for around 0.6 per cent and 0.3 per cent of the business costs of SMEs and non-SMEs respectively.

Details of the business cost structure of SMEs and non-SMEs in the various manufacturing clusters are in Exhibit A1.

Services Sector

Labour cost constitutes a major cost component for firms in the services sectors, with its share of business costs ranging from around 8 per cent for firms in the transportation & storage sector, to around 36 per cent or more for firms in labour-intensive sectors such food & beverage services, accommodation and real estate, professional services and administrative & support services sectors. Across all services sectors, except for the wholesale trade, accommodation and transportation & storage sectors, the labour cost share of business costs is larger for SMEs than for non-SMEs.

On the other hand, utilities cost is a relatively small cost component for firms in the services sectors, accounting for less than 3 per cent of the business costs of firms in most sectors. Key exceptions are firms in the accommodation and food & beverage services sectors, where utilities cost constitutes up to 6 per cent of their business costs. Similarly, rental cost accounts for a small share of the business costs of firms in most services sectors. Key exceptions include the retail, accommodation and food & beverage services sectors, where the rental cost share of business costs for SMEs is 29 per cent, 15 per cent and 25 per cent respectively.

Like in the manufacturing sector, non-labour production taxes account for less than 1 per cent of the business costs of firms in most services sectors. Even for the retail trade, accommodation and real estate, professional services and administrative & support services sectors, where the share of non-labour production taxes is the highest, it is relatively small, at less than 3 per cent.

Details of the business cost structure of SMEs and non-SMEs in the various services sectors are in Exhibit A2.

	Tota	1	Electro	onics	Chem	icals	Biome Manufa	edical cturing	Preci Engine	sion ering	Trans Engine	port ering	Gene Manufac	ral turing
	Non-SMEs	SMEs	Non-SMEs	SMEs	Non-SMEs	SMEs	Non-SMEs	SMEs	Non-SMEs	SMEs	Non-SMEs	SMEs	Non-SMEs	SMEs
Labour Cost	19.3	35.4	12.4	9.3	18.8	29.3	23.3	20.4	30.3	51.8	38.0	47.3	41.8	48.4
Services Cost	80.3	64.0	87.4	90.3	80.3	69.8	76.4	79.1	69.2	47.6	61.6	52.2	57.5	51.0
Work given out	18.4	19.5	24.3	42.3	8.1	3.4	3.2	19.1	9.4	14.9	34.2	16.9	2.5	12.0
Royalty payments	13.0	2.8	10.7	3.7	5.4	5.9	36.5	3.2	25.4	1.5	2.3	2.2	4.1	1.3
Utilities	3.1	2.4	2.5	0.5	7.3	8.4	1.3	0.9	1.6	2.0	1.7	1.1	6.4	2.6
Fuel	4.4	1.0	0.9	0.1	24.9	4.6	0.5	0.3	0.2	0.3	0.4	0.3	3.4	1.2
Rental of building/ premises	0.3	2.1	0.1	0.2	0.2	1.3	0.8	0.9	0.6	2.1	0.5	2.6	1.8	4.5
Charges paid to other firms for inland transportation and ocean/ air/ other freight	2.6	3.5	1.5	1.0	5.6	10.2	2.7	6.1	4.0	2.6	1.7	1.2	<u>ວ</u> .ວ	3.2
Others	38.5	32.8	47.5	42.5	28.7	36.0	31.5	48.6	28.2	24.0	20.8	28.0	33.9	26.1
Non-Labour Production Taxes	0.3	0.6	0.2	0.4	0.9	0.9	0.3	0.5	0.5	0.6	0.4	0.5	0.6	0.6

Exhibit A1: Business Cost Structure of the Manufacturing Sector by Firm Size, 2020

Source: Economic Development Board Note: SMEs refer to enterprises with operating receipts of not more than \$100 million or employment of not more than 200 workers. Non-SMEs refer to enterprises with operating receipts of more than \$100 million and employment of not more than 200 workers. Non-SMEs refer to enterprises with operating receipts of more than \$100 million and employment of more than \$00 workers of sub-components such as professional fees, advertising, commission and agency fees, sundry expenses, etc.

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	Non- SMEs	SMEs	Non- SMEs	SMEs	Non- SMEs	SMEs	Non- SMEs	SMEs	Non- SMEs	SMEs	Non- SMEs	SMEs	Non- SMEs	SMEs	Non- SMEs	SMEs
Labour Cost	18.0	17.7	24.2	39.2	51.1	43.1	47.4	49.9	12.8	5.9	14.7	21.8	10.9	13.1	34.9	37.2
Services Cost	81.3	81.7	73.2	60.1	46.5	54.1	52.3	49.8	86.7	93.9	84.9	77.6	89.0	86.6	63.2	60.3
Utilities	0.3	0.2	2.3	1.5	4.5	5.7	3.8	4.5	0.4	0.1	0.4	0.5	0.1	I	0.4	1.1
Freight & Transport	14.3	39.3	10.6	2.7	I	0.1	3.4	0.7	56.3	65.7	0.1	0.7	T	1	0.5	1.8
Financial Services	3.0	2.1	1.8	2.5	0.9	2.1	0.8	1.3	0.6	0.5	0.3	1.9	4.7	5.0	0.1	0.8
Communications	0.6	0.4	0.5	0.9	0.3	0.7	0.1	0.4	0.9	0.3	2.0	9.6	0.2	0.2	0.2	0.5
Renting of Premises	3.3	5.0	19.5	28.7	17.5	15.3	20.5	24.5	1.0	1.7	1.0	2.9	0.8	1.0	2.3	4.8
Professional Services	7.4	4.0	8.0	2.3	3.3	1.8	0.6	1.4	1.4	0.8	8.3	10.8	2.6	3.3	11.1	5.5
Other Services	52.3	30.6	30.5	21.5	20.0	28.3	23.1	17.1	26.2	24.8	72.8	51.2	80.7	77.0	48.6	45.8
Advertising & Entertainment	4.3	4.6	12.5	6.4	2.1	2.9	5.0	2.0	0.2	0.6	12.6	11.7	1.4	0.6	0.3	4.0
Admin & Management Fees	11.2	6.1	1.6	3.2	4.3	7.6	1.7	3.8	3.5	2.8	3.5	10.5	4.3	8.5	4.9	9.6
Contract labour & work given out	15.1	3.4	1.5	1.6	0.5	2.6	I	1.9	1.6	1.2	3.5	6.7	0.3	0.3	21.2	9.2
Commission	3.2	4.9	0.2	3.3	0.6	3.0	1.5	1.3	3.5	1.9	2.0	1.5	4.6	9.3	1.1	2.9
Royalties	12.6	3.8	0.8	0.7	2.1	0.4	7.9	1.8	L	I	40.1	5.3	0.3	0.2	0.6	0.8
Maintenance & repairs	1.0	0.7	6.5	1.8	2.4	5.2	3.6	2.5	4.2	1.8	0.8	1.0	0.5	0.2	1.7	3.5
Fuel	I	0.5	0.1	0.1	I	I	1	0.1	9.3	11.4	I	I	I		I	0.4
Others	4.9	6.4	7.3	4.4	7.9	6.7	3.5	3.7	3.9	5.1	10.3	14.4	69.3	57.9	18.7	15.5
Non-Labour Production Taxes	0.7	0.6	2.6	0.7	2.4	2.9	0.4	0.3	0.5	0.2	0.4	0.6	0.2	0.3	1.9	2.5
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Source: Department of Statistics and Monetary Authority of Singapore Notes: 1. SMEs refer to enterprises with operating receipts of not more than \$100 million or employment of not more than \$100 million and employment of more than 200 workers. 2. "-" refers to nil or negligible.



ANNEX B: SUPPLY OF INDUSTRIAL AND COMMERCIAL SPACE

Exhibit B1: Supply of Industrial Space

	Total	2022	2023	2024	2025	2026	>2026	
Multiple-User Factory Space ('0	00 sqm gross	l						
Total	1,450	997	218	235	-	-	-	
Under Construction	1,340	944	187	210	-	-	-	
Planned	110	53	32	25	-	-	-	
Single-User Factory Space ('000	sqm gross)							
Total	1,998	1,221	330	255	152	39	-	
Under Construction	1,379	908	181	194	96	-	-	
Planned	619	313	149	61	56	39	-	
Business Park Space ('000 sqm	gross)							
Total	503	79	48	194	181	-	-	
Under Construction	321	79	48	194	-	-	-	
Planned	182	0	-	-	181	-	-	
Warehouse Space ('000 sqm gross)								
Total	767	483	271	13	-	-	-	
Under Construction	532	393	139	-	-	-	-	
Planned	235	91	132	13	-	-	-	
Total Industrial Space	4,717	2,780	867	697	334	39	-	

Source: JTC Corporation

Note: The upcoming supply figures include supply from new development and redevelopment projects. They comprise:

projects with Provisional Permission, Outline Provisional Permission and/or Written Permission;
developments submitted for planning approval and which are under consideration;

- projects on awarded Government Land Sales (GLS) and Concept and Price Tender (CPT) sites for which plans have not been submitted for planning approval; and

- planned projects in the GLS (which refer to sites on the GLS confirmed list and sites on the GLS reserve list that have been triggered) and CPT sites launched for tender.

Exhibit B2: Supply of Commercial Space

	Total	2022	2023	2024	2025	2026	>2026
Office Space ('000 sqm gross)							
Total	786	78	219	176	126	121	66
Under Construction	469	78	219	133	39	-	-
Planned	317	-	-	43	87	121	66
Retail Space ('000 sqm gross)							
Total	405	83	70	101	53	22	76
Under Construction	274	83	65	89	35	2	-
Planned	131	-	5	12	18	20	76
Total Commercial Space	1,191	161	289	277	179	143	142

Source: Urban Redevelopment Authority