information paper on business statistics

# **RE-BASING AND REVISION OF THE** WHOLESALE TRADE INDEX (2007 = 100)

Singapore Department of Statistics May 2008

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# RE-BASING AND REVISION OF THE WHOLESALE TRADE INDEX (2007 = 100)

# I Introduction

1. Since 1995, the Department of Statistics has been compiling the Wholesale Trade Index (WTI) to measure the quarterly business performance of wholesale trade sector. The index series consists of Domestic WTI and Foreign WTI for measuring the wholesale sales in and outside of Singapore.

2. The Wholesale Trade Index is re-based at regular intervals to reflect changes in the structure of wholesale trade sector. The coverage and weightings are revised and methodology is also reviewed during the re-basing exercise. The current WTI series compiled by the Department is based on year 2000 and the latest re-basing to year 2007 is the second re-basing of the series.

3. This information paper reports the re-basing of the WTI to reference year 2007. Details on the data sources, methodology adopted, the formula for index compilation and the comparison of the re-based series and old series are presented. In addition, detailed weights for activities in wholesale trade sector as well as the re-based series from 1Q2007 to 4Q2007 are provided in the Annexes.

## II Profile of Wholesale Trade Sector

4. Wholesale trade sector is an important sector in the distribution of merchandise. Wholesalers supply the merchandise to manufacturers, commercial and institutional clients for use in production, or to other wholesalers and retailers for resale. Wholesalers may also perform related functions such as sorting, breaking

bulk, packing and logistics. Wholesale trade sector contributed 14.3 per cent of nominal GDP in  $2007^1$ .

5. There were about 35,400 wholesaling establishments in year  $2006^2$ , employing a total of 234,400 workers. It generated \$1,027 billion operating receipts and \$22 billion operating surplus in 2006.

#### III What Does WTI Measure?

6. The Domestic WTI measures the quarterly wholesale sales within Singapore and the Foreign WTI measures the quarterly wholesale sales outside Singapore, including domestic exports, re-exports, transhipment cargo and off-shore merchandise<sup>3</sup>.

7. The WTI indices are presented at both current prices and constant prices. The indices at current prices measure the changes of sales value which can result from changes in both price and quantity. By removing the price effect, the indices at constant prices measure the changes in the sales volume.

8. Chart 1 shows the Foreign WTI of petroleum and petroleum products at current prices and constant prices. The index at current prices measures the changes of petroleum sales value from 1Q2004 to 4Q2007 and the changes were largely attributable to price changes. After removing the price changes, the constant index shows that the sales volume remained stable during the period.

 <sup>&</sup>lt;sup>1</sup> Economic Survey of Singapore, 2007
 <sup>2</sup> Annual Survey of Wholesale Trade, 2006

<sup>&</sup>lt;sup>3</sup> Transhipment cargo refers to the goods that come across Singapore in the course of transportation to another country. Off-shore merchandise refers to goods that are billed, transacted or brokered in Singapore, but shipped directly from the source to destination without entering into Singapore at all.

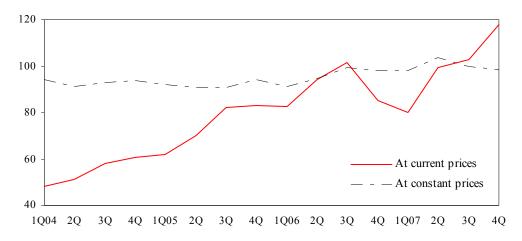


Chart 1: Foreign WTI of Petroleum & Petroleum Products (2007=100)

9. Seasonal effects are observed in some of the Domestic WTI and Foreign WTI series, due to intra-year periodic variations that repeat in the same quarter every year. For example, overall domestic wholesale sales are usually lower in the first quarter compared to other quarters of the same year. To better reflect the underlying trend, both Domestic WTI and Foreign WTI are seasonally adjusted to remove the seasonal effects<sup>4</sup>.

# IV Data Sources

10. The data used for the compilation of the WTI are primarily obtained from the Quarterly Wholesale Trade Survey (WTS). The WTS covers wholesale establishments belonging to the 50 two-digit division of the Singapore Standard Industrial Classification 2005 (SSIC 2005). At the end of each reference quarter, questionnaires are sent to a sample of the wholesale establishments to collect the quarter's domestic wholesale sales and foreign wholesale sales.

<sup>&</sup>lt;sup>4</sup> Please refer to the Information Paper "Seasonal Adjustment of Economic Time Series" for more details.

## V Index Computation

11. The sales indices at current prices are computed from the sales value using the following formula:

$$I_{0n} = \sum_{i} W_{io} \frac{V_{in}}{V_{i0}} \times 100$$

where

 $\sum_{i}$ 

 $I_{0n}$  is the index of the overall wholesale trade sector for the current period *n* compared to the base period *0* (the base year is 2007);

 $V_{in}$  is the sales value of  $i^{th}$  industry during the current period *n*;

- $V_{i0}$  is the sales value of  $i^{\text{th}}$  industry during the base period 0;
- $W_{io}$  is the normalised weight assigned to the  $i^{th}$  industry, i.e. its share in terms of turnover with respect to the overall wholesale trade sector in the base period 0;

is the summation of all industries in the wholesale trade sector.

12. In other words, the overall sales index at current prices is a weighted average of indices from the detailed industry level. To derive the WTI index at detailed industry level, the quarterly wholesale sales for that industry is divided by the average quarterly wholesale sales for the same industry in 2007 (base year). The overall WTI sales index is then computed by combining the sales indices of the detailed industries, using the weights to measure each industry's relative importance in the overall wholesale trade sector.

13. To derive the constant prices indices, the sales indices at current prices at the detailed industry level are first deflated by appropriate price indices. These component indices at constant prices are then weighted and aggregated to derive the overall indices at constant prices.

# VI The Re-based WTI Series

## Industry Groupings

14. WTI indices are computed separately for major wholesale industry groups to measure the performance of these industries. During the re-basing exercise, the industry groupings were reviewed based on the share of industry turnover in the overall wholesale trade sector. The wholesale of "Transport Equipment" has been identified as a major industry group in the re-based series due to its increased share in overall wholesale trade. With the change, the WTI categories in the 2007-based series have been expanded to twelve groups, as listed in Table 1.

## Selection of the New Sample

15. WTS uses a stratified random sampling design to select over 1,000 establishments for the new sample out of over 35,000 establishments in the sampling frame. The sampling frame is constructed from the Department's Commercial Establishment Information System (CEIS)<sup>5</sup>.

16. The sampling frame is stratified first by industry groups. Each group is further stratified<sup>6</sup> by size of turnover.

### Weighting Pattern

17. The weight for each industry reflects its relative importance in the overall wholesale trade sector. The weights for Domestic WTI and Foreign WTI are computed based on the domestic wholesale sales and foreign wholesale sales of the respective industries as obtained from the Annual Survey of Wholesale Trade for reference year 2006.

<sup>&</sup>lt;sup>5</sup> CEIS contains basic information of all enterprises and establishments registered in Singapore.

<sup>&</sup>lt;sup>6</sup> Size stratification is based on the Hidiroglou (1986) method with design coefficient of variation of 10 per cent for each of the twelve industry groups.

18. Table 1 compares the old and new weights for Domestic WTI and Foreign WTI for wholesale trade categories. The largest category is "Petroleum & Petroleum Products" in both domestic and foreign wholesale sales, attributable to the Singapore's status of global oil trading hub. The share of petrol sales in domestic wholesale sales rose strongly from 32.4 per cent in the 2000-based series to 44.0 per cent in the 2007-based series. On the other hand, although foreign petrol sales also rose strongly during the same period, its share in the total foreign wholesale sales declined from 52.0 per cent in the old series to 45.4 per cent in the re-based series. The decline was attributable to the increasing importance of other categories such as "Electronic Components" and "Telecommunications & Computers".

		Dom	estic	For	eign
		2000=100	2007=100	2000=100	2007=100
	Total	10,000	10,000	10,000	10,000
1	Food, Beverages & Tobacco	882	407	275	374
2	Household Equipment & Furniture	780	298	548	287
3	Petroleum & Petroleum Products	3,235	4,396	5,199	4,544
4	Chemicals & Chemical Products	291	406	366	513
5	Electronic Components	1,391	839	676	1,084
6	Industrial & Construction Machinery	380	285	410	257
7	Telecommunications & Computers	687	567	495	799
8	Transport Equipment *	-	190	-	288
9	Timber, Paints & Construction Materials	460	357	216	186
10	General Wholesale Trade	409	572	861	574
11	Ship Chandlers & Bunkering	469	883	162	229
12	Other Wholesale Trade	1,016^	800	792^	865

Table 1: Weighting Pattern of Wholesale Trade in 2000 & 2007

\* New grouping in 2007-based series.

^ Includes "Transport Equipment" for 2000-based series.

19. The wholesaling of "Electronic Components" is the second largest category in terms of turnover within the wholesale trade sector. Its weight in foreign wholesale

sales has increased to 10.8 per cent in the 2007-based series while its weight in domestic wholesale sales declined to 8.4 per cent.

20. The relative importance of "Telecommunications & Computers" in foreign wholesale sales also increased by 3.0 percentage point to 8.0 per cent in the 2007-based series. The larger share was mainly attributable to the increased sales of computer hardware & peripheral equipment.

21. Conversely, the weights of "Household Equipment & Furniture" in domestic and foreign wholesale sales declined by 4.8 percentage point and 2.6 percentage point respectively in the re-based series. The weights of "Industrial & Construction Machinery", "Timber, Paints & Construction Materials" also declined in both domestic and foreign wholesale sales in the 2007-based series.

## VII Linking of Historical Series

22. To facilitate the time series analysis of the WTI series, the 2000-based old series were linked to the 2007-based new series:

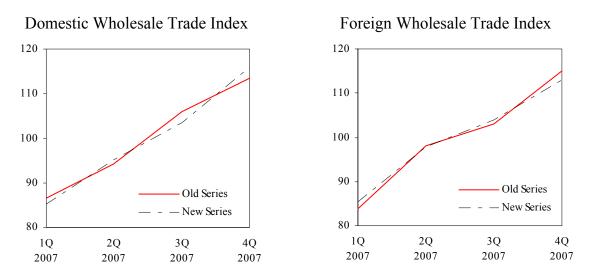
Linked 2007-based index = 2000-based index  $\times$  Linking Coefficient where the Linking Coefficient is the ratio of the average value of the 2007-based index in 2007 to the average value of the 2000-based index in 2007.

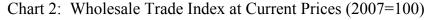
Example:

Average value of the 2000-based index in 2007	= 164.8
Average value of the 2007-based index in 2007	= 100
Linking Coefficient	= 100/164.8
2000-based index in 1Q2006	= 135.7
2007-based index in 1Q2006	= 135.7×(100/164.8)=82.3

## VIII Comparison of Old and New Series

23. Chart 2 shows the comparison of overall Domestic Wholesale Trade Index and overall Foreign Wholesale Trade Index at current prices of the 2000-based and 2007-based series during 1Q2007 to 4Q2007. The old and new series present comparable trends of strong growths in both domestic wholesale sales and foreign wholesale sales throughout 2007.





### IX Data Dissemination

24. The 2007-based series will be released with effect from 1Q2008 report. The quarterly report is available at the SingStat website (<u>http://www.singstat.gov.sg</u>). The Domestic WTI and Foreign WTI are also published separately in the Monthly Digest of Statistics and Yearbook of Statistics. Subscribers to the Department's Singstat Time Series (STS) may download the historical data electronically.

Singapore Department of Statistics May 2008

# References

- 1. Hidiroglou, M.A. (1986). The construction of a self-representing stratum of large units in survey design. The American Statistician 40 (1), 27-31.
- 2. Press releases of Wholesale Trade Index, available at SingStat website (http://www.singstat.gov.sg/news/news.html#press).
- 3. *Re-basing and revision of the Wholesale Trade Index (2000=100),* available at SingStat website (<u>http://www.singstat.gov.sg/pubn/papers/economy/ip-b16.pdf</u>).
- 4. Seasonal adjustment of economic time series, available at SingStat website (http://www.singstat.gov.sg/pubn/papers/economy/ip-e32.pdf).
- 5. Singapore Standard Industrial Classification 2005, available at SingStat website (http://www.singstat.gov.sg/statsres/ssc/ssic/ssic2005.pdf).

SSIC 2005	Description of Activity	Total	Domestic	Foreign
50	Total Wholesale Trade Total - Exclude Petroleum & Petroleum Products	10,000 5,489	10,000 5,604	10,000 5,456
	Food, Beverages & Tobacco	382	407	374
50211	Fruits and vegetables	11	41	2
50212	Livestock, meat, poultry, eggs and seafood	46	83	35
50213	Cereals, sugar, oils, sauces, beverages and dairy products	232	65	280
50214	Confectionery and bakery products	14	18	13
50215	Ice-cream	1	2	0
50216	Health food	4	13	1
50217	Liquor and soft drinks	33	86	17
50218	Cigarettes and other tobacco products	24	41	20
50219	Food, beverages and tobacco nec	17	58	6
	Household Equipment & Furniture	290	298	287
50331	Furniture (including mattresses, cushions)	36	20	40
50332	Furnishings (including curtains, carpets, wall paper)	3	8	2
50333	Lighting and lighting accessories	5	15	2
50334	Crockery, cutlery and kitchen utensils	4	13	1
50335	Household electrical appliances and equipment	22	42	16
50336	Radio and television sets and sound reproducing and recording equipment	217	194	224
50339	Furniture, home furnishings and other household equipment nec	3	6	2
	Petroleum & Petroleum Products	4,511	4,396	4,544
50411	Crude petroleum	2,824	1,763	3,130
50412	Mineral fuels and lubricants	1,655	2,595	1,384
50419	Solid, liquid and gaseous fuels and related products nec	32	38	30
	Chemicals & Chemical Products	490	406	513
50431	Basic industrial chemicals except fertilizers	102	92	105
50432	Chemical fertilizers	24	2	30
50433	Petrochemical products	276	226	290
50439	Chemicals and chemical products nec	88	86	88
	Electronic Components	1,029	839	1,084
50515	Telecommunications equipment	21	46	14
50516	Electronic components	950	700	1,022
50517	Electrical and wiring accessories	58	93	48
	Industrial & Construction Machinery	264	285	257
50511	Industrial machinery and equipment	161	217	145
50512	Agricultural machinery and equipment	0	1	0
50513	Construction equipment	80	20	97
50514	Lifts, escalators and industrial and office air-conditioning equipment	6	19	2
50519	Industrial, agricultural, construction and related machinery and equipment nec	17	28	13

SSIC			<b>D</b>	
2005	Description of Activity	Total	Domestic	Foreign
	Talassanin isations & Commutan	747	5(7	700
50521	<b>Telecommunications &amp; Computers</b> Pagers, handphones and other telecommunications apparatus	747 39	567	<b>799</b>
50521	Office machines and equipment (including accessories)	59 58	76 63	28 56
50522	Computer hardware and peripheral equipment	567	342	633
50525 50524	Computer nardware and peripheral equipment Computer software (except games)	62	542 45	66
50524	Computer accessories (eg diskettes, computer cards)	21	43 41	16
30323	Computer accessories (eg diskettes, computer cards)	21	41	10
	Transport Equipment	266	190	288
50611	Motor vehicles except motorcycles and scooters	29	59	20
50612	Motorcycles and scooters	9	6	10
50613	Parts and accessories for vehicles	191	60	229
50621	Bicycles, tricycles and baby carriages (including spare parts)	1	2	0
50622	Marine equipment and accessories (including marine navigational equipment)	25	53	18
50623	Aircraft equipment and supplies (including aeronautical equipment)	9	9	9
50629	Other transport equipment nec	2	1	2
				10.0
50 40 1	Timber, Paints & Construction Materials	225	357	186
50421	Logs	1	0	2
50422	Sawn timber, plywood and related products	34	43	31
50423	Metals and fabricated metals except general hardware (eg steel pipes)	137	158	131
50424	General hardware (eg locks, hinges)	21	69 25	7
50425	Structural clay and concrete products (eg mosaic tiles, bricks)	8	25	3
50426 50429	Paints (including varnishes and supplies) Construction materials, hardware, plumbing and heating equipment and supplies ne	4 20	7 55	3 9
30429	Construction materials, nardware, plumonig and nearing equipment and supplies ne	20	55	7
	General Wholesale Trade			
50920	(Including Exporters & Importers)	573	572	574
	Shin Chandlers & Dembering	275	002	220
50931	Ship Chandlers & Bunkering Ship chandlers	<b>375</b> 9	<b>883</b> 14	<b>229</b> 8
50931	Ship bunkering	9 366	869	8 221
30932	Ship bulkering	500	809	221
	Other Wholesale Trade	848	800	865
	Commission			
50100	Wholesale on a fee or contract basis (eg commission agencies)	*	*	*
	Tropical Produce			
50221	Rubber (including rubber brokers)	177	28	221
50222	Pepper and other spices	5	4	5
50223	Coffee, cocoa and tea	12	8	14
50224	Coconut	*	*	*
50225	Palm oil	18	0	23
50229	Tropical produce nec	2	0	2

SSIC 2005	Description of Activity	Total	Domestic	Foreign
50201	Agricultural Raw Materials, Live Animals Nec	1	2	0
50291	Cut flowers and plants	1	3	0
50292	Aquarium fishes (including food and accessories)	1	2	1
50293	Pet birds and animals (including food and accessories) Agricultural raw materials, live animals, food, beverages and tobacco nec	120	1 0	l 154
50299	Agricultural raw materials, live animals, lood, beverages and tobacco nec	120	0	154
	Textiles, Wearing Apparel, Footwear & Leather Goods			
50311	Textiles	20	28	18
50312	Wearing apparel for adults	22	36	18
50313	Children and infants' wear (including products and accessories for infants)	2	5	2
50314	Footwear	3	8	2
50315	Bags and luggages	2	6	1
50316	Sewing and clothing accessories (eg button, thread, lace, zip)	1	3	1
	Personal Effects			
50321	Jewellery	23	32	21
50322	Costume jewellery	0	1	0
50323	Watches and clocks	10	25	6
50324	Cosmetics and toiletries	51	138	26
50329	Personal effects nec	1	3	0
	Sporting & Other Recreational Goods			
50341	Sporting goods and equipment (including healthcare equipment)	8	12	7
50341	Musical instruments and scores	0	12	0
50342	Record albums, cassette tapes, laser discs and compact discs	2	8	0
50343	Toys and games	2	8 6	0
50344	Computer games (including electronic games and video game consoles)	2		2
			2 2	
50349	Sporting and other recreational goods nec	1	2	1
	Handicraft & Fancy Goods			
50351	Antiques, works of art, handicrafts and gifts	1	5	0
50352	Artificial flowers and plants	*	*	*
50359	Handicrafts and fancy goods nec	0	1	0
	Medicinal & Pharmaceutical Products			
50361	Medicinal and pharmaceutical products (Western)	47	58	44
50362	Medicine and herbs (other than Western)	2	8	1
	Paper, Paper Products & Stationery			
50371	Paper and paper products	32	29	33
50371	Packaging materials	8	18	5
50372	Stationery	о л	18	5
50373	Books and magazines	4 5	14	4
50374		0	10	4 0
505/9	Paper, paper and cellophane products and stationery nec	0	1	0

SSIC 2005	Description of Activity	Total	Domestic	Foreign
2000				
	Other Intermediate Products			
50491	Scrap, junk and waste dealers	22	14	25
50499	Other intermediate products, waste and scrap nec (including metals and metal ores)	6	3	7
	Machinery & Equipment Not Elsewhere Classified			
50391	Optical and photographic equipment and supplies	20	45	13
50399	Household goods nec	0	1	0
50591	Professional, scientific and precision equipment	43	80	32
50592	Commercial food service equipment (eg hotel kitchen equipment)	2	5	1
50593	Service establishment equipment and supplies (eg beauty salon equipment)	0	1	0
50594	Security and fire-fighting equipment	9	21	6
50599	Machinery and equipment nec	9	19	6
	Specific Commodities Not Elsewhere Classified			
50911	Animal feed	54	1	69
50912	Leather and PVC materials	4	4	4
50913	Glass	3	4	3
50914	Joss paper, joss sticks and other ceremonial products	1	3	0
50915	Rattan	*	*	*
50916	Industrial ice (dry ice)	*	*	*
50919	Other specific commodities nec	34	25	36
	Wholesale Trade Nec			
50991	Air transport suppliers	53	66	49
50999	Wholesale trade nec	1	2	0

\* Weight is insignificant, less than 1.

ANNEX II	[
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#### TABLE 1 DOMESTIC WHOLESALE TRADE INDEX (2007 = 100)

	Total	Total (excluding petroleum)	Food, Beverages & Tobacco	Household Equipment & Furniture	Petroleum & Petroleum Products	Chemicals & Chemical Products	Electronic Components	Industrial & Construction Machinery	Telecom- munications & Computers	Transport Equipment	Timber, Paints & Construction Materials	General Wholesale Trade	Ship Chandlers & Bunkering	Other Wholesale Trade <sup>1</sup>
Weights Period	10,000	5,604	407	298	4,396	406	839	285	567	190	357	572	883	800
		- L	1		1	At	Current Prices							
2005 2006 2007	82.5 92.1 100.0	86.1 94.0 100.0	79.8 78.5 100.0	104.2 101.6 100.0	78.0 89.7 100.0	101.7 96.8 100.0	111.7 125.6 100.0	76.6 87.6 100.0	94.4 97.7 100.0	100.0	77.1 79.7 100.0	74.0 90.9 100.0	84.3 99.4 100.0	75.6 86.2 100.0
2005 IV	92.8	96.1	78.5	116.0	88.6	105.7	119.0	88.8	101.6		74.8	74.9	116.0	84.5
2006 I II III IV	82.3 92.2 101.1 92.8	87.1 91.6 98.7 98.5	77.3 77.2 80.6 79.0	99.0 105.5 108.2 93.9	76.4 92.9 104.0 85.7	102.0 94.1 98.1 93.0	116.1 121.3 123.7 141.2	72.4 83.2 89.7 105.0	98.5 97.6 94.8 100.1		69.1 78.9 86.7 84.2	91.0 92.5 98.2 81.9	81.7 88.9 115.6 111.1	80.7 87.0 89.2 88.1
2007 I II III IV <sup>P</sup>	85.2 95.2 103.6 116.0	90.2 99.6 102.0 108.3	98.2 101.5 102.1 98.2	94.3 97.6 100.1 108.0	78.9 89.7 105.6 125.9	93.8 97.9 101.5 106.8	101.5 99.3 105.3 93.9	85.7 100.3 105.7 108.4	93.6 94.7 102.1 109.6	91.2 104.4 103.7 100.6	84.4 105.3 100.8 109.6	66.3 109.0 99.0 125.6	87.4 93.2 104.4 115.0	92.6 100.2 97.5 109.7
						At	Constant Prices				1 1			
2005 2006 2007	89.7 94.2 100.0	86.5 93.1 100.0	81.6 79.7 100.0	94.1 94.4 100.0	97.7 96.8 100.0	115.5 97.7 100.0	99.7 114.4 100.0	70.1 84.7 100.0	82.1 88.1 100.0	100.0	78.0 77.4 100.0	81.2 95.1 100.0	100.4 106.3 100.0	78.5 89.3 100.0
2005 IV	96.6	93.8	79.7	105.3	103.4	120.2	106.8	82.3	87.9		75.5	79.8	126.9	86.3
2006 I II III IV	85.1 90.9 98.9 101.8	86.1 89.9 96.0 100.5	78.2 78.1 81.5 80.9	87.1 97.1 102.3 91.2	82.5 93.3 106.2 105.0	96.0 87.9 102.5 104.4	103.7 111.0 113.3 129.7	70.3 77.7 87.0 103.8	85.4 87.0 85.9 94.1	• • •	68.9 77.3 82.8 80.5	95.8 95.1 100.5 88.9	87.6 87.0 116.2 134.6	84.3 88.7 92.2 91.9
2007 I II III IV <sup>P</sup>	94.0 97.3 101.9 106.9	93.0 100.0 101.1 105.9	100.6 102.4 100.5 96.5	93.2 97.0 100.0 109.7	95.1 93.8 103.0 108.1	102.8 99.8 99.4 98.0	98.8 98.5 105.4 97.2	85.4 100.7 104.8 109.0	88.4 92.0 103.5 116.1	91.9 103.3 103.2 101.7	86.7 105.2 99.4 108.8	70.0 110.6 98.5 120.9	102.4 96.4 101.3 99.9	93.3 100.1 96.8 109.7

<sup>1</sup> Data exclude Transport Equipment from 1Q2007.

P Preliminary

 TABLE 2

 PERCENT CHANGE IN DOMESTIC WHOLESALE TRADE INDEX OVER PREVIOUS QUARTER

 (2007 = 100)

	Total	Total (excluding petroleum)	Food, Beverages & Tobacco	Household Equipment & Furniture	Petroleum & Petroleum Products	Chemicals & Chemical Products	Electronic Components	Industrial & Construction Machinery	Telecom- munications & Computers	Transport Equipment	Timber, Paints & Construction Materials	General Wholesale Trade	Ship Chandlers & Bunkering	Other Wholesale Trade
Weights Period	10,000	5,604	407	298	4,396	406	839	285	567	190	357	572	883	800
			1	I	1	At	Current Prices	I	1		1		1	
2005 IV	6.6	9.7	11.7	13.6	2.7	-5.5	5.7	13.4	1.6		-4.4	-5.1	29.5	7.1
2006 I	-11.3	-9.4	-1.6	-14.7	-13.8	-3.5	-2.4	-18.4	-3.1		-7.5	21.5	-29.6	-4.5
II	12.0	5.2	-0.1	6.6	21.6	-7.8	4.4	14.9	-0.9		14.1	1.6	8.8	7.8
III	9.6	7.7	4.5	2.5	12.0	4.3	2.0	7.8	-2.8		9.9	6.2	30.0	2.5
IV	-8.1	-0.2	-1.9	-13.2	-17.6	-5.3	14.2	17.0	5.5		-2.9	-16.6	-3.9	-1.2
2007 I	-8.2	-8.5	24.3	0.4	-8.0	0.8	-28.1	-18.5	-6.5		0.3	-19.0	-21.4	5.1
II	11.8	10.4	3.3	3.5	13.8	4.4	-2.2	17.1	1.2	14.4	24.7	64.4	6.7	8.2
III	8.7	2.4	0.6	2.6	17.7	3.7	6.0	5.4	7.8	-0.6	-4.2	-9.2	12.0	-2.7
IV <sup>P</sup>	12.0	6.2	-3.8	7.9	19.2	5.2	-10.8	2.5	7.3	-3.0	8.7	26.8	10.1	12.6
		1	I	I	I	At	Constant Prices	1			I			
2005 IV	8.9	8.9	11.9	13.7	8.8	18.8	5.7	15.9	2.6		-5.2	-4.7	28.1	5.2
2006 I	-11.9	-8.2	-1.9	-17.3	-20.2	-20.1	-3.0	-14.6	-2.9		-8.7	20.0	-31.0	-2.3
II	6.8	4.4	-0.1	11.5	13.1	-8.4	7.1	10.6	1.9		12.2	-0.7	-0.7	5.2
III	8.9	6.8	4.4	5.4	13.9	16.6	2.0	12.0	-1.3		7.1	5.6	33.7	3.9
IV	2.9	4.7	-0.8	-10.8	-1.2	1.9	14.5	19.4	9.6		-2.8	-11.5	15.8	-0.3
2007 I	-7.7	-7.4	24.3	2.2	-9.4	-1.5	-23.8	-17.7	-6.1		7.7	-21.2	-23.9	1.5
П	3.5	7.4	1.8	4.0	-1.4	-2.9	-0.3	17.9	4.0	12.4	21.3	57.8	-5.8	7.3
III	4.8	1.1	-1.8	3.2	9.8	-0.5	6.9	4.0	12.6	-0.1	-5.5	-11.0	5.1	-3.3
$IV^P$	4.8	4.8	-4.0	9.7	4.9	-1.4	-7.7	4.0	12.1	-1.5	9.4	22.8	-1.4	13.3

<sup>P</sup> Preliminary

ANNEX II

TABLE 3PERCENT CHANGE IN DOMESTIC WHOLESALE TRADE INDEX OVER CORRESPONDING PERIOD OF PREVIOUS YEAR<br/>(2007 = 100)

	Total	Total (excluding petroleum)	Food, Beverages & Tobacco	Household Equipment & Furniture	Petroleum & Petroleum Products	Chemicals & Chemical Products	Electronic Components	Industrial & Construction Machinery	Telecom- munications & Computers	Transport Equipment	Timber, Paints & Construction Materials	General Wholesale Trade	Ship Chandlers & Bunkering	Other Wholesale Trade
Weights Period	10,000	5,604	407	298	4,396	406	839	285	567	190	357	572	883	800
						At	Current Prices							
2005 2006 2007	18.9 11.6 8.6	8.6 9.2 6.4	3.4 -1.6 27.4	0.5 -2.5 -1.6	37.0 15.0 11.4	11.4 -4.8 3.3	-5.9 12.4 -20.4	13.7 14.4 14.2	5.9 3.5 2.3	-	6.7 3.5 25.4	9.4 22.8 10.0	34.6 17.8 0.6	9.6 14.0 16.0
2005 IV	20.0	12.9	-14.8	6.7	31.4	17.7	-6.6	32.5	2.2		-10.0	13.6	82.1	15.3
2006 I II III IV	14.3 18.1 16.1 0.0	13.4 9.5 12.6 2.5	-9.3 -9.6 14.7 0.7	1.2 4.6 5.9 -19.1	15.5 30.7 20.6 -3.3	9.8 -2.2 -12.3 -12.0	14.5 6.6 9.8 18.7	3.4 20.1 14.6 18.3	7.4 15.5 -5.2 -1.5	- - - -	-4.4 -4.8 10.8 12.5	52.9 12.0 24.4 9.3	37.8 22.9 29.0 -4.2	22.0 19.2 13.0 4.2
2007 I II III IV <sup>P</sup>	3.5 3.3 2.5 24.9	3.6 8.7 3.3 9.9	27.1 31.6 26.6 24.2	-4.7 -7.5 -7.4 15.1	3.3 -3.4 1.5 46.9	-8.1 4.1 3.4 14.9	-12.5 -18.1 -14.9 -33.5	18.3 20.5 17.8 3.2	-4.9 -3.0 7.7 9.5		22.1 33.4 16.3 30.2	-27.1 17.9 0.9 53.4	6.9 4.8 -9.7 3.5	14.7 15.1 9.3 24.6
						At (	Constant Prices	1					1 1	
2005 2006 2007	2.5 5.0 6.2	3.5 7.6 7.4	2.9 -2.4 25.5	1.3 0.3 5.9	0.2 -1.0 3.3	-4.1 -15.4 2.4	-2.0 14.7 -12.6	14.3 20.8 18.1	10.0 7.3 13.5		-2.0 -0.8 29.3	-0.5 17.1 5.2	-1.8 5.9 -6.0	11.2 13.7 12.0
2005 IV	2.2	6.2	-15.9	6.6	-5.8	22.7	-2.4	35.7	2.1		-13.0	3.1	36.2	16.0
2006 I II III IV 2007 I	-2.3 5.0 11.5 5.4 10.4	6.0 6.0 11.4 7.1 8.0	-11.4 -10.7 14.4 1.5 28.7	-1.1 7.2 10.5 -13.4 7.0	-18.9 2.9 11.8 1.5 15.3	-19.8 -27.3 1.3 -13.1 7.1	15.3 9.8 12.1 21.5 -4.7	7.4 26.1 22.5 26.1 21.6	5.8 17.2 0.3 7.1 3.6	- - - -	-8.5 -5.2 4.0 6.7 25.9	37.5 4.0 20.0 11.4 -26.9	-0.8 -0.4 17.3 6.0 16.9	21.2 16.2 12.4 6.5 10.7
II III IV <sup>P</sup>	7.0 3.0 5.0	11.2 5.3 5.4	31.1 23.3 19.2	-0.1 -2.2 20.3	0.5 -3.0 3.0	13.5 -3.1 -6.2	-11.2 -7.0 -25.0	29.7 20.5 5.0	5.7 20.5 23.3		36.1 20.1 35.1	16.3 -2.0 36.0	10.8 -12.8 -25.8	12.9 5.1 19.4

<sup>P</sup> Preliminary

#### TABLE 4 FOREIGN WHOLESALE TRADE INDEX (2007 = 100)

	Total	Total (excluding petroleum)	Food, Beverages & Tobacco	Household Equipment & Furniture	Petroleum & Petroleum Products	Chemicals & Chemical Products	Electronic Components	Industrial & Construction Machinery	Telecom- munications & Computers	Transport Equipment	Timber, Paints & Construction Materials	General Wholesale Trade	Ship Chandlers & Bunkering	Other Wholesal Trade <sup>1</sup>
Weights riod	10,000	5,456	374	287	4,544	513	1,084	257	799	288	186	574	229	865
	J					At	Current Prices						1	
2005	81.6	89.1	70.2	105.5	74.4	101.6	94.8	93.0	90.0		92.5	97.1	76.9	77.4
2006	91.7	92.5	71.5	98.3	90.9	93.8	98.5	92.4	95.6		87.0	102.3	95.1	87.6
2007	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2005 IV	89.3	95.6	72.8	115.3	83.1	107.7	105.4	97.6	88.5		86.1	101.6	99.3	87.6
2006 I	85.0	87.7	59.3	96.2	82.4	95.8	93.6	84.6	88.8		76.9	100.5	89.2	81.7
II	92.5	90.9	70.3	95.3	94.1	91.0	99.9	90.9	86.9	-	86.7	107.5	96.1	84.6
III	98.6	95.4	73.2	101.8	101.7	92.3	106.3	97.1	92.3		88.8	100.1	102.0	96.4
IV	90.6	96.0	83.3	99.8	85.3	96.2	94.3	96.9	114.3		95.7	101.1	93.1	87.7
2007 I	85.4	89.8	77.7	94.0	80.0	90.4	95.9	90.4	95.7	90.3	95.4	83.8	82.2	84.6
II	97.8	96.7	92.0	94.5	99.2	101.2	97.8	99.4	91.4	91.5	100.6	97.2	94.5	100.4
III	103.9	104.8	103.7	106.0	102.9	101.4	110.8	103.1	98.2	104.3	102.3	106.2	108.3	104.6
$IV^P$	112.9	108.8	126.6	105.5	117.9	107.1	95.5	107.1	114.7	113.8	101.7	112.9	114.9	110.3
		-				At 0	Constant Prices	l	· · · · · ·					
2005	88.5	87.0	72.9	92.6	92.0	120.9	80.5	90.9	82.6		120.0	95.5	94.2	78.1
2006	91.6	89.6	73.1	89.9	95.9	104.7	87.9	91.8	88.4		101.4	98.6	102.2	83.6
2007	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2005 IV	92.1	91.1	75.2	101.6	94.2	122.3	89.7	94.4	79.3		109.4	97.9	112.5	85.9
2006 I	85.5	83.0	60.1	82.3	91.3	110.2	79.4	82.0	78.2		97.2	95.0	100.8	78.8
II	89.2	86.8	71.5	85.8	94.8	100.7	88.3	87.5	79.9		102.2	102.5	97.7	78.5
III	94.7	92.6	74.6	95.2	99.5	98.5	95.5	98.6	88.0		102.1	96.0	102.0	91.2
IV	96.8	96.2	86.4	96.1	98.1	109.4	88.2	99.3	107.7		104.1	100.9	108.2	85.7
2007 I	94.1	90.9	79.8	90.9	97.9	100.0	91.5	92.0	93.0	91.1	98.2	84.7	97.4	87.8
II	99.6	96.3	92.9	93.6	103.5	103.5	95.9	99.9	88.7	91.5	99.8	97.3	98.0	100.4
III	102.4	104.6	103.1	106.4	99.9	99.3	111.2	103.4	98.4	105.0	101.1	105.9	106.2	104.6
$IV^P$	103.9	108.3	124.1	109.1	98.7	97.2	101.3	104.8	119.9	112.5	100.9	112.1	98.4	107.2

<sup>1</sup> Data exclude Transport Equipment from 1Q2007.

P Preliminary

TABLE 5PERCENT CHANGE IN FOREIGN WHOLESALE TRADE INDEX OVER PREVIOUS QUARTER<br/>(2007 = 100)

	Total	Total (excluding petroleum)	Food, Beverages & Tobacco	Household Equipment & Furniture	Petroleum & Petroleum Products	Chemicals & Chemical Products	Electronic Components	Industrial & Construction Machinery	Telecom- munications & Computers	Transport Equipment	Timber, Paints & Construction Materials	General Wholesale Trade	Ship Chandlers & Bunkering	Other Wholesale Trade
Weights Period	10,000	5,456	374	287	4,544	513	1,084	257	799	288	186	574	229	865
				1		At	Current Prices							
2005 IV	1.5	1.8	-4.0	6.9	1.1	3.2	-2.5	-4.4	-3.3		1.4	1.1	14.8	5.9
2006 I	-4.8	-8.3	-18.5	-16.5	-0.9	-11.1	-11.2	-13.4	0.4		-10.7	-1.1	-10.1	-6.7
II	8.9	3.7	18.6	-1.0	14.2	-5.0	6.7	7.5	-2.2		12.8	6.9	7.8	3.5
III	6.6	4.9	4.1	6.9	8.2	1.4	6.4	6.7	6.2		2.4	-6.9	6.1	14.0
IV	-8.2	0.6	13.8	-2.0	-16.2	4.3	-11.3	-0.1	23.8		7.8	1.0	-8.7	-9.0
2007 I	-5.8	-6.5	-6.7	-5.8	-6.2	-6.1	1.7	-6.7	-16.2		-0.4	-17.1	-11.6	-3.6
II	14.6	7.7	18.3	0.5	24.0	12.0	2.1	10.0	-4.6	1.3	5.5	16.1	14.9	18.7
III	6.2	8.4	12.7	12.2	3.7	0.2	13.2	3.7	7.4	14.0	1.6	9.2	14.7	4.2
$IV^P$	8.7	3.8	22.1	-0.5	14.6	5.6	-13.8	3.8	16.8	9.1	-0.5	6.3	6.1	5.5
						At	Constant Prices				· · · · · · · · · · · · · · · · · · ·			
2005 IV	1.2	0.1	-3.8	6.6	3.7	4.7	-2.7	-5.6	-5.1		-0.9	1.1	16.2	3.5
2006 I	-7.1	-8.9	-20.1	-18.9	-3.1	-9.8	-11.5	-13.1	-1.4		-11.1	-2.9	-10.4	-8.2
Π	4.4	4.6	19.1	4.2	3.8	-8.7	11.2	6.7	2.3		5.1	7.9	-3.1	-0.4
III	6.1	6.6	4.3	11.0	5.0	-2.2	8.2	12.7	10.1		0.0	-6.4	4.4	16.2
IV	2.2	3.9	15.9	0.9	-1.4	11.0	-7.7	0.7	22.4		2.0	5.1	6.1	-6.1
2007 I	-2.8	-5.6	-7.6	-5.5	-0.2	-8.6	3.8	-7.4	-13.7		-5.7	-16.0	-10.0	2.5
II	5.9	6.0	16.4	3.0	5.7	3.6	4.8	8.6	-4.6	0.5	1.6	14.8	0.6	14.3
III	2.9	8.6	10.9	13.7	-3.5	-4.1	15.9	3.5	11.0	14.7	1.3	8.9	8.3	4.2
$IV^P$	1.5	3.6	20.4	2.5	-1.2	-2.1	-8.9	1.3	21.8	7.2	-0.2	5.8	-7.3	2.5

<sup>P</sup> Preliminary

ANNEX II

 TABLE 6

 PERCENT CHANGE IN FOREIGN WHOLESALE TRADE INDEX OVER CORRESPONDING PERIOD OF PREVIOUS YEAR

 (2007 = 100)

	Total	Total (excluding petroleum)	Food, Beverages & Tobacco	Household Equipment & Furniture	Petroleum & Petroleum Products	Chemicals & Chemical Products	Electronic Components	Industrial & Construction Machinery	Telecom- munications & Computers	Transport Equipment	Timber, Paints & Construction Materials	General Wholesale Trade	Ship Chandlers & Bunkering	Other Wholesale Trade
Weights Period	10,000	5,456	374	287	4,544	513	1,084	257	799	288	186	574	229	865
						At	Current Prices						1	
2005	21.3	10.7	2.7	-16.6	36.5	12.6	20.5	15.9	9.7		-1.0	6.4	49.5	22.1
2006	12.3	3.9	1.8	-6.8	22.2	-7.6	3.9	-0.7	6.2		-6.0	5.3	23.7	13.2
2007	9.1	8.1	39.9	1.8	10.1	6.6	1.5	8.3	4.6		14.9	-2.2	5.2	14.1
2005 IV	23.3	13.1	-2.8	-1.7	37.2	0.2	36.9	9.6	-6.8		-6.4	4.0	81.7	45.7
2006 I	20.6	10.8	-4.4	-1.9	32.8	3.5	23.1	6.8	2.8		-18.9	13.8	63.6	23.0
Π	17.4	3.6	-0.1	-5.4	34.2	-10.5	11.4	-2.4	-7.1	-	-16.9	9.5	42.9	16.1
III	12.1	1.7	-3.4	-5.6	23.8	-11.6	-1.7	-5.0	0.9		4.6	-0.4	18.0	16.5
IV	1.5	0.5	14.4	-13.5	2.6	-10.7	-10.6	-0.8	29.2	•	11.2	-0.5	-6.2	0.1
2007 I	0.4	2.4	31.2	-2.3	-2.9	-5.6	2.5	6.9	7.8		24.1	-16.7	-7.8	3.5
II	5.7	6.3	30.9	-0.8	5.5	11.2	-2.0	9.3	5.1		16.1	-9.5	-1.7	18.7
III	5.4	9.8	41.7	4.1	1.1	9.9	4.2	6.2	6.3		15.2	6.1	6.3	8.5
IV <sup>P</sup>	24.6	13.3	52.1	5.7	38.2	11.3	1.3	10.5	0.3	•	6.3	11.7	23.5	25.8
						At (	Constant Prices							
2005	6.3	10.1	2.9	-13.5	-1.1	-8.1	36.8	18.3	13.7	•	-9.1	4.5	11.7	20.3
2006	3.5	3.1	0.4	-2.9	4.3	-13.4	9.1	1.0	7.0		-15.5	3.2	8.5	7.0
2007	9.2	11.6	36.7	11.3	4.2	-4.5	13.8	8.9	13.1		-1.4	1.4	-2.1	19.7
2005 IV	6.4	9.3	-3.7	0.4	0.5	-9.9	45.0	8.8	-10.9	•	-12.1	0.4	43.6	38.5
2006 I	2.7	4.5	-7.4	-3.6	-0.9	-9.9	23.2	4.7	-3.9		-23.2	5.3	24.8	15.3
II	1.8	0.6	-2.2	-2.6	4.5	-17.7	16.8	-3.6	-7.5		-23.6	5.6	12.9	4.4
III	4.1	1.7	-4.7	0.0	9.6	-15.6	3.6	-1.4	5.3		-7.4	-0.8	5.3	10.0
IV	5.2	5.6	14.9	-5.4	4.2	-10.5	-1.7	5.1	35.8		-4.8	3.1	-3.8	-0.2
2007 I	10.0	9.5	32.9	10.4	7.3	-9.3	15.3	12.1	18.9		1.0	-10.9	-3.3	11.4
II	11.6	10.9	30.0	9.1	9.2	2.8	8.6	14.2	10.9		-2.3	-5.1	0.3	27.8
III	8.2	13.0	38.3	11.7	0.4	0.8	16.4	4.9	11.9		-1.0	10.4	4.1	14.6
$IV^P$	7.4	12.6	43.6	13.5	0.6	-11.1	14.9	5.5	11.4		-3.2	11.1	-9.0	25.1

<sup>P</sup> Preliminary

### SINGAPORE DEPARTMENT OF STATISTICS INFORMATION DISSEMINATION SERVICES

#### **Statistics Singapore Website**

The Statistics Singapore Website was launched by the Singapore Department of Statistics (DOS) in January 1995. Internet users can access the website by connecting to:

### http://www.singstat.gov.sg

Key Singapore statistics are available via the following sections:

Statistics

which provide key data on Singapore's economy and population.

News

which cover the Performance of Singapore Economy, the Consumer Price Index, the Wholesale Trade Index, Business Receipts Index for Service Industries, Retail Sales and Catering Trade Indices, Manufacturing Performance, Singapore External Trade, Tourism Sector Performance, Real Estate Information and Employment Situation.

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which presents official statistics compiled by DOS and the Research and Statistics Units in the various ministries and statutory boards according to themes. Within each theme, relevant statistics and related press releases, publications and references are provided.

Statistical resources are available via:

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which lists the latest editions of publications released by the Singapore Department of Statistics at http://www.singstat.gov.sg/pubn/catalog.html. All softcopy DOS publications are available for free downloading.

 Advance Release Calendar which covers key Singapore economic indicators.

The website also provides a convenient gateway to international statistical websites under the "Statistical Resources" section:

• Guide to International Statistics

which covers international databases, classifications and links, and statistical terms and definitions.

• IMF Dissemination Standards Bulletin Board

which provides metadata about Singapore's key indicators in the real, fiscal, financial and external sectors, including dissemination practices and information about pre-release access of current indicators.

### SingStat Express

SingStat Express is a personalised data delivery service which sends the latest press releases, notices of publication, newsletter, occasional and information papers to subscribers via email. SMS alert service is also available to local users. Subscription details are available from the Statistics Singapore Website (www.singstat.gov.sg/express).

### SINGAPORE DEPARTMENT OF STATISTICS INFORMATION DISSEMINATION SERVICES (continued)

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#### Key Singapore Data on Palm OS Devices

The pdf version of "Singapore in Brief 2008" for Palm OS devices is available for downloading from the Statistics Singapore Website.

#### SingStat Time Series (STS) Online System

The SingStat Time Series (STS) Online System is an internet-accessible time series retrieval system. The STS includes some 6,000 historical data series on Singapore society and economy from several domains, including national accounts, balance of payments, investments, finance, labour, prices, business expectations, trade, manufacturing, tourism, demography, health and education.

Besides the usual monthly, quarterly and annual data, STS includes also seasonally adjusted data series for key economic indicators providing for a better analysis and understanding of current economic trends. The STS also offers:

- Web-based search engine that is easy to use;
- "Bookmark" features that enable users to save and organise links in their personalised portals.

Subscription to STS is opened to local and overseas users. More information on STS are available via Statistics Singapore Website. For enquiries, please contact our Department at Tel: 6332-7119.

### **E-survey**

The E-survey enables business organisations to complete and submit their survey forms through the internet. Using secured encryption protocols, the E-survey ensures that the information transmitted through the net is secured and protected. The system features online helps and validation checks to assist respondents in completing their survey forms. With the E-survey, respondents do away with the tedious paper work and manual tasks of mailing or faxing their survey returns to the Department.

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  - Fax to us at (65) 6332-7689
  - Call us at 1800-3238118\* (local callers)
    - (65) 6332-7738 (overseas callers)
- \* Calls from mobile telephone lines to 1800 local toll free number may be subject to mobile airtime charges as imposed by the relevant mobile service provider.