

## RETAIL SALES SURVEY

2<sup>nd</sup> QUARTER / 2010

No. 2

### Value of retail sales

Value of retail sales for the second quarter of 2010 amounted to MOP 6.84 billion, up notably by 32% year-on-year. Retail sales of Watches, Clocks & Jewellery (MOP 1.64 billion) took the largest share of 24%, Goods in Department Stores (14%), Adults' Clothing (9%), Leather Goods (9%), Motor Vehicles (8%), Goods in Supermarkets (7%), Automotive Fuels (3%), Cosmetics & Sanitary Articles (3%) and Goods in Pharmacies (3%).

In comparison with the revised figure (MOP 6.92 billion) for the first quarter, value of retail sales for the second quarter dropped by 1%, with marked decrease in retail sales of Communication Equipment (-17%) and Cosmetics & Sanitary Articles (-10%).

In the first half year of 2010, total value of retail sales reached MOP 13.77 billion, up significantly by 35% year-on-year.

#### 1 - Value of Retail Sales

Main type of retail sales	2009		2010		Percentage change		
	Q1	Q2	Q1	Q2	Year-on-year	Quarter-to-quarter	First half year
	million MOP				%		
<b>Total</b>	5 034	5 194	6 923 <sup>r</sup>	6 842	31.7	-1.2	34.6
Watches, Clocks & Jewellery	1 057	1 097	1 625 <sup>r</sup>	1 640	49.5	0.9	51.6
Goods in Department Stores	744	727	1 076	988	35.9	-8.1	40.3
Adults' Clothing	496	437	682	644	47.6	-5.6	42.2
Leather Goods	374	401	652 <sup>r</sup>	636	58.6	-2.5	66.2
Motor Vehicles	288	358	431	580	62.2	34.5	56.6
Goods in Supermarkets	478	440	523	483	9.8	-7.5	9.6
Automotive Fuels	142	164	179	192	17.0	7.4	21.0
Cosmetics & Sanitary Articles	154	156	210	188	21.1	-10.2	28.5
Goods in Pharmacies	139	141	172	176	24.6	2.2	24.3
Communication Equipment	148	147	195	162	10.0	-17.3	20.8

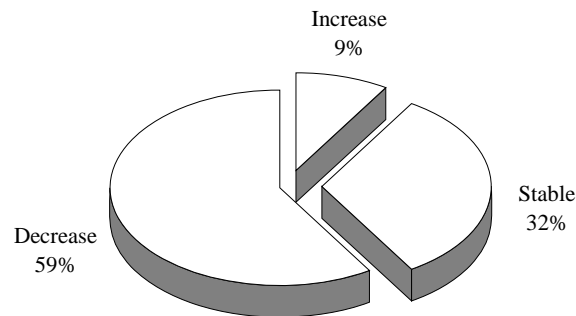
<sup>r</sup> Revised figures

**Retailers’ Opinions and Forecasts**

In the second quarter of 2010, about 59% of the retailers reported decrease in the sales volume from the first quarter of 2010, up by 17 percentage points from those in the previous quarter; 41% reported that the sales volume remained stable or showed increase. In terms of retail prices, about 70% reported that the prices were stable, 12% claimed that the prices increased whereas 18% stated the prices decreased.

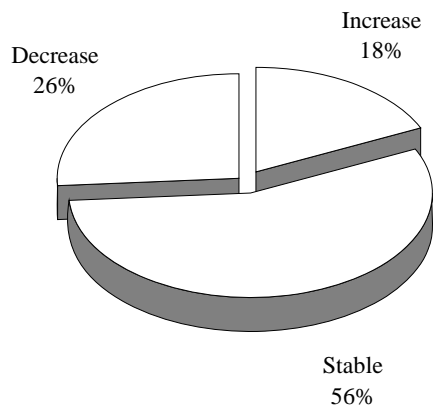
Compared with the second quarter of 2009, about 72% expressed that the stock level was normal in the second quarter of 2010, while 19% indicated that the stock level was low.

Chart 1 - Retailers’ opinions about sales volume in the 2<sup>nd</sup> quarter of 2010



Regarding the business outlook for the third quarter of 2010, about 74% anticipate that the sales volume will increase or remain stable compared with the second quarter, while 26% expect a decrease. Meanwhile, about 84% predict that the retail prices will remain stable or increase whereas 16% expect a decrease.

Chart 2 - Retailers’ forecast about sales volume for the 3<sup>rd</sup> quarter of 2010



## Value and Volume Indices of Retail Sales

After removing the effect of price changes, volume of retail sales for the second quarter of 2010 rose by 25% year-on-year, with remarkable increase being observed in the sales volume of Motor Vehicles (+55%), Leather Goods (+52%), Adults' Clothing (+49%) and Goods in Department Stores (+36%). However, volume of retail sales registered a quarter-to-quarter decrease of 1%, with that of Communication Equipment and Cosmetics & Sanitary Articles falling by 16% and 11% respectively, while that of Motor Vehicles surging by 34%.

### 2 - Retail Sales Volume Index

2008=100

Type of retail outlet	2009		2010		Percentage change	
	Q1	Q2	Q1	Q2	Year-on-year	Quarter-to-quarter
					%	
Global index	102.7	103.1	129.6 <sup>r</sup>	128.4	24.5	-0.9
Watches, Clocks & Jewellery	117.0	116.8	151.0 <sup>r</sup>	152.9	31.0	1.3
Goods in Department Stores	119.3	111.7	163.1	151.6	35.8	-7.0
Adults' Clothing	112.5	93.8	145.7	140.0	49.3	-3.9
Leather Goods	102.9	104.5	164.1 <sup>r</sup>	159.0	52.1	-3.1
Motor Vehicles	70.3	86.0	99.0	132.9	54.6	34.2
Goods in Supermarkets	105.8	95.7	111.5	102.8	7.4	-7.8
Automotive Fuels	90.0	97.4	95.1	100.6	3.3	5.8
Cosmetics & Sanitary Articles	99.2	97.7	129.7	115.7	18.5	-10.8
Goods in Pharmacies	97.0	96.0	116.0	118.7	23.6	2.4
Communication Equipment	109.2	108.6	148.8	124.4	14.5	-16.4

### 3 – Retail Sales Value Index

2008=100

Type of retail outlet	2009		2010		Percentage change	
	Q1	Q2	Q1	Q2	Year-on-year	Quarter-to-quarter
					%	
Global index	103.8	107.1	142.8 <sup>r</sup>	141.1	31.7	-1.2
Watches, Clocks & Jewellery	117.2	121.7	180.3 <sup>r</sup>	181.9	49.5	0.9
Goods in Department Stores	125.4	122.6	181.4	166.7	35.9	-8.1
Adults' Clothing	119	104.7	163.6	154.5	47.6	-5.6
Leather Goods	111.6	119.8	194.8 <sup>r</sup>	189.8	58.6	-2.5
Motor Vehicles	71.1	88.2	106.4	143.1	62.2	34.5
Goods in Supermarkets	109.8	101.1	120.1	111.1	9.8	-7.5
Automotive Fuels	65.5	75.6	82.3	88.4	17.0	7.4
Cosmetics & Sanitary Articles	102.9	103.7	139.9	125.6	21.1	-10.2
Goods in Pharmacies	101.1	102.8	125.3	128.1	24.6	2.2
Communication Equipment	100.5	99.4	132.2	109.3	10.0	-17.3

<sup>r</sup> Revised figures

## Methodology

Retail Sales Survey covers establishments that are engaged in retail trade activities.

### Statistical unit

Statistical unit of the Retail Sales Survey is an establishment. When an enterprise has more than one establishment engaging in the same kind of economic activity, these establishments are grouped together as one statistical unit that is required to complete only one questionnaire.

### Sampling method

The sampling frame is based on the business registry of the Statistics and Census Service (DSEC). Stratified sampling is used to select the sample of establishments according to the economic activities and number of persons engaged. Full enumeration is carried out to establishments with 20 or more persons engaged, as well as economic activities with limited number of establishments.

### Statistical inference

#### Retail Sales and Retailers' Opinions

Inference of results is based on the sampling method used, as follows:

1) Estimate of total value of variable y of a specific retail activity:

$$\hat{Y}_j = \sum_{h=1}^4 \sum_{i=1}^{n_{hj}} w_{hji} * y_{hji}$$

of which:

j: a specific economic activity

h: number of persons engaged

i: a specific establishment of the sample

$y_{hji}$ : observed value of variable y of a specific establishment of the sample

$$w_{hji} = \frac{N_{hj}}{n_{hj}} \text{ (for stratum with full enumeration, } w_{hji}=1)$$

$n_{hj}$ : number of establishments of a specific stratum

$N_{hj}$ : total number of establishments of a specific stratum

2) Estimated variance of parameter Y of a specific retail activity

$$\hat{V}(Y_j) = \sum_{h=1}^4 (1 - f_{hj}) * N_{hj}^2 * \frac{s_{hj}^2}{n_{hj}}$$

$f_{hj}$ : Sampling fraction

$s_{hj}$ : Standard error of variable y

Volume and Value Indices

1) Calculation of price deflator

$$D_{ti} = \frac{\sum_{k=1}^n P_{tik} Q_{oik}}{\sum_{k=1}^n P_{oik} Q_{oik}} = \sum_{k=1}^n \left( \frac{P_{tik}}{P_{oik}} \right) \frac{P_{oik} Q_{oik}}{\sum_{k=1}^n P_{oik} Q_{oik}} = \sum_{k=1}^n \left( \frac{P_{tik}}{P_{oik}} \right) w_{oik}$$

of which:

$D_{ti}$  price deflator for retail sales of activity (i) at period (t)

$P_{oi} Q_{oi}$  retail sales of activity (i) at base period (o)

$P_{ti} Q_{ti}$  retail sales of activity (i) at period (t)

$P_{oi}$  retail price (CPI) of activity (i) at base period (o)

$P_{ti}$  retail price (CPI) of activity (i) at period (t)

$w_{oi}$  CPI weight of activity (i) at base period (o)

$k$  products of activity (i)

2) Value of Retail Sales at constant prices

$$V_{ti} = \left( \frac{P_{ti} Q_{ti}}{D_{ti}} \right)$$

of which:

$V_{ti}$  retail sales at constant prices of activity (i) at period (t)

$P_{ti} Q_{ti}$  retail sales at current prices of activity (i) at period (t)

$D_{ti}$  price deflator for retail sales of activity (i) at period (t)

## 3) Quarterly Volume and Value indices

Retail sales volume index of activity (i) for the first quarter (t) after the base period:

$$QI_t = \frac{\sum_{i=1}^n P_{oi} Q_{oi}}{\sum_{i=1}^n P_{oi} Q_{oi}} * 100$$

Retail sales volume index of activity (i) for quarter (t+1):

$$QI_{t+1} = \frac{\sum_{i=1}^n P_{oi} Q_{(t+1)i}}{\sum_{i=1}^n P_{oi} Q_{oi}} * QI_t$$

Retail sales value index of activity (i) for the first quarter (t) after base period:

$$VI_t = \frac{\sum_{i=1}^n P_{ti} Q_{ti}}{\sum_{i=1}^n P_{oi} Q_{oi}} * 100$$

Retail sales value index of activity (i) for quarter (t+1):

$$VI_{t+1} = \frac{\sum_{i=1}^n P_{(t+1)i} Q_{(t+1)i}}{\sum_{i=1}^n P_{ti} Q_{ti}} * VI_t$$

of which:

$VI_t$  Retail sales value index for quarter (t)

$VI_{t+1}$  Retail sales value index for quarter (t+1)

$P_{oi} Q_{oi}$  Value of retail sales at constant prices of activity (i) at base period (o)

$P_{oi} Q_{(t+1)i}$  Value of retail sales at constant prices of activity (i) at period (t+1)

$P_{oi} Q_{oi}$  Value of retail sales at current prices of activity (i) at base period (o)

$QI_t$  Retail sales volume index at period (t)

$QI_{t+1}$  Retail sales volume index at period (t+1)

$P_{ti} Q_{ti}$  Value of retail sales at current prices of activity (i) at period (t)

$P_{(t+1)i} Q_{(t+1)i}$  Value of retail sales at current prices of activity (i) at period (t+1)

The following statistical tables are available for download from the DSEC website

- 1 - Value of retail sales
- 2 - Retailers' opinions about sales volume in the 2<sup>nd</sup> quarter of 2010 and forecast for the 3<sup>rd</sup> quarter of 2010
- 3 - Retailers' opinions about retail prices in the 2<sup>nd</sup> quarter of 2010 and forecast for the 3<sup>rd</sup> quarter of 2010
- 4 - Retailers' opinions about the year-on-year change of the stock level in the 2<sup>nd</sup> quarter of 2010
- 5 - Retailers' forecast of the year-on-year change of the stock order for the 3<sup>rd</sup> quarter of 2010
- 6 - Retailers' opinions about the business performance in the 2<sup>nd</sup> quarter of 2010 and forecast for the 3<sup>rd</sup> quarter of 2010
- 7 - Volume index of retail sales
- 8 - Value index of retail sales