

Quarterly Wage Rate Index - 2007

1. Introduction

This issue of 'Economic and Social Indicators' presents quarterly wage rate indices for year 2007; an index for year 2007 is also provided.

A new series of the wage rate index, based on the occupational structure of the working population in September 2006 has been introduced as from the first quarter of 2007. The base period is September 2006. Henceforth, all wage rate indices will refer to this new base period; they will also be compiled and disseminated on a quarterly basis to satisfy the requirements of the International Monetary Fund (IMF) towards graduation of Mauritius to the Special Data Dissemination Standard (SDDS).

The wage rate index measures changes in the price of labour, i.e. changes in the average rates actually paid by employers to their employees for work during normal working hours. The methodology used for computing the index is given in the technical note at Annex.

2. Main movements in the Wage Rate Index, Qr 1 to Qr 4 2007

A general upward movement is noted in the quarterly wage rate index across the 4 quarters in 2007. The index, with September 2006 as base, stood at 101.1 in the 1st quarter and rose by 1.1 points (1.1%) to reach 102.2 in the 2nd quarter. In the 3rd quarter, it increased by 3.9 points (3.8%) to 106.1 and in the 4th quarter by another 1.9 points (1.8%) to 108.0 (Table 1 and Figure 1).

As expected, the largest increase is noted in the 3rd quarter when wages/salaries are adjusted for compensation.

Table 2 which gives the percentage change in the quarterly wage rate index by industry group indicates an increasing trend in wage rates for all industry groups over all quarters except for 'Agriculture, hunting, forestry and fishing' in the 1st quarter (down by 4.1% from base period) and 'Health & social work' in the 1st quarter (down by 1.8% from base period) and in the 4th quarter (down by 0.2%).

The decrease noted in 'Agriculture, hunting, forestry and fishing' during the 1st quarter is the result of lower wages being paid in the intercrop season from January to June (1st and 2nd quarters) than in the crop season from July to December (3rd and 4th quarters).

As regards 'Health & social work', the decline is explained by lower average rates for certain occupations in the 1st and 4th quarters, largely due to new recruits in these quarters.

3. Wage rate index, year 2007

3.1 Changes by industry

The average wage rate index for year 2007 worked out as the average of the quarterly indices, was 104.4. It went up by 4.4 points (4.4%) from the base period, September 2006. This was due to an increase in wage rates across all industry groups.

The highest increase in wage rate was registered in 'Hotels & Restaurants' (+7.6%) followed by 'Financial Intermediation' (+7.1%). The lowest increase was registered in 'Health and social work' (+1.2%).

‘Manufacturing, mining & quarrying’, the most important industry group in terms of weight (17.1% of the total), registered an increase of 5.8% in wage rates. In the second most important industry group ‘Public Administration and defence; compulsory social security’, wage rates went up by 2.2%.

3.2 Contribution of industry groups to the index

The main contributor to the increase of 4.4 points in the index for 2007 was ‘Manufacturing, mining and quarrying’ (1.0 point). ‘Hotels and restaurants’ and ‘Transport, storage and communications’ contributed 0.5 point each. The industry groups ‘Wholesale & retail trade’, ‘Financial Intermediation’ and ‘Public administration and defence; compulsory social security’ each contributed 0.4 point (Table3).

3.3 Wage Rate Index for the General Government sector

The wage rate index for the General Government sector which comprises ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly increased by 1.9% in 2007 relative to the base period September 2006. This rise is lower than the increase of 4.4% registered in the overall level of wages. In fact, the General Government sector which accounts for 1/3 of the total weight of the wage rate index, contributed only 0.6 point to the increase of 4.4 points in the overall index for 2007 (Table 3).

4. Comparison with previous indices

Table 4 gives a series of wage rate indices since 2001. Indices for years 2001 to 2006 have been computed on a yearly basis with September 2000 as base. As from 2007, quarterly indices are compiled with September 2006 as base.

The new series of the wage rate index is therefore not strictly comparable with the previous one because of different weighting patterns. However, to enable comparison, a rough estimate of the new wage index on the old base can be obtained by multiplying the new index by 1.421. Conversely, the wage index on the old base can be converted to the new base by dividing by 1.421.

Central Statistics Office
Ministry of Finance and Economic Development
Port Louis
 April 2008

Contact person: A Sariff Mungralee (Statistician) Central Statistics Office LIC Centre Port Louis Tel: 2122316 Fax: 2114150 Email: cso_labour@mail.gov.mu

Table 1 - Quarterly wage rate indices by industry group, 2007**(Base : September 2006 = 100)**

Industry group	Weight	2007			
		Qr1	Qr2	Qr3	Qr4
Agriculture, hunting, forestry and fishing	61	95.9	98.5	106.2	107.5
Manufacturing, mining & quarrying	171	102.2	103.6	107.6	109.6
Electricity and water	20	104.5	105.0	106.0	106.4
Construction	37	101.2	102.8	108.3	109.1
Wholesale & retail trade; repair of motor vehicles, motorcycles, personal & household goods	68	102.9	103.2	108.9	110.3
Hotels and restaurants	64	104.4	104.6	106.6	114.7
Transport, storage & communications	91	100.5	102.9	107.0	109.4
Financial intermediation	61	100.6	104.3	109.2	114.3
Real estate, renting and business activities	54	101.8	102.7	107.0	108.6
Public administration and defence; compulsory social security	170	100.1	100.2	104.1	104.4
Education	124	101.8	101.9	103.6	103.9
Health & social work	59	98.2	99.5	103.6	103.4
Other community, social and personal services	20	102.6	101.2	102.8	106.0
All sectors	1,000	101.1	102.2	106.1	108.0
<i>of which General Government</i> ¹	333	99.8	100.2	103.7	103.9

¹ ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

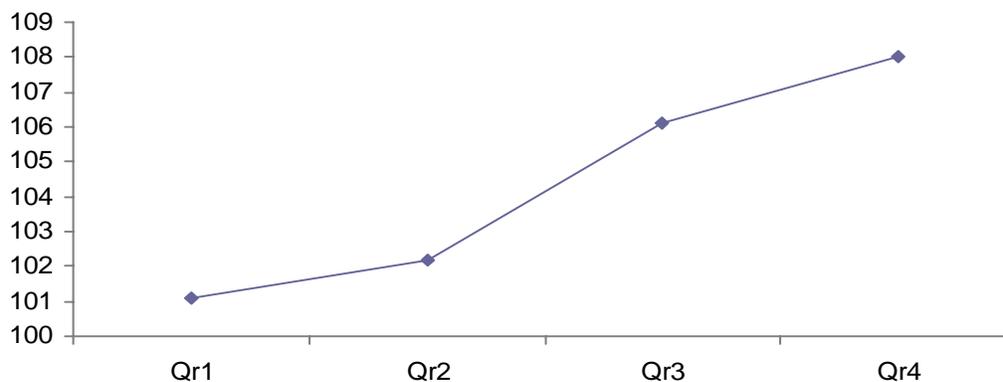
Figure 1 - Wage rate indices, 1st - 4th quarter 2007

Table 2 - Percentage change in quarterly wage rate index by industry group and contribution of industry groups to overall change in index, 2007
(Base : September 2006 = 100)

Industry group	Weight	Qr1 ¹		Qr2		Qr3		Qr4	
		% change	Change in overall index point	% change	Change in overall index point	% change	Change in overall index point	% change	Change in overall index point
Agriculture, hunting, forestry and fishing	61	-4.1	-0.3	2.7	0.2	7.8	0.5	1.2	0.1
Manufacturing, mining & quarrying	171	2.2	0.4	1.4	0.2	3.9	0.7	1.9	0.4
Electricity and water	20	4.5	0.1	0.5	0.1	1.0	0.0	0.4	0.0
Construction	37	1.2	0.0	1.6	0.1	5.4	0.2	0.7	0.0
Wholesale & retail trade; repair of motor vehicles, motorcycles, personal & household goods	68	2.9	0.2	0.3	0.0	5.5	0.4	1.3	0.1
Hotels and restaurants	64	4.4	0.3	0.2	0.0	1.9	0.1	7.6	0.5
Transport, storage & communications	91	0.5	0.0	2.4	0.2	4.0	0.4	2.2	0.2
Financial intermediation	61	0.6	0.0	3.7	0.2	4.7	0.3	4.7	0.3
Real estate, renting and business activities	54	1.8	0.1	0.9	0.0	4.2	0.2	1.5	0.1
Public administration and defence; compulsory social security	170	0.1	0.0	0.1	0.0	3.9	0.7	0.3	0.1
Education	124	1.8	0.2	0.1	0.0	1.7	0.2	0.3	0.0
Health & social work	59	-1.8	-0.1	1.3	0.1	4.1	0.2	-0.2	0.0
Other community, social and personal services	20	2.6	0.1	-1.4	0.0	1.6	0.0	3.1	0.1
All sectors	1,000	1.1	1.1	1.1	1.1	3.8	3.9	1.8	1.8
<i>of which General Government</i>	333	-0.2	-0.1	0.4	0.1	3.5	1.2	0.2	0.1

¹ Change in index relative to base period, September 2006

Table 3 - Wage Rate Index, percentage change and contribution of industry group, year 2007
(Base : September 2006 = 100)

Industry group	Weight	Index	% change ¹	Change in overall index point ¹
Agriculture, hunting, forestry and fishing	61	102.0	2.0	0.1
Manufacturing, mining & quarrying	171	105.8	5.8	1.0
Electricity and water	20	105.5	5.5	0.1
Construction	37	105.4	5.4	0.2
Wholesale & retail trade; repair of motor vehicles, motorcycles, personal & household goods	68	106.3	6.3	0.4
Hotels and restaurants	64	107.6	7.6	0.5
Transport, storage & communications	91	105.0	5.0	0.5
Financial intermediation	61	107.1	7.1	0.4
Real estate, renting and business activities	54	105.0	5.0	0.3
Public administration and defence; compulsory social security	170	102.2	2.2	0.4
Education	124	102.8	2.8	0.3
Health & social work	59	101.2	1.2	0.1
Other community, social and personal services	20	103.2	3.2	0.1
All sectors	1,000	104.4	4.4	4.4
<i>of which General Government</i>	<i>333</i>	<i>101.9</i>	<i>1.9</i>	<i>0.6</i>

¹ Relative to base period, September 2006

Table 4 - Wage rate index, 2001 - 2007

Year	Wage Rate Index		Annual percentage change
	Base : September 2000 = 100	Base : September 2006 = 100	
2000	100.0		4.4
2001	105.0		5.0
2002	109.9		4.7
2003	122.7		11.6
2004	130.4		6.3
2005	136.9		5.0
2006	142.1		3.8
2007		104.4	4.4

Technical Note

Methodology used for the compilation of the wage rate index

1. Definition

The wage rate index measures changes in the price of labour, i.e. changes in the average rates actually paid by employers to their employees for work during normal working hours.

2. Approach adopted

Ideally to show genuine changes in the price of labour, it would have been necessary for wages of specific workers at specific establishments to be measured over time. Since this is practically impossible, the next best approach has been adopted, that is, to follow changes in the wages of groups of employees performing the same jobs. This gives a measure of changes in wage rates of specific occupations but has the following limitations:

- (i) any changes in the mix of employees within the selected occupations is bound to affect the calculated rates and hence the corresponding sectoral indices. Such changes can occur, for example, with a new intake of employees in a specific group - when the wages of the new recruits pull down the average wages for the whole group from one period to the next.
- (ii) wage adjustments resulting from changes in the tasks associated with a particular occupation, which cannot be separated from pure price changes of labour.
- (iii) it is difficult to separate the effects of productivity from the overall change.

3. Coverage

The wage rate index is based on wage rates applicable in 'large' establishments only. Employment in these establishments accounted for around 57% of total employment in year 2007. 'Large' establishments comprise sugar cane plantations of 10 hectares or more; tea plantations of 2 hectares or more; other agricultural and non-agricultural establishments having 10 or more employees as well as General Government Services, i.e. ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly.

Time-rated as well as piece-rated wage earners and salaried employees are covered. Apprentices, workers on probation, part-time workers and employees working on a temporary basis are excluded.

4. Calculating the Wage Rate Index

A Laspeyres formula is used. The occupational structure is held constant with reference to the base period of the index, i.e September 2006. The relative changes in average wage rates are measured at the occupational level and these changes are then weighted to give a combined measure of the change. The following formula is used

$$I_t = \frac{\sum w_i (R_i^t / R_i^o)}{\sum w_i} \times 100$$

where I_t = index for quarter t compared to base period o
 w_i = $N_i^o R_i^o$ which represents the total wages paid to all employees in the i th occupation in base period, September 2006
 R_i^o = wage rate of occupation i in base period, September 2006
 R_i^t = wage rate of occupation i in quarter t

The index is first calculated for each industry group and the overall index (covering all industry groups) is computed as a weighted average of the individual industry group indices.

5. Reference period

The base period for the index is September 2006. The wage rate indices for the first, second, third and fourth quarters are based on wage rates applicable during the months of February, May, August and November respectively.

6. Weights

Two sets of weights are used.

- (i) The weights used for each occupation within a given industry group are based on the distribution of wages by occupation as obtained from a survey on employment and wage rates carried out in approximately 500 'large' establishments in September 2006.
- (ii) The weights for each industry group are based on the distribution of earnings by industry group as obtained from the Survey of Employment and Earnings carried out in around 2500 'large' establishments in March 2006.

7. Wage rates used

The wage/salary rates of specific occupations, used in the calculation of the index, are the rates paid for normal time work, comprising basic wages and salaries, cost of living allowances and other guaranteed and regular allowances paid at the end of each pay period. Overtime payments are therefore excluded.