WAGE RATE INDEX (WRI)

2nd Quarter 2013

1. Introduction

This issue of the Economic and Social Indicators (ESI) on wage rate index presents data for the second quarter of 2013 together with a backward series of quarterly indices.

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 1.

2. Movement of the overall wage rate index

The wage rate index (Base = fourth quarter 2011) increased by 1.2% or 1.3 points to reach 108.1 in the second quarter 2013 from 106.8 in the first quarter 2013. (Table 1)

Compared to 2nd quarter 2012, the wage rate index which stood at 103.4, increased by 4.5% or 4.7 points.

3(a). Movement of the sub indices, 1st Quarter 2013 to 2nd quarter 2013

Some industry groups registered increases in their wage rates whilst others registered decreases resulting in a net increase in the overall index.
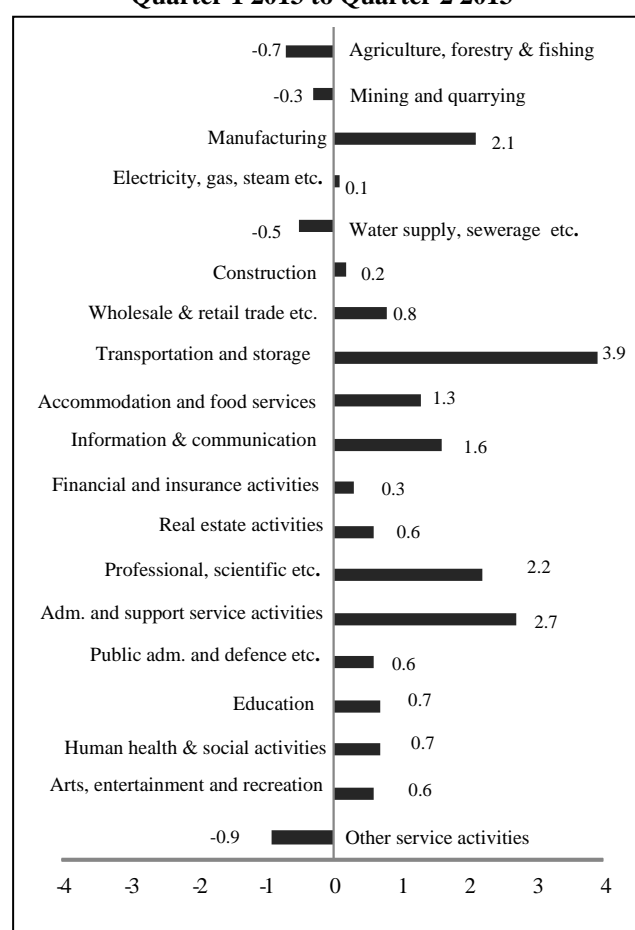
Main increases were registered in the following industry groups. (Table 2)

Transportation and storage	*3.9%*
Administrative and support service activities	*2.7%*
Professional, scientific and technical activities	*2.2%*
Manufacturing	*2.1%*

Main decreases were registered in the following industry groups:

Other service activities	*-0.9%*
Agriculture, forestry and fishing	*-0.7%*

Chart 1: % Change in Wage Rate Index from Quarter 1 2013 to Quarter 2 2013

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 0.8% to reach 114.9 in the second quarter 2013 from 114.0 in the first quarter 2013. This sector which accounts for around 32% of the total weight of the wage rate index contributed 0.3 point to the overall change of 1.3 points in the index.

3(b). Movement of sub indices, 2nd quarter 2012 to 2nd quarter 2013

Table 3 compares the indices for the second quarter 2013 with those for the corresponding quarter 2012.

Main increases were registered in the following industry groups.

Education	*12.1%*
Water supply, sewerage, waste management and remediation activities	*10.8%*
Human health and social work activities	*8.9%*
Public administration and defence; compulsory social security	*6.6%*

Main decreases were registered in the following industry groups.

Agriculture, forestry and fishing	*-2.4%*
Construction	*-0.4%*

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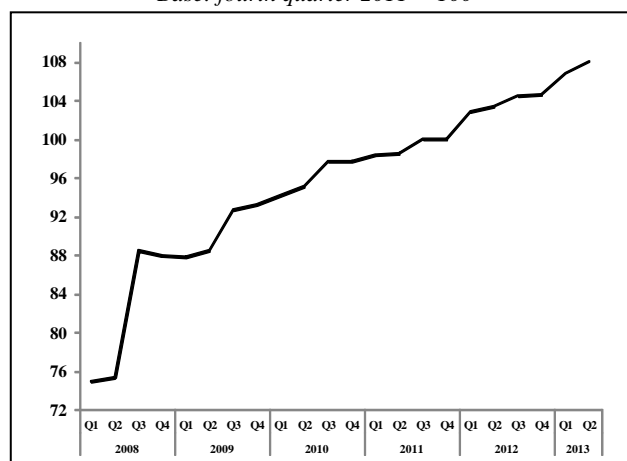**Port Louis**
September 2013

4. Past trend

Table 4 presents the quarterly indices from first quarter 2007 to second quarter 2013. Indices for 2007 to 2011 have been worked out using third quarter 2006 as base. As from 2012 the base period used is fourth quarter 2011.

To enable comparison between the two series, chain link series with fourth quarter 2011 as base has been worked out and is given in Table 5. The series are not strictly comparable because of different base periods and weighting patterns.

The trend of the quarterly wage rate indices is depicted in Chart 2. It indicates a general upward movement in the index throughout the quarters. The increases in the 3rd quarter 2008 and 1st quarter 2013 are mainly explained by salary revision in the Government Sector.

Chart 2 – Wage rate indices, quarters 2008 – 2013

Base: fourth quarter 2011 = 100

Contact persons:

(1) Ms. S. Nunhuck (Statistician)
(2) Ms. F. Moserdee (Senior Statistical Officer)

Labour Unit
Statistics Mauritius
LIC Centre
Port-Louis
Tel: 212 2316/17   Fax: 211 4150
Email: cso_labour@mail.gov.mu

Wage Rate Index

(Base: fourth quarter 2011=100)

Table 1 - Quarterly indices by industry group, Q1 2012 to Q2 2013

Industrial group	Weight	2012				2013 [1]	
		Q1	Q2	Q3	Q4	Q1	Q2
Agriculture, forestry and fishing	32	88.5	87.7	108.0	105.4	86.2	85.6
Mining and quarrying	3	102.6	103.3	102.5	102.4	103.9	103.6
Manufacturing	121	102.4	103.1	103.1	103.4	103.2	105.4
Of which Sugar	*4*	*101.9*	*103.3*	*110.4*	*107.2*	*101.9*	*100.7*
Food (excluding sugar)	*19*	*101.7*	*102.8*	*103.0*	*103.2*	*101.8*	*102.6*
Textiles	*48*	*101.7*	*102.1*	*101.6*	*103.3*	*104.1*	*107.4*
Electricity, gas, steam and air conditioning supply	15	101.6	101.5	100.9	101.0	101.8	101.9
Water supply, sewerage, waste management and remediation activities	7	103.0	102.6	102.6	104.8	114.3	113.7
Construction	50	102.8	103.8	103.8	104.3	103.2	103.4
Wholesale and retail trade; repair of motor vehicles and motorcycles	74	102.8	103.2	103.9	103.8	103.4	104.2
Transportation and storage	67	103.8	103.0	104.7	105.8	104.7	108.8
Accommodation and food service activities	70	102.4	103.3	103.1	103.7	102.4	103.7
Information and communication	39	102.4	102.1	102.9	102.9	103.7	105.4
Financial and insurance activities	77	100.4	100.5	100.5	101.4	103.6	103.9
Real estate activities	3	101.8	101.8	102.0	102.1	103.4	104.0
Professional, scientific and technical activities	33	100.8	101.3	101.3	101.7	101.7	103.9
Administrative and support service activities	38	100.9	101.4	100.9	101.1	102.0	104.8
Public administration and defence; compulsory social security	190	105.4	106.2	107.2	107.5	112.5	113.2
Education	107	105.8	106.7	106.5	105.5	118.8	119.6
Human health and social work activities	62	105.1	105.5	107.0	107.2	114.1	114.9
Arts, entertainment and recreation	9	101.0	101.2	102.4	101.8	100.8	101.4
Other service activities	3	101.5	101.8	102.6	103.0	106.4	105.4
All sectors	**1000**	**102.9**	**103.4**	**104.5**	**104.6**	**106.8**	**108.1**
of which General Government [2]	*319*	*104.9*	*105.8*	*106.7*	*106.8*	*114.0*	*114.9*

[1] Provisional

[2] Ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

Wage Rate Index

(Base: fourth quarter 2011=100)

Table 2 - Percentage change from previous quarter by industry group and contribution of industry groups to overall change in index - Q1 2012 to Q2 2013

| Industrial group | Weight | % change | | | | | | Change in overall index point | | | | | |
| | | 2012 | | | | 2013 [1] | | 2012 | | | | 2013 [1] | |
		Q1	Q2	Q3	Q4	Q1	Q2	Q1	Q2	Q3	Q4	Q1	Q2
Agriculture, forestry and fishing	32	-11.5	-0.9	23.1	-2.4	-18.2	-0.7	-0.4	0.0	0.6	-0.1	-0.6	0.0
Mining and quarrying	3	2.6	0.7	-0.8	-0.1	1.5	-0.3	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing	121	2.4	0.7	0.0	0.3	-0.2	2.1	0.3	0.1	0.0	0.0	0.0	0.3
Of which Sugar	*4*	*1.9*	*1.4*	*6.9*	*-2.9*	*-4.9*	*-1.2*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Food (excluding sugar)	*19*	*1.7*	*1.1*	*0.2*	*0.2*	*-1.4*	*0.8*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Textiles	*48*	*1.7*	*0.4*	*-0.5*	*1.7*	*0.8*	*3.2*	*0.1*	*0.0*	*0.0*	*0.1*	*0.0*	*0.2*
Electricity, gas, steam and air conditioning supply	15	1.6	-0.1	-0.6	0.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Water supply, sewerage, waste management and remediation activities	7	3.0	-0.4	0.0	2.1	9.1	-0.5	0.0	0.0	0.0	0.0	0.1	0.0
Construction	50	2.8	1.0	0.0	0.5	-1.1	0.2	0.2	0.1	0.0	0.0	-0.1	0.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	74	2.8	0.4	0.7	-0.1	-0.4	0.8	0.2	0.0	0.1	0.0	0.0	0.1
Transportation and storage	67	3.8	-0.8	1.7	1.1	-1.0	3.9	0.3	-0.1	0.1	0.1	-0.1	0.3
Accommodation and food service activities	70	2.4	0.9	-0.2	0.6	-1.3	1.3	0.2	0.1	0.0	0.0	-0.1	0.1
Information and communication	39	2.4	-0.3	0.8	0.0	0.8	1.6	0.1	0.0	0.0	0.0	0.0	0.1
Financial and insurance activities	77	0.4	0.1	0.0	0.9	2.2	0.3	0.0	0.0	0.0	0.1	0.2	0.0
Real estate activities	3	1.8	0.0	0.2	0.1	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Professional, scientific and technical activities	33	0.8	0.5	0.0	0.4	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.1
Administrative and support service activities	38	0.9	0.5	-0.5	0.2	0.9	2.7	0.0	0.0	0.0	0.0	0.0	0.1
Public administration and defence; compulsory social security	190	5.4	0.8	0.9	0.3	4.7	0.6	1.1	0.2	0.2	0.1	1.0	0.1
Education	107	5.8	0.9	-0.2	-0.9	12.6	0.7	0.6	0.1	0.0	-0.1	1.4	0.1
Human health and social work activities	62	5.1	0.4	1.4	0.2	6.4	0.7	0.3	0.0	0.1	0.0	0.4	0.0
Arts, entertainment and recreation	9	1.0	0.2	1.2	-0.6	-1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Other service activities	3	1.5	0.3	0.8	0.4	3.3	-0.9	0.0	0.0	0.0	0.0	0.0	0.0
All sectors	**1000**	**2.9**	**0.5**	**1.1**	**0.1**	**2.1**	**1.2**	**2.9**	**0.5**	**1.1**	**0.1**	**2.2**	**1.3**
of which General Government [2]	*319*	4.9	0.9	0.9	0.1	6.7	0.8	1.6	0.3	0.3	0.0	2.3	0.3

[1] Provisional

[2] Ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

Wage Rate Index

(Base: fourth quarter 2011=100)

Table 3 - Percentage change from corresponding quarter of the previous year by industry group and contribution of industry groups to overall change in index - Q1 2012 & Q2 2013 [1]

Industrial group	Weight	2012/2013			
		% change		Change in overall index point	
		Q1	Q2	Q1	Q2
Agriculture, forestry and fishing	32	-2.6	-2.4	-0.1	-0.1
Mining and quarrying	3	1.3	0.3	0.0	0.0
Manufacturing	121	0.8	2.2	0.1	0.3
Of which Sugar	*4*	*0.0*	*-2.5*	*0.0*	*0.0*
Food (excluding sugar)	*19*	*0.1*	*-0.2*	*0.0*	*0.0*
Textiles	*48*	*2.4*	*5.2*	*0.1*	*0.3*
Electricity, gas, steam and air conditioning supply	15	0.2	0.4	0.0	0.0
Water supply, sewerage, waste management and remediation activities	7	11.0	10.8	0.1	0.1
Construction	50	0.4	-0.4	0.0	0.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	74	0.6	1.0	0.1	0.1
Transportation and storage	67	0.9	5.6	0.1	0.4
Accommodation and food service activities	70	0.0	0.4	0.0	0.0
Information and communication	39	1.3	3.2	0.1	0.1
Financial and insurance activities	77	3.2	3.4	0.2	0.3
Real estate activities	3	1.6	2.2	0.0	0.0
Professional, scientific and technical activities	33	0.9	2.6	0.0	0.1
Administrative and support service activities	38	1.1	3.4	0.0	0.1
Public administration and defence; compulsory social security	190	6.7	6.6	1.3	1.3
Education	107	12.3	12.1	1.4	1.4
Human health and social work activities	62	8.6	8.9	0.6	0.6
Arts, entertainment and recreation	9	-0.2	0.2	0.0	0.0
Other service activities	3	4.8	3.5	0.0	0.0
All sectors	**1000**	**3.8**	**4.5**	**3.9**	**4.7**
of which General Government [2]	*319*	*8.7*	*8.6*	*2.9*	*2.9*

[1] Provisional

[2] Ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

Table 4: Wage Rate Index, 1st quarter 2007 to 2nd quarter 2013

Year	Quarterly index			
	Q1	Q2	Q3	Q4
(Base: third quarter 2006=100)				
2007	101.1	102.2	107.6	108.0
2008	109.2	109.7	128.8	128.1
2009	128.0	128.8	135.0	135.9
2010	137.2	138.6	142.2	142.4
2011	143.3	143.5	145.6	145.6
(Base: fourth quarter 2011=100)				
2012	102.9	103.4	104.5	104.6
2013 [1]	106.8	108.1	-	-

Table 5:   Wage Rate Index, 1st quarter 2007 to 2nd quarter 2013

(Base: fourth quarter 2011 = 100)

Year	Quarterly index			
	Q1	Q2	Q3	Q4
2007	69.4	70.2	73.9	74.2
2008	75.0	75.3	88.5	88.0
2009	87.9	88.5	92.7	93.3
2010	94.2	95.2	97.7	97.8
2011	98.4	98.6	100.0	100.0
2012	102.9	103.4	104.5	104.6
2013 [1]	106.8	108.1	-	-

[1] Provisional

Technical Note

Methodology used for the compilation of the Wage Rate Index

1.   Definition

The Wage Rate Index (WRI) 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

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 not possible, 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 occurs, 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 53% of total employment in year 2013. '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. December 2011. 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

$$I_t = \frac{\Sigma w_i (R_i^t / R_i^o)}{\Sigma w_i} \quad X \ 100$$

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, December 2011
  R_i^o = wage rate of occupation i in base period, December 2011
  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 2011 as from the first quarter of 2012. The wage rate indices for the first, second, third and fourth quarters of 2007 and 2008 are based on wage rates applicable during the months of February, May, August and November respectively. As from 2009, the wage rate indices for the first to fourth quarter are based on wage rates applicable during the months of March, June, September and December 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 the Population Census 2011.

(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 2,700 'large' establishments in March 2011.

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.