WAGE RATE INDEX (WRI)

4th Quarter 2012

1. Introduction

This is the second issue of the Economic and Social Indicators (ESI) on wage rate index which presents data for the fourth quarter of 2012. As from the third quarter of 2012, indices are computed using the fourth quarter 2011 as base period.

The new series also publishes the indices according to the revised national classification of economic activities based on the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4 of 2007.

Mauritius has graduated to the Special Data Dissemination Standards (SDDS) of the International Monetary Fund in February 2012. One of its prerequisites is the release of the WRI of a quarter within the following quarter.

The methodology used for computing the index is given in the technical note at Annex 1. The change in industrial classification of economic activities is given at Annex 2.

2. Movement of the overall wage rate index

The wage rate index (Base=December 2011) increased by 0.2% or 0.2 point to reach 104.7 in the fourth quarter 2012 from 104.5 in the third quarter 2012.

The wage rate index for the first and second quarters 2012 stood at 103.0 and 103.5 respectively.

3. Movement of the sub indices, 3rd Qtr 2012 to 4th Qtr 2012

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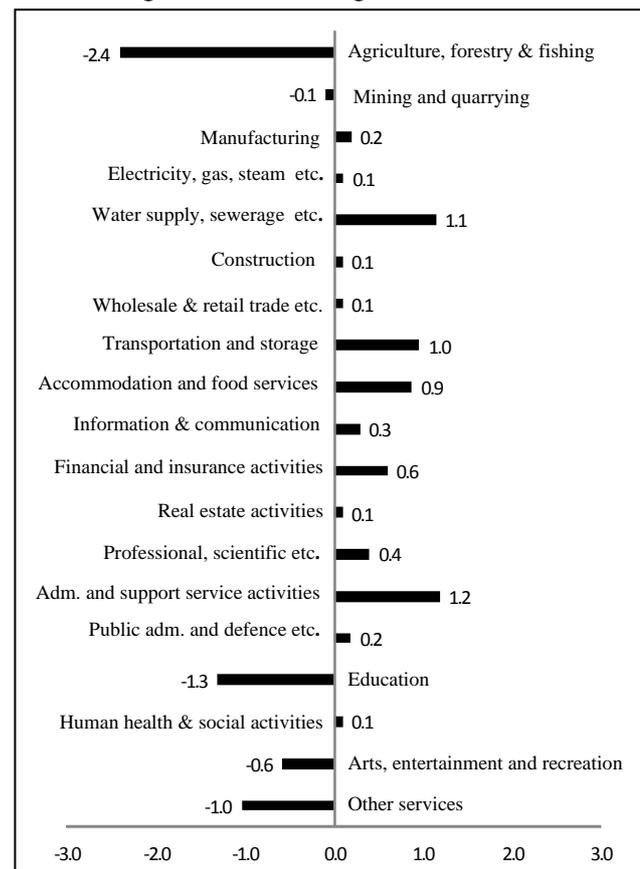
Main increases were registered in the following industry group (Table 2):

Administrative and support service act.	*1.2%*
Water supply, sewerage, waste management and remediation activities	*1.1%*
Transportation and storage	*1.0%*
Accommodation and food service activities	*0.9%*

Main decreases were registered in:

Agriculture, forestry and fishing	*-2.4%*
Education	*-1.3%*
Other Services	*-1.0%*

Chart 1: % Change in Wage Rate Index from Quarter 3 2012 to Quarter 4 2012

The wage rate index for the General Government sector which comprises Ministries, Government department and agencies operating under them, municipalities, district councils and Rodrigues Regional Assembly remained unchanged at 106.8 from the third to the fourth quarter 2012.

4. Comparison with previous indices

Table 3(a) presents the quarterly indices from first quarter 2007 to fourth quarter 2011 with third quarter 2006 as base period. The new set of indices with fourth quarter 2011 as base period is also given.

The two series are not strictly comparable because of different weighing patterns. However, for some particular purposes, comparison between the series may be necessary. A chain linked series with fourth quarter 2011 as base period has been worked out and is given in Table 3(b).

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Wage Rate Index

(Base: December 2011=100)

Table 1 - Quarterly indices by industry group, Q1 to Q4 2012

Industry group	Weight	2012 [1]			
		Q1	Q2	Q3	Q4
Agriculture, forestry and fishing	32	88.5	87.7	108.0	105.4
Mining and quarrying	3	102.6	103.3	102.5	102.4
Manufacturing	121	102.8	103.5	103.6	103.8
Of which Sugar	*4*	*107.7*	*108.8*	*116.7*	*113.4*
Food (excluding sugar)	*19*	*103.7*	*106.8*	*101.6*	*101.1*
Textiles	*108*	*101.3*	*101.3*	*102.8*	*105.0*
Electricity, gas, steam and air conditioning supply	15	101.6	101.5	100.9	101.0
Water supply, sewerage, waste management and remediation activities	7	106.5	103.2	104.8	106.0
Construction	50	102.8	103.6	104.1	104.2
Wholesale and retail trade; repair of motor vehicles and motorcycles	74	102.9	103.2	103.4	103.5
Transportation and storage	67	103.5	103.6	104.7	105.7
Accommodation and food service activities	70	102.4	103.7	103.3	104.2
Information and communication	39	102.4	102.1	102.9	103.2
Financial and insurance activities	77	100.5	100.5	100.5	101.1
Real estate activities	3	104.6	104.6	105.0	105.1
Professional, scientific and technical activities	33	100.8	101.3	101.3	101.7
Administrative and support service activities	38	100.3	100.8	101.2	102.4
Public administration and defence; compulsory social security	190	105.4	106.2	107.3	107.5
Education	107	105.8	106.7	106.5	105.1
Human health and social work activities	62	105.1	105.5	107.0	107.1
Arts, entertainment and recreation	9	101.0	101.2	102.4	101.8
Other services	3	103.6	103.9	105.4	104.3
All sectors	**1000**	**103.0**	**103.5**	**104.5**	**104.7**
of which General Government [2]	*319*	*104.9*	*105.8*	*106.8*	*106.8*

[1] Provisional

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

Wage Rate Index

(Base: December 2011=100)

Table 2 - Percentage change from previous quarter by industry group and contribution of industry groups to overall change in index - Q1 to Q4 2012

Industry group	Weight	2012 [1]							
		% change				Change in overall Index point			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Agriculture, forestry and fishing	32	-11.5	-0.9	23.1	-2.4	-0.3	0.0	0.6	-0.1
Mining and quarrying	3	2.6	0.7	-0.8	-0.1	0.0	0.0	0.0	0.0
Manufacturing	121	2.8	0.7	0.1	0.2	0.3	0.1	0.0	0.1
Of which Sugar	*4*	*7.7*	*1.0*	*7.3*	*-2.8*	*0.0*	*0.0*	*0.0*	*0.0*
Food (excluding sugar)	*19*	*3.7*	*3.0*	*-4.9*	*-0.5*	*0.1*	*0.1*	*-0.1*	*0.0*
Textiles	*48*	*1.3*	*0.0*	*1.5*	*2.1*	*0.1*	*0.0*	*0.2*	*0.2*
Electricity, gas, steam and air conditioning supply	15	1.6	-0.1	-0.6	0.1	0.0	0.0	0.0	0.0
Water supply, sewerage, waste management and remediation activities	7	6.5	-3.1	1.6	1.1	0.1	0.0	0.0	0.0
Construction	50	2.8	0.8	0.5	0.1	0.2	0.0	0.0	0.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	74	2.9	0.3	0.2	0.1	0.2	0.0	0.0	0.0
Transportation and storage	67	3.5	0.1	1.1	1.0	0.2	0.0	0.1	0.1
Accommodation and food service activities	70	2.4	1.3	-0.4	0.9	0.2	0.1	0.0	0.1
Information and communication	39	2.4	-0.3	0.8	0.3	0.1	0.0	0.0	0.0
Financial and insurance activities	77	0.5	0.0	0.0	0.6	0.1	0.0	0.0	0.1
Real estate activities	3	4.6	0.0	0.4	0.1	0.0	0.0	0.0	0.0
Professional, scientific and technical activities	33	0.8	0.5	0.0	0.4	0.0	0.0	0.0	0.0
Administrative and support service activities	38	0.3	0.5	0.4	1.2	0.0	0.0	0.0	0.0
Public administration and defence; compulsory social security	190	5.4	0.8	1.0	0.2	1.0	0.2	0.2	0.0
Education	107	5.8	0.9	-0.2	-1.3	0.6	0.1	0.0	-0.1
Human health and social work activities	62	5.1	0.4	1.4	0.1	0.3	0.0	0.1	0.0
Arts, entertainment and recreation	9	1.0	0.2	1.2	-0.6	0.0	0.0	0.0	0.0
Other services	3	3.6	0.3	1.4	-1.0	0.0	0.0	0.0	0.0
All sectors	**1000**	**3.0**	**0.5**	**1.0**	**0.2**	**3.0**	**0.5**	**1.0**	**0.2**
of which General Government	*319*	*4.9*	*0.9*	*0.9*	*0.0*	*1.6*	*0.3*	*0.3*	*0.0*

[1] Provisional

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

Table 3 (a) - Quarterly Wage Rate Index, Q1 2007 - Q4 2012 [1] (multiple base)

	September 2006=100					December 2011=100
	2007	**2008**	**2009**	**2010**	**2011**	**2012** [1]
Q1	101.1	109.2	128.0	137.2	143.3	103.0
Q2	102.2	109.7	128.8	138.6	143.5	103.5
Q3	107.6	128.8	135.0	142.2	145.6	104.5
Q4	108.0	128.1	135.9	142.4	145.6	104.7

Table 3 (b) - Quarterly Wage Rate Index, Q1 2007 - Q4 2012 [1] (single base)

	December 2011=100					
	2007	**2008**	**2009**	**2010**	**2011**	**2012** [1]
Q1	69.4	75.0	87.9	94.2	98.4	103.0
Q2	70.2	75.3	88.5	95.2	98.6	103.5
Q3	73.9	88.5	92.7	97.7	100.0	104.5
Q4	74.2	88.0	93.3	97.8	100.0	104.7

[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 54% of total employment in year 2012. '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

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

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 December 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.

Change in Industrial Classification

As from 2012, the wage rate index is produced based on the National Standard Industrial Classification of Economic Activities (NSIC), Rev 2, an adapted version of the International Industrial Classification of Economic Activities (ISIC), Rev 4 of the United Nations. The NSIC Rev 2 replaces the NSIC Rev 1 which is an adaptation of ISIC Rev 3.

The changes in the classification of the economic activities at the level of sectors are given below.

NSIC REV1	NSIC REV 2
A & B Agriculture, hunting, forestry and fishing	A Agriculture, forestry and fishing
C & D Manufacturing, Mining and quarrying	B Mining and quarrying
E Electricity, gas and water supply	C Manufacturing
F Construction	D Electricity, gas, steam and air conditioning supply
G Wholesale and retail trade; repair of motor vehicles, motorcycles and personal & household Goods	E Water supply; sewerage, waste management and remediation activities
H Hotels and restaurants	F Construction
I Transport, storage and communications	G Wholesale and retail trade; repair of motor vehicles, motorcycles, personal & household
J Financial intermediation	H Transportation and storage
K Real estate, renting and business activities	I Accommodation and food service activities
L Public administration and defence; Compulsory social security	J Information and communication
M Education	K Financial and insurance activities
N Health and social work	L Real estate activities
O Other community, social and personal services	M Professional, scientific and technical activities
	N Administrative and support service activities
	O Public administration and defence; compulsory social security
	P Education
	Q Human health and social work activities
	R Arts, entertainment and recreation
	S Other service activities