

WAGE RATE INDEX (WRI)

(Base: fourth quarter 2016 = 100)

1st Quarter 2018

1. Introduction

This issue of the Economic and Social Indicators (ESI) on wage rate index presents data for the first quarter of 2018 using as base the fourth quarter of 2016 (Q₄ 2016=100).

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 2016) increased by 1.3% or 1.4 points to reach 106.4 in the first quarter 2018 from 105.0 in the fourth quarter 2017.

Compared to the 1st quarter 2017, the wage rate index which stood at 102.4, increased by 3.9% or 4.0 points. (Table 3)

3. Movement of the sub-indices, 4th Quarter 2017 to 1st quarter 2018

Almost all industry groups registered increases with the exception of 'Agriculture, forestry & fishing'.

Main increases were in the following industry groups (Chart 1 & Table 2):

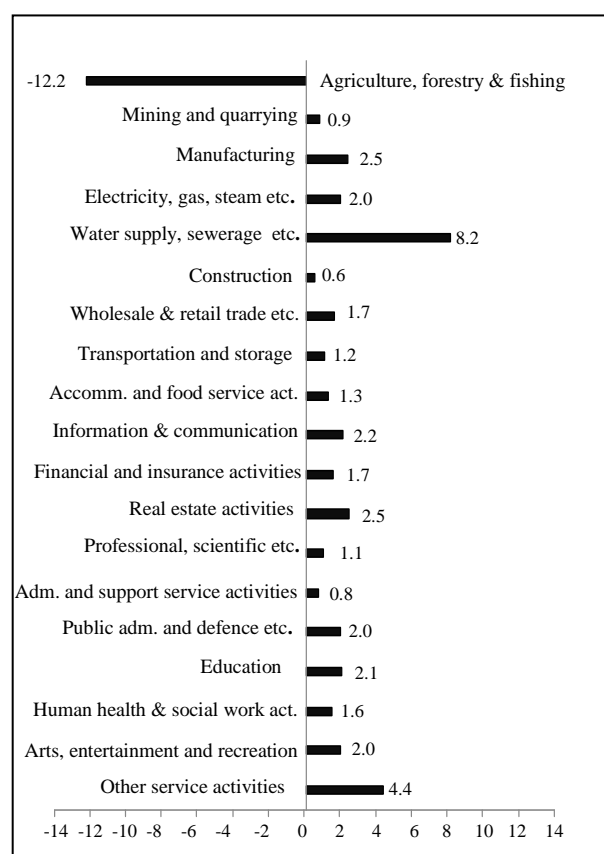
<i>Water supply; sewerage, waste management and remediation activities</i>	8.2%
<i>Other service activities</i>	4.4%
<i>Manufacturing</i>	2.5%
<i>Real estate activities</i>	2.5%
<i>Information and communication</i>	2.2%
<i>Education</i>	2.1%

The main decrease was in the following industry group:

Agriculture, forestry and fishing -12.2%

This decrease is due to the off-peak season.

Chart 1: % Change in Wage Rate Index from 4th Quarter 2017 to 1st Quarter 2018



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% or 0.6 point to reach 104.6 in the first quarter 2018, from 102.7 in the fourth quarter 2017. This sector accounts for around 34% of the total weight of the wage rate index.

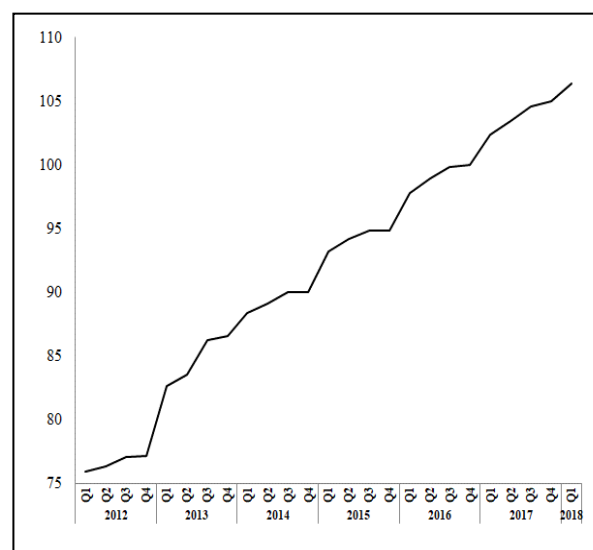
4. Past trend

Table 4 presents the quarterly indices from first quarter 2007 to first quarter 2018 with different base periods. As from 2017, the base period used is fourth quarter 2016.

To enable comparison between the two series, chain link series with fourth quarter 2016 as base has been worked out and is provided in Table 4. The series are not strictly comparable because of weighting patterns.

Chart 2 depicts the trend of the quarterly wage rate indices from 2011 to 2018. It shows a general upward movement in the index throughout the quarters. The increases in the 1st quarter 2013 and 1st quarter 2016 are mainly explained by salary revision in the Government Sector.

**Chart 2 – Wage rate indices,
1st quarter 2012 – 1st quarter 2018**
(Base: fourth quarter 2016=100)



5. Indices for the Private and Public sectors

The index for the private sector which accounts for around 54% of the total weight of the wage rate index increased by 0.8% or 0.8 point from 105.7 in the 4th quarter 2017 to 106.5 in the 1st quarter 2018. (Tables 6 & 7)

Compared to 1st quarter 2017, the index for the private sector which stood at 101.9, increased by 4.5% or 4.6 points. (Table 8)

The index for the public sector which comprises General Government and Public enterprises and accounting for around 46% of the wage rate index, increased by 2.0% or 2.1 points from 104.2 in the 4th quarter 2017 to 106.3 in the 1st quarter 2018. (Tables 9 & 10)

Compared to 1st quarter 2017, the index for the public sector which stood at 103.0, increased by 3.2% or 3.3 points. (Table 11)

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Table 1 - Quarterly Wage Rate Indices by industry group, Q1 - Q4 2017 and Q1 2018*(Base: fourth quarter 2016=100)*

Industry group	Weight	2017 ¹				2018 ²
		Q1	Q2	Q3	Q4	Q1
Agriculture, forestry and fishing	32	91.3	97.3	110.1	106.5	93.5
Mining and quarrying	3	101.6	103.2	105.3	105.6	106.5
Manufacturing	110	101.7	103.4	104.7	105.2	107.8
<i>Of which Sugar</i>	4	98.9	102.6	115.9	109.2	103.4
<i>Food (excluding sugar)</i>	17	101.8	102.7	104.9	105.2	105.4
<i>Textiles</i>	46	101.9	103.2	103.5	104.1	106.5
Electricity, gas, steam and air conditioning supply	16	101.6	101.9	102.8	103.7	105.8
Water supply; sewerage, waste management and remediation activities	8	103.7	107.3	108.0	108.8	117.7
Construction	38	102.3	103.6	103.9	104.3	104.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	73	102.7	104.0	104.9	106.0	107.8
Transportation and storage	69	102.3	103.0	104.1	104.3	105.5
Accommodation and food service activities	65	102.7	103.1	103.6	103.9	105.3
Information and communication	44	108.6	109.1	110.3	114.9	117.4
Financial and insurance activities	75	101.5	103.2	105.9	108.1	109.9
Real estate activities	4	100.6	103.4	103.9	104.4	107.0
Professional, scientific and technical activities	48	101.7	102.8	103.2	104.5	105.6
Administrative and support service activities	33	104.6	105.9	108.0	108.4	109.3
Public administration and defence; compulsory social security	181	102.7	102.7	103.1	102.5	104.6
Education	120	103.9	104.0	104.3	104.0	106.2
Human health and social work activities	69	101.4	102.4	102.3	102.7	104.3
Arts, entertainment and recreation	10	101.2	101.8	102.4	104.2	106.3
Other service activities	4	101.2	103.1	103.5	103.8	108.4
All sectors	1000	102.4	103.4	104.6	105.0	106.4
<i>of which General Government</i> ³	335	102.5	102.7	102.9	102.7	104.6

¹ Revised² Provisional³ Ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

Table 2 - Percentage change from previous quarter by industry group and contribution of industry groups to overall change in index, Q1 - Q4 2017 & Q1 2018

(Base: fourth quarter 2016=100)

Industry group	Weight	% change in index					Contribution to change in overall index point				
		2017 ¹				2018 ²	2017 ¹				2018 ²
		Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1
Agriculture, forestry and fishing	32	-8.7	6.6	13.2	-3.3	-12.2	-0.3	0.3	0.4	-0.1	-0.4
Mining and quarrying	3	1.6	1.6	2.0	0.3	0.9	0.0	0.0	0.0	0.0	0.0
Manufacturing	110	1.7	1.7	1.3	0.5	2.5	0.2	0.2	0.1	0.1	0.3
<i>Of which Sugar</i>	4	-1.1	3.7	13.0	-5.8	-5.3	0.0	0.0	0.1	0.0	0.0
<i>Food (excluding sugar)</i>	17	1.8	0.9	2.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0
<i>Textiles</i>	46	1.9	1.3	0.3	0.6	2.3	0.1	0.1	0.0	0.0	0.1
Electricity, gas, steam and air conditioning supply	16	1.6	0.3	0.9	0.9	2.0	0.0	0.0	0.0	0.0	0.0
Water supply; sewerage, waste management and remediation activities	8	3.7	3.5	0.7	0.7	8.2	0.0	0.0	0.0	0.0	0.1
Construction	38	2.3	1.3	0.3	0.4	0.6	0.1	0.0	0.0	0.0	0.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	73	2.7	1.3	0.9	1.0	1.7	0.2	0.1	0.1	0.1	0.1
Transportation and storage	69	2.3	0.7	1.1	0.2	1.2	0.2	0.0	0.1	0.0	0.1
Accommodation and food service activities	65	2.7	0.4	0.5	0.3	1.3	0.2	0.0	0.0	0.0	0.1
Information and communication	44	8.6	0.5	1.1	4.2	2.2	0.4	0.0	0.1	0.1	0.1
Financial and insurance activities	75	1.5	1.7	2.6	2.1	1.7	0.1	0.2	0.2	0.2	0.1
Real estate activities	4	0.6	2.8	0.5	0.5	2.5	0.0	0.0	0.0	0.0	0.0
Professional, scientific and technical activities	48	1.7	1.1	0.4	1.3	1.1	0.1	0.1	0.0	0.1	0.1
Administrative and support service activities	33	4.6	1.2	2.0	0.4	0.8	0.2	0.0	0.1	0.0	0.0
Public administration and defence; compulsory social security	181	2.7	0.0	0.4	-0.6	2.0	0.5	0.0	0.1	-0.1	0.4
Education	120	3.9	0.1	0.3	-0.3	2.1	0.4	0.0	0.0	0.0	0.3
Human health and social work activities	69	1.4	1.0	-0.1	0.4	1.6	0.1	0.1	0.0	0.0	0.1
Arts, entertainment and recreation	10	1.2	0.6	0.6	1.8	2.0	0.0	0.0	0.0	0.0	0.0
Other service activities	4	1.2	1.9	0.4	0.3	4.4	0.0	0.0	0.0	0.0	0.0
All sectors	1000	2.4	1.0	1.2	0.4	1.3	2.4	1.0	1.2	0.4	1.4
<i>of which General Government</i> ³	335	2.5	0.2	0.2	-0.2	1.9	0.8	0.1	0.1	-0.1	0.6

¹ Revised

² Provisional

³ Ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

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 2018 / Q1 2017

(Base: fourth quarter 2016=100)

Industrial group	Weight	% change	Change in overall Index point
		Q1 2018 ² / Q1 2017 ¹	
Agriculture, forestry and fishing	32	2.4	0.1
Mining and quarrying	3	4.8	0.0
Manufacturing	110	6.0	0.6
<i>Of which Sugar</i>	4	4.6	0.0
<i>Food (excluding sugar)</i>	17	3.5	0.1
<i>Textiles</i>	46	4.5	0.2
Electricity, gas, steam and air conditioning supply	16	4.1	0.1
Water supply, sewerage, waste management and remediation activities	8	13.5	0.1
Construction	38	2.5	0.1
Wholesale and retail trade; repair of motor vehicles and motorcycles	73	5.0	0.4
Transportation and storage	69	3.1	0.2
Accommodation and food service activities	65	2.5	0.2
Information and communication	44	8.1	0.4
Financial and insurance activities	75	8.3	0.6
Real estate activities	4	6.4	0.0
Professional, scientific and technical activities	48	3.8	0.2
Administrative and support service activities	33	4.5	0.2
Public administration and defence; compulsory social security	181	1.9	0.3
Education	120	2.2	0.3
Human health and social work activities	69	2.9	0.2
Arts, entertainment and recreation	10	5.0	0.1
Other services	4	7.1	0.0
All sectors	1000	3.9	4.0
<i>of which General Government</i> ³	335	2.0	0.7

¹ Revised

² Provisional

³ Ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

Table 4 - Quarterly Wage Rate Index, Q1 2007 - Q1 2018

Year	Quarterly index			
	Q1	Q2	Q3	Q4
<i>(Base: third quarter 2006=100)</i>				
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
<i>(Base: fourth quarter 2011=100)</i>				
2012	102.9	103.4	104.4	104.5
2013	112.0	113.2	116.9	117.3
2014	119.7	120.7	122.0	122.0
2015	126.3	127.6	128.5	128.5
2016	132.5	134.0	135.3	135.5
<i>(Base: fourth quarter 2016=100)</i>				
2017 ¹	102.4	103.4	104.6	105.0
2018 ²	106.4			

Table 5 - Quarterly and Yearly Wage Rate Index, Q1 2007 - Q1 2018*(Base: fourth quarter 2016=100)*

Year	Quarterly index				Year
	Q1	Q2	Q3	Q4	
2007	51.2	51.8	54.5	54.8	53.1
2008	55.4	55.6	65.3	64.9	60.3
2009	64.9	65.3	68.4	68.9	66.9
2010	69.5	70.3	72.1	72.2	71.0
2011	72.6	72.8	73.8	73.8	73.3
2012	75.9	76.3	77.0	77.1	76.6
2013	82.7	83.5	86.3	86.6	84.8
2014	88.3	89.1	90.0	90.0	89.4
2015	93.2	94.2	94.8	94.8	94.3
2016	97.8	98.9	99.9	100.0	99.2
2017 ¹	102.4	103.4	104.6	105.0	103.9
2018 ²	106.4				

¹ Revised ² Provisional

Table 6 - Quarterly Wage Rate Indices by main industry group for the Private sector, Q1 - Q4 2017 and Q1 2018*(Base: fourth quarter 2016=100)*

Industry group	Private Sector					
	Weight	2017 ¹				2018 ²
		Q1	Q2	Q3	Q4	Q1
All sectors	543	101.9	103.3	105.2	105.7	106.5
Of which:						
Agriculture, forestry and fishing	23	86.8	95.3	113.4	107.9	88.3
Manufacturing	110	101.7	103.4	104.7	105.2	107.8
Construction	30	101.6	103.3	103.7	104.1	104.2
Wholesale and retail trade; repair of motor vehicles and motorcycles	69	102.5	103.9	104.8	105.9	107.7
Transportation and storage	20	103.8	105.3	107.1	107.3	109.9
Accommodation and food service activities	65	102.7	103.1	103.6	103.9	105.3
Information and communication	27	101.5	101.6	102.7	103.0	103.6
Financial and insurance activities	50	101.9	103.2	106.3	109.6	110.5
Professional, scientific and technical activities	44	101.7	102.9	103.3	104.6	105.6
Administrative and support service activities	33	104.6	105.9	108.0	108.4	109.3
Education	46	105.3	105.4	106.1	105.3	108.3

¹ Revised² Provisional

Table 7 - Percentage change from previous quarter by main industry group and contribution of industry groups to overall change in index - Private Sector, Q1 - Q4 2017 & Q1 2018

(Base: fourth quarter 2016=100)

Industry group	Weight	% change in index					Contribution to change in overall index point				
		2017 ¹				2018 ²	2017 ¹				2018 ²
		Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1
All sectors	543	1.9	1.4	1.8	0.5	0.8	1.9	1.4	1.9	0.5	0.8
Of which:											
Agriculture, forestry and fishing	23	-13.2	9.8	19.0	-4.9	-18.2	-0.6	0.4	0.8	-0.2	-0.8
Manufacturing	110	1.7	1.7	1.3	0.5	2.5	0.3	0.3	0.3	0.1	0.5
Construction	30	1.6	1.7	0.4	0.4	0.1	0.1	0.1	0.0	0.0	0.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	69	2.5	1.4	0.9	1.0	1.7	0.3	0.2	0.1	0.1	0.2
Transportation and storage	20	3.8	1.4	1.7	0.2	2.4	0.1	0.1	0.1	0.0	0.1
Accommodation and food service activities	65	2.7	0.4	0.5	0.3	1.3	0.3	0.0	0.1	0.0	0.2
Information and communication	27	1.5	0.1	1.1	0.3	0.6	0.1	0.0	0.1	0.0	0.0
Financial and insurance activities	50	1.9	1.3	3.0	3.1	0.8	0.2	0.1	0.3	0.3	0.1
Professional, scientific and technical activities	44	1.7	1.2	0.4	1.3	1.0	0.1	0.1	0.0	0.1	0.1
Administrative and support service activities	33	4.6	1.2	2.0	0.4	0.8	0.3	0.1	0.1	0.0	0.1
Education	46	5.3	0.1	0.7	-0.8	2.8	0.4	0.0	0.1	-0.1	0.3

¹ Revised

² Provisional

Table 8 - Percentage change from corresponding quarter of the previous year by industry group and contribution of industry groups to overall change in index - Private Sector, Q1 2018 / Q1 2017

(Base: fourth quarter 2016=100)

Industrial group	Weight	% change	Change in overall Index point
		Q1 2018 ² / Q1 2017 ¹	
All sectors	543	4.5	4.6
Of which:			
Agriculture, forestry and fishing	23	1.7	0.1
Manufacturing	110	6.0	1.2
Construction	30	2.6	0.1
Wholesale and retail trade; repair of motor vehicles and motorcycles	69	5.1	0.7
Transportation and storage	20	5.9	0.2
Accommodation and food service activities	65	2.5	0.3
Information and communication	27	2.1	0.1
Financial and insurance activities	50	8.4	0.8
Professional, scientific and technical activities	44	3.8	0.3
Administrative and support service activities	33	4.5	0.3
Education	46	2.8	0.3

¹ Revised

² Provisional

Table 9 - Quarterly Wage Rate Indices by main industry group for the Public Sector, Q1 - Q4 2017 and Q1 2018*(Base: fourth quarter 2016=100)*

Industry group	Public Sector ¹					
	Weight	2017 ²				2018 ³
		Q1	Q2	Q3	Q4	Q1
All sectors	457	103.0	103.4	103.8	104.2	106.3
Of which:						
Electricity, gas, steam and air conditioning supply	15	101.5	101.6	102.5	103.7	105.7
Transportation and storage	49	101.7	102.1	102.8	103.0	103.8
Information and communication	17	120.0	121.1	122.5	133.8	139.4
Financial and insurance activities	25	100.6	103.3	105.0	105.0	108.6
Public administration and defence; compulsory social security	181	102.7	102.7	103.1	102.5	104.6
Education	73	103.0	103.1	103.2	103.1	104.8
Human health and social work activities	60	101.1	102.0	101.9	102.3	103.8

¹ Ministries, government departments and agencies operating under them;
municipalities; district councils, Rodrigues Regional Assembly and Public enterprises.

² Revised

³ Provisional

Table 10 - Percentage change from previous quarter by main industry group and contribution of industry groups to overall change in index - Public Sector¹, Q1 - Q4 2017 & Q1 2018

(Base: fourth quarter 2016=100)

Industry group	Weight	% change in index					Contribution to change in overall index point				
		2017 ²				2018 ³	2017 ²				2018 ³
		Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1
All sectors	457	3.0	0.4	0.4	0.4	2.0	3.0	0.4	0.4	0.4	2.1
Of which:											
Electricity, gas, steam and air conditioning supply	15	1.5	0.1	0.9	1.2	1.9	0.0	0.0	0.0	0.0	0.1
Transportation and storage	49	1.7	0.4	0.7	0.2	0.8	0.2	0.0	0.1	0.0	0.1
Information and communication	17	20.0	0.9	1.2	9.2	4.2	0.7	0.0	0.1	0.4	0.2
Financial and insurance activities	25	0.6	2.7	1.6	0.0	3.4	0.0	0.1	0.1	0.0	0.2
Public administration and defence; compulsory social security	181	2.7	0.0	0.4	-0.6	2.0	1.1	0.0	0.2	-0.2	0.8
Education	73	3.0	0.1	0.1	-0.1	1.6	0.5	0.0	0.0	0.0	0.3
Human health and social work activities	60	1.1	0.9	-0.1	0.4	1.5	0.1	0.1	0.0	0.1	0.2

¹ Ministries, government departments and agencies operating under them; municipalities; district councils, Rodrigues Regional Assembly and Public enterprises.

² Revised

³ Provisional

**Table 11 - Percentage change from corresponding quarter of the previous year by industry group and contribution of industry groups to overall change in index - Public Sector ¹,
Q1 2018 / Q1 2017**

(Base: fourth quarter 2016=100)

Industrial group	Weight	% change	Change in overall Index point
		Q1 2018 ³ / Q1 2017 ²	
All sectors	457	3.2	3.3
Of which:			
Electricity, gas, steam and air conditioning supply	15	4.1	0.1
Transportation and storage	49	2.1	0.2
Information and communication	17	16.2	0.7
Financial and insurance activities	25	8.0	0.4
Public administration and defence; compulsory social security	181	1.9	0.8
Education	73	1.7	0.3
Human health and social work activities	60	2.7	0.4

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

² Revised

³ 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 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 55% of total employment in year 2017. '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. Sectors covered

Indices are henceforth disseminated by the Public and Private sectors.

The **Public sector** comprises Ministries, Government departments and agencies operating under them; municipalities; district councils, the Rodrigues Regional Assembly and Public enterprises.

5. 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 2016. 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 base period, December 2016
 R_i^o = wage rate of occupation i in base period, December 2016
 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.

6. Reference period

The base period for the index is quarter 4 2016=100 as from the first quarter of 2017. 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.

7. Weights

Two sets of weights are used:

- (i) **Weight for the industry groups** derived from the ‘Survey of Employment & Earnings, March 2015’ and
- (ii) **Weight for occupations** within each activity (NSIC) sectorwise. Questionnaires were sent to around 1,200 large establishments at the end of March 2016 to cater for number employed in each category of occupation.

8. 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.