



# Economic and Social Indicators

Issue No 1710

**Wage Rate Index** 

4<sup>th</sup> Quarter and Year 2022

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## WAGE RATE INDEX (WRI)

(*Base: fourth quarter 2021 = 100*)

# Fourth Quarter and Year 2022

#### 1. Introduction

This issue of the Economic and Social Indicators (ESI) on wage rate index presents data for the fourth quarter and year 2022 using as base the fourth quarter of 2021 (Q<sub>4</sub> 2021=100).

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.

The methodology used for computing the index is given in the technical note at Annex 1.

Indices, presented here, are based on wage rates applicable during the month of December 2022.

### 2. Movement of the overall wage rate index

The Wage Rate Index increased by 0.4% or 0.4 point to reach 106.1 in fourth quarter 2022 from 105.7 in third quarter 2022 (Tables 1 and 2).

The wage rate indices for the first, second and third quarters 2022 stood at 102.3, 103.8 and 105.7 respectively.

# 3. Movement of the sub-indices, 3<sup>rd</sup> Quarter 2022 to 4<sup>th</sup> Quarter 2022

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

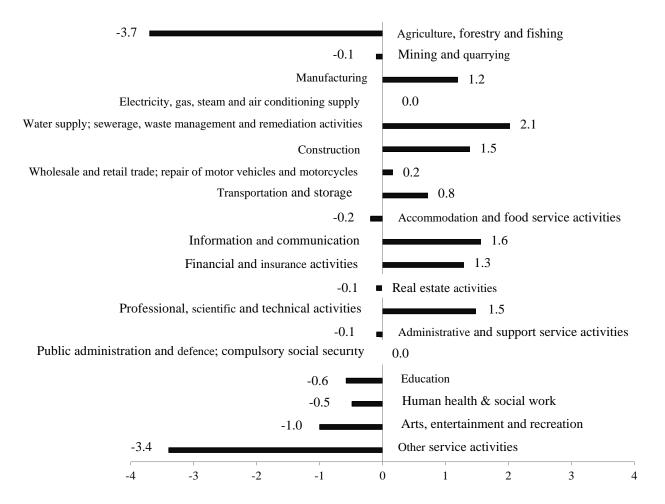
Information and communication	1.6%
Professional, scientific and technical activities	1.5%
Construction	1.5%
Financial and insurance activities	1.3%
Manufacturing	1.2%

#### Main decreases were as follows:

Agriculture, forestry and fishing	-3.7%
Education	-0.6%
Human health and social work activities	-0.5%

Decrease in "Agriculture, forestry and fishing" is due to off-peak season. Decreases in the other sectors were mainly due to changes in the mix of employees within occupations and decrease in regular allowances.

Chart 1: % Change in Wage Rate Index from 3<sup>rd</sup> Quarter 2022 to 4<sup>th</sup> Quarter 2022



The Wage Rate Index for the General Government sector, comprising Ministries, Government departments and agencies operating under them, municipalities, district councils and Rodrigues Regional Assembly decreased by 0.2% to reach 103.0 in fourth quarter, from 103.2 in third quarter 2022.

This sector accounts for around 34% of the total weight of the wage rate index.

#### 4. 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 0.7% or 0.7 point from 107.3 in third quarter 2022 to 108.0 in fourth quarter 2022 (Tables 5 & 6).

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 0.1% or 0.1 point from 103.8 in third quarter 2022 to 103.9 in fourth quarter 2022 (Tables 7 & 8).

## 5. Wage Rate Index, Year 2022

The wage rate index for year 2022, which is an average of the four quarters, worked out to 104.5 compared to 96.9 in 2021 (Table 1 & 4).

The indices for the private and public sectors for year 2022, which is an average of the four quarters, worked out to 105.3 and 103.4 respectively (Table 5 & 7).

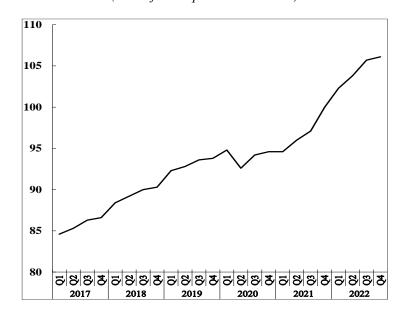
#### 6. Past trend

Table 3 presents the quarterly indices from first quarter 2012 to fourth quarter 2022 with different base periods. As from 2022, the base period is fourth quarter 2021.

To enable comparison between the two series, chain link series, with fourth quarter 2021 as base, have been worked out and are provided in Table 4.

Chart 2 depicts the trend of the quarterly wage rate index from 2017 to 2022 using fourth quarter 2021 as base period. It shows a general upward movement in the index throughout the period up to fourth quarter 2022 except for a decline in second quarter 2020. The sharp increase in fourth quarter 2021 is mainly explained by salary revision in the government sector.

Chart 2 - Wage Rate Index, 1<sup>st</sup> quarter 2017 – 4<sup>th</sup> quarter 2022 (Base: fourth quarter 2021=100)



Statistics Mauritius Ministry of Finance, Economic Planning and Development Port Louis

## 27 March 2023

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Table 1 - Quarterly Wage Rate Indices by industry, Q1 - Q4 2022 and Year 2022

Industry (section)		2022 1						
industry (section)	Weight	Q1	Q2	Q3	Q4	Year		
Agriculture, forestry and fishing	23	97.9	99.0	108.2	104.2	102.3		
Mining and quarrying	3	100.8	101.4	101.9	101.8	101.5		
Manufacturing	85	101.3	105.5	107.4	108.7	105.7		
of which Sugar	4	97.1	103.7	107.3	108.4	104.1		
Food (excluding sugar)	22	104.1	106.7	110.1	110.7	107.9		
Textiles	28	101.1	106.2	109.0	108.2	106.1		
Electricity, gas, steam and air conditioning supply	17	101.9	104.6	105.3	105.3	104.3		
Water supply; sewerage, waste management and remediation activities	8	103.2	106.7	106.8	109.0	106.4		
Construction	35	99.9	105.2	107.9	109.5	105.6		
Wholesale and retail trade; repair of motor vehicles and motorcycles	79	101.1	103.7	106.5	106.7	104.5		
Transportation and storage	68	99.9	103.6	105.5	106.3	103.8		
Accommodation and food service activities	63	101.1	103.0	105.0	104.8	103.5		
Information and communication	48	100.6	102.9	109.8	111.6	106.2		
Financial and insurance activities	83	100.9	102.3	105.9	107.3	104.1		
Real estate activities	6	104.7	104.7	106.5	106.4	105.6		
Professional, scientific and technical activities	57	105.0	106.2	108.3	109.9	107.4		
Administrative and support service activities	43	104.8	106.4	108.9	108.8	107.2		
Public administration and defence; compulsory social security	185	103.7	103.6	103.4	103.4	103.5		
Education	111	103.5	103.4	104.0	103.4	103.6		
Human health and social work activities	73	103.0	102.4	103.5	103.0	103.0		
Arts, entertainment and recreation	11	106.5	106.2	110.2	109.1	108.0		
Other service activities	4	102.7	104.2	103.1	99.6	102.4		
All sectors	1000	102.3	103.8	105.7	106.1	104.5		
of which General Government <sup>2</sup>	336	103.2	103.2	103.2	103.0	103.2		

<sup>&</sup>lt;sup>1</sup> Provisional

<sup>&</sup>lt;sup>2</sup> Ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

Table 2 - Percentage change from previous quarter and contribution to overall change in index by industry,  $$\rm Q1$  -  $\rm Q4~2022$ 

	jourin qui			e in in	Contribution to change in overall index point				
Industry (section)	Weight				,	2022 1			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Agriculture, forestry and fishing	23	-2.1	1.1	9.3	-3.7	-0.05	0.02	0.20	-0.08
Mining and quarrying	3	0.8	0.6	0.5	-0.1	0.00	0.00	0.00	0.00
Manufacturing	85	1.3	4.1	1.8	1.2	0.11	0.34	0.15	0.12
of which Sugar	4	-2.9	6.8	3.5	1.0	-0.01	0.03	0.01	0.00
Food (excluding sugar)	22	4.1	2.5	3.2	0.5	0.09	0.06	0.08	0.01
Textiles	28	1.1	5.0	2.6	-0.7	0.03	0.14	0.08	-0.02
Electricity, gas, steam and air conditioning supply	17	1.9	2.6	0.7	0.0	0.03	0.04	0.01	0.00
Water supply; sewerage, waste management and remediation activities	8	3.2	3.4	0.1	2.1	0.03	0.03	0.00	0.02
Construction	35	-0.1	5.3	2.6	1.5	0.00	0.18	0.09	0.07
Wholesale and retail trade; repair of motor vehicles and motorcycles	79	1.1	2.6	2.7	0.2	0.09	0.21	0.21	0.02
Transportation and storage	68	-0.1	3.7	1.8	0.8	-0.01	0.25	0.12	0.06
Accommodation and food service activities	63	1.1	1.9	1.9	-0.2	0.07	0.12	0.12	-0.01
Information and communication	48	0.6	2.3	6.7	1.6	0.03	0.11	0.32	0.10
Financial and insurance activities	83	0.9	1.4	3.5	1.3	0.07	0.12	0.29	0.13
Real estate activities	6	4.7	0.0	1.7	-0.1	0.03	0.00	0.01	0.00
Professional, scientific and technical activities	57	5.0	1.1	2.0	1.5	0.30	0.07	0.12	0.10
Administrative and support service activities	43	4.8	1.5	2.3	-0.1	0.20	0.07	0.11	0.00
Public administration and defence; compulsory social security	185	3.7	-0.1	-0.2	0.0	0.69	-0.02	-0.04	0.00
Education	111	3.5	-0.1	0.6	-0.6	0.40	-0.01	0.07	-0.07
Human health and social work activities	73	3.0	-0.6	1.1	-0.5	0.23	-0.04	0.08	-0.04
Arts, entertainment and recreation	11	6.5	-0.3	3.8	-1.0	0.07	0.00	0.04	-0.01
Other service activities	4	2.7	1.5	-1.1	-3.4	0.01	0.01	0.00	-0.01
All sectors	1000	2.3	1.5	1.8	0.4	2.30	1.50	1.90	0.40
of which General Government <sup>2</sup>	336	3.2	0.0	0.0	-0.2	1.07	0.00	0.00	-0.07

<sup>&</sup>lt;sup>1</sup> Provisional

<sup>&</sup>lt;sup>2</sup> Ministries, government departments and agencies operating under them; municipalities; district councils and Rodrigues Regional Assembly

Table 3 - Quarterly Wage Rate Indices, Q1 2012 - Q4 2022

Voor	Quarterly indices								
Year	Q1	Q2	Q3	Q4					
	(Base	: fourth quarter 20	)11 = 100)						
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					
		: fourth quarter 20							
2017	102.4	103.3	104.5	104.9					
2018	107.1	108.0	109.0	109.4					
2019	111.8	112.4	113.4	113.6					
2020	114.8	112.1	114.1	114.5					
2021	114.6	116.2	117.6	121.1					
	(Base	: fourth quarter 20	021 = 100						
2022 1	102.3	103.8	105.7	106.1					

Table 4 - Quarterly and Yearly Wage Rate Indices, 2012 - 2022

Year	Quarterly indices						
1 Cai	Q1	Q2	Q3	Q4	Indices		
2012	62.7	63.0	63.6	63.7	63.3		
2013	68.3	69.0	71.3	71.5	70.0		
2014	72.9	73.6	74.3	74.3	73.8		
2015	77.0	77.8	78.3	78.3	77.9		
2016	80.8	81.7	82.5	82.6	81.9		
2017	84.6	85.3	86.3	86.6	85.7		
2018	88.4	89.2	90.0	90.3	89.5		
2019	92.3	92.8	93.6	93.8	93.1		
2020	94.8	92.6	94.2	94.6	94.1		
2021	94.6	96.0	97.1	100.0	96.9		
2022 1	102.3	103.8	105.7	106.1	104.5		

<sup>&</sup>lt;sup>1</sup> Provisional

Table 5 - Quarterly Wage Rate Indices by main industry for the Private Sector, Q1 - Q4 2022 and Year 2022

				Private sector	•					
Industry (section)	Weight	2022 1								
	Weight	Q1	Q2	Q3	Q4	Year				
All sectors	543	101.7	104.2	107.3	108.0	105.3				
of which										
Agriculture, forestry and fishing	17	96.8	97.7	109.8	105.6	102.5				
Manufacturing	84	101.3	105.5	107.5	108.9	105.8				
Construction	30	99.2	105.1	108.6	110.5	105.9				
Wholesale and retail trade; repair of motor vehicles and motorcycles	75	101.4	103.9	107.0	107.2	104.9				
Transportation and storage	20	102.5	105.2	107.6	107.6	105.7				
Accommodation and food service activities	63	101.1	103.0	105.0	104.8	103.5				
Information and communication	29	98.2	101.1	112.5	115.7	106.9				
Financial and insurance activities	60	100.8	100.6	105.0	106.2	103.2				
Professional, scientific and technical activities	52	105.5	106.8	109.0	110.6	108.0				
Administrative and support service activities	43	104.8	106.4	108.9	108.8	107.2				
Education	45	104.5	103.9	104.4	103.8	104.2				

Table 6 - Percentage change from previous quarter and contribution to overall change in index by main industry for the Private Sector, Q1 - Q4 2022

Industria (section)		%	chang	ge in inc	dex	Contribution to change in overall index point					
Industry (section)	Weight	Veight 2022 <sup>1</sup>									
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
All sectors	543	1.7	2.5	3.0	0.7	0.92	1.35	1.68	0.38		
of which											
Agriculture, forestry and fishing	17	-3.2	0.9	12.4	-3.8	-0.06	0.02	0.21	-0.07		
Manufacturing	84	1.3	4.1	1.9	1.3	0.11	0.34	0.16	0.11		
Construction	30	-0.8	5.9	3.3	1.7	-0.02	0.17	0.10	0.06		
Wholesale and retail trade; repair of motor vehicles and motorcycles	75	1.4	2.5	3.0	0.2	0.11	0.19	0.23	0.02		
Transportation and storage	20	2.5	2.6	2.3	0.0	0.05	0.05	0.05	0.00		
Accommodation and food service activities	63	1.1	1.9	1.9	-0.2	0.07	0.12	0.13	-0.01		
Information and communication	29	-1.8	3.0	11.3	2.8	-0.05	0.08	0.33	0.09		
Financial and insurance activities	60	0.8	-0.2	4.4	1.1	0.05	-0.01	0.26	0.07		
Professional, scientific and technical activities	52	5.5	1.2	2.1	1.5	0.28	0.07	0.11	0.08		
Administrative and support service activities	43	4.8	1.5	2.3	-0.1	0.20	0.07	0.11	0.00		
Education	45	4.5	-0.6	0.5	-0.6	0.20	-0.03	0.02	-0.03		

<sup>&</sup>lt;sup>1</sup> Provisional

Table 7 - Quarterly Wage Rate Indices by main industry for the Public Sector <sup>1</sup>, Q1 - Q4 2022 and Year 2022

				Public Sector 1	l						
Industry (section)	Weight	eight 2022 <sup>2</sup>									
		Q1	Q2	Q3	Q4	Year					
All sectors	457	102.5	103.5	103.8	103.9	103.4					
of which											
Electricity, gas, steam and air conditioning supply	15	101.9	104.3	105.1	105.2	104.1					
Transportation and storage	49	98.9	102.9	104.7	105.8	103.1					
Information and communication	19	104.4	105.8	105.6	105.2	105.3					
Financial and insurance activities	23	101.3	106.5	108.2	110.2	106.6					
Public administration and defence; compulsory social security	185	103.7	103.6	103.4	103.4	103.5					
Education	66	102.8	103.1	103.7	103.2	103.2					
Human health and social work activities	67	102.5	101.9	102.4	102.0	102.2					

Table 8 - Percentage change from previous quarter and contribution to overall change in index by main industry for the Public Sector<sup>1</sup>, Q1 - Q4 2022

Industry (section)		%	change	in in	dex	Contribution to change in overall index point			
mustry (section)	Weight				2	022 2			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
All sectors	457	2.5	1.0	0.3	0.1	1.14	0.46	0.14	0.05
of which									
Electricity, gas, steam and air conditioning supply	15	1.9	2.4	0.8	0.1	0.03	0.04	0.01	0.00
Transportation and storage	49	-1.1	4.0	1.7	1.1	-0.05	0.19	0.09	0.05
Information and communication	19	4.4	1.3	-0.2	-0.4	0.08	0.03	0.00	-0.01
Financial and insurance activities	23	1.3	5.1	1.6	1.8	0.03	0.12	0.04	0.05
Public administration and defence; compulsory social security	185	3.7	-0.1	-0.2	0.0	0.68	-0.02	-0.04	0.00
Education	66	2.8	0.3	0.6	-0.5	0.19	0.02	0.04	-0.03
Human health and social work activities	67	2.5	-0.6	0.5	-0.4	0.17	-0.04	0.03	-0.03

<sup>&</sup>lt;sup>1</sup> Ministries, government departments and agencies operating under them; municipalities; district councils, Rodrigues Regional Assembly and Public enterprises

<sup>&</sup>lt;sup>2</sup> 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. Adopted approach

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 59% of total employment in year 2021. '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.

The frame consists of a list of around 2500 'large' establishments as at March 2021. Establishments were stratified according to industry and arranged in order of size, i.e., the number of employees, within the industrial group. Within the strata, selection was proportional to size of establishment. A sample of about 12% was surveyed, representing some 300 establishments. 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 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 2021. 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

$$I_{t} = \frac{\sum w_{i} (R_{i}^{t} / R_{i}^{o})}{\sum w_{i}} X 100$$

where  $I_t$  = index for quarter t compared to base period o

 $w_i = N^o_i R^o_i$  which represents the total wages paid to all employees in the i <sup>th</sup> occupation base period, December 2021

R<sub>i</sub>° = wage rate of occupation i in base period, December 2021

 $R_i^t$  = 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 2021 (i.e. Quarter 4, 2021=100) as from the first quarter of 2022. 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 2020' and
- (ii) *Weight for occupations* within each activity (NSIC) sectorwise. Questionnaires were sent to around 2,500 large establishments at the end of March 2021 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.

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