



Ghana Statistical Service
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Newsletter

Quarterly Gross Domestic Product (QGDP)

Third Quarter 2023



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Contents

1. Main points
2. Things you need to note about this release
3. Quarterly real GDP growth: July to September 2023
4. Real quarterly gross domestic product: July to September 2023
5. Nominal quarterly gross domestic product: July to September 2023
6. Sectoral shares of third quarter 2023 GDP
7. Seasonally Adjusted GDP
8. Appendix 1- Quarterly gross domestic product at current prices by economic activity and respective sectoral distribution
9. Appendix 2- Quarterly value added and GDP at constant 2013 prices by economic Activity
10. Appendix 3 - Seasonally adjusted quarterly value added and Gross Domestic Product at Constant 2013 prices by economic activity

Main highlights

- Ghana provisional real Gross Domestic Product (GDP) in volume terms was estimated to have increased by 2.0% in quarter three (July to September) of 2023 compared to the same period in 2022.
- When seasonally adjusted, Ghana real GDP increased by 0.5 % in quarter three (July to September) of 2023; a 0.2 percentage point lower than what was recorded in quarter two (April to June) of 2023.
- Crops, Information & Communication, Transport & Storage, Manufacturing, Trade; Repair of Vehicle & Household Goods, Accommodation and food service activities, were the main drivers of GDP growth for the third quarter of 2023.
- Main sub-sectors with more than 10 percent growth rate in quarter three of 2023 are:
 1. Information & Communication (17.3%).
 2. Accommodation and food service activities (11.2%).
- Four sub-sectors which contracted in quarter three of 2023 are:
 1. Construction (-8.3%).
 2. Mining and Quarrying (-8.1%).
 3. Forestry & Logging (-6.9%).
 4. Electricity (-1.8%).

Things you need to note about this release.

Gross Domestic Product (GDP) growth is the main indicator of economic performance. There are three approaches used to measure GDP: the output approach, the expenditure approach, and the income approach.

This Statistical Release contains independently compiled quarterly estimates of the Gross Domestic Product (GDP) for the 3rd quarter of 2023 using the production approach. The estimates are based on the 2008 System of National Accounts (SNA), the International Standard Industrial Classification (Rev.4) published by the United Nations, and the Quarterly National Accounts Manual: Concepts, Data Sources and Compilation prepared by the International Monetary Fund (IMF). This means that the methodology, concepts, and classifications are in accordance with the guidelines and recommendations of an internationally agreed system of national accounts. The estimates of real GDP are expressed in terms of the base year, 2013. The Annual GDP estimates are derived independent of the quarterly estimates. Short-term indicators are used to estimate the quarterly GDP (see IMF's Quarterly National Accounts Manual: Concepts, Data Sources and Compilation) and benchmarked to the annual GDP.

Current or Nominal GDP is the value of final goods and services evaluated at current quarter prices.

Constant or Real GDP is the value of final goods and services evaluated at base year prices. In Ghana, the base year is 2013. By using the prices from the base-year (or holding prices constant over time), we eliminate the impact of rising prices on GDP to get a measure of “Real” economic activity.

Seasonal Adjustment

The quarterly value added, and GDP estimates have been seasonally adjusted. Seasonal adjustment is the process of estimating and removing seasonal effects from time series to reveal non-seasonal features. This process provides a clearer view of short-term movements and trends and allows early identification of turning points.

Revision Policy

While most revisions are made to the four most recent quarters of the series, there is no restriction on when an estimate of the quarterly series for a given period can be revised. The main causes of revisions are:

- a) Incorporation of additional and improved data: Most revisions reflect the incorporation of a wider range of data. Some data that was not available at the release date are incorporated through revisions into subsequent releases.
- b) Reconciliation of quarterly and annual measures: The process of reconciling the quarterly measures with the annual measures can lead to further revisions. The quarterly measures of these series are based on a smaller range of data than the annual measures.
- c) The rebased provisional quarterly GDP estimates may be revised further and finalized based on the availability of additional data. The next revision of the quarterly and annual GDP estimates will be in April 2024.

Related Publications

Users may refer to other publications on GDP on the **GSS website:** www.statsghana.gov.gh

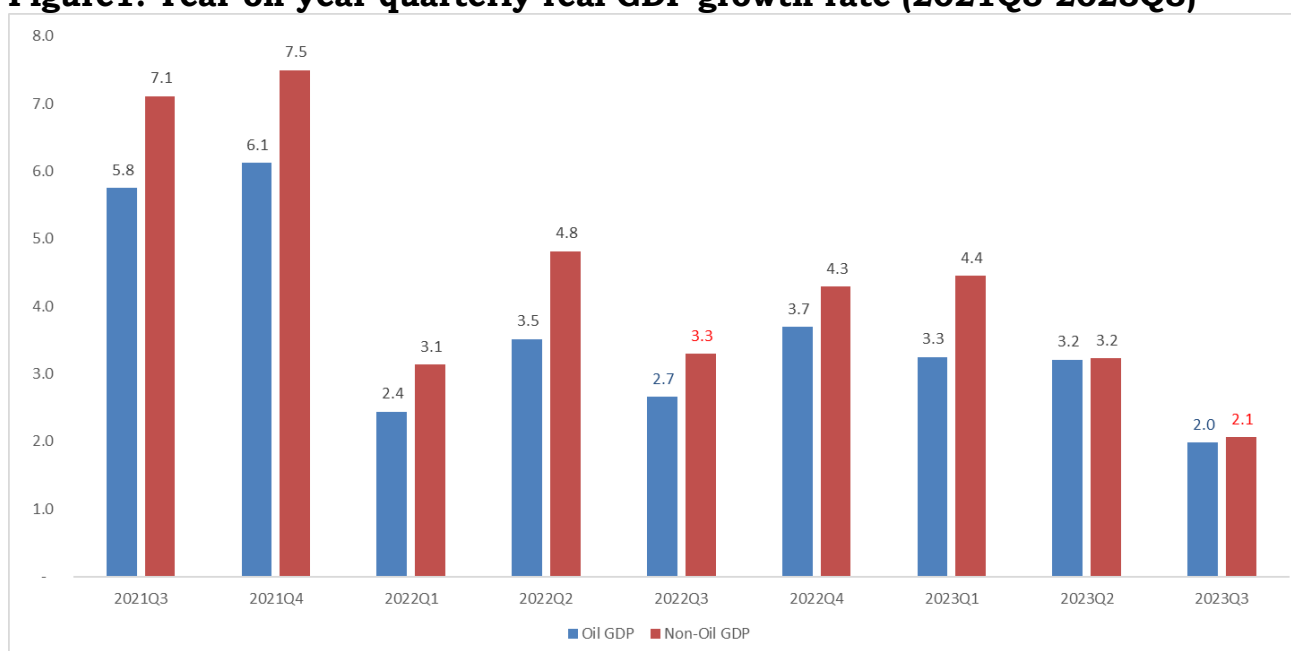
Quarterly real GDP growth: July to September 2023

Provisional real quarterly gross domestic product (QGDP) growth rate including Oil and Gas, is 2.0% (year on year) in the third quarter of 2023. In the same period of 2022, the growth was 2.7%.

GDP growth rate without oil and gas (Non-Oil GDP) for third quarter of 2023 is 2.1% which compares to the same period in 2022 with a growth rate of 3.3%.

The agriculture sector recorded the highest growth of 5.9%, followed by the services sector at 5.5% while the industry sector recorded a contraction of 4.3 percent.

Figure1: Year-on-year quarterly real GDP growth rate (2021Q3-2023Q3)



Real quarterly gross domestic product: July to September 2023

The **GDP** (Including Oil & Gas) estimate at constant 2013 prices for the 3rd quarter of 2023 was **GH¢44,743.0 million** compared to **GH¢43,870.9 million** in the 3rd quarter of 2022.

The **Non-oil GDP** at constant 2013 prices for the 3rd quarter of 2023 was **GH¢41,911.9 million** compared to **GH¢41,065.5 million** in the 3rd quarter of 2022.

Table1: Year-on-year quarterly growth rates in 3rd quarter of 2023

Sector	Expanding sub-sectors		Contracting sub-sectors	
Agriculture (5.9%)	Crops and cocoa	7.2%	Forestry & Logging	-6.9%
	Livestock	7.0%		
	Fishing	0.7%		
Industry (-4.3%)	Water Supply, Sewerage, Waste Management & Remediation Activities	9.4%	Construction	-8.3%
	Manufacturing	2.1%	Mining & Quarrying	- 8.1%
			Electricity	-1.8%
Services (5.5%)	Information & Communication	17.3%		
	Accommodation and food service activities	11.2%		
	Other Personal Service Activities	7.3%		
	Professional, Administrative & Support	7.1%		
	Transport & Storage	6.2%		
	Real Estate	5.1%		
	Health & Social Work	3.5%		
	Trade; Repair of Vehicle, Household Goods	2.4%		
	Education	1.4%		
	Public Administration Defense, Social Security	1.3%		
Finance & Insurance	0.9%			

Nominal quarterly gross domestic product: July to September 2023

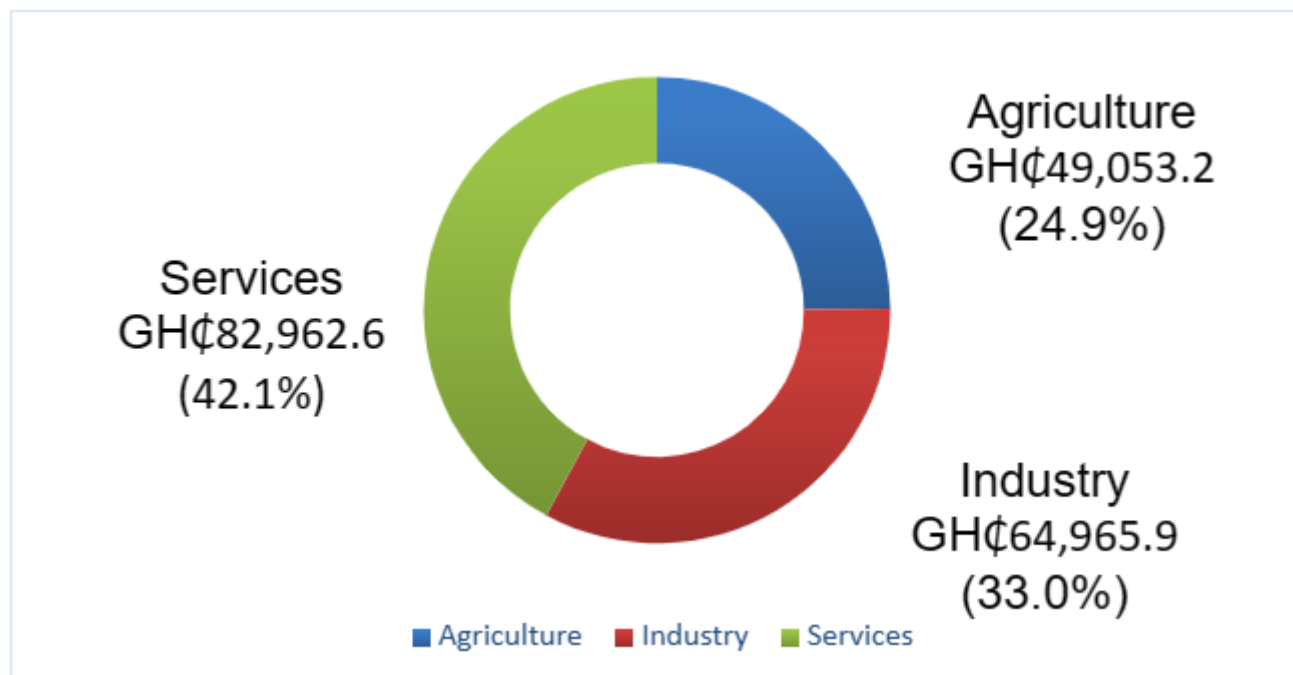
The GDP estimate at current prices in purchaser's value for the 3rd quarter of 2023 was **GH¢212,360.1 million** compared to **GH¢152,394.8 million** in the 3rd quarter of 2022.

The **Non-oil GDP** (GDP without Oil and Gas) estimate at current prices for the 3rd quarter of 2023 was **GH¢199,546.6 million** compared to **GH¢142,537.9 million** in the 3rd quarter of 2022.

GDP sectoral shares

The Services sector continues to be the largest sector of the Ghanaian economy in the third quarter of 2023 with a share of 42.1 percent of GDP at basic prices. The GDP share of Industry and Agriculture were 33.0 percent and 24.9 percent respectively.

Figure 2: Sectoral distribution of nominal GDP at basic prices



Seasonally Adjusted GDP

The provisional quarter-on-quarter¹ seasonally adjusted Real Gross Domestic Product (including Oil) growth rate for the 3rd quarter of 2023 was 0.5 percent.

For the 3rd quarter of 2023, the quarter-on-quarter seasonally adjusted growth rates (see Table 2) were as result of the following major activities:

The Agriculture sector expanded by 1.3 percent in the 3rd quarter of 2023, maintaining the same rate as in the 2nd quarter of 2023. In the third quarter of 2023, the growth of Crops & Cocoa sub-sector expanded by 0.2 percentage points, growing at 1.5 percent compared to 1.3 percent in the 2nd quarter of 2023. The Forestry and Logging sub-sector contracted further to -1.8 percent in the 3rd quarter of 2023 compared to -1.1 percent in the 2nd quarter of 2023.

¹ Quarter-on-quarter GDP estimates provide a short term (within three months) picture of current economic developments. Estimates are influenced by seasonal patterns that are caused by economic behavior or recurrent exogenous factors such as weather patterns, holidays, religious events, festive seasons, etc.

Within the Industry sector which grew at -1.1 percent (quarter on quarter), the Water Supply, Sewerage, Waste Management & Remediation Activities grew at 3.0 percent in the 3rd quarter of 2023 compared to -0.6 percent in 2nd quarter of 2023. Mining & Quarrying sub-sector declined from 0.8 percent in the 2nd quarter of 2023, to -2.1 percent in the 3rd quarter of 2023. Construction activities continued to contract since 2022 quarter 3.

All subsectors within the Services sector expanded resulting in the sector's growth of 1.3 percent in the 3rd quarter. The highest expansion was seen in the Information & Communication sub-sector with a growth of 4.1 percent in the 3rd quarter of 2023. The growth in Finance & Insurance activities (0.2%) was the least.

Table 2: Quarter-on-quarter seasonally adjusted growth rates in 2023Q3

Sector	Expanding sub-sectors	Contracting sub-sectors
Agriculture (1.3%)	Crops 1.5%	Forestry & Logging -1.8%
	Livestock 1.4%	
	Fishing 0.2%	
Industry (-1.1%)	Water Supply, Sewerage, Waste Management & Remediation Activities 3.0 %	Construction -2.1%
	Manufacturing 0.5%	Mining & Quarrying -2.1%
		Electricity -0.5%
Services (1.3%)	Information & Communication 4.1%	
	Professional, Administrative & Support 2.2%	
	Accommodation and food service activities 2.0%	
	Other Personal Service Activities 1.6%	
	Transport and Storage 1.6%	
	Real Estate 1.5%	
	Health & Social Work 0.9%	
	Trade; Repair of Vehicles, Household Goods 0.5%	
	Education 0.4%	
	Public Administration & Defense, Social Security 0.3%	
	Finance & Insurance 0.2%	

Appendix 1- Quarterly Gross Domestic Product at current prices by economic activity and respective sectoral distribution

Year Quarter	Value Added (GHc Million)								% of GDP (@ basic prices)				
	Agriculture	Industry	Services	Total Value Added (GDP @_basic prices)	Net indirect Taxes	Total (GDP in purchaser's value)	ow InformalGDP in purchaser's value	Total Non-Oil (GDP in purchaser's value)	Agriculture	Industry	Services	Total Value Added (GDP @_basic prices)	ow Informal GDP in purchaser's value
2013_Q1	6,698.2	11,056.7	10,733.0	28,487.9	1,319.6	29,807.5	9,155.8	28,038.9	23.5	38.8	37.7	100.0	30.7
2013_Q2	5,521.8	10,753.2	12,632.2	28,907.2	1,507.6	30,414.8	8,289.1	28,715.7	19.1	37.2	43.7	100.0	27.3
2013_Q3	5,933.7	10,335.5	12,666.1	28,935.2	1,514.2	30,449.4	8,646.8	28,924.8	20.5	35.7	43.8	100.0	28.4
2013_Q4	7,202.2	10,288.8	14,492.4	31,983.5	1,822.4	33,805.9	10,196.4	32,149.4	22.5	32.2	45.3	100.0	30.2
2014_Q1	8,008.4	10,889.4	11,653.6	30,551.4	3,189.8	33,741.2	10,558.9	32,301.4	26.2	35.6	38.1	100.0	31.3
2014_Q2	6,749.9	12,717.3	14,930.9	34,398.1	3,358.4	37,756.5	9,973.4	35,475.4	19.6	37.0	43.4	100.0	26.4
2014_Q3	7,356.8	15,459.3	16,912.4	39,728.6	3,671.1	43,399.7	11,138.6	40,426.8	18.5	38.9	42.6	100.0	25.7
2014_Q4	8,961.1	14,725.0	15,872.6	39,558.8	4,227.8	43,786.6	12,525.7	40,924.6	22.7	37.2	40.1	100.0	28.6
2015_Q1	9,528.0	13,111.5	17,669.7	40,309.2	3,652.8	43,962.1	13,105.1	42,016.2	23.6	32.5	43.8	100.0	29.8
2015_Q2	7,885.1	15,330.2	18,629.0	41,844.3	3,602.4	45,446.7	11,785.8	44,003.5	18.8	36.6	44.5	100.0	25.9
2015_Q3	8,712.4	13,938.0	18,115.6	40,766.0	3,776.1	44,542.1	12,441.7	43,680.7	21.4	34.2	44.4	100.0	27.9
2015_Q4	10,547.8	14,732.3	19,941.5	45,221.7	4,353.0	49,574.7	14,686.6	49,133.4	23.3	32.6	44.1	100.0	29.6
2016_Q1	12,099.8	14,969.4	22,294.6	49,363.8	3,801.2	53,165.0	16,582.3	53,070.6	24.5	30.3	45.2	100.0	31.2
2016_Q2	9,690.3	14,882.7	23,556.0	48,129.0	4,355.5	52,484.5	14,364.4	52,440.4	20.1	30.9	48.9	100.0	27.4
2017_Q2	10,039.7	19,210.8	29,674.0	58,924.5	4,331.0	63,255.5	15,792.4	61,179.2	17.0	32.6	50.4	100.0	25.0
2017_Q3	12,689.8	21,206.5	29,499.0	63,395.2	4,843.1	68,238.3	18,555.6	65,330.0	20.0	33.5	46.5	100.0	27.2
2017_Q4	16,199.7	19,895.0	27,679.1	63,773.8	5,261.4	69,035.1	21,647.0	66,361.0	25.4	31.2	43.4	100.0	31.4
2018_Q1	15,053.6	24,271.9	32,874.8	72,200.3	5,242.7	77,443.0	21,286.2	72,938.6	20.8	33.6	45.5	100.0	27.5
2018_Q2	12,228.9	23,411.1	31,201.3	66,841.3	4,917.0	71,758.3	18,142.1	67,897.1	18.3	35.0	46.7	100.0	25.3
2018_Q3	12,983.5	25,402.2	35,007.9	73,393.6	5,368.0	78,761.7	19,791.2	74,147.8	17.7	34.6	47.7	100.0	25.1
2018_Q4	15,701.0	23,125.5	35,702.4	74,528.9	6,095.5	80,624.4	22,502.7	76,632.8	21.1	31.0	47.9	100.0	27.9
2019_Q1	17,536.5	26,376.3	38,436.5	82,349.4	5,752.2	88,101.5	24,127.3	82,086.7	21.3	32.0	46.7	100.0	27.4
2019_Q2	13,595.0	26,911.4	39,874.0	80,380.4	5,528.6	85,909.0	20,531.7	80,556.8	16.9	33.5	49.6	100.0	23.9
2019_Q3	14,227.0	29,533.8	41,504.1	85,264.8	5,691.6	90,956.4	21,683.5	85,495.6	16.7	34.6	48.7	100.0	23.8
2019_Q4	16,406.5	28,091.3	41,133.6	85,631.4	5,945.9	91,577.3	23,708.5	87,070.5	19.2	32.8	48.0	100.0	25.9
2020_Q1	19,957.3	29,326.4	46,717.8	96,001.5	4,589.2	100,590.7	29,125.4	96,590.2	20.8	30.5	48.7	100.0	29.0
2020_Q2	17,508.8	27,587.8	38,159.4	83,256.0	5,218.7	88,474.7	24,027.4	85,869.6	21.0	33.1	45.8	100.0	27.2
2020_Q3	17,129.9	29,668.3	42,528.7	89,326.9	7,012.3	96,339.1	22,928.4	92,699.6	19.2	33.2	47.6	100.0	23.8
2020_Q4	19,299.7	30,516.6	49,705.0	99,521.4	7,014.9	106,536.2	25,332.7	102,988.5	19.4	30.7	49.9	100.0	23.8
2021_Q1	21,500.9	33,326.6	53,472.2	108,299.7	5,723.1	114,022.8	28,747.8	109,446.5	19.9	30.8	49.4	100.0	25.2
2021_Q2	20,499.4	30,144.0	45,451.0	96,094.3	6,852.7	102,947.0	26,553.3	97,865.0	21.3	31.4	47.3	100.0	25.8
2021_Q3	22,277.4	32,882.4	51,686.1	106,846.0	7,740.2	114,586.1	29,250.0	109,117.8	20.9	30.8	48.4	100.0	25.5
2021_Q4	26,479.9	34,791.5	58,640.2	119,911.5	10,227.4	130,139.0	34,328.1	124,184.2	22.1	29.0	48.9	100.0	26.4
2022_Q1*	26,941.3	44,110.4	62,409.2	133,460.9	7,655.1	141,116.0	35,998.1	133,234.5	20.2	33.1	46.8	100.0	25.5
2022_Q2*	26,799.4	40,486.6	54,243.1	121,529.0	9,128.5	130,657.5	34,580.5	121,411.4	22.1	33.3	44.6	100.0	26.5
2022_Q3*	33,073.7	48,031.9	60,978.5	142,084.1	10,310.7	152,394.8	42,125.6	142,537.9	23.3	33.8	42.9	100.0	27.6
2022_Q4*	38,559.4	56,615.9	78,818.4	173,993.7	12,060.2	186,053.9	49,554.7	180,099.2	22.2	32.5	45.3	100.0	26.6
2023_Q1*	40,653.7	64,128.1	93,640.5	198,422.2	12,513.5	210,935.7	54,498.1	200,169.6	20.5	32.3	47.2	100.0	25.8
2023_Q2*	38,745.8	56,382.4	76,503.6	171,631.9	13,986.9	185,618.8	50,052.2	175,124.4	22.6	32.9	44.6	100.0	27.0
2023_Q3**	49,053.2	64,965.9	82,962.6	196,981.7	15,378.4	212,360.1	61,598.2	199,546.6	24.9	33.0	42.1	100.0	29.0

*revised ** provisional

Appendix 2 - Quarterly value added and GDP at constant 2013 prices by economic activity

Year	Quarterly Value Added (GHc Million)					Year-on-Year change (%)								
	Agriculture	Industry	Services	Total Value Added (GDP @ basic prices)	Net indirect Taxes	Total (Oil GDP in purchaser's value)	Informal GDP in purchaser's value	Total (Non Oil GDP)***	Agriculture	Industry	Services	Total (Oil GDP)***	Informal GDP in purchaser's value	Total (Non-oil GDP)*
2013_Q1	6,698.2	11,056.7	10,733.0	28,487.9	1,319.6	29,807.5	9,155.8	28,038.9						
2013_Q2	5,521.8	10,753.2	12,632.2	28,907.2	1,507.6	30,414.8	8,289.1	28,715.7						
2013_Q3	5,933.7	10,335.5	12,666.1	28,935.2	1,514.2	30,449.4	8,646.8	28,924.8						
2013_Q4	7,202.2	10,288.8	14,492.4	31,983.5	1,822.4	33,805.9	10,196.4	32,149.4						
2014_Q1	6,594.6	9,859.3	11,780.5	28,234.3	1,243.8	29,478.1	9,206.1	27,670.0	-1.5	-10.8	9.8	-1.1	0.5	-1.3
2014_Q2	5,534.3	10,803.0	13,432.7	29,770.0	1,549.1	31,319.1	8,432.7	29,627.1	0.2	0.5	6.3	3.0	1.7	3.2
2014_Q3	6,065.7	11,178.2	13,825.6	31,069.5	1,761.0	32,830.5	9,034.1	31,013.8	2.2	8.2	9.2	7.8	4.5	7.2
2014_Q4	7,389.6	11,073.6	14,115.4	32,578.6	1,826.6	34,405.3	10,412.7	32,455.8	2.6	7.6	-2.6	1.8	2.1	1.0
2015_Q1	6,818.0	10,852.6	13,698.7	31,369.4	1,298.9	32,668.3	9,814.2	30,825.5	3.4	10.1	16.3	10.8	6.6	11.4
2015_Q2	5,575.5	11,129.0	13,985.7	30,690.2	1,653.0	32,343.2	8,651.2	30,582.9	0.7	3.0	4.1	3.3	2.6	3.2
2015_Q3	6,161.5	10,456.1	12,965.0	29,582.6	1,713.6	31,296.2	9,011.6	29,563.9	1.6	-6.5	-6.2	-4.7	-0.2	-4.7
2015_Q4	7,555.5	10,970.4	14,033.4	32,559.3	1,881.2	34,440.5	10,642.2	32,363.5	2.2	-0.9	-0.6	0.1	2.2	-0.3
2016_Q1	6,891.9	10,870.9	13,415.6	31,178.4	1,350.0	32,528.3	9,858.6	31,058.9	1.1	0.2	-2.1	-0.4	0.5	0.8
2016_Q2	5,746.5	10,551.5	13,679.6	29,977.7	1,564.1	31,541.8	8,708.0	30,807.0	3.1	-5.2	-2.2	-2.5	0.7	0.7
2016_Q3	6,355.9	12,036.7	14,407.1	32,799.7	1,979.6	34,779.3	9,546.6	32,969.0	3.2	15.1	11.1	11.1	5.9	11.5
2016_Q4	7,829.8	11,825.4	14,688.8	34,344.0	1,965.5	36,309.5	11,042.9	34,069.5	3.6	7.8	4.7	5.4	3.8	5.3
2017_Q1	7,302.5	12,643.8	13,654.3	33,600.6	1,410.9	35,011.6	10,400.1	32,731.3	6.0	16.3	1.8	7.6	5.5	5.4
2017_Q2	5,980.8	12,483.0	15,311.9	33,775.8	1,699.7	35,475.5	9,338.5	33,248.0	4.1	18.3	11.9	12.5	7.2	7.9
2017_Q3	6,907.8	13,664.5	14,719.2	35,291.6	1,930.3	37,221.9	10,246.2	34,049.8	8.7	13.5	2.2	7.0	7.3	3.3
2017_Q4	8,299.8	13,564.1	14,442.5	36,306.4	2,130.6	38,437.0	11,577.7	34,838.4	6.0	14.7	-1.7	5.9	4.8	2.3
2018_Q1	7,825.8	14,475.4	14,989.2	37,290.4	1,532.0	38,822.4	11,000.5	35,992.5	7.2	14.5	9.8	10.9	5.8	10.0
2018_Q2	6,440.1	13,606.8	14,783.9	34,830.7	1,823.3	36,654.0	9,524.6	34,119.6	7.7	9.0	-3.4	3.3	2.0	2.6
2018_Q3	6,996.0	15,403.5	15,110.5	37,510.1	2,160.7	39,670.8	10,307.7	36,365.3	1.3	12.7	2.7	6.6	0.6	6.8
2018_Q4	8,618.1	14,368.6	14,877.8	37,864.6	2,195.2	40,059.8	11,814.9	36,554.8	3.8	5.9	3.0	4.2	2.0	4.9
2019_Q1	8,307.1	15,641.9	15,629.0	39,578.0	1,525.5	41,103.5	11,698.7	37,938.7	6.2	8.1	4.3	5.9	6.3	5.4
2019_Q2	6,773.7	15,503.7	15,703.7	37,981.1	2,001.1	39,982.2	10,181.7	36,692.3	5.2	13.9	6.2	9.1	6.9	7.5
2019_Q3	7,313.6	16,060.1	16,246.2	39,619.9	2,146.6	41,766.5	10,871.8	37,948.4	4.5	4.3	7.5	5.3	5.5	4.4
2019_Q4	8,876.7	14,331.6	16,737.8	39,946.1	2,509.2	42,455.3	12,403.7	38,795.8	3.0	-0.3	12.5	6.0	5.0	6.1
2020_Q1	9,158.2	15,855.7	17,286.0	42,299.8	1,443.0	43,742.8	12,230.0	40,340.5	10.2	1.4	10.6	6.4	4.5	6.3
2020_Q2	7,152.7	14,519.4	14,263.1	35,935.2	1,791.1	37,726.3	9,614.0	34,424.1	5.6	-6.3	-9.2	-5.6	-5.6	-6.2
2020_Q3	7,545.6	14,938.5	15,749.1	38,233.3	2,172.8	40,406.0	10,250.6	37,114.2	3.2	-7.0	-3.1	-3.3	-5.7	-2.2
2020_Q4	9,692.2	14,687.6	17,456.3	41,836.1	2,446.0	44,282.1	12,710.7	40,990.4	9.2	2.5	4.3	4.3	2.5	5.7
2021_Q1	9,527.6	15,807.7	18,649.5	43,984.7	1,465.3	45,450.0	12,317.4	42,465.4	4.0	-0.3	7.9	3.9	0.7	5.3
2021_Q2	7,990.9	13,791.9	15,886.2	37,669.0	1,745.8	39,414.8	10,313.6	36,690.5	11.7	-5.0	11.4	4.5	7.3	6.6
2021_Q3	8,132.3	14,890.2	17,593.6	40,616.1	2,115.9	42,732.0	10,744.0	39,755.0	7.8	-0.3	11.7	5.8	4.8	7.1
2021_Q4	10,735.1	15,224.4	18,690.4	44,649.8	2,345.4	46,995.2	13,490.1	44,064.1	10.8	3.7	7.1	6.1	6.1	7.5
2022_Q1*	9,964.5	15,769.2	19,557.0	45,290.7	1,269.4	46,560.1	12,852.2	43,796.9	4.6	-0.2	4.9	2.4	4.3	3.1
2022_Q2*	8,308.9	14,387.8	16,715.7	39,412.3	1,388.3	40,800.6	10,769.6	38,457.6	4.0	4.3	5.2	3.5	4.4	4.8
2022_Q3*	8,508.0	15,035.5	18,345.9	41,889.3	1,981.6	43,870.9	11,190.2	41,065.5	4.6	1.0	4.3	2.7	4.2	3.3
2022_Q4*	11,116.3	15,074.5	20,106.1	46,296.9	2,436.5	48,733.4	13,999.6	45,957.1	3.6	-1.0	7.6	3.7	3.8	4.3
2023_Q1*	10,607.0	15,360.1	20,797.2	46,764.3	1,310.3	48,074.6	13,589.4	45,745.2	6.4	-2.6	6.3	3.3	5.7	4.4
2023_Q2*	8,811.5	14,122.4	17,762.1	40,696.0	1,415.1	42,111.1	11,385.4	39,700.1	6.0	-1.8	6.3	3.2	5.7	3.2
2023_Q3**	9,009.1	14,383.7	19,348.5	42,741.3	2,001.7	44,743.0	11,782.7	41,911.9	5.9	-4.3	5.5	2.0	5.3	2.1

*revised **provisional

Appendix 3- Seasonally adjusted quarterly value added and Gross Domestic Product at constant 2013 prices by economic activity

Year Quarter	Quarterly Value Added (GHc Million)							Quarter-on-Quarter Change (%)				
	Agriculture	Industry	Service	Total Value Added (GDP @_basic prices)	Net indirect Taxes	Total (GDP in purchaser's value)	Low Informal GDP in purchaser's value	Agriculture	Industry	Service	Total GDP***	Low Informal GDP in purchaser's value
2013_Q1	6,698.2	11,056.7	10,733.0	28,487.9	1,319.6	29,807.5	9,342.4	-	-	-	-	-
2013_Q2	6,073.9	10,904.9	11,682.6	28,661.5	1,413.6	30,075.1	8,688.6	-9.3	-1.4	8.8	0.9	-1.6
2013_Q3	6,051.2	10,715.1	12,010.4	28,776.8	1,447.1	30,223.9	8,604.4	-0.4	-1.7	2.8	0.5	0.6
2013_Q4	6,339.0	10,608.5	12,630.9	29,578.4	1,541.0	31,119.4	8,834.7	4.8	-1.0	5.2	3.0	5.3
2014_Q1	6,313.1	10,309.2	12,892.8	29,515.0	1,522.0	31,037.0	8,814.4	-0.4	-2.8	2.1	-0.3	1.5
2014_Q2	6,316.2	10,321.6	13,092.9	29,730.8	1,532.4	31,263.1	8,865.7	0.0	0.1	1.6	0.7	0.2
2014_Q3	6,349.2	10,532.3	13,382.8	30,264.3	1,594.1	31,858.4	8,937.4	0.5	2.0	2.2	1.9	0.6
2014_Q4	6,396.1	10,728.5	13,288.5	30,413.1	1,595.1	32,008.2	9,025.4	0.7	1.9	-0.7	0.5	-0.1
2015_Q1	6,451.9	10,976.9	13,768.1	31,196.9	1,608.9	32,805.8	9,108.2	0.9	2.3	3.6	2.5	1.6
2015_Q2	6,462.2	11,058.4	13,906.4	31,426.9	1,634.9	33,061.8	9,115.9	0.2	0.7	1.0	0.8	0.3
2015_Q3	6,486.2	10,877.8	13,691.2	31,055.2	1,623.0	32,678.2	9,149.4	0.4	-1.6	-1.5	-1.2	0.2
2015_Q4	6,527.6	10,852.0	13,670.7	31,050.4	1,636.7	32,687.1	9,254.4	0.6	-0.2	-0.1	0.0	0.5
2016_Q1	6,546.1	10,856.6	13,599.9	31,002.6	1,649.5	32,652.1	9,296.6	0.3	0.0	-0.5	-0.1	0.4
2016_Q2	6,588.9	10,712.2	13,523.4	30,824.5	1,627.2	32,451.7	9,345.2	0.7	-1.3	-0.6	-0.6	0.5
2016_Q3	6,637.5	11,107.4	13,883.9	31,628.8	1,693.7	33,322.5	9,431.4	0.7	3.7	2.7	2.7	0.9
2016_Q4	6,706.0	11,321.1	14,047.8	32,074.9	1,714.8	33,789.7	9,521.8	1.0	1.9	1.2	1.4	1.2
2017_Q1	6,808.7	11,764.4	14,107.5	32,680.5	1,730.0	34,613.1	9,661.4	1.5	3.9	0.4	2.4	1.6
2017_Q2	6,867.3	12,247.2	14,515.5	33,630.0	1,763.9	35,394.0	9,793.8	0.9	4.1	2.9	2.3	1.4
2017_Q3	7,005.2	12,654.2	14,593.5	34,253.0	1,751.6	36,004.6	9,987.7	2.0	3.3	0.5	1.7	1.9
2017_Q4	7,122.7	13,088.9	14,532.0	34,743.6	1,792.9	36,536.5	10,140.5	1.7	3.4	-0.4	1.5	1.3
2018_Q1	7,253.6	13,546.8	14,865.7	35,666.0	1,823.2	37,489.2	10,301.1	1.8	3.5	2.3	2.6	1.1
2018_Q2	7,368.4	13,827.7	14,733.7	35,929.8	1,854.0	37,783.8	10,435.9	1.6	2.1	-0.9	0.8	1.0
2018_Q3	7,390.4	14,262.5	14,831.5	36,484.4	1,911.6	38,396.1	10,516.3	0.3	3.1	0.7	1.6	1.4
2018_Q4	7,470.0	14,463.6	14,940.3	36,874.0	1,927.8	38,801.8	10,652.4	1.1	1.4	0.7	1.1	1.4
2019_Q1	7,590.3	14,755.2	15,100.3	37,445.9	1,926.2	39,372.1	10,938.5	1.6	2.0	1.1	1.5	2.6
2019_Q2	7,673.7	15,229.4	15,330.3	38,233.4	1,970.7	40,204.1	11,104.2	1.1	3.2	1.5	2.1	1.5
2019_Q3	7,753.1	15,393.6	15,614.2	38,760.9	1,967.1	40,728.0	11,246.7	1.0	1.1	1.9	1.3	1.3
2019_Q4	7,817.8	15,384.3	16,079.2	39,281.3	2,045.6	41,326.9	11,395.3	0.8	-0.1	3.0	1.5	1.3
2020_Q1	8,030.5	15,437.8	16,493.4	39,961.7	2,025.0	41,986.7	11,707.3	2.7	0.3	2.6	1.6	2.7
2020_Q2	8,125.3	15,191.7	16,133.3	39,450.3	1,972.5	41,422.7	11,744.5	1.2	-1.6	-2.2	-1.3	0.3
2020_Q3	8,183.3	14,911.3	16,009.0	39,103.6	1,979.0	41,082.6	11,768.4	0.7	-1.8	-0.8	-0.8	0.5
2020_Q4	8,387.2	15,000.3	16,188.6	39,576.1	1,963.2	41,539.3	12,024.3	2.5	0.6	1.1	1.1	1.9
2021_Q1	8,479.5	14,988.3	16,529.5	39,997.3	1,968.8	41,966.1	12,124.7	1.1	-0.1	2.1	1.0	0.8
2021_Q2	8,689.1	14,806.4	16,935.3	40,430.8	1,957.5	42,388.2	12,310.7	2.5	-1.2	2.5	1.0	1.5
2021_Q3	8,835.8	14,794.3	17,396.4	41,026.5	1,943.2	42,969.7	12,452.9	1.7	-0.1	2.7	1.4	1.2
2021_Q4	9,096.5	14,928.5	17,704.9	41,729.9	1,918.1	43,648.0	12,717.7	3.0	0.9	1.8	1.6	2.1
2022_Q1*	9,205.7	14,918.9	17,931.8	42,056.4	1,869.1	43,925.5	12,827.8	1.2	-0.1	1.3	0.6	0.9
2022_Q2*	9,285.2	15,067.9	18,139.2	42,492.2	1,779.7	44,272.0	12,920.3	0.9	1.0	1.2	0.8	0.7
2022_Q3*	9,379.1	15,104.2	18,327.2	42,810.5	1,746.2	44,556.7	13,012.5	1.0	0.2	1.0	0.6	0.7
2022_Q4*	9,474.4	15,066.8	18,681.2	43,222.3	1,768.9	44,991.3	13,102.5	1.0	-0.2	1.9	1.0	0.7
2023_Q1*	9,635.0	14,964.5	18,991.2	43,590.7	1,779.2	45,369.9	13,254.2	1.7	-0.7	1.7	0.8	1.2
2023_Q2*	9,760.7	14,898.1	19,252.8	43,911.6	1,785.9	45,697.5	13,380.8	1.3	-0.4	1.4	0.7	1.0
2023_Q3**	9,885.9	14,735.2	19,503.5	44,124.6	1,790.9	45,915.5	13,502.7	1.3	-1.1	1.3	0.5	0.9

*revised ** provisional