

Newsletter Quarterly Gross Domestic Product (QGDP) Fourth Quarter 2023



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Main highlights

- Ghana provisional real Gross Domestic Product (GDP) in volume terms was estimated to have increased by 3.8% in quarter four (October to December) of 2023 compared to the same period in 2022.
- When seasonally adjusted, Ghana real GDP increased by 1.0 % in quarter four (October to December) of 2023; a 0.5 percentage point higher than what was recorded in quarter three (July to September) of 2023.
- Mining and Quarrying, Crops, Information & Communication, Manufacturing, and Trade; Repair of Vehicle & Household Goods, were the main drivers of GDP growth for the fourth quarter of 2023.
- Only one sub-sector expanded by more than 10 percent in quarter four of 2023:
 - o Information & Communication (14.6%).
- Five sub-sectors contracted in quarter four of 2023:
 - 1. Electricity (-19.5%).
 - 2. Construction (-12.8%)
 - 3. Forestry & Logging (-3.8%).
 - 4. Fishing (-0.2%).
 - 5. Water Supply, Sewerage, Waste Management and Remediation Activities (-0.1%).

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 4th 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 GDP estimates will be in June 2024.

Related Publications

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

Quarterly real GDP growth: October to December 2023

Provisional real quarterly gross domestic product (QGDP) growth rate including Oil and Gas, is 3.8% (year on year) in the fourth quarter of 2023. The same growth rate was recorded in the fourth quarter of 2022 (3.8%).

GDP growth rate without oil and gas (Non-Oil GDP) for the fourth quarter of 2023 is 3.4% which compares to the same period in 2022 with a growth rate of 4.2%.

The services sector recorded the highest growth of 5.1%, followed by the agriculture sector at 4.5% and the industry sector 1.6%.

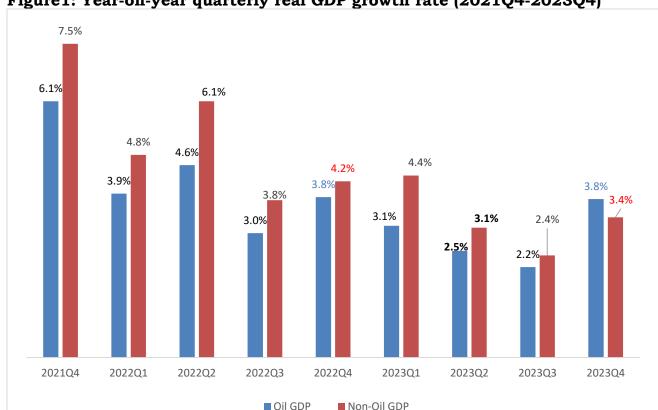


Figure 1: Year-on-year quarterly real GDP growth rate (2021Q4-2023Q4)

Real quarterly gross domestic product: October to December 2023

The **GDP** (Including Oil & Gas) estimate at constant 2013 prices for the 4th quarter of 2023 was GH¢50,645.7 million compared to GH¢48,796.8 million in the 4th quarter of 2022.

The **Non-oil GDP** at constant 2013 prices for the 4th quarter of 2023 was GH¢47,459.7 million compared to GH¢45,919.7 million in the 4th quarter of 2022.

Table 1: Year-on-year quarterly growth rates in 4th quarter of 2023

Livestock								
		Forestry & Logging -3.89						
5.9%Crops								
5.0%		Fishing	-2.0%					
M	0.00/	District.	10.50/					
Mining & Quarrying	8.3%	Electricity	-19.5% -12.8%					
Manufacturing	4.1%	Construction						
		Water Supply, Sewerage,	-0.1%					
		Remediation Activities						
Information &	14.6%							
Communication								
Health & Social Work	8.4%							
Accommodation and food								
service activities	6.0%							
Transport & Storage	4.6%							
Trade; Repair of Vehicle, Household Goods	3.9%							
Real Estate	3.3%							
Other Personal Service Activities	2.4%							
Professional, Administrative & Support	2.1%							
Education	1.9%							
Public Administration Defense, Social Security	1.8%							
Finance & Insurance	1.5%							
_	Mining & Quarrying Manufacturing Information & Communication Health & Social Work Accommodation and food service activities Transport & Storage Trade; Repair of Vehicle, Household Goods Real Estate Other Personal Service Activities Professional, Administrative & Support Education Public Administration Defense, Social Security	Mining & Quarrying 8.3% Manufacturing 4.1% Information & 14.6% Communication Health & Social Work 8.4% Accommodation and food service activities 6.0% Transport & Storage 4.6% Trade; Repair of Vehicle, Household Goods Real Estate 3.3% Other Personal Service Activities Professional, 2.1% Administrative & Support Education 1.9% Public Administration Defense, Social Security 1.8%	Mining & Quarrying 8.3% Electricity Manufacturing 4.1% Construction Water Supply, Sewerage, Waste Management & Remediation Activities Information & 14.6% Communication Health & Social Work Accommodation and food service activities 6.0% Transport & Storage 4.6% Trade; Repair of Vehicle, Household Goods Real Estate 3.3% Other Personal Service Activities Professional, Administrative & Support Education 1.9% Public Administration Defense, Social Security 1.8%					

Nominal quarterly gross domestic product: October to November 2023

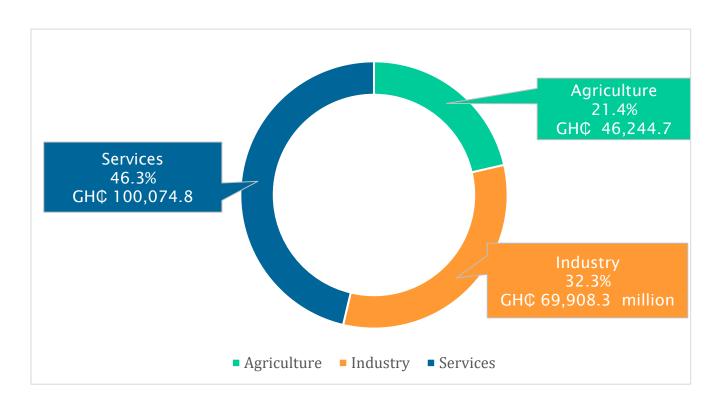
The GDP estimate at current prices in purchaser's value for the 4th quarter of 2023 was **GH¢233,092.4 million** compared to **GH¢185,636.5 million** in the 4th quarter of 2022.

The **Non-oil GDP** (GDP without Oil and Gas) estimate at current prices for the 4th quarter of 2023 was **GH¢226,657.3 million** compared to **GH¢179,681.7 million** in the 4th 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 46.3 percent of GDP at basic prices. The GDP share of Industry and Agriculture were 32.3 percent and 21.4 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 4th quarter of 2023 was 1.0 percent.

For the 4th 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 4th quarter of 2023, compared to 0.9% in the 3rd quarter of 2023. In the fourth quarter of 2023, the growth of Crops & Cocoa sub-sector expanded by 0.4 percentage points, growing at 1.4 percent compared to 1.0 percent in the 3rd quarter of 2023. The Forestry and Logging subsector improved growing at -1.0 percent in the 4th quarter of 2023 compared to -2.3 percent in the 3rd quarter of 2023. The Fishing sub-sector declined by 2.1 percentage point to grow at -0.1 percent in the 4th quarter compared to 2.0 percent in the 3rd quarter of 2023.

Within the Industry sector which grew at 0.4 percent (quarter on quarter), the Water Supply, Sewerage, Waste Management & Remediation Activities did not experience any change in growth (0.0%) in the 4th quarter of 2023 compared to 1.6 percent in 3rd quarter of 2023. Mining & Quarrying sub-sector grew at 2.2 percent in the 4th quarter of 2023 from -0.3 percent in the 3rd quarter of 2023. Construction activities continued to contract since 2022 quarter 1.

All subsectors within the Services sector expanded resulting in the sector's growth of 1.3 percent in the 4th quarter. The highest expansion was seen in the Information & Communication sub-sector with a growth of 3.6 percent in the 4th quarter of 2023. The growth in Finance & Insurance activities, Professional,

Administrative & Support, Public Administration & Defense, Social Security, Other Personal Service Activities all grew at (0.4%) the least growth.

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.

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

Sector	Expanding sub-sectors		Contracting sectors	sub-
Agriculture	Livestock	2.0%	Forestry & Logging	-1.0%
(1.3%)	Crops	1.4%	Fishing	-0.1%
	Mining & Quarrying	2.2%	Electricity	-5.0%
Industry (0.4%)	Manufacturing	1.0%	Construction	-3.2%
(0.170)	Water Supply, Sewerage, Waste			
	Management & Remediation Activities	0.0%		
	Information & Communication	3.6%		
	Health & Social Work	1.8%		
	Accommodation and food			
	service activities	1.5%		
	Trade; Repair of Vehicles,			
Services (1.3%)	Household Goods	1.2%		
,	Transport and Storage	1.1%		
	Real Estate			
	Education	0.8%		
		0.5%		
	Professional, Administrative & Support	0.4%		
	Other Personal Service	0.4%		
	Activities	U.4 70		
	Public Administration &	0.40/		
	Defense, Social Security	0.4%		
	Finance & Insurance	0.4%		
		- · · ·		

Appendix 1	ix 1- Quarterly Gross Domestic Product at current prices by economic activity and respective sectoral distribution														
			Va	lue Added (-	0 0	% of GDP (@ basic prices)						
Year Quarter	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	96,339.1 106,536.2	22,928.4	92,699.6 102,988.5	19.2	33.2	47.6	100.0	23.8		
2020_Q4 2021_Q1	19,299.7 21,500.9	30,516.6 33,326.6	49,705.0 53,472.2	99,521.4 108,299.7	7,014.9	114,022.8	25,332.7 28,747.8	102,988.5	19.4	30.7	49.9 49.4	100.0	23.8 25.2		
2021_Q1 2021_Q2	20,499.4	30,144.0	45,451.0	96,094.3	5,723.1 6,852.7	102,947.0	26,553.3	97,865.0	19.9 21.3	31.4	47.3	100.0	25.2		
2021_Q2 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_Q3 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*	40,604.8	61,239.6	93,733.2	195,577.7	12,513.5	208,091.2	54,230.6	198,982.0	20.8	31.3	47.9	100.0	26.1		
2023_Q2*	36,130.6	55,182.4	76,382.5	167,695.5	13,986.9	181,682.4	47,328.8	171,747.8	21.5	32.9	45.5	100.0	26.1		
2023_Q3*	43,303.1	61,474.6	82,851.0	187,628.6	15,378.4	203,007.0	55,715.0	190,753.4	23.1	32.8	44.2	100.0	27.4		
2023_Q4**	52,207.4	68,397.3	103,074.8	223,679.5	16,864.5	240,544.1	66,677.4	234,059.6	23.3	30.6	46.1	100.0	27.7		
*revised	** provisiona	I									·	·			

Appendix 2 - Quarterly value added and GDP at constant 2013 prices by economic activity														
	Quarterly Value Added (GHc Million) Year-on-Year change (%)											*_		
Year	Agriculture	Industry	Services	Total Value Added (GDP_@_basic prices)	Net indirect Taxes	Total (Oil GDP in purchaser's value)	ow Informal GDP in purchaser's value	Total (Non Oil GDP)***	Agriculture	Industry	Services	Total (Oil GDP)***	ow 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						
_	6,594.6	9,859.3	11,780.5	28,234.3		-	9,206.1	27,670.0	1 5	-10.8	9.8	-1.1	0.5	-1.3
2014_Q1	·				1,243.8	29,478.1	-		-1.5					
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*	9,966.5	15,719.6	19,720.6	45,406.7	1,824.7	47,231.4	12,866.2	44,522.2	4.6	-0.6	5.7	3.9	4.5	4.8
2022_Q2*	8,308.9	14,338.2	16,839.4	39,486.5	1,740.8	41,227.2	10,779.4	38,938.2	4.0	4.0	6.0	4.6	4.5	6.1
2022_Q3*	8,508.1	14,985.8	18,469.4	41,963.4	2,038.3	44,001.7	11,200.1	41,250.4	4.6	0.6	5.0	3.0	4.2	3.8
2022_Q4*	11,116.3	15,024.9	20,229.9	46,371.1	2,425.8	48,796.8	14,009.4	45,919.7	3.6	-1.3	8.2	3.8	3.8	4.2
2023_Q1*	10,418.5	15,498.1	20,909.8	46,826.4	1,892.6	48,719.0	13,436.7	46,459.5	4.5	-1.4	6.0	3.1	4.4	4.4
2023_Q2*	8,678.5	13,963.9	17,854.7	40,497.1	1,780.3	42,277.4	11,256.5	40,147.1	4.4	-2.6	6.0	2.5	4.4	3.1
2023_Q3*	8,870.5	14,606.0	19,396.0	42,872.5	2,080.2	44,952.7	11,677.5	42,257.3	4.3	-2.5	5.0	2.2	4.3	2.4
2023_Q4**	11,619.4	15,266.5	21,258.1	48,144.0	2,501.7	50,645.7	14,661.7	47,459.7	4.5	1.6	5.1	3.8	4.7	3.4
*revised	** provision	aı				10								

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

activity Quarterly Value Added (GHc Million) Quarter-on-Quarter Change (%)												
	Quarte	riy value A	aaea (GHC					Quarter-	on-Quarte	r Chang	e (%)	
Year Quarter	Agriculture	Industry	Service	Total Value Added (GDP_@_basic prices)	Net indirect Taxes	Total (GDP in purchaser's value)	ow Informal GDP in purchaser's value	Agriculture	Industry	Service	Total GDP***	ow InformalGDP in purchaser's value
2014_Q1	6,313.1	10,309.2	12,892.8	29,515.0	1,522.0	31,037.0	8,814.4	-	-	-	-	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	8.0	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 11,395.3	1.0	1.1	1.9	1.3	1.3
2019_Q4	7,817.8								-0.1	3.0	1.5	1.3
2020_Q1 2020 Q2	8,030.5 8,125.3	15,437.8 15,191.7	16,493.4 16,133.3	39,961.7 39,450.3	2,025.0 1,972.5	41,986.7 41,422.7	11,707.3 11,744.5	2.7	0.3 -1.6	2.6 -2.2	1.6 -1.3	2.7 0.3
2020_Q2 2020_Q3	8,183.3	14,911.3	16,133.3	39,103.6	1,972.5	41,082.6	11,744.5	1.2 0.7	-1.8	-0.8	-0.8	0.5
2020_Q3 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
2020_Q4 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_Q1 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_Q2	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_Q3	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*	9,206.2	14,906.5	17,972.7	42,085.4	2,007.9	44,093.3	12,826.8	1.2	-0.1	1.5	1.0	0.9
2022_Q2*	9,285.7	15,043.1	18,211.0	42,539.8	2,006.7	44,546.5	12,918.5	0.9	0.9	1.3	1.0	0.7
2022_Q3*	9,379.6	15,067.0	18,429.9	42,876.6	1,987.3	44,863.9	13,009.8	1.0	0.2	1.2	0.7	0.7
2022_Q4*	9,474.9	15,017.1	18,814.8	43,306.9	2,007.4	45,314.3	13,098.9	1.0	-0.3	2.1	1.0	0.7
2023_Q1*	9,587.9	14,961.8	19,112.1	43,661.8	2,024.4	45,686.2	13,210.3	1.2	-0.4	1.6	0.8	0.9
2023_Q2*	9,680.3	14,868.2	19,366.0	43,914.5	2,034.2	45,948.7	13,303.0	1.0	-0.6	1.3	0.6	0.7
2023_Q3*	9,770.9	14,773.2	19,597.6	44,141.8	2,044.7	46,186.5	13,398.3	0.9	-0.6	1.2	0.5	0.7
2023_Q4**	9,896.7	14,833.6	19,854.6	44,585.0	2,063.7	46,648.7	13,534.5	1.3	0.4	1.3	1.0	1.0
*revised												