

Newsletter Quarterly Gross Domestic Product (QGDP) Fourth Quarter 2021



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Main points

- Ghana provisional real Gross Domestic Product (GDP) in volume terms was estimated to have increased by 7.0% in quarter four (October to December) of 2021 compared to the same period in 2020.
- When seasonally adjusted, Ghana real GDP increased by 1.8% in quarter four (October to December) of 2021; 0.3 percentage point higher than what was recorded in quarter three (July to September) of 2021.
- The Information & Communication, Manufacturing, and Crops sub-sectors were the main drivers of GDP growth for the fourth quarter of 2021.
- Main sub-sectors that expanded in quarter four of 2021 are:
 - 1. Information & Communication (52.3%).
 - 2. Water Supply, Sewerage, Waste Management & Remediation Activities (21.7%).
 - 3. Fishing (21.2%).
 - 4. Electricity (15.4%).
 - 5. Hotel & Restaurants (12.3%).
 - 6. Real Estate (10.5%).
 - 7. Manufacturing (9.9%).
- Two sub-sectors that contracted in quarter four of 2021 are:
 - o Health and Social Work (-13.1%) and
 - o Education (-6.1%).

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 2021 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 in order 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 is to provide a clearer view of short-term movements and trends and to allow early identification of turning points.

Revision Policy

While the majority of 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 as follows:

- a) Incorporation of additional and improved data: Most revisions reflect the incorporation of a wider range of data. In particular, some data that were 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 done in June 2022.

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 2021

Provisional real quarterly gross domestic product (QGDP) growth rate including Oil and Gas, is 7.0% (year on year) in the fourth quarter of 2021. In the same period of 2020, the growth was 4.3%.

GDP growth rate without oil and gas (Non-Oil GDP) for fourth quarter of 2021 is 7.6% which compares to the same period in 2020 with a growth rate of 5.7%.

The Agriculture sector recorded the highest growth of 8.2%, followed by the Services sector with a growth of 8.1%. The Industry sector expanded by 4.8 percent.

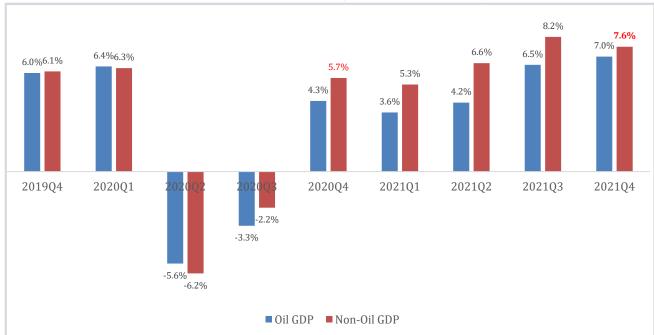


Figure 1: Quarterly real GDP growth rate (2019Q4-2021Q4)

Real quarterly gross domestic product: October to December 2021

The **GDP** (Including Oil & Gas) estimate at constant 2013 prices for the 4th quarter of 2021 was **GH¢47,397.2 million** compared to **GH¢44,282.1 million** in the 4th quarter of 2020.

The **Non-oil GDP** at constant 2013 prices for the 4th quarter of 2021 was **GH¢44,100.6 million** compared to **GH¢40,990.4 million** in the 4th quarter of 2020.

Table 1: Year-on-year growth rates in 4th quarter of 2021

| Sector | Expanding sub-sectors | Contracting sectors | sub- | |
|--------------------|---|---------------------|-----------------|---------|
| | Fishing | 21.2% | | |
| Agriculture | Crops | 8.4% | | |
| (8.2%) | Livestock | 5.1% | | |
| | Forestry & Logging | 3.4% | | |
| Industry | Water Supply, Sewerage, Waste Management & Remediation Activities | 21.7% | | |
| Industry (4.8%) | Electricity | 15.4% | | |
| | Manufacturing | 9.9% | | |
| | Construction | 2.2% | | |
| | Mining & Quarrying | 0.5% | | |
| | Information & Communication | 52.3% | | |
| | Hotel & Restaurants | 12.3% | Health & Social | -13.1% |
| Services | Real Estate | 10.5% | Work | -13.170 |
| (8.1%) | Public Administration & Defence, Social Security | 8.5% | Education | -6.1% |
| | Transport & Storage | 8.2% | | |
| | Professional, Administrative & Support | 5.9% | | |
| | Finance & Insurance | 3.6% | | |
| | Trade, Repair of Vehicle, Household Goods | 3.2% | | |
| | Other Personal Service Activities | 1.8% | | |

Nominal quarterly gross domestic product: October to December 2021

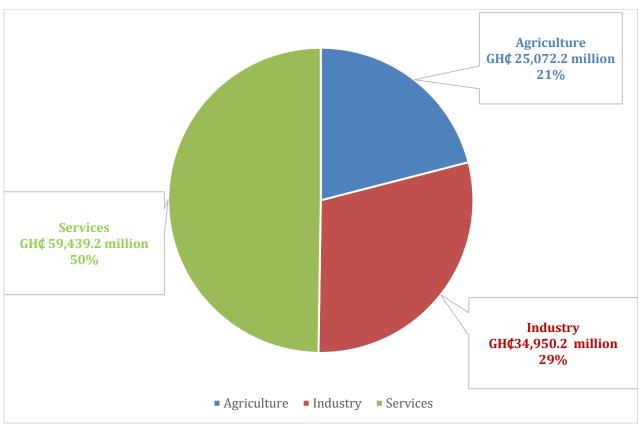
The GDP estimate at current prices in purchaser's value¹ for the 4th quarter of 2021 was **GH¢128,623.4 million** compared to **GH¢106,536.2 million** in the 4th quarter of 2020.

The **Non-oil GDP** (GDP without Oil and Gas) estimate at current prices for the 4th quarter of 2021 was **GH¢122,642.8** compared to **GH¢102,988.5 million** in the 4th quarter of 2020.

GDP sectoral shares

The Services sector continue to be the largest sector of the Ghanaian economy in the fourth quarter of 2021 with a share of 50 percent of GDP at basic prices. The GDP share of Industry and Agriculture were 29 percent and 21 percent respectively.

Figure 2: Sectoral distribution (%) of nominal GDP at basic prices



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¹

Seasonally Adjusted GDP

The Provisional quarter-on-quarter² seasonally adjusted Real Gross Domestic Product (including Oil) growth rate for the 4th quarter of 2021 was 1.8 percent.

For the 4th quarter of 2021, the quarter-on-quarter seasonally adjusted growth rates (see Table 2) were as follows:

- Within the Agriculture sector, Fishing and Crops & Cocoa sub-sectors grew by 5.6 percent and 2.2 percent in the 4th quarter of 2021, compared to 7.5 and 1.4 percent respectively in the 3rd quarter of 2021. The Livestock subsector expanded marginally to 1.7 percent from 1.1 percent recorded in the 3rd quarter of 2021. The Forestry and Logging sub-sector continued to grow at a slower rate of 0.8 percent from 0.7 percent recorded in the 3rd quarter of 2021.
- Within the Industry sector, Water Supply, Sewerage, Waste Management & Remediation Activities sub-sector grew by 5.2 percent in the 4th quarter of 2021 compared to a growth of 2.0 percent in the 3rd quarter of 2021. The Electricity sub-sector grew by 3.7 percent in the 4th quarter of 2021, compared to a growth of 1.3 percent in the 3rd quarter of 2021. The Manufacturing and Construction sub-sectors recorded 2.3 percent and 0.5 percent growth in the 4th quarter of 2021, compared to a 1.8 percent and 0.6 percent expansion respectively recorded in the 3rd quarter of 2021. The Mining & Quarrying sub-sector however, regained a positive marginal growth of 0.1 percent in the 4th quarter of 2021 after contracting by 3.2 percent in the 3rd quarter of 2021.
- In the Services sector, Information & Communication also grew to 12.9 percent in the 4th quarter of 2021 compared to a growth of 5.2 percent in the 3rd quarter of 2021. Hotels & Restaurants expanded by 2.8 percent in the 4th quarter of 2021 compared to a growth of 2.0 percent in the 3rd quarter of 2021. The Real Estate sub sector expanded by 2.0 percent in the 4th quarter down from 5.0 percent expansion in the 3rd quarter of 2021. The Public Administration & Defense, Social Security and Transport & Storage grew by 1.9 percent each in the 4th quarter of 2021 a reduction from 9.3 percent and 2.0 percent respectively in 2021 quarter three. Professional, Administrative & Support activities sub sector expanded with 1.4 percent growth rate in the 4th quarter of 2021, compared to 4.6 percent recorded in 3rd quarter of 2021.

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² 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 2021 Q4

| Sector | Expanding sub-sectors | | Contracting sub-sectors |
|--------------------|--|-------|-------------------------------|
| | Fishing | 5.6% | |
| Agriculture | | 2.20/ | |
| (2.2%) | Crops and Cocoa | 2.2% | |
| | Livestock | 1.7% | |
| | Forestry & Logging | 0.8% | |
| | Water Supply, Sewerage, Waste | | |
| | Management & Remediation Activities | 5.2% | |
| Industry (1.2%) | Electricity | 3.7% | |
| | Manufacturing | 2.3% | |
| | Construction | 0.5% | |
| | Mining & Quarrying | 0.1% | |
| | Information & Communication | 12.9% | |
| | Hotels & Restaurants | 2.8% | |
| | Real Estate | 2.0% | |
| | Public Administration & Defence, Social Security | 1.9% | Health & Social -3.2% Work |
| Services | Transport and Storage | 1.9% | |
| (2.0%) | Professional, Administrative & Support | 1.4% | Education -1.6% |
| | Finance & Insurance | 1.0% | |
| | Trade; Repair of Vehicles, Household Goods | 0.9% | |
| | Other Personal Service Activities | 0.4% | |

| | | Appendix 1- Quarterly Gross Domestic Product at current prices by economic activity and respective sectoral distribution | | | | | | | | | | | |
|-----------------------|---|--|----------|---|--------------------|-------------------------------------|--|---|-------------|----------|------------|---|---|
| | Value Added (GHc Million) % of GDP (@ basic prices) | | | | | | | | | | P (@ basio | 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 |
| 2016_Q3 | 10,870.7 | 15,127.1 | 24,036.0 | 50,033.8 | 3,814.4 | 53,848.2 | 15,622.9 | 53,636.2 | 21.7 | 30.2 | 48.0 | 100.0 | 29.0 |
| 2016_Q4 | 13,112.2 | 15,833.7 | 26,550.3 | 55,496.2 | 4,600.7 | 60,096.9 | 18,356.4 | 59,420.3 | 23.6 | 28.5 | 47.8 | 100.0 | 30.5 |
| 2017_Q1 | 12,478.6 | 18,401.6 | 27,420.0 | 58,300.2 | 3,968.8 | 62,269.0 | 17,799.0 | 60,905.3 | 21.4 | 31.6 | 47.0 | 100.0 | 28.6 |
| 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* | 23,769.5 | 33,107.6 | 53,361.3 | 110,238.4 | 5,453.2 | 115,691.6 | 30,978.8 | 111,105.1 | 21.6 | 30.0 | 48.4 | 100.0 | 26.8 |
| 2021_Q2* | 20,748.6 | 29,496.4 | 45,730.2 | 95,975.1 | 6,351.3 | 102,326.5 | 26,769.1 | 97,227.9 | 21.6 | 30.7 | 47.6 | 100.0 | 26.2 |
| 2021_Q3* | 20,898.8 | 32,217.0 | 52,351.4 | 105,467.2 | 7,022.3 | 112,489.5 | 27,876.2 | 106,999.4 | 19.8 | 30.5 | 49.6 | 100.0 | 24.8 |
| 2021_Q4** *revised | 25,072.2 ** provision | 34,950.2 nal | 59,439.2 | 119,461.6 | 9,161.8 | 128,623.4 | 33,003.6 | 122,642.8 | 21.0 | 29.3 | 49.8 | 100.0 | 25.7 |

| Appendix 2 - Quarterly value added and GDP at constant 2013 prices by economic activity | | | | | | | | | | | | | | |
|---|--------------------|----------------------|----------------------|---|--------------------|---|---|---------------------------|-------------|-------------|-------------|--------------------|---|-----------------------|
| | Quarte | erly Value A | dded (GHc N | | | | | | | Year | r-on-Yea | r change | e (%) | |
| Year Quarter | 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 | | | | | | |
| 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 |
| 2014_Q4 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 7.0 | -9.2 2.1 | -5.6 | -5.6 | -6.2 |
| 2020_Q3* 2020_Q4* | 7,545.6 9,692.2 | 14,938.5 14,687.6 | 15,749.1 | 38,233.3 41,836.1 | 2,172.8 2,446.0 | 40,406.0 44,282.1 | 10,250.6 12,710.7 | 37,114.2 40,990.4 | 3.2 | -7.0 2.5 | -3.1 | -3.3 | -5.7 2 E | -2.2 |
| 2020_Q4* 2021_Q1* | 9,692.2 | 15,815.5 | 17,456.3 18,238.7 | 43,818.0 | 2,446.0 1,512.2 | 44,282.1 45,330.2 | 12,710.7 | 40,990.4 | 9.2 6.6 | 2.5 -0.3 | 4.3 5.5 | 4.3 3.6 | 2.5 2.2 | 5.7 5.3 |
| 2021_Q1* 2021_Q2* | 8,002.0 | 13,607.5 | 15,822.7 | 37,432.1 | 1,872.4 | 39,304.6 | 10,291.3 | 36,690.0 | 11.9 | -6.3 | 10.9 | 4.2 | 7.0 | 6.6 |
| 2021_Q2 2021_Q3* | 8,117.7 | 14,702.8 | 17,884.5 | 40,705.0 | 2,320.3 | 43,025.3 | 10,751.5 | 40,156.7 | 7.6 | -1.6 | 13.6 | 6.5 | 4.9 | 8.2 |
| 2021_Q3 2021_Q4** | 10,489.7 | 15,395.6 | 18,865.9 | 44,751.1 | 2,646.1 | 47,397.2 | 13,292.2 | 44,100.6 | 8.2 | 4.8 | 8.1 | 7.0 | 4.6 | 7.6 |
| *revised | ** provision | | ,,,,,,,,,, | , | , <u>.</u> | 10 | , | , , | | | | | | |

| Appendix 3- Seasonally adjusted quarterly value added and Gross Domestic Product at constant 2013 prices by economic activity | | | | | | | | | | | | |
|---|---|----------------------|----------------------|---|--------------------|-------------------------------------|---|-------------|--------------|------------|--------------|--|
| | Quarterly Value Added (GHc Million) Quarter-on-Quarter Change (9 | | | | | | | | | | inge (%) | |
| 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 |
| 2013_Q1 | 5,878.2 | 10,921.3 | 12,580.6 | 29,380.1 | 1,443.3 | 30,823.4 | 8,470.1 | - | - | - | - | - |
| 2013_Q2 | 5,752.2 | 10,916.7 | 12,496.1 | 29,165.1 | 1,550.4 | 30,715.5 | 8,331.9 | -2.1 | 0.0 | -0.7 | -0.4 | -1.6 |
| 2013_Q3 | 5,843.7 | 10,797.5 | 12,291.4 | 28,932.6 | 1,594.9 | 30,527.5 | 8,378.8 | 1.6 | -1.1 | -1.6 | -0.6 | 0.6 |
| 2013_Q4 | 6,322.4 | 10,776.1 | 12,102.1 | 29,200.5 | 1,712.0 | 30,912.5 | 8,822.9 | 8.2 | -0.2 | -1.5 | 1.3 | 5.3 |
| 2014_Q1 | 6,443.3 | 10,504.7 | 12,190.3 | 29,138.2 | 1,703.4 | 30,841.6 | 8,958.2 | 1.9 | -2.5 | 0.7 | -0.2 | 1.5 |
| 2014_Q2 | 6,400.8 | 10,563.2 | 12,487.7 | 29,451.7 | 1,726.7 | 31,178.4 | 8,974.6 | -0.7 | 0.6 | 2.4 | 1.1 | 0.2 |
| 2014_Q3 | 6,403.7 | 10,947.4 | 12,647.4 | 29,998.6 | 1,771.9 | 31,770.5 | 9,029.7 | 0.0 | 3.6 | 1.3 | 1.9 | 0.6 |
| 2014_Q4 | 6,382.0 | 10,899.9 | 12,754.2 | 30,036.0 | 1,773.3 | 31,809.3 | 9,016.5 | -0.3 | -0.4 | 0.8 | 0.1 | -0.1 |
| 2015_Q1 | 6,501.1 | 11,109.9 | 12,887.3 | 30,498.4 | 1,802.6 | 32,300.9 | 9,164.5 | 1.9 | 1.9 | 1.0 | 1.5 | 1.6 |
| 2015_Q2 | 6,530.6 | 11,253.5 | 12,803.8 | 30,587.9 | 1,807.4 | 32,395.3 | 9,196.1 | 0.5 | 1.3 | -0.6 | 0.3 | 0.3 |
| 2015_Q3 | 6,540.2 | 11,079.6 | 12,849.2 | 30,469.0 | 1,796.7 | 32,265.7 | 9,213.5 | 0.1 | -1.5 | 0.4 | -0.4 | 0.2 |
| 2015_Q4 | 6,525.9 | 11,020.2 | 13,136.7 | 30,682.7 | 1,815.8 | 32,498.5 | 9,257.9 | -0.2 | -0.5 | 2.2 | 0.7 | 0.5 |
| 2016_Q1 | 6,532.2 | 11,161.8 | 13,226.4 | 30,920.4 | 1,831.4 | 32,751.8 | 9,293.1 | 0.1 | 1.3 | 0.7 | 0.8 | 0.4 |
| 2016_Q2 | 6,578.3 | 10,987.7 | 13,328.4 | 30,894.4 | 1,847.8 | 32,742.1 | 9,339.5 | 0.7 | -1.6 | 0.8 | 0.0 | 0.5 |
| 2016_Q3 | 6,636.6 | 11,240.4 | 13,408.6 | 31,285.5 | 1,876.1 | 33,161.7 | 9,425.5 | 0.9 | 2.3 | 0.6 | 1.3 | 0.9 |
| 2016_Q4 | 6,715.6 | 11,497.4 | 13,503.6 | 31,716.5 | 1,910.1 | 33,626.6 | 9,537.0 | 1.2 | 2.3 | 0.7 | 1.4 | 1.2 |
| 2017_Q1 | 6,833.1 | 11,927.2 | 13,552.3 | 32,312.7 | 1,932.6 | 34,245.3 | 9,689.2 | 1.8 | 3.7 | 0.4 | 1.8 | 1.6 |
| 2017_Q2 | 6,888.5 | 12,500.3 | 13,783.8 | 33,172.6 | 1,967.1 | 35,139.7 | 9,827.6 | 0.8 | 4.8 | 1.7 | 2.6 | 1.4 |
| 2017_Q3 | 7,019.9 | 12,935.4 | 13,933.7 | 33,889.0 | 1,980.2 | 35,869.2 | 10,018.6 | 1.9 | 3.5 | 1.1 | 2.1 | 1.9 |
| 2017_Q4 | 7,125.8 | 13,297.9 | 13,944.1 | 34,367.7 | 1,991.8 | 36,359.5 | 10,151.5 | 1.5 | 2.8 | 0.1 | 1.4 | 1.3 |
| 2018_Q1 | 7,211.4 | 13,635.8 | 13,992.6 | 34,839.8 | 2,009.2 | 36,849.0 | 10,264.6 | 1.2 | 2.5 | 0.3 | 1.3 | 1.1 |
| 2018_Q2 | 7,283.3 | 14,004.2 | 14,010.6 | 35,298.1 | 2,034.7 | 37,332.9 | 10,363.7 | 1.0 | 2.7 | 0.1 | 1.3 | 1.0 |
| 2018_Q3 | 7,376.9 | 14,417.0 | 14,128.8 | 35,922.7 | 2,083.6 | 38,006.3 | 10,510.7 | 1.3 | 2.9 | 0.8 | 1.8 | 1.4 |
| 2018_Q4 | 7,469.4 | 14,702.1 | 14,323.7 | 36,495.2 | 2,141.7 | 38,636.9 | 10,661.9 | 1.3 | 2.0 | 1.4 | 1.7 | 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 | 0.4 | 5.4 | 1.9 | 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* 2021_Q2* | 8,538.6 8,750.9 | 14,990.3 14,762.3 | 16,426.8 16,816.7 | 39,955.6 40,329.9 | 1,980.5 2,000.9 | 41,936.2 42,330.7 | 12,180.4 12,362.6 | 1.8 2.5 | -0.1 -1.5 | 1.5 2.4 | 1.0 0.9 | 1.3 1.5 |
| 2021_Q3* | 8,893.9 | 14,703.3 | 17,350.5 | 40,947.8 | 2,037.7 | 42,985.6 | 12,498.8 | 1.6 | -0.4 | 3.2 | 1.5 | 1.1 |
| 2021_Q4** *revised | 9,093.3 ** provision | 14,880.3 nal | 17,702.9 | 41,676.6 | 2,087.8 | 43,764.3 | 12,709.3 | 2.2 | 1.2 | 2.0 | 1.8 | 1.7 |