



الهيئة العامة للإحصاء
General Authority for Statistics

Methodology and Quality Report of Quarterly Gross Domestic Product

V-3.2

Quality Management



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1. Contact

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2. Methodology and Quality Update

2.1. Methodology and Quality last update	10/09/2024
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3. Statistical Presentation

3.1. Data description
Quarterly Gross Domestic Product present indicators compared to the same period in the previous year. It includes tables on Gross Domestic Product (GDP) by economic activity at current prices and using the chain-linked method, as well as aspects of expenditure such as government consumption expenditure, private consumption expenditure, gross capital formation, and exports and imports.

Data of quarterly gross domestic product is collected on the following main characteristics:

- The quarterly gross domestic product relies on two key sources of data:
 - Statistical surveys, carried out by GASTAT.
 - Administrative records, through which data can be obtained on a quarterly basis.
- The quarterly gross domestic product publication is issued on a quarterly basis.
- The reference frame for quarterly gross domestic product is the System of Quarterly National Accounts (QNA).
- The quarterly gross domestic product is subject to international standards in collecting and classifying their data, and the most important classifications on which the Publication's data depends are as follows:
 - The National Classification for the Economic Activities (ISIC4).
 - Central Product Classification (CPC2).
 - Classification of Individual Consumption by Purpose (COICOP).
 - Classification of the Functions of Government (COFOG).
 - Balance of Payments Manual as per the sixth amendment (BPM6).

3.2. Classification system

The following classifications are applied in quarterly gross domestic product:

The National Classification for the Economic Activities (ISIC4):

It is a statistical classification based on the International Standard Industrial Classification of all economic activities, as the International Standard Industrial Classification of economic activities is the reference classification for productive activities. Economic activity is also defined as (all works or services that the enterprise often performs or provides for a material return. The enterprise does not reap financial returns from its work, as is the case in charities that depend on donations).

Central Product Classification (CPC2):

CPC forms a complete classification of products, including goods and services. The purpose of this classification is to create an international standard for collecting and tabulating all types of data that require details of the product, including the industrial production, national accounts, domestic and foreign trade of primary goods, international trade in services, balance of payments, consumption and price statistics. Other primary purposes of such classification are providing an international benchmark framework and encouraging coordination between various types of goods and services statistics

Classification of Individual Consumption by Purpose (COICOP):

It is the international reference classification for household expenditures.

Classification of the Functions of Government (COFOG):

The classification of the function of government (COFOG) that is in line with UN System of National Accounts (SNA in collaboration with the Organization for Economic Cooperation and Development (OECD) is considered one of the pillars of the manual. It classifies "government expenditures" by their functional nature to measure the extent to which the government expenditures meet their general objectives, which helps analysts and controllers of government agency performance in assessing efficiency of government expenditure

Balance of Payments Manual as per the Sixth Amendment (BPM6):

The Balance of Payments Manual (6th revision (BPM6)) prepared by the International Monetary Fund is one of the most important statistical systems that have been coordinated with the System of National Accounts 2008. The accounts of the rest of the world sector in the System of National Accounts are the link between the two systems, as both systems are similar in many recommendations whether viewing accounts or recording and evaluating transactions.

The classifications are available on the GASTAT's website: www.stats.gov.sa

3.3. Sector coverage

Quarterly gross domestic product cover each of the following:

Main Economic Activities:

- **Oil Activities:**

Activities include crude oil, natural gas and refinery activities.

- **Government Activities:**

include the activities of all government entities listed in the government's final account and the entities that produce non-market services and controlled by government.

- **Non-Oil Activities:**

It includes all other economic activities except for oil activities and government activities.

Economic Sectors (institutional Sectors):

- Oil sector:

Includes institutional units whose main activity is oil, natural gas extraction and refining activities. This sector includes any facilities owned by institutional units that practice an economic activity related to or not related to oil activity

- Governmental Sector:

Includes all institutions with 100% public ownership (apart from companies operating in the oil sector), as well as the agencies listed in the final account of the state and the agencies outside the budget that are financed by the general government and provide non-market products and services.

- Private Sector:

Includes all other companies that are not subject to the oil sector or the government sector.

- Non-oil Sector:

includes total to the governmental sector plus the private sector.

3.4. Statistical concepts and definitions

- Gross Output:

The value of products and services resulting from a productive activity for institutional units that use primary inputs during the accounting period. The output includes finished and unfinished products and services for own-use purposes, and the evaluation is usually at the producer price, which is the price at the factory door, and also includes value of non-market outputs of activities that provide non-market goods and services.

- Market products and services:

The value of goods and services that are sold in the market or that are mainly prepared for the sale in the market at a price aimed at covering the cost of production and making a profit, and it includes all goods and services produced locally.

- Non-market services:

The value of services that are provided at a price that usually does not cover the cost of their production (for free or at an insignificant price) and consists mostly of the production



of government service producers, non-profit institutions serving household, and domestic servants in the household sector.

- Intermediate Consumption:

It is the value of goods and services that are used as inputs for the production process excluding fixed assets as their consumption that is considered as a consumption of fixed capital. The used goods and services might be totally transformed or consumed in the production process. Some inputs may emerge again after being transformed or merged with the outputs.

- Government Final Consumption Expenditure:

The value of what the general government spends on individual and collective products and services. Such value is equal to the value of government's total production minus the total value of marketed sales, plus social transfer in kind, considering that the total value of government production equals the sum of the value of intermediate consumption of products and services, the value of employees' compensation, and the companion of fixed capital formation.

- Households Final Consumption Expenditure:

The value of spending by resident households on products (durable and non-durable) and services, excluding the purchase of housing and self-construction.

- Gross Capital Formation:

It is the sum of gross fixed capital formation and the change in inventories.

- Gross Fixed Capital Formation:

The value of a producer's acquisitions, less disposals of fixed assets during the accounting period, which are used in production for more than one year. Among these assets are dwellings, other buildings and structures, machinery and equipment, intellectual property products, as well as plants and animals yielding repeat products. Gross Fixed Capital Formation also includes expenditures on services that are added to the value of non-produced assets such as land improvement, forest development, implantations etc. Costs incurred on acquisition and disposal of assets (the costs of ownership transfer) are treated as gross fixed capital formation as well.

- Consumption of Fixed Capital:

Represents the decrease in the value of fixed assets used in production during the accounting period as a result of a decrease, obsolescence, or any deterioration. This



consumption could be deducted from the gross fixed capital formation to get the net fixed capital formation.

- **Change in Inventories:**

The market value of the change in inventories that occurs during the accounting period, including raw materials, work-in-progress, finished products, animals for slaughtering, and purchased goods for resale. This represents the difference in the inventory value at the start and end of the accounting period.

- **Exports of Goods and Services:**

It is the value of products that have been transferred from being owned by residents in Saudi Arabia to being owned by non-residents. The exports include products exported for processing and products purchased in local ports by non-residents transporters. However, the exports of services include all services provided to non-residents such as transportation services, communication, insurance, financial services, royalties, licenses fees, personal, cultural, and recreation services, and government services.

- **Imports of Goods and Services:**

It is the value of products that have been transferred from being owned by non-residents to being owned by residents in Saudi Arabia. Moreover, the imports include the services provided by non-residents to residents in Saudi Arabia. The imports include the products that cross the boards for processing and the products that are prepared in foreign ports and transported by local transporters. The import services include transportation, communication, insurance, financial services, royalties, licenses fees, personal and cultural services and government services.

- **Net Taxes on Production:**

Taxes payable on goods and services when they are produced, delivered, sold, transferred or otherwise disposed of by producers, in addition to taxes on imports that become due when goods enter the economic territory and cross borders or when services are provided by non-resident units.

- **Subsidies:**

The current payments without exchange made by the government, including non-resident government units, to enterprises based on their levels of production activities or quantities or prices of goods and services produced that they produce, sell or import in an aim to adjust market prices for social benefits.



- Net Taxes on Products and Imports:

The value of taxes on products and imports less the value of subsidies on products.

3.5. Statistical unit

Not applicable.

3.6. Statistical population

Not applicable.

3.7. Reference area

Cover the economic activities in the Kingdom of Saudi Arabi.

3.8. Time coverage

Data is available from the first quarter of 2010 to the current quarter.

3.9. Base period

The year 2018 is the base year used for calculating indicators of the quarterly gross domestic product.

4. Unit of measure

- Most results are measured by value (E.g. Millions of Saudi Riyals).
- Some indicators are reported as rates (E.g. Quarterly growth rate, Index and Volume).

5. Reference period

The report data is based on the reference quarter during its implementation period.

6. Confidentiality

6.1. Confidentiality - policy

According to the Royal Decree No. 23 dated 07-12-1397, data must always be kept confidential, and must be used by GASTAT only for statistical purposes.

Therefore, the data are protected in the data servers of the Authority.

6.2. Confidentiality - data treatment

Data are displayed in appropriate tables to facilitate its summarization, comprehension, results extraction, comparison with other data and coming up with statistical connotations for the study community. It is also easier to check tables without the need to see any sensitive or confidential data, which violates the confidentiality of statistical data.

7. Release policy

7.1. Release calendar

Quarterly gross domestic product results are bound by a release calendar.

7.2. Release calendar access

Available on the: <https://www.stats.gov.sa/statistical-calendar-releases>

7.3. User access

One of GASTAT's objectives is to meet better its clients' needs, so it immediately provides them with the bulletin's results once the quarterly gross domestic product Bulletin is published.

It also receives questions and inquiries of the clients about the Bulletin and its results through various communication channels, such as:

- GASTAT's official website: www.stats.gov.sa
- GASTAT's official e-mail address: info@stats.gov.sa
- Client Support's e-mail address: info@stats.gov.sa
- Official visits to GASTAT's official head office in Riyadh or one of its branches in Saudi Arabia.
- Official letters.
- Statistical telephone (199009).

8. Frequency of dissemination

Quarterly.

9. Accessibility and clarity

9.1. News release

The announcements of each publication are available on release calendar as mentioned in 7.2. Release calendar access. The news release can be viewed on the website of GASTAT through the following link:

<https://stats.gov.sa/news>



9.2. Publications

GASTAT issues quarterly gross domestic product publications and reports on a regular basis within a pre-prepared publishing plan and installed on the GASTAT's website. GASTAT is keen to publish its publications in a manner that serves all users of different types, including publications in different formats that contain (publication tables, data graphs, indicators, and Methodology and Quality Report) in both English and Arabic.

The quarterly national account statistic publications are available on the link:

<https://www.stats.gov.sa/statistics>

9.3. On-line database

The data of quarterly gross domestic product is published in the statistical database:

[GASTAT \(stats.gov.sa\)](https://www.stats.gov.sa)

9.4. Micro-data access

Not applicable.

9.5. Other

Not available.

9.6. Documentation on methodology

The framework for the quarterly gross domestic product statistics is the System of Quarterly National Accounts (QNA). Concepts, definitions and classifications are based on international standards.

Quarterly National Accounts System (QNA):

Quarterly System of National Accounts is an integrated system of quarterly time series coordinated through an accounting framework. Quarterly SNA adopts the same principles, definitions and structure as the Annual National Accounts. In principle, Quarterly National

Accounts cover the entire sequence of accounts and the balance sheet in 2008 System of National Accounts (2008SNA). In practice, data availability, time and resource constraints mean that quarterly national accounts that are usually less complete than annual SNA [\(المراجع\)](#).

9.7. Quality documentation

Quality documentation covers documentation on methods and standards for assessing, measuring, and monitoring the quality of statistical process and output. It is based on standard quality criteria such as relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, comparability, and coherence.

10. Quality management

10.1. Quality assurance

GASTAT declares that it considers the following principles: impartiality, user orientated, quality of processes and output, effectiveness of statistical processes.

Quality controls and validation of data are actions carried out throughout the process in different stages such as the data input and data collection and other final controls.

10.2. Quality assessment

GASTAT performs all statistical activities according to a national model (Generic Statistical Business Process Model - GSBPM). According to the GSBPM, the final phase of statistical activities is overall evaluation using information gathered in each phase or sub-process. This information is used to prepare the evaluation report which outlines all the quality issues related to the specific statistical activity and serves as input for improvement actions.

11. Relevance

11.1. User needs

Internal GASTAT's users, which make use of Quarterly gross domestic product data, include:

Some statistical departments that benefit from data of national account statistics.

External users who make significant use of national account statistics data include, but are not limited to:

- Governmental agencies.
- private sector.
- Regional and International Organizations.
- Academic entities and research institutions.
- International investors.

The disseminated key indicators that mostly used by external users:

- GDP at current prices and its growth rates:
 - GDP by economic activities at current prices.
 - GDP by the main economic activities at current prices.
 - Expenditure on GDP at current prices.
- Real GDP using the chain-linking methodology (growth rates, size, index numbers):
 - Real GDP using a chain-linking methodology according to economic activities.
 - Real GDP using chain-linking methodology according to main economic activities.
 - Expenditure on real GDP using the chain-linking methodology
- Real GDP with seasonal adjustments:
 - Real GDP with seasonal adjustments according to economic activities.
 - Real GDP with seasonal adjustments according to main economic activities.
 - Expenditure on real GDP with seasonal adjustments.

11.2. User satisfaction

Not available.

11.3. Completeness

the data status is complete.

12. Accuracy and reliability

12.1. Overall accuracy

The data is checked with previous years to identify any significant changes in data. Internal consistency of the data is checked before it is finalized. Links between variables are checked and matched between different data series that are confirmed.

13. Timeliness and punctuality

13.1. Timeliness

GASTAT uses the Special Data Dissemination Standard (SDDS) issued by the International Monetary Fund. According to this Standard, all statistical agencies are required to publish data on a quarterly basis, and with a delay of not more than one quarter (90 days) after the end of the reference period. If the data is from different source, such data may be published in a different frequency.

13.2. Punctuality

Publication takes place in accordance with published release dates for quarterly gross domestic product in the GASTAT webpage. The data is available at the expected time, as scheduled in the release calendar. If the publication delayed, the reasons would be provided.

14. Coherence and comparability

14.1. Comparability - geographical

The National Accounts Department prepares statistics in accordance with internationally accepted standards and methodologies, while focusing on meeting current and future statistical requirements of users, taking into account the highest degrees of accuracy and efficiency in estimates, with ease of obtaining and interpreting data, and the possibility of comparing them regionally and internationally, in addition to observing the appropriate period

between the readiness of information and the reference period that this information describes.

14.2. Comparability - over time

The possibility to compare quarterly gross domestic product (on an annual basis) and quarterly gross domestic product with seasonal adjustments (on a quarterly basis).

14.3. Coherence- cross domain

Not applicable.

14.3.1. Coherence - sub annual and annual statistics

There is correlation and consistency of quarterly gross domestic product with annual national accounts.

14.3.2. Coherence- National Accounts

Not applicable.

14.4. Coherence - internal

Quarterly gross domestic product estimate for the reference period have complete internal consistency, as they are all based on the same exact set of data and are calculated using the same estimation methods.

15. Data revision

15.1. Data revision - policy

When issuing the publication tables, the phrase (primary data) is added to the reference year. When data is issued for the next year, data is updated, and the final results are published with the next version.



15.2. Data revision - practice

Primary data is prepared for the current quarter, then the primary data are reviewed and estimates of the gross domestic product are prepared in the light of the available recent data. When detailed data for economic activities becomes available, the previous year's data is revised.

16. Statistical processing

16.1. Source data

First source: of quarterly gross domestic product:

Statistical surveys, carried out by GASTAT:

- Structural Business Statistics survey.
- Household Income and Expenditure Survey.
- Foreign trade statistics.
- Labour force survey.
- Industrial Production Survey.
- Consumer price indices.
- Wholesale price indices.
- Financial reports for companies not listed in the capital market that are available in GASTAT's databases.
- Population estimates.

Second source: of quarterly gross domestic product:

Administrative records, through which data can be obtained on a quarterly basis:

- Saudi Central Bank:
 - Balance of Payments.
 - The monthly statistical publication issued by the Saudi Central Bank.
 - Quarterly statistics issued by the Saudi Central Bank.
 - Financial account form.
 - Gross domestic product forms from financial institutions (banks - insurance companies - finance companies - General Organization for Social Insurance)
 - Points of Sale Transactions.
 - SADAD payment system data.

- Ministry of Finance:

Financial reports on the financial performance of general government.

- Ministry of Energy:
 - Gross Domestic product form for oil companies.
 - GDP form for electricity company.
- Capital Market Authority:

Quarterly financial reports.

- Organization of the Petroleum Exporting Countries (OPEC):

Data of oil quantities.

- Joint Organizations Data Initiative (JODI):

Data of quantities of oil and refining products.

- Zakat, Tax and Customs Authority:

Value-added tax data.

- National Information Center:

Data of departures and arrivals.

16.2. Frequency of data collection

Quarterly.

16.3. Data collection

Data Collection from Administrative Records:

In coordination with Data Acquisition Department, the quarterly gross domestic product publication data is obtained from the Saudi Central Bank (SAMA), Ministry of Finance, Ministry of Energy, Capital Market Authority and Zakat, Tax and Customs Authority.

The data is saved on GASTAT's databases, after data has been audited and reviewed according to the statistical method and recognized quality standards. In case of defect quality issues or errors in the data, we refer back to data source.

16.4. Data validation

Data is reviewed and matched to ensure their accuracy and precision in a way that suits their nature with the aim of giving presented statistics quality and accuracy.

The data of the publication's current quarter is compared with data of previous quarters to ensure their integrity and consistency in preparation for processing data along with extracting and reviewing results.

In addition to data processing and tabulation to check their accuracy, all outputs are stored and uploaded to the database after being calculated by GASTAT to be reviewed and processed by specialists in the Department of National Accounts through modern technologies and software designed for this purpose.

16.5. Data compilation

Data Editing:

Specialists in the Department of National Accounts have processed and analyzed data in this stage, and this step was based on the following measures:

- Resorting data acquired from administrative records, so that data becomes consistent with the approved standards, manuals and classifications.
- Summarizing detailed data into main points or main data.
- Linking between many parts of data and make them connected.
- Process incomplete or missing data.
- Process illogical data.
- Converting data into statistically significant data.
- Data is displayed in appropriate tables to facilitate its summarization, comprehension and results extraction, and to compare data with other data and come up with economic indicators.

Applicable Statistical Methods:

Gross Domestic Product at Market Prices (Production Approach):

The total added value of resident producers at the basic price plus net taxes on products, or it is the sum of outputs at basic prices minus the sum of intermediate consumption at buyers' prices plus net taxes on products, which is equal to (Taxes on products - subsidies on products).

Gross Domestic Product at Market Prices (Expenditure Approach):

GDP is estimated by the expenditure approach according to the following:

- Household Expenditure (Households Final Consumption Expenditure):

The final consumption expenditure of household sector is estimated by means of a survey of household expenditures and incomes, considering rates of population increase and rates of change in prices.

- General Government Final Consumption Expenditure:

General government final consumption expenditure represents the output of government sector (Intermediate consumption + Compensation of employee + Depreciation) minus the marketed sales.

- The method of estimating real GDP the chain-linking methodology:

A dynamic approach is used in economic measurement specifically in estimating real growth rates for national accounts using weights and prices for the previous year of the year of measurement. Chain-linking addresses some of the limitations associated with fixed base-years, especially when the economic structure and behavior undergo substantial transformations. It allows for a smoother transition and adapts to evolving market conditions. The approach captures not only changes in quantities but also adjusts for variations in prices, offering a more realistic portrayal of economic growth or contraction. The introduction of chain-linked volume measures prompts an essential discussion on the non-additivity issue. Chain-linking may lead to non-additivity, where the sum of sub-components in different periods may not exactly match the GDP over the entire period. This non-additivity arises due to the inherent flexibility and responsiveness of the chain-linking method to changes in the economic structure. While this issue is acknowledged, it's important to note that the benefits of improved accuracy and representation often outweigh the concerns associated with non-additivity.

- The method of estimating the quarterly real GDP with (seasonal adjustments):

The process of estimating and removing seasonal and calendar influences from data. Seasonally adjusted data means that it does not include seasonal and calendar effects resulting from climatic conditions, social customs, calendar events such as Eid al-Adha and Eid al-Fitr holidays, and changes in weekend combinations.

The methodology used:

The seasonal adjustment program is one of programs that are practiced and applied by statistical offices and committees worldwide, especially when studying and analyzing a set of time series. TRAMO-SEATS method is used to make seasonal adjustments. This is based on ARIMA model used in many international organizations



16.6. Adjustment

Not applicable.

17. Comment

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