الهيئة العامة للإحصاء
General Authority for Statistics

Frequently Asked Questions

GDP Comprehensive Revision

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Contents

I. Key Concepts

1. What is a Comprehensive Revision of GDP, and why is it Important?

A comprehensive revision for GDP serves as a reference point for recalibrating the time series estimates of GDP, ensuring all components across various sectors are measured for a specific year. This aligns with the System of National Accounts (SNA) guidelines and the best international practices. The comprehensive revision year provides an updated and comprehensive measurement of Saudi Arabia's economy, reflecting its actual size and structure in addition to ensuring more up-to-date coverage of all aspects of the Saudi economy to measure the actual size of the economy at current prices in the comprehensive revision year 2023.

2. Why should a Comprehensive Revision be conducted?

The comprehensive revision for GDP is essential to reflect major structural transformations in the Saudi economy, especially with the implementation of Vision 2030 initiatives, the growth of the non-oil private sector, the expansion of new economic activities, and the comprehensive revision year of GDP is a fundamental and important process that ensures accurate measurement of Saudi Arabia's economy and its linkage to better policymaking and more accurate economic analysis. It also provides a more reliable basis for tracking progress toward national economic goals, supporting political decisions, and facilitating international investment and cooperation.

3. What is the importance of a Comprehensive Revision?

The comprehensive revision of GDP holds particular significance for Saudi Arabia given the pace of its economic transformation. Since 2010 (the last time there was a comprehensive revision to GDP in Saudi Arabia), the country has witnessed fundamental changes, including the development of new economic cities, the growth of the entertainment sector, the expansion of tourism activities, and the rise of digital economy services. The comprehensive revision captures these structural shifts in detail, ensuring that GDP measurements more accurately reflect the current state of the Saudi economy.

Additionally, the comprehensive revision for GDP enhances the accuracy of GDP estimates by modernizing the shares of economic activities, thereby improving international comparability. For Saudi Arabia, a major player in the global economy through its G20 membership and international investments, having globally comparable economic statistics is crucial. The comprehensive revision facilitates more precise comparisons with other major economies, helping international investors better understand the structure and potential of the Saudi economy.

It also lays the foundation for shaping and refining economic policies based on more accurate and up-to-date GDP figures. This supports Saudi Arabia's efforts to diversify its economic base and advance toward the objectives of Vision 2030.

4. Why did GASTAT Adopt 2023 as comprehensive revision year?

GASTAT's decision to adopt 2023 as comprehensive revision year for calculating Saudi Arabia's GDP was a strategic move driven by several critical factors. The previous comprehensive revision was in 2010, no longer adequately captured the significant economic transformations that have reshaped the Saudi economy over the past decade, particularly since the launch of Vision 2030 and the accelerated efforts toward economic diversification. For this reason, and to better align with international recommendations GASTAT implemented a chain linking methodology for the computation of real GDP in 2024. At the same time, GASTAT selected the year 2023 as comprehensive revision year for GDP due to economic and statistical considerations. 2023 marks a period of relative stability

following recovery from the covid-19 pandemic, making it an ideal and modern reference point for future economic comparisons. This period aligns with the implementation of significant statistical enhancements and new data availability to better measure the level and structure of the Saudi economy, these including the census (2022) and the completion of comprehensive economic surveys, updated classification systems, improved data collection methodologies and GDP component estimation methodologies and techniques thereby enhancing the accuracy of the representation of economic activities in the Kingdom.

From a technical perspective, 2023 offers richer data sources than previously available. These include enhanced surveys, integrated administrative data, and new data sources such as point-of-sale transactions and digital platform activities, providing more comprehensive coverage of economic activities. This improved data ecosystem enables precise measurement of both traditional and emerging sectors of the Saudi economy.

5. What are Supply and Use Tables (SUTs)?

Supply and use tables represent a complete framework for resources and uses according to the SNA 2008, showing an analysis of products according to data sources in the supply table in terms of "local production or imports", and in the use table these resources are used in the form of "intermediate consumption, final consumption, investment, or exports". The supply and use tables are a set of consistent matrices that require accurate and comprehensive data. According to the accuracy and details of the information, a certain level of activities and products are selected based on the International Standard Industrial Classification for the economic activities (ISIC) and the classification of products according to central products classification (CPC 2.1) are determined according to the accuracy and details of the available statistics while ensuring consistency with international classifications.

6. What is the importance of supply and use tables in the comprehensive revision year?

The Supply and Use Tables (SUTs) 2023 were used to estimate GDP at current prices using three approaches (production, expenditure, and income). This is in line with the recommendations of the System of National Accounts (SNA 2008) to rely on SUTs in GDP estimates. This is due to their ability to accommodate all different data sources in their sub-matrices, to reveal statistical gaps, and to address consistency issues between data sources. They also provide a comprehensive and integrated picture of the production process, income generation, and expenditure on products by providing tables that reflect the overall equilibrium process within the economy. This contributes to providing an expanded framework for a detailed study of GDP, providing a large amount of analytical data for updated GDP estimates. SUTs provide the following:

- The SUT framework provides a detailed view of the relationships between industries and product flows in the Saudi economy.
- It represents a methodological framework for preparing national accounts estimates according to the three estimation approaches (production, income, and expenditure), assuming a balance of resources and uses.
- It enables measuring the share of each activity in the gross value added.
- It enables measuring the share of expenditure items in the GDP and the structure of expenditure on goods and services.
- It provides details of intermediate consumption for each activity and the types of products consumed.
- It provides a main framework for all accounts related to economic sectors (tourism, culture, health, the non-profit sector, etc.).

- The tables provide information that can be used by decision-makers, policy makers, and development program developers, enabling them to identify leading activities in the economy and direct investments and incentives to them.

7. What are the components of the supply table ?

The supply table consist of three matrices:

- **Domestic production matrix:** This matrix is the intersection between activities and products (goods and services) which itemizes what products each activity produces (vertically) and what products are produced by different activities (horizontally). The sum of the columns represents the production of each activity separately, while the horizontal sum represents the economy's production of a product.
- **Import matrix:** This matrix includes goods imports, services imports, and CIF/FOB adjustments for each product.
- **Price matrix (margins and taxes matrix on products):** This matrix includes trade margins, transportation margins, and net taxes on products for each product.

8. What are the components of the use table?

The use table consists of three matrices:

- **Intermediate consumption matrix:** This matrix consists of columns (activities) and rows (products). It shows vertically the details of intermediate consumption (products) for each activity and horizontally it shows the intermediate consumption of each product by different activities in the economy.
- **Final consumption expenditure matrix:** It consists of columns for each of; household final consumption expenditure, government final consumption expenditure, non-profit institutions serving household final consumption expenditure, fixed capital formation, change in inventory and exports for each product(rows).
- **Value-added matrix:** This matrix consists of rows for value-added, compensation of employees, net other taxes on production, consumption of fixed capital formation, and gross and net operating surplus for each economic activity (columns).

II. Key Methodology Updates

1. What are the main improvements in the methodology for measuring GDP?

GASTAT implemented significant methodological improvements in the comprehensive revision year 2023, enhancing the accuracy and comprehensiveness of measuring the GDP of the Kingdom of Saudi Arabia. These improvements extend to data collection, classification systems, measurement techniques, and sector coverage, creating a more robust framework for measuring economic activity in the Kingdom.

In the government sector, one of the key improvements was the reclassification of development funds and the Capital Market Authority from government activities to the financial sector, in line with international standards in both the 2008 (SNA) and the 2014 Government Finance Statistics (GFS) Manual. This change provides a clearer framework for both the government sector and the financial sector. Furthermore, the inclusion of financial intermediation services indirectly measured (FISIM) in government intermediate consumption provides an accurate representation of the costs of government services.

The measurement of agricultural activities has been significantly improved by integrating multiple data sources. The new methodology combines the comprehensive agricultural survey with the individual producers' survey to clarify commercial and small-scale agricultural activities. This integration captures activities that have not been adequately measured before, such as honey production and the gathering of wild truffles, providing a more complete picture of agricultural production in the Kingdom of Saudi Arabia.

The estimates of the financial sector have seen significant improvements, especially in the measurement of Islamic banking products and modern financial services. The new methodology applies a more sophisticated approach to measuring FISIM, using the Saudi Interbank Offered Rate (SAIBOR) as a reference rate and distributing financial services across institutional sectors based on the volume of loans and deposits. Additionally, the measurements of insurance and pension funds have been improved to better reflect investment income and risk transfer services.

The informal sector plays an important role in the Saudi economy, and it is now measured more comprehensively through multiple estimation methods. The new methodology includes data from delivery applications, freelance work licenses, and the labor force survey to clarify the growing gig economy and work through digital platforms. This multi-source approach provides a more accurate picture of informal economic activities.

The non-financial sector has benefited from improved supply and use tables that have been constructed at more detailed classification levels. The new methodology uses the fourth level of the International Standard Industrial Classification for the Economic Activities (ISIC) and the third level of the Central Product Classification (CPC2.1), providing more detail in economic measurements. Trade margins are now calculated more accurately by excluding goods purchased for resale from revenue calculations.

The estimates of household final consumption expenditure have been updated through the Household Income and Expenditure Survey (HIES), integrating data from point-of-sale transactions, imports, electronic payment systems, and measures of consumption and expenditure for the year 2023. The new methodology better clarifies international transactions, including the spending of residents abroad and the spending of non-residents within the Kingdom of Saudi Arabia. Consumption from self-production, especially in agriculture, is now measured more accurately through improved survey methods.

2. How is the government sector measured differently?

There were several major updates to the measurement of the government sector incorporated as part of the comprehensive revision. GASTAT established a clear framework for government activities using detailed final account data from the Ministry of Finance for 2023. These activities were classified according to the Classification of Functions of Government (COFOG) and linked to the International Standard Industrial Classification for the Economic Activities (ISIC), providing an accurate measurement of the value added by government activities.

Significant changes include the reclassification of development funds and the Capital Market Authority from the government sector to the financial sector. This shift, based on detailed statistical forms from these institutions, aligns with international standards under the (SNA2008).

Additionally, tax classifications were updated, reclassifying items such as real estate transaction taxes and taxes on the transfer of ownership of foreign real estate to taxes on products rather than other taxes on production. In conjunction with this change to the

classification of nominal net taxes, the estimation methodology for real net taxes was updated to better align with international recommendations.

Government sector measurement now includes the sector's share of (FISIM) in intermediate consumption, calculated based on the allocation of loans and deposits by the central bank. This impacts both the measurement of government activity output and the results of final government consumption expenditure.

The methodology for calculating final government consumption expenditure was also enhanced to include services provided by the central bank on behalf of the government, measured using a cost-based approach supported by statistical forms from the central bank.

3. What changes have occurred in the financial sector's results?

The financial sector's measurements have been comprehensively updated to reflect the evolving financial system in Saudi Arabia. The new methodology addresses different types of institutions through tailored approaches:

- For the central bank, both cost-based and revenue-based approaches are now used. The cost-based approach includes operational expenses, employee compensation, and capital consumption, while the revenue-based approach covers fee-based services and financial intermediation services.
- Commercial banks' measurements now include both direct production (fees, foreign exchange income) and FISIM, which were allocated across institutional sectors based on loan and deposit patterns.
- Development funds have been integrated into the financial sector, improving the overall coverage of the sector.

4. How are Financial Intermediation Services Indirectly Measured (FISIM) calculated and distributed across sectors?

FISIM represents implicit financial services provided by banks, but for which they do not charge explicit fees. FISIM was calculated using the reference interest rate method based on the Saudi Interbank Offered Rate (SAIBOR), where the calculation is made according to the following structure:

✓ Financial intermediation services calculated indirectly for the loans side =

Loan balances * (interest on lending - reference rate)

✓ Financial intermediation services calculated indirectly for the deposits side =

Deposit balances * (reference rate - interest on deposit)

✓ Financial intermediation services calculated indirectly =

Financial intermediation services calculated indirectly for the loans side + Financial intermediation services calculated indirectly for the deposits side

Where the distribution across sectors depends on the sectoral loan and deposit data provided by the Central Bank data, and financial intermediation services are allocated to each sector based on its share of the total of those loans and deposits,

then they are added to the intermediate consumption of the productive sectors while they are added as final consumption for the household sector.

This improved methodology ensures that financial services are correctly reflected in the production and consumption accounts of each sector, providing a more accurate picture of financial intermediation in the economy

5. What updates have occurred in the measurement of agricultural activities?

The measurement of agricultural activities has been enhanced by integrating multiple data sources to improve coverage. Primary data come from two main sources: The Comprehensive Agricultural Survey and the Survey of Individual Producers, which provide comprehensive coverage of agricultural activities.

The estimates of the different agricultural activities have been improved and are divided as follows:

- Crop production: divided by type (cereals, fodder crops, vegetables, etc.)
- Livestock production: including livestock on and off-holdings as well as production for capital formation.
- Fisheries production: including aquaculture and marine fishing
- Honey and wild truffle production activities

The estimates include the value of sold production and total production, with estimates of intermediate consumption for each type of activity. The updated methodology also better considers production for own consumption.

6. How are household final consumption expenditure and related activities measured?

The measurement of household activities and consumption has been updated with several key improvements. The 2023 Household Income and Expenditure Survey (HIES) data has been comprehensively revised and updated, with the updated 2023 expenditure classifications being linked to the 2018 survey version with the Central Product Classification (CPC 2.1).

Key improvements include:

- Integration of point of sale and electronic payment system data
- Better measurement of self-produced consumption
- Improved measurement of international transactions (residents abroad and non-residents locally)
- Improved measurement of financial services used by households
- Better coverage of digital consumption patterns

The methodology also distinguishes between cash and non-cash expenditures, providing a more comprehensive view of household consumption patterns and living standards.

7. What are the improvements in the non-financial sector results?

The measurement of the non-financial sector has been updated through an improved structure from supply and use tables. Detailed comprehensive economic survey data have been used at the level of the International Standard Industrial Classification for the Economic Activities (ISIC) and the third digit of the Central Product Classification (CPC). Major updates include:

- Improved estimates of wholesale and retail trade margins
- Improved allocation of FISIM on the basis of sectoral deposits and loans
- Improved measurement of construction projects in progress
- Improved measurement of Research and Development services
- More accurate measurement of intermediate consumption through detailed technical coefficients.

The methodology also applies the commodity flow approach to address gaps in supply and use tables, ensuring balanced and comprehensive sector coverage. This provides a more accurate picture of relations between the industry and sectors' contributions to GDP.

8. How are different types of taxes classified and processed?

An improved tax classification in line with international standards and reflecting the tax structure of the Kingdom of Saudi Arabia has been applied. An important change in the treatment is the reclassification of some types of taxes, such as the real estate transaction tax and the taxes on the transfer of ownership of foreign real estate, from other taxes on production to taxes on products, which affects the net taxes on products and thus the GDP by production approach. This update is in line with international standards and guides, such as the GFS Manual and the SNA 2008, as the tax classifications follow the Government Finance Statistics standards approved and used by the Ministry of Finance to record transactions in the final budget account for each year. This treatment ensures consistency between the national accounts and government finance statistics while maintaining international comparability. The estimation of real net taxes has also been updated to better align with international recommendations.

9. What are the main classifications used to collect and present data?

Several statistical classifications have been used as follows:

1. International Standard Industrial Classification for Economic Activities (ISIC)
2. Classification of Individual Consumption According to Purpose (COICOP)
3. Classification of the functions of government (COFOG)
4. Central Product Classification (CPC 2.1)
5. Harmonized System of Foreign Trade Classification (HS)
6. Balance of Payments Manual according to the sixth edition (PBM6)

III. Historical time series updates and GDP concepts

1. How were the historical time series updated as part of the comprehensive revision?

Historical GDP estimates were updated through a backcasting model that considered the new 2023 levels computed as part of the comprehensive revision, the length of time between 2023 and the last unrevised time period (year), Inter-years, as well as historical data to ensure time series consistency. The model used advanced statistical techniques to maintain the integrity of historical trends while incorporating methodological changes and improved classifications. This ensured that historical comparisons remained valid with the updated series.

2. What is backcasting?

Backcasting is a statistical process that was used by GASTAT to revise historical GDP data when implementing the new estimates for 2023. The process ensured that the economic time series remained consistent and comparable across time periods. Data revisions implemented by GASTAT include both mathematical backcasting as well as updates to estimates resulting from methodological improvements, additional data sources and structural changes in the economy. Without revising the historical time series and backcasting, there would be a break in the GDP series in 2023, making it impossible to properly analyze economic trends or calculate growth rates.

To understand how backcasting works through a practical example, suppose that the new methodology and estimates produce a value for 2023 that differs significantly from the previous estimate of that period. Adopting this new value for 2023 while leaving

historical data unchanged would create an artificial increase or decrease in the series. Instead, the difference in the new value versus the old value is distributed backward over time in an economically sound manner known as the "exponential adjustment model."

Quarterly data adds further challenges. Once annual figures were computed, they were reconciled with quarterly values using the IMF-approved quarterly distribution function while maintaining reasonable seasonal patterns in quarterly series.

3. What is the importance of backcasting?

The importance of backcasting of results goes beyond mere statistical consistency. They are necessary to/for:

- Economic policy analysis that requires a long time series
- Investment decisions based on historical trends
- International Comparison of economic performance
- Research into structural economic changes
- Understanding the real path of economic development

The process requires comprehensive verification to ensure that:

- Results provide economically logical growth trends
- Sectoral relationships are respected while maintaining logical trends
- Quarterly trends correspond to annual totals
- Maintaining international comparability
- Maintaining the analytical usefulness of the data

4. When and why did GASTAT adopt the chain linking methodology in measuring real growth rates?

The previous adoption of the "chain linking" method with the release of GDP data for the Fourth Quarter of 2023 for calculating real GDP reflects GASTAT' commitment to aligning economic measurement with international best practices and recommendations. Previously, GASTAT used a methodology known as the "fixed base year" methodology.

5. What are the main advantages of using the chain linking methodology for real GDP versus the fixed base year methodology?

The benefits of the chain linking methodology adopted in 2024 by GASTAT include:

A. Reducing bias of results when compared to the previous constant price/fixed base year estimates. The fixed base year method did not effectively consider changes in consumer preferences and spending patterns over time, whereas chain-linked estimates with periodic updates of weights (annual), ensure that GDP reflects current economic realities and consumers' choices.

B. Better reflects structural changes: Saudi Arabia's economy is more dynamic than ever, through continuous changes in the quality and types of products and services produced that the fixed base year method was not able to capture these changes adequately. However, the chain-linked methodology accounts for these changes providing a clearer picture of the economic contribution of different sectors.

The transition to chain-linked real GDP brought Saudi Arabia in line with international best practices recommended by the 2008 SNA. Furthermore, the majority of G20 States have adopted this approach, reflecting its widespread acceptance.

6. Why are the new estimates of real GDP different from the old estimates?

Old estimates of GDP are not directly comparable to the new estimates. This is because the new estimates use the price reference year for 2023, while the old time series were at 2018 prices. It is very important to recognize that the estimates of

GDP at constant prices have been prepared primarily to measure real growth rather than to obtain values as real GDP values change periodically with the change in the reference year of prices. Growth rates between years are not affected by this change in the reference year of prices, as such a comparison of growth rates between the two series is relevant and reflect the overall development of the Saudi economy.

7. Why was the prices reference year changed to 2023 instead of 2018 and how does this affect the GDP time series at constant prices?

2023 was selected as a reference year based on several factors:

- The price reference year corresponds to the new nominal estimates for 2023, which have benefitted from the many additional data sources available for that year as part of the comprehensive revision providing an accurate measurement of GDP.
- 2023 is characterized by economic stability and stable price rates.
- Compatibility with baseline years of price indices in updated versions, facilitating the adjustment process by relying on price indices with the same base year (reference year).
- The reference year was changed to alert users to changes in the time series due to the comprehensive revision. Users should update all data in models or otherwise to include all new data resulting from the comprehensive revision exercise and **not** mix previous data with revised data. Changing the reference period from 2018=100 to 2023=100 makes the two different vintages of data easily identifiable.

8. What are seasonal adjustments and what is their importance in real GDP?

Seasonal adjustment is the process of separating a time series into its components to reveal underlying economic trends and irregular movements in the series that may be hidden by the usual ups and downs of an unadjusted time series. This process is widely used in statistics as a technique to enable proper interpretation of time series data. Seasonal adjustment is thus a mathematical process of estimating and removing regularly recurring seasonal and calendar effects, commonly referred to as seasonality. Once removed, the remaining seasonally adjusted series represents the trend cycle and irregular components, allowing for easier analysis and identification of underlying long-term trends and short-term movements in a consistent time series.

9. How can seasonally adjusted data be used?

Seasonally adjusted data can be used as supplementary data to the original time series, allowing users to compare data across periods (quarters) without the influence of seasonal and calendar effects. Seasonally adjusted data are not intended to replace unadjusted data, but rather to be used alongside unadjusted data, as they allow users to identify underlying trends and short-term movements more easily than the unadjusted series, which are difficult to observe.

10. How are Seasonal Adjustments Applied?

The core adjustment process utilizes the TRAMO-SEATS in JDemetra+, which utilizes ARIMA model-based seasonal adjustment method to separate seasonal components from trends and irregular movements.

For key economic indicators, GASTAT applies these adjustments at detailed levels before aggregation. For example, in retail trade, individual components are seasonally adjusted before being combined into total retail figures. This approach, known as indirect seasonal adjustment, preserves the inherent seasonal patterns of various economic activities while ensuring that the adjusted series retain their additional characteristics.

This process pays special attention to the seasonal patterns specific to Saudi Arabia, such as the effects of Ramadan and the Hajj season, which may occur at different times in the Gregorian calendar. The effects of these moving holidays are addressed through specialized regression techniques within the seasonal adjustment framework.

IV. Data Quality and Sources

1. How does GASTAT ensure the accuracy of recalibrated numbers?

GASTAT uses a comprehensive quality assurance framework to achieve accurately updated GDP figures by implementing multiple review stages and cross-verification procedures across various data sources and methodologies. This approach combines statistical accuracy and economic logic to produce reliable and internationally comparable national account statistics.
In general, GASTAT ensures accuracy through comprehensive data collection and verification, beginning with the primary economic surveys, which form the backbone of regular statistics and the comprehensive revision process.

2. What are the sources of data used in the comprehensive revision?

First data source: Economic surveys implemented by GASTAT:

1. Comprehensive economic survey (CES)
2. Comprehensive agriculture survey
3. Household income and expenditure survey (HIES)
4. Individuals producers survey (IPS)
5. Saudi Census 2022
6. Labour force survey (LFS)
7. Annual International trade survey (ITS)
8. Consumer price index (CPI)
9. Wholesale price index (WPI)

The second data sources: administration records:

1. Central bank:
   - Balance of payment
   - Point of sales
   - GDP forms for financial sector enterprises
2. Ministry of finance:
   - Final budget account
   - Budget of extrabudgetary entities
3. Ministry of energy:
   - GDP forms for oil companies
   - GDP forms for electricity companies
4. ZATCA:

- Sales and revenues of by economic activities

5. Capital market authority:
   - Financial reports of capital market companies
   - GDP forms for capital market authority
6. General organization for social insurance:
   - The annual report for GOSI
   - Number of employees by economic activity
7. Ministry of Human Resources and Social Development:
   - Number of employees by economic activity
8. Specialized development funds:
   - GDP forms for the specialized development funds

3. How does GASTAT align with international practices and recommendations related to comprehensive revisions?

GASTAT has approached the International Monetary Fund (IMF), reviewed countries' experiences, and reviewed international recommendations and the 2008 SNA manual to ensure the highest standards of harmonization:

- Application of the recommendations of the 2008 SNA
- Regular consultation with international statistical organizations and request for IMF technical assistance to review the comprehensive revision methodology.
- Benchmarking comparisons with similar economies.
- Application of international best practices and recommendations.

4. How are data gaps handled?

GASTAT adopts a systematic approach to address data gaps. When primary data sources do not provide complete coverage, multiple strategies are implemented to ensure comprehensive economic measurement.

Supply and use tables help to detect gaps between different data sources and rely on productivity measures, historical indicators and commodity flow methodology primarily to detect and address gaps. This includes tracking products across the economy from production or import to end-use, helping to identify and value lost economic activities especially when some economic activities lack recorded revenues, such as construction projects in progress.

The informal sector faces specific challenges regarding data coverage. GASTAT addresses these challenges through multiple estimation methods, comparing labor force survey data with employment records in the formal sector, integrating data from delivery apps, and incorporating information from freelance work licenses. This multi-source approach helps ensure comprehensive coverage of informal economic activities.

5. How are different surveys integrated?

The integration of surveys follows a systematic approach that maintains consistency while maximizing the value of each data source. The comprehensive economic survey acts as the backbone of measurements for the formal sector, with other surveys providing complementary information for specific sectors or activities.

The Individual Producers Survey is integrated with the comprehensive economic survey by carefully defining coverage areas. This ensures that no economic activities are overlooked or counted twice. For example, in agricultural activities, data from both the comprehensive agricultural survey and the Individual Producers Survey are combined to provide complete coverage of both commercial and small-scale agricultural activities.

Data from the Household Income and Expenditure Survey are integrated with point-of-sale and electronic payment information to provide a comprehensive view of consumption patterns. This integration requires accurate matching of transaction categories and expenditure classifications to ensure consistent processing across sources.

6. How is consistency of data across sources ensured?

Data consistency is maintained through a comprehensive validation framework that operates at multiple levels. At the source level, each dataset undergoes strict quality checks before being integrated into the national accounts' framework. This includes checking historical patterns, cross-validation with relevant indicators, and validating data according to international standards.

Consistency between sources is ensured through systematic comparison of overlapping measurements. When the same economic phenomenon is included from multiple sources, such as employment figures from labor force surveys and establishment surveys, GASTAT applies reconciliation procedures to resolve discrepancies. This often involves a detailed investigation of methodological differences and careful adjustment for coverage standards.

The framework of supply and use tables serves as a key tool for ensuring consistency, providing a structured approach to balancing different perspectives of the economy. When discrepancies arise, they are investigated and resolved through detailed analysis of primary data sources and methodologies.

7. How are administrative records used?

Administrative records play a vital role in the estimation methodologies, providing primary measurements and validation tools for survey-based data. Government financial records from the Ministry of Finance provide comprehensive data on public sector activities, including detailed spending patterns, revenue flows, and information on programs.

Central bank administrative data serve multiple purposes, providing crucial information on financial flows, monetary aggregates, and international transactions. These data are particularly important for measuring financial intermediation services and understanding cross-border financial flows.

Labor market administrative records are used to validate and supplement employment data from surveys. These records are particularly valuable for understanding employment patterns in the formal sector and help measure activity in the informal sector through comparison with survey-based employment figures.

Tax administration records provide important information about business activity and help validate survey-based measurements of economic output. These records are particularly valuable for understanding the distribution of economic activity across sectors and regions.

Customs data provide detailed information on international trade flows, supporting the measurement of imports and exports. These data are integrated with survey-based information on local production and consumption to ensure comprehensive coverage of product flows across the economy.

Each administrative data source undergoes careful quality assessment before being integrated into the national accounts' framework. This includes evaluating coverage, classification systems, and timing patterns to ensure compatibility with other data sources and alignment with national accounting concepts.

8. What are the most important quality processes done to verify the quality of the estimates from the comprehensive revision?

Quality procedures included:

- Automatic verifications in data processing systems.
- Manual review of significant changes or unusual patterns.
- Expert review of methodological applications.
- Documentation of all methodological decisions.

GASTAT also promotes transparency in quality assurance by:

- Regular dissemination of methodological updates.
- Clear documentation of statistical procedures.
- Open communication on data updates.
- Regular stakeholder consultations.
- Continuous professional development of statistical staff

V. Practical Applications

1. How should stakeholders interpret and use the adjusted GDP figures?

Stakeholders must approach the adjusted GDP figures with a precise understanding of what the changes mean for their analytical needs. For government policymakers, the adjusted figures provide an accurate basis for economic planning and policy assessment. When evaluating progress towards achieving the Vision 2030 goals, policymakers should focus on the new series to obtain the most accurate picture of economic diversification. For example, the contribution of the non-oil private sector to GDP may show different patterns after the comprehensive revision, reflecting both real structural changes. This can demonstrate the effectiveness of policies and progress made toward the Kingdom's plans to achieve Vision 2030.

Practically, stakeholders should do the following:

- Use the fully updated series for historical analysis instead of mixing data from different base years.
- Pay attention to sectoral compositions that may have changed significantly in the updated estimates.

- Consider both real economic changes and methodological improvements when interpreting changes in economic indicators.
- Use the improved sectoral breakdowns for more detailed analysis of the economic structure.
- Refer back to the methodological notes issued by GASTAT to understand the specific changes in measurement techniques.

Stakeholders should maintain regular communication with GASTAT for clarifications regarding methodological changes and their implications for specific analytical needs. This understanding will ensure that the improvements resulting from the comprehensive revision translate into more informed decision-making across all sectors of the economy.

2. How should analysts use the updated GDP results?

Analysts should consider the updated GDP results as the most accurate representation of the current economic structure in Saudi Arabia. When using these results, it is essential to work with the complete updated GDP series rather than mixing old data for some years with updated data for other years, especially for economic modeling and forecasting.

For policy analysis, the updated GDP results provide an accurate basis for understanding the progress of economic diversification programs and the impact of Vision 2030 initiatives, particularly on emerging sectors. Financial analysts and investment professionals should recalibrate their analytical models to account for new sectoral weights and improved measurement methodologies. This may require revisiting historical relationships between economic variables and updating assumptions about intersectoral interactions and growth patterns.

3. How should historical comparisons be conducted?

Historical comparisons should always use the updated GDP series provided by GASTAT following the comprehensive revision of GDP. The backcasting process conducted by GASTAT ensures that historical data are comparable by applying updated methodologies while preserving the integrity of historical growth trends.

Users should avoid linking old series with the new series, as this could lead to incorrect conclusions about economic trends due to differing methodologies.

When analyzing long-term trends, users should recognize that some economic activities are now measured differently or more comprehensively than before. However, GASTAT ensures historical comparability across the GDP time series through extensive efforts to fully update GDP series and apply updated methodologies and measurement techniques.

4. How should sectoral changes be understood?

Sectoral changes in the updated GDP results reflect both actual economic transformation and improved measurement methodologies. Users should understand that some sectors may display different weights in the economy due to better coverage or updated classification methods. This is particularly relevant for emerging sectors and activities where methodological updates have improved their measurement.

When analyzing sectoral performance, users should consider intersectoral linkages that are now more clearly reflected in national accounts.

5. Where can users find the detailed methodology for the updated GDP?

GASTAT provides a comprehensive and detailed methodology for GDP through several channels:

- **Primary source:** The official website of GASTAT, which includes detailed documentation of the GDP comprehensive revision process, methodological changes, and technical notes for all sectors and activities. Users can access published guides and

methodologies explaining measurement changes and their implications. Regular methodological updates are published alongside statistical releases, providing information on significant changes or improvements in measurement methods.

- **Specific inquiries:** Users can contact GASTAT's customer support team, which can provide guidance on technical issues and inquiries regarding methodology and data interpretation.
- **Technical workshops and seminars:** GASTAT periodically conducts technical workshops and seminars for users and stakeholders to help them understand methodological changes and their implications for economic analysis. These sessions offer valuable opportunities for users to engage directly with technical experts at GASTAT and gain deeper insights into the national accounts' framework.
- **International comparisons and methodological context:** Users can refer to official documents of international standards (such as the 2008 System of National Accounts) that underpin GASTAT's approaches. However, users should always prioritize GASTAT-specific documentation to understand the details of application at the level of the Saudi economy.

6. What additional upgrades/improvements are planned for GDP measurements?

It is expected that GASTAT will continue to progress and develop the statistical process by increasing the scope of data collection and analysis and the preparation of updated statistical data at all levels. During the coming years, GASTAT will continue to strengthen its efforts to measure changes in the Saudi economy and other economic and social statistics including gross domestic product (GDP) by economic activity and administrative regions, developing methods for collecting price data to measure inflation and changes in production costs, and improving estimates of real GDP.

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