Quarterly National Accounts of Pakistan

Data plays a crucial role in economic development by informing evidence-based policy-making and reducing information asymmetry between the public and private sectors, including businesses, markets, and individuals. Till 2022, the PBS was only releasing the Annual National Accounts (ANA) based on the latest System of National Accounts. In December 2023, the Pakistan Bureau of Statistics (PBS) compiled the value-added approach of Quarterly National Accounts for the first time, significantly contributing to economic development policy.

The main goal of QNA is to provide a timely and thorough overview of current economic developments, going beyond the information already provided by ANA and individual short-term indicators. QNA is released every three months following the reference quarter. Annual National Accounts (ANA) lacks information on within-year economic developments. As it fails to capture higher-frequency developments, annual data is insufficient for monitoring business cycles and timing economic policies. Therefore, the Quarterly National Accounts (QNA) offer a comprehensive and organized set of quarterly data on macroeconomic aggregates at a higher frequency, serving as a crucial tool for timely and effective economic policy-making.

Methodology

A detailed methodology of the QNA is available on the PBS website[1]. It thoroughly explains the QNA's compiling procedure, including a discussion of the indicators for each industry and the relevant deflators. After approving the revised base year 2015-16, PBS started compiling QNA in June 2022. With the consultation of World Bank team, a detailed QNA methodology was created, and quarterly estimates were prepared from 2015-16 onwards as per the IMF manual on QNA-2017. A technical committee was formed to obtain professional input on the QNA compilation technique. The technical committee comprised of representatives from the following departments/organizations:

i.   Ministry of Finance

ii. Ministry of Planning, Development and Special Initiatives

iii. State Bank of Pakistan

iv. Pakistan Institute of Development Economics (PIDE)

v.   Department of Economics, Quaid-e-Azam University

vi. Independent experts on the subject.

QNA is often created by combining ANA data with short-term source statistics, resulting in a more timely and informative combination. The availability of short-term indicators in Pakistan varies across different industries. There are specific industries that have reliable quarterly indicators, such as Fisheries, Mining & Quarrying, Large Scale Manufacturing, Electricity Generation & Distribution, Gas Distribution, Financial & Insurance activities, and General Government expenditure. Quarterly input indicators are available only in specific industries, such as livestock and construction, while output indicators are unavailable.

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[1] https://www.pbs.gov.pk/sites/default/files/national_accounts/qna/publications/QNA%20report%20%20Final%20for%20web.pdf

Additionally, some industries have neither quarterly nor annual indicators available. These industries are compiled annually based on fixed growth assumptions. The value addition for these industries is compiled annually based on fixed growth. Some examples of these industries are small-scale manufacturing, accommodation and food service activities, and ownership of dwellings and real estate activities (housing services). In addition, the agriculture industry in Pakistan is of great significance, encompassing five key crops and approximately 125 other crops, fruits, and vegetables. However, the industry faces the challenge of managing work in progress due to these crops' varying sowing and harvesting seasons, thus requiring a separate treatment.

Since PBS is a National Statistical Organization (NSO), it must follow international standards while compiling macroeconomic indicators used domestically and compared internationally. For QNA, benchmarking, volume, value, price, composite indexes, weights, and their availability and impact on each industry were discussed. The Denton Technique was explored and used during the QNA compilation. Further, the Model-Based Seasonal Adjustment Approach TRAMO-SEATS, developed by

Vistor Gomez and Agustin Maravall, was also applied. Other statistical techniques, such as Time Series Regression with ARIMA Noise, Missing Observations and Outliers (TRAMO) estimates, forecasts, interpolating regression models with missing observations, and Signal Extraction, were used.

On the recommendation of technical committee, the QNA will be released three months after the reference quarter based on available information following the IMF Data Quality Assessment Framework (DQAF). It states that "quarterly GDP estimates should be disseminated within three months after the end of the reference quarter" under Special Data Dissemination Standards. Further, July - September is Q1, October - December is Q2, January - March is Q3 and April- June is Q4.

Quarterly and Annual Performance of the Economy

The QNA have been compiled using the production approach to align them with the annual national accounts and ensure consistency. The following figure provides the comparison of yearly benchmarks and QGVA:

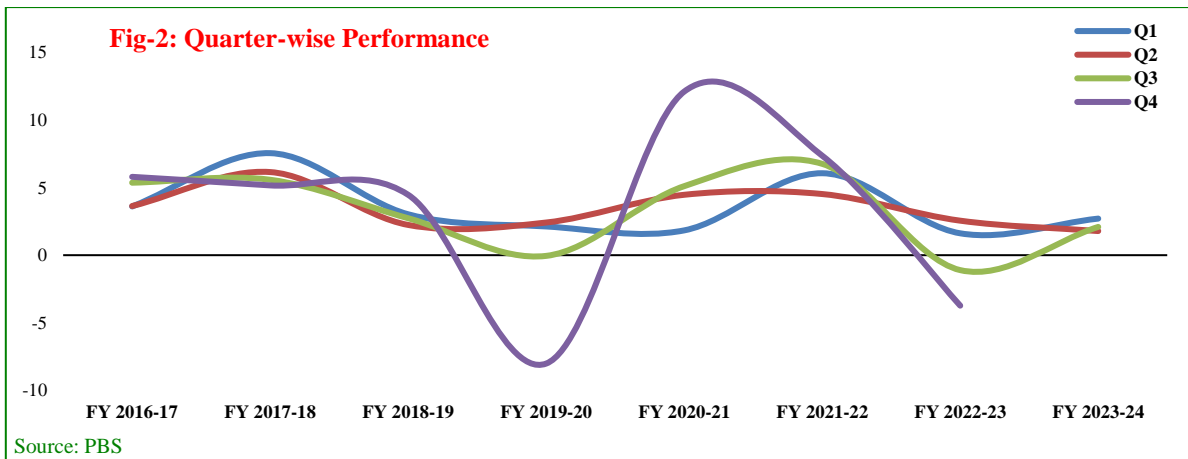**Fig-1: Comparison of Annual GVA and Quarterly GVA**
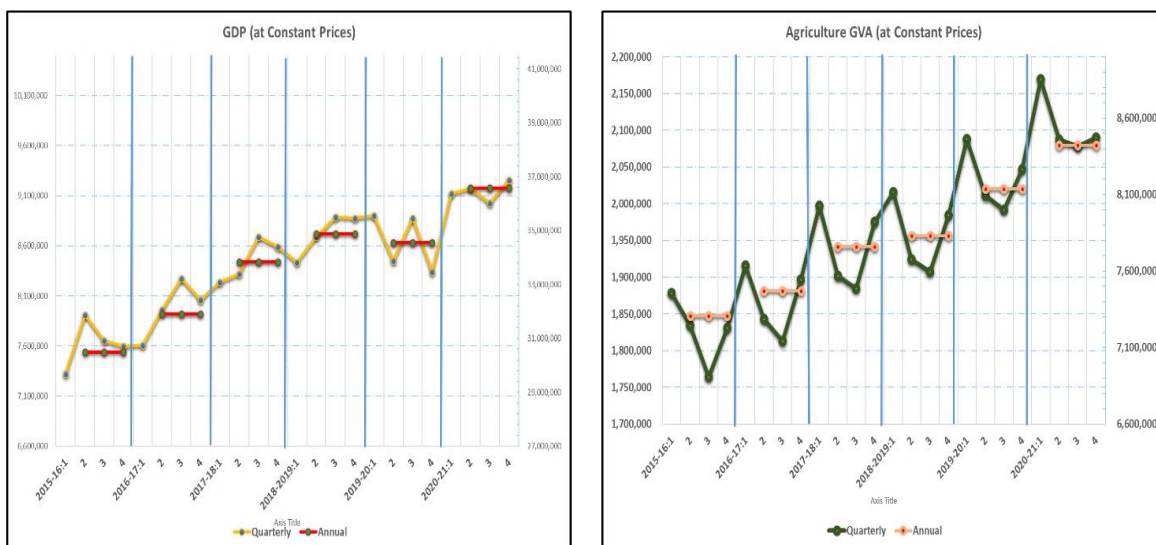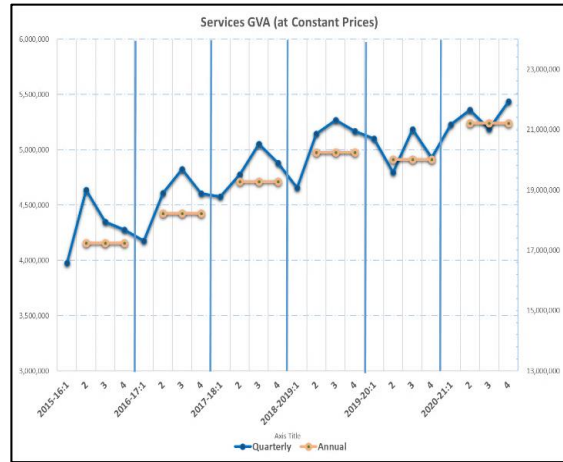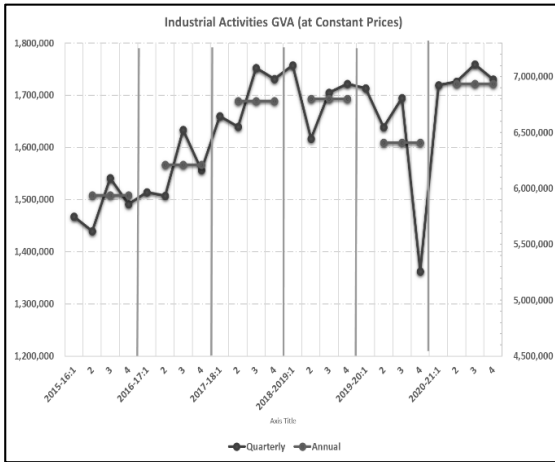
Source: PBS

Based on quarterly growth data, the year-on-year variation was highest in Q4 compared to other quarters. This reflects the reliance of fourth-quarter growth on Wheat, the major crop, which crucially depends on weather conditions.

Fig-2: Quarter-wise Performance

Source: PBS

Regarding sectoral contribution, the pattern of sectoral shares in quarterly data almost follows the pattern seen in the Annual National Accounts, i.e., Services have a dominating share in Quarterly GVA.

Fig-3: Sectoral Contribution
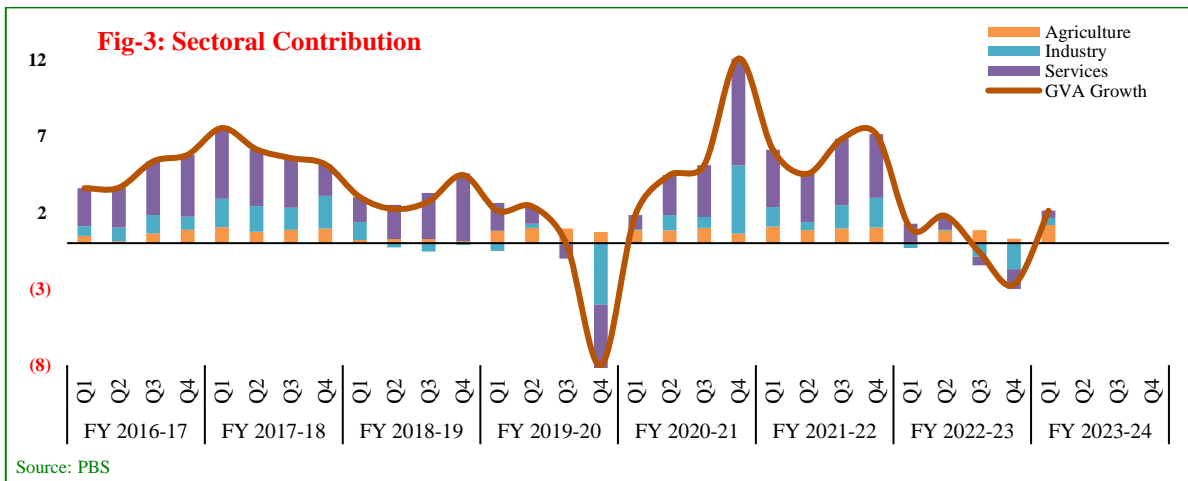
Source: PBS

Benefits of QNA for Policy Making

The publication of QNA by PBS significantly enhances Pakistan's statistical information, conforming to best international practices. It provides more timely information about economic activity in the main sectors of the economy, which is an essential input for efficient decision-making. Also, efficient pricing in real and financial markets hinges on available information.

It also allows better economic and financial analysis, modeling, and forecasting, which are essential inputs in fiscal and monetary policies. From an analytical point of view, GDP is often decomposed into a potential and cyclical component (the output gap). Structural policy measures can enhance the long-term potential output growth, while the output gap is mainly determined by demand management policies (fiscal and monetary policy). The availability of QNA allows for a better estimation of these critical indicators.

The Ministry of Finance publishes quarterly Fiscal Operations data. These figures reveal the nation's fiscal health and debt sustainability, usually stated as a percentage of GDP. The official QNA allows quarterly fiscal and debt monitoring using official GDP data.

Additionally, fiscal activities are intimately linked to national account economic trends. QNA aids quarterly fiscal revenue and spending analysis, modeling, and forecasting.

Likewise, the Balance of Payment (BOP) data is vital for external sector performance. The SBP publishes the BOP monthly, recording these flows in US dollars. Thus, tying imports and exports to macroeconomic metrics like GDP is necessary to comprehend, analyze, and forecast BOP current account trends.

Concluding Remarks

Estimating QNA is a considerable task undertaken by PBS, as it provides a comprehensive economic overview every quarter. This information is valuable for policymakers, academics, researchers, and others as it allows for timely analysis of the current economic situation throughout the year. Currently, PBS has started publishing the quarterly production account. It would also be beneficial to publish the quarterly expenditure account to expand the available statistical information. Moreover, compiling and publishing the income account, which is currently only available annually, would complete the set of quarterly national accounts.