Designing and implementing a nationwide survey for the production of quarterly GDP series in Nigeria

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I.   Introduction

Many countries have recognized the need for high quality data to guide macroeconomic and sectoral policies. Timely and reliable information/data is now regarded as an essential tool that enables governments, businesses, and citizens to make informed decisions. The importance attached to the production of quality and timely data can also be understood from the point of view that it assists in policy formulation, economic planning and monitoring as well as in the review of socio-economic developments in a country.

In Nigeria, the statutory responsibility for generating national statistics for the compilation of Gross Domestic Product (GDP) and other macroeconomic aggregates is vested in the National Bureau of Statistics (NBS), formerly the Federal Office of Statistics (FOS). To achieve this mandate, the NBS usually conducts surveys including annual, quarterly and other periodic surveys. However, due to the capital intensive nature of surveys and the limited resources available, the capacity of the Bureau to conduct comprehensive surveys for the production of quarterly GDP series for the country had over the years been limited. Moreover, poor funding of statistical activities by government had compromised data quality and made it difficult for a robust and self-sustaining statistical infrastructure to be built within the National Statistical System (NSS). The reduced priority for investment in statistics, inability to attract and retain qualified staff due to poor facilitation, motivation and remuneration, were other factors that had militated against statistical production in Nigeria. These developments had deleterious effects on statistical agencies in terms of sustaining capacity for statistical production and had led to user-despondency in the country.

To mitigate these difficulties, the NBS resorted to collaborative studies with other organizations, especially the Central Bank of Nigeria (CBN). The two institutions had collaborated in the past in areas such as the production of external trade statistics, the re-basing of Consumer Price Index (CPI), the survey of the informal sector, as well as the pilot survey of export commodities in Nigeria. In an initial effort to produce quarterly series, similar collaborations also took place between the CBN, the Nigerian Institute of Social and Economic Research (NISER) and the Centre for Econometrics and Allied Research (CEAR), both in Ibadan. At that time, the efforts were merely limited to the decomposition of annual into quarterly GDP series for Nigeria. There were no surveys conducted to capture live data for the generation of quarterly GDP series for the country.

Although the series generated earlier through the decomposition of annual GDP succeeded in filling some gaps, they were not quite adequate as the methodology adopted for the decomposition of some of the annual series relied on some subjective indicators.

Unsatisfied with the results and confronted with the problem of non-availability of reliable quarterly GDP series for policy prescription and analysis, the CBN in 2005 collaborated with the NBS to undertake a comprehensive national survey of socio-economic activities in Nigeria. The key objective of the exercise was to collect primary data necessary for the production of quarterly GDP series, covering the period from the first quarter of 2004 to the second quarter of 2005. To achieve this objective, the two institutions decided to pull together their resources for the nationwide survey which was the first of its kind. Using the instrumentality of the National Integrated Survey of Households (NISH), National Integrated Survey of Establishments (NISE) and the System of Administrative Statistics (SAS), the multi-purpose survey covered the 36 states of the federation as well as the federal capital territory, Abuja.

In the past, the two institutions had relied on the output of surveys undertaken by each institution for the analysis of sectoral developments. The shortcomings of that approach had been the duplication of efforts, data conflicts and inadequacies in the area of coverage, precision, funding, scope and depth. The management of the two institutions therefore felt the need for synergy of efforts so as to optimize the financial, human and material resources available to the two institutions in order to thenceforth produce an acceptable national statistical output for the nation beginning from 2004.

The objective of this paper is, therefore, to describe the design and implementation of the survey, as well as evaluate its outcome in the context of meeting data needs, achieving quick-wins and charting a course of action for sustainability of the collaboration. The challenges, prospects and the way forward of generating credible national statistics through surveys are also discussed.

The rest of the paper is structured into eight parts as follows: Part II discusses the survey methodology adopted for the NBS/CBN collaborative survey, including the survey instruments, sample design and estimation techniques. Part III gives a detailed description of the field survey and the processes involved. In Part IV and V, the estimation procedure for the GDP is discussed as well as the report writing. In Part VI the modifications introduced to the survey are discussed, while the challenges and prospects of generating data from field surveys in Nigeria, are highlighted in Part VII. Part VI contains the recommendations and conclusion.

II. Survey methodology

II.1 Survey instruments

The survey instruments used were the questionnaires and instruction manuals. The instruction manuals were incorporated in the questionnaires for easy reference and to facilitate their completion. The survey instruments were jointly developed to meet the objectives of the survey and the requirements of the collaborating agencies. Thirty-seven questionnaires were developed: two for NISH, eight for NISE, 25 for SAS and one each for State and Local government statistics.

The questionnaires administered for the NISH were those used for General Household Survey and Private Farmers - adapted from the National Agricultural Sample Survey (NASS) questionnaire. The two questionnaires were administered at the household level.

The questionnaires developed for the National Integrated Survey of Establishments were variously focused on manufacturing; modern agricultural holdings; hotels and restaurants; building and construction; wholesale and retail trade; mining and quarrying; professional services and road transport operators. A questionnaire for farm gate and producer prices was administered to establishments engaged in manufacturing, mining & quarrying, and services. This was aimed at using the data for the construction of the producer price index.

The questionnaires administered under the System of Administrative Statistics (SAS) covered various sectors of the economy: education; water and sanitation; housing; finance; gas, oil and energy; electricity; labour; local government information services statistics; etc.

II.2   Sample designs

(i)   National Integrated Survey of Households sample design

The collaborative survey employed the sample designs of three survey systems used by the NBS. The sample design for the General Household Survey (GHS) and the National Agricultural Sample Survey (NASS) derived from the 2000/05 NISH sample design developed by the National Bureau of Statistics (NBS). The NISH design employed a 2-stage, replicated and rotated cluster sampling design, that is, a technique by which many sample sites were selected independently from a population such that each replicate sample represents the population.

In the design, the enumeration areas (EAs) were selected as first stage sampling units or primary sampling units (PSUs), while the housing units constituted the second stage sampling units or secondary sampling units (SSUs). The housing units were the ultimate sampling units for the multi-subject survey.

In the GHS, a sample of 60 EAs was selected with equal probability from each state, while 30 EAs were selected from the Federal Capital Territory (FCT), Abuja. In each EA, a listing of housing units was undertaken, from which a sample of 10 Housing units (HUs) was selected systematically. Thereafter, all the households within the 10 HUs were interviewed using the GHS questionnaire.

Altogether, a sample of 600 Housing units was selected in each state, while the sample size for FCT, Abuja was 300. A national sample size of 21,900 housing units was selected, which was considered robust enough to provide estimates at national and sub-national (state) levels.

For the NASS (Private Farmers), 5 farming housing units (FHUs) were selected systematically after stratifying the housing units into farming and non-farming housing units, where all the holders within the selected farming housing units were interviewed using the private farmers questionnaire. A sample size of 300 farming housing units was drawn from each state and 150 from FCT, Abuja. A total national sample size of 10,950 farming housing units provided the estimates at the national and state levels.

Estimation procedures

Let the probability of selecting an EA be f_j and the probability of selecting a housing unit be f_k, then the product $f = f_j f_k = \dfrac{1}{W_{jk}}$ Where $f_j = \dfrac{n}{N}$ and $f_k = \dfrac{h}{H}$

1.   For GHS:

$$\hat{Y}_s = \frac{N}{n} \sum_{j=1}^{n} \frac{H}{h} \sum_{k=1}^{h} X_{sj\,k}$$

$$= \frac{N}{n} \frac{H}{h} \sum_{j=1}^{n} \sum_{k=1}^{h} X_{sj\,k}$$

$$= W_{sj\,k} \sum_{j=1}^{n} \sum_{k=1}^{h} X_{sj\,k} \qquad \left(\text{Note}: W_{sj\,k} = \frac{N}{n} \bullet \frac{H}{h} \right)$$

Where $\hat{Y}_s$ is the State Estimate of the element in kth housing unit of the jth EA in the sth State.

N = Total Number of EAs in the sth State.

n = Selected number of EAs in sth State

H = Total number of Housing Units listed in the jth EA.

h = Selected number of Housing Units in the jth EA.

$X_{sj\,k}$ is the value of the element of HU in the kth housing unit of jth EA in the sth State.

$W_{sj\,k}$ is the weight of the element in the kth housing unit of the jth EA in the sth State.

2.   *For NASS (private farmers)*

$$\hat{Y}_s = \frac{N}{n}\sum_{j=1}^{n}\frac{F_H}{m}\sum_{k=1}^{m}X_{sj\,k}$$

$$= \frac{N}{n}\frac{F_H}{m}\sum_{j=1}^{n}\sum_{k=1}^{m}X_{sj\,k}$$

$$= W_{sj\,k}\sum_{j=1}^{n}\sum_{k=1}^{m}X_{sj\,k}$$

Where $\hat{Y}_s$ is the State Estimate

N = Total number of EAs in the sth State

n = Selected number of EAs in sth State

F_H = Total number of farming housing units listed.

m = Selected number of farming housing units.

$X_{sj\,k}$ is the value of the element of farming housing unit (FHUs) in the kth housing unit of jth EA in the sth State.

$W_{sj\,k}$ is the weight.

3.   *National estimate*

$$\hat{Y}_N = \sum_{s=1}^{37}\hat{Y}_s$$

where $\hat{Y}_N$ is the National Estimate and $\hat{Y}_s$ is the State Estimate.

4.   *Variance estimate (Jackknife method)*

To estimate variances using the Jackknife method will require forming replicates from the full sample by randomly eliminating one sample cluster (EA) at a time from a State containing k EAs. *k* replicated estimates are formed by eliminating one of these, at a time, and increasing the weight of the remaining $(k-1)$ EAs by a factor of $k/(k-1)$. This process is repeated for each EA.

For a given State or reporting domain, the estimate of the variance of a rate, *r*, is given by

$$Var(r) = (Se)^2 = \frac{1}{k(k-1)}\sum_{i=1}^{k}(r_i - r)^2$$

where, (*Se*) is the standard error,

k is the number of EAs in the State or reporting domain.

r is the weighted estimate calculated from the entire sample of EAs in the state or reporting domain.

$r_i = kr - (k - 1)r_{(i)}$,

where $r_{(i)}$ is the re-weighted estimate calculated from the reduced sample of $k - 1$ EAs.

To obtain an estimate of the variance at a higher level, say, at the national level, the process is repeated over all States, with k redefined to refer to the total number of EAs (as opposed to the number in the States).

(ii) National Integrated Survey of Establishments sample design

The design of an efficient sample for the National Integrated Survey of Establishments (NISE) required a broad understanding of the sectors in the economy and practical experience in sampling techniques. The collaborative survey used the NBS 2004 frame of quick-listing and the CBN frame of establishments. The two frames were merged, cleaned and validated. A total of 2,171 establishments drawn from 8 sectors were covered and canvassed. A combination of parameters was considered in the allocation of establishments to each sector, state and employment band. These included the contribution of each sector to the GDP; the number of establishments in each sector by state; and the number of establishments in each employment band for each sector. Some establishments were allocated purposively based on a priori knowledge of the performance of the sector in the economy.

The estimation procedure

If the sample of 'n' establishments is allocated to each sector with probabilities proportional to their sizes (contribution to the GDP), say,

$$P_i = \frac{M_i}{M_o} \quad \text{and} \quad M_o = \sum M_i$$

then, the unbiased estimate of the population (all establishments) total is given by:

$$\hat{Y}_{pps} = \frac{1}{n} \sum_{i=1}^{n} \frac{y_i}{P_i}$$

and the estimate of the variance is given by:

$$V(\hat{Y}_{pps}) = \frac{1}{n} \sum_{i=1}^{n} P_i \left[\frac{y_i}{P_i} - \hat{Y}_{pps} \right]^2$$

The unbiased estimator of the variance of the above estimator is given by:

$$V(\hat{Y}_{pps}) = \frac{1}{n(n-1)} \left[\sum_{i=1}^{n} \frac{(y_i)^2}{(P_i)} - n\hat{Y}_{pps}^2 \right]$$

(iii) System of Administrative Statistics (SAS) sample design

The design of the SAS survey involved complete coverage of the listed institutions and establishments. The 25 questionnaires for SAS operations covered all relevant agencies/institutions at the national, state and local government levels.

III. Field survey and processes

III.1 Work programme

As soon as the management of the CBN and NBS agreed to the collaboration, an experts working group was put in place to handle the collaborative efforts. A technical sub-committee was also appointed to produce a draft budget which was later ratified by the working group and approved by the management of the CBN. Under a sharing formula jointly agreed by the two institutions, the CBN, being the funding institution, was allocated 70 per cent, while the balance of 30 per cent was to be contributed by the NBS. However, to facilitate a smooth take-off of the survey, the CBN made available the entire sum of ₦54.1 million (about US$410,500), earmarked for the survey.

Also, a joint data production programme by the two agencies resulted in the scheduling of the 2005 half year survey activities between June and October, 2005. The work programme provided for the planning period, design of questionnaires and harmonization of the survey instruments by the two institutions, so as to accommodate the requirements of the institutions and other desirable indicators which were previously not being captured. It also made provisions for training of CBN and NBS staff who participated in the survey exercise. The period of the survey was designated with staggered monitoring/retrieval periods embedded within it. Provision was also made for data entry/processing, statistical analysis, report writing and harmonization of the report to ensure data consistency, etc.

The work programme which was used as a monitoring guide for the survey, also helped in programme discipline at each level of activity. The work programme was, however, revised to accommodate delays which were encountered in the retrieval of completed records in the field, especially for NISE and SAS operations. Overall, the work programme was well articulated.

III.2 Training of field staff

To facilitate proper understanding of the requirements of the survey exercise, a training programme was organized for all the enumerators and field officers. The training for the survey was design to be at two levels. The first level involved the Training of Trainers (TOT), which was done in 2 days for senior officers of the NBS and the CBN. The second level training was undertaken at the state level for the field staff (supervisors, enumerators, state officers and zonal controllers). This was done within a period of three days. The training sessions included classroom teaching, power-point presentations, mock interviews, role playing, field practice and home exercises. The training programme was quite comprehensive and efficient, with the overall aim of improving participants' ability in the art of collecting good quality data.

III.3 Data collection

Two approaches were adopted for data capture. The first approach - the household component - involved using 3 teams to conduct the survey. Each team was made up of one supervisor and four interviewers, and was required to cover 20 Enumeration areas in a roving manner. A pair of interviewers covered 10 EAs, with an average of 2 days allocated to administer the General Household Survey and private farmers questionnaires. The agricultural survey was conducted using the interview approach. The limitation of this approach lay in the fact that responses from farmers were based on memory recall and therefore could lead to the introduction of some bias in the answers provided by farmers that fell within the samples taken. Also, the hectares cultivated and the quantum of crops produced were recorded in local units by farmers. These could lead to some measurement errors when converting to standard units. These limitations were noted and taken care of, during the data processing stage. Altogether, four weeks was allocated to data collection.

The second approach involved the lodgement and retrieval of questionnaire for both NISE and SAS operations. Two officers (1 NBS and 1 CBN) covered each state, but 6 NBS and 6 CBN officers were deployed to Lagos, being the commercial nerve centre of Nigeria, while Rivers and Kano used 1 CBN and 3 NBS officers each, also because of their relative importance. Altogether, 480 enumerators and 110 supervisors from NBS as well as 37 CBN staff participated in the field survey.

III.4   Coverage and scope

Coverage

The survey covered the 36 states of the Federal Republic of Nigeria, including the Federal Capital Territory (FCT), Abuja. The target population canvassed were Households, Private and Public Establishments/ Agencies as well as Parastatals at federal, state and local government levels.

Scope

1.   National Integrated Survey of Households (NISH)

The subjects covered under the National Integrated Survey of Households include: household composition; household amenities, health, education, employment, female contraceptive prevalence, births and deaths in last 12 months, child immunization and child malnutrition, crop production, livestock production, poultry keeping, farming inputs and processing and storage facilities.

2.   National Integrated Survey of Establishments (NISE)

Under the National Integrated Survey of Establishments, fourteen (14) sectors and sub-sectors were covered. These are: Modern Agricultural Holding, Fishing, Mining and Quarrying, Manufacturing, Electricity, Oil and Gas, Water Supply, Construction, Wholesale and Retail Trade, Hotel and Restaurant, Transport, Communications, Financial Institutions, Real Estate, Renting and Business Activities, Public Administration and Defense, Health and Social Work, Other Community, Social and Personal Services. Subject areas covered include kind of activity; legal form of ownership; persons engaged; paid employees, wages and salaries; description of products, installed production capacity; production and cost of production/operation, etc.

3.   System of Administrative Statistics (SAS)

The SAS covered subjects which cut across different sectors and institutions, such as Housing, Electricity, Transportation, Communication, Education, Health, Labour, Foreign Trade Statistics, Agriculture, Water and Sanitation, Oil and Gas, Energy and Fiscal operations, etc.

III.5   Quality control and retrieval of records

To ensure reliable results from the survey, some quality control measures were adopted at various levels of the exercise. At the data collection stage, there were three layers of supervision involving - the field supervisors at the first layer, a combination of CBN and NBS State officers and Zonal Controllers at the second, and NBS headquarters staff at the third layer.

Eight quality control instruments which were used for skim and spot checks, were also developed. NBS and CBN staff reported on the supervision and monitoring efforts during the period of the data collection. Retrieval of records was implemented in two stages. The first level coincided with the second layer of supervision and monitoring, while the second level

was undertaken by NBS headquarters staff. Furthermore, a mop-up exercise was done by NBS State officers for two weeks after the scheduled period of data collection, due to low response rate of the NISE and SAS survey questionnaires in the field.

With these measures in place, the response rate was quite encouraging. The retrieval status of both General Household survey and Private Farmers Questionnaires was very high, ranging from 85 to 95 percent. The response rate for the NISE sectoral operations varied between 60 to 70 percent. The retrieval rate for System of Administrative Statistics, which involved more of government establishments, was fairly encouraging.

III.6   Data processing and analysis

The processing and analysis plan involved five main stages: training of data processing staff; manual editing and coding; development of data entry programme; data entry and editing; and tabulation. Specialized data processing packages were employed. Integrated Micro Processor System (IMPS) and ACCESS software were used for data entry, Statistical Package for Social Sciences (SPSS) and Censuses and Surveys Processing System (CSPro) for editing, and a combination of SPSS, Statistical Analysis Software (SAS) and EXCEL for table generation. The subject-matter specialists and computer personnel from both NBS and CBN handled the data processing work. Tabulation plans were equally developed by these officers for the various areas covered in the three-survey system used in the exercise.

IV.   Estimation of quarterly gross domestic product (GDP)

National accounts aggregates are universally accepted indicators for measuring the economic performance of a nation. National accounts statistics therefore serve as a framework that provides a comprehensive, consistent and regular picture of an economy as well as the interrelationships among the sectors of the economy.

Quarterly estimates of the Gross Domestic Product (GDP), therefore, offer high frequency indicators, thereby yielding timely information about the current situation as well as changes within the economy on short-term basis. The procedure used for the compilation of quarterly GDP estimates reported for 2004 and 2005 was based on the production approach to estimation of GDP, which is internationally guided by the blueprint of the United Nation's 1993 System of National Accounts (SNA '93).

IV.1   Sources of data

The analysis derived from three data sources, namely:

1.   Survey results on major economic indicators as jointly conducted by the National Bureau of Statistics and the Central Bank of Nigeria.

2.   Administrative Statistics data earlier collected prior to the survey by the National Accounts Division of NBS. This was used in filling up some existing data gaps.

3.   Input-output relations established from the previous quarterly GDP analysis/estimation by the National Accounts Division of the NBS.

IV.2   Producing the estimates

The first step taken in the production of the quarterly GDP series was the cleaning up of the sectoral accounts. This was done by ensuring that all data from the sectoral accounts, such

as agricultural and manufacturing, etc, were finalized before exporting them to the national accounts table. This was to ensure internal consistency of the national accounts with the sectoral accounts, so that growth drivers of the GDP could easily be identified.

Consequently, the estimate of intermediate consumption, compensation of employees, capital consumption allowance, indirect taxes and subsidies were independently produced from the survey results. Operating surplus was derived by netting off compensation of employees, capital consumption from the value added at basic prices. Also, by adding indirect taxes and removing subsidies from the estimates of value added at basic prices, the current price estimate for value added at producers' price was obtained. All other variables in National Accounts were obtained by either adding the components derived above or as residuals. Current price estimates of GDP were derived while the value added at current prices was deflated using established 1990 implicit price deflators to obtain value added at 1990 constant prices.

The gross domestic product for each quarter was produced by aggregating the value added for all the industries for the particular quarter. The overall annual GDP was derived by summing the afore-mentioned value added for the four quarters. It is pertinent to observe that actual quarterly GDP aggregates were generated for the four quarters of 2004 and the first two quarters of 2005 while the third and fourth quarters of 2005 were based on projected figures, since the survey did not cover those quarters. This was aimed at providing two-quarters-ahead estimates, while at the same time making it possible for the annual estimates of 2004 to be comparable with those of 2005.

IV.3   Summary of results

Although various data sets were generated from the NBS/CBN collaborative survey, our interest in this paper would be limited to the quarterly GDP estimates as presented below.

The result of the survey indicated that the Nigerian economy recorded an overall GDP growth at current basic prices of 23.57 percent over that of 2004. The GDP at current basic half yearly growth for 2005 over 2004 was 25.42 percent.

The quarterly GDP estimates at current basic prices rose from a level of ₦2,631.2 billion, ₦2,592.3 billion, ₦ 2,985.5 billion, ₦3,202.0 billion in 2004 to ₦3,255.0 billion, ₦3,296.4 billion, ₦3,716.9 billion, ₦3,832.4 billion, respectively in 2005. This showed overall quarterly growth rates of 23.71, 27.16, 24.50 and 19.69 percent, respectively in 2005 over the levels in 2004 (table 1).

The primary sector consisting of crop production, livestock, forestry and fishing accounted for about 34.21 percent of the overall GDP at current basic prices in 2004 and 33.71 percent in 2005. Also, the share of the primary sector in the quarterly GDP at current prices in 2004 was 27.44, 35.58, 38.59 and 34.59 percent, while its share in 2005 was 27.03, 34.08, 37.70, and 35.19 percent, respectively.

The GDP of crude petroleum and Natural Gas sector at current basic prices rose from a level of ₦4,247.7 billion in 2004 to ₦5,506.8 billion in 2005, representing an annual growth of 29.64 percent. The GDP levels in the first through the fourth quarters stood at ₦1,1 56.3 billion, ₦968.7 billion, ₦1,023.9 billion, ₦1,098.8 billion in 2004 and ₦1,499.1 billion, ₦1,255.8 billion, ₦1,327.3 billion, ₦1,424.5 billion in 2005, respectively. This sector accounted for 37.22 percent of the GDP at current prices in 2004 and 39.05 percent in 2005.

On the other hand, the GDP at 1990 basic prices increased by 5.52 percent from a level of ₦527.6 billion in 2004 to ₦556.7 billion in 2005. The half yearly growth of GDP at 1990 prices for 2005 over 2004 stood at 5.58 percent. The quarterly GDP estimates at constant prices rose from the levels of ₦114.6 billion, ₦123.7 billion, ₦142.4 billion, ₦146.9 billion in 2004 to ₦118.5 billion, ₦133.7 billion, ₦150.6 billion, ₦153.8 billion, respectively in 2005. This showed corresponding quarterly growth rates in 2005 of 3.40, 8.11, 5.78 and 4.73 percent

respectively. The primary sector accounted for about 40.98 percent of the overall GDP at constant prices in 2004 and 41.48 percent in 2005. On quarterly basis, the primary sector GDP share at constant prices was 34.88, 41.08, 45.51, 41.27 percent in 2004 and 36.04, 40.58, 45.96 and 42.09 percent in 2005, respectively (table 2).

The GDP for the crude petroleum and natural gas sector at constant basic prices fell from a level of ₦135.7 billion in 2004 to ₦132.6 billion in 2005, representing a contraction of 2.26 percent, during the period. This sector accounted for 25.72 percent of the GDP at constant prices in 2004 and 23.82 percent in 2005.

The non-oil GDP, at 1990 constant basic prices, increased from a level of ₦391.91 billion in 2004 to ₦424.08 billion in 2005, representing a growth of 8.21 percent. This was a positive development as it indicated that the economy was non-oil sector-led, a natural fall out from the recent economic reforms being implemented by Nigeria. Non-oil sector's share in total GDP in 2004 and 2005 stood at 74.28 and 76.18 percent, respectively. Table 3 was the revised table of GDP at constant basic prices, obtained after firm figures on crude oil output for the first and second halves of 2005 were obtained. The figures showed that overall GDP growth was 6.2 per cent.

V.   Report writing

The report writing arrangement involved development of tabulation plans and the report writing format/outline. A core team of senior officers from subject-matter divisions in the NBS and CBN worked together to produce the draft report for finalization. The report was later harmonized by a select team from the expert working group to ensure internal consistency. The report was presented in two volumes: volume I is the statistical report with the executive summary for presentation to the Management of the two institutions, while volume II contains the detailed statistical tables.

VI.   Modifications based on lessons of experience

VI.1   GDP results

After the analysis of the survey results were completed, an attempt was made to compare the new GDP series with the old ones. A cursory look at table 4 reveals a seemingly structural break, when the old 2000-2004 annual GDP series was compared with the new 2004-2005 series. This was actually anticipated, hence, the need to conduct a new 2004 survey, so as to have an overlap with the old series being compiled by the NBS. However, to overcome this and therefore achieve a better comparison between the old and new series, we spliced the old series, using a common factor derived from the old and new 2004 GDP series. The results are presented in table 5. From table 5 we observe that the new GDP at 1990 constant basic prices would have been ₦435.9 billion, ₦451.1 billion, ₦497.3 billion and ₦527.6 billion in 2001 through 2004. This implies that the old GDP series for 2001 through 2004 were under-estimated by ₦91.6 billion, ₦94.8 billion, ₦104.5 billion and ₦110.9 billion, respectively. A major fall out from this development was the realization that, as governments and institutions are prepared to fund data production activities, substantial benefits accrue to the economy, as observed in the above case. For instance, by spending just ₦54.1 million (US$410,500) to conduct a comprehensive nationwide survey, Nigeria realized that it had been under-estimating its GDP by as much as ₦100 billion (on average) over the years, 2001-2004. This empirical evidence shows that statistical information is a strategic resource. According to Prof. Kiregyera (2004), "how well this resource is harnessed and used for

development in each country, will depend upon how well the National Statistical System (NSS) is engineered and operationalised".

VI. 2   2005 annual survey

Based on the success of the 2005 half year survey, another institution, the Nigerian Communications Commission (NCC) indicated its interest in joining the collaboration, during the 2005 annual survey, which was conducted between January and July, 2006. The aim of the survey was to capture for the first time, core Information and Communications Technology (ICT) indicators at the household and enterprise levels. Because of the expanded mandate, the resource envelope provided by the CBN was enlarged to ₦79.4 million or about US$615,300.0. The sharing formula was also reviewed to 50:30:20 for CBN, NBS and NCC, respectively.

The field results of the 2005 half year survey tended to suggest that there was a crowding out of the livestock and fishing farming housing units. To overcome this, the farming housing units in the 2005 annual survey were further stratified into Crop Farming Housing Units (CFHUs), Livestock Farming Housing Units (LFHUs) and Fishing Farming Housing Units (FFHUs) and distinct questionnaires were administered to them. In each EA, 5 HUs were studied for crop farming, 3 HUs were studied for livestock and 2 HUs for fishery. This implied that at each level of selection, different random start was used for systematically selecting housing units. Quarterly farm gate prices were also introduced, to enhance the compilation of agricultural GDP.

In line with the provisions of the 2004/05-2008/09 Statistical Master Plan (SMP) for strengthening the National Statistical System (NSS), the hiring of enumerators was outsourced, such that those that participated were hired on part time basis. This was intended to lighten the financial burden on the NBS. Again, the questionnaires used for the GHS was redesigned to be scannable, in order to reduce the time for questionnaire processing. Variables which were left out in the questionnaires, which were found to be necessary for the computation of the GDP were incorporated. Enough time was also allowed for questionnaire design and printing, so as not to dislocate the field operations owing to the late arrival of questionnaires to the field.

Other major fall out from the collaborative efforts was the technical knowledge imparted to the participants, as well as the networking during the working sessions. This is obviously going to rub off in the development of the NSS. The collaboration has also shown that as more institutions indicate their interest, the lower is the financial burden per institution and the higher the chance of obtaining more comprehensive data sets of high quality.

VII.   Challenges and prospects

VII.1   Challenges

The conduct of surveys in Nigeria is fraught with many problems and challenges. Some of the major challenges faced in the conduct of surveys are highlighted as follows:

(i)   Apathy and non-disclosure by respondents

The most serious challenge that is encountered in the process of data gathering has been the apathy exhibited by respondents to survey questionnaires. This makes the retrieval process very difficult, as retrieval appointments are not honoured or sometimes the field staff is compelled to make repeated calls/visits.

Related to this, is the issue of non-disclosure of required information by respondents, especially those pertaining to financial transactions. Most of the respondents feel that the questionnaires are for tax assessment purposes. For this reason, they tend to understate any information they provide in this section.

(ii) Non-availability of relevant information

At times, the respondents are unable to respond to certain aspects of the questionnaires due to poor record keeping and documentation by the establishment/business unit. In this situation, relevant information cannot be captured through such returns.

(iii) Educational level of respondents

The quality of survey returns is usually affected by the educational level of the respondents. Some of the respondents find it difficult to understand and give useful answers to some of the structured questionnaires due to low educational background. In such cases, it may be necessary to resort to the interview method.

(iv) Accessibility to respondents

The field officer sometimes encounters the problem of accessibility to the respondents in certain locality. The accessibility to such respondents are usually hindered by bad road network or lack of telephone facilities. This may result in poor administration and retrieval of questionnaires.

(v) Poor funding of surveys

Funding is a key factor to the success of any survey exercise. Survey is expensive to administer, both in terms of time and money. Inadequate funding had been one of the major problems of the former Federal Office of Statistics (FOS), which was vested with the statutory responsibility of conducting national surveys. It is pertinent to note that survey is a capital intensive project. If not well funded, the effort often ends in futility and the resources spent could be regarded as "money down the drains".

The conduct of survey does not start and end in the field. The processing of the returns is another phase which requires adequate funding. In some cases this aspect of the survey is neglected with the adverse result that the survey returns are dumped in the office or abandoned. However, events have shown that as more institutions indicate their interest, the less the financial burden per institution for surveys and the better for the NSS.

(vi) Human capacity/field experience

Apart from material support, surveys also require high human capacity and sufficient field experience to adequately handle the various stages of the exercise. To ensure good quality data, there is need to put in place adequate quality control measures. It is also important to train the field officers as well as closely monitor each stage of the survey. All these require adequate and experienced manpower.

(vii) Other infrastructural problems

Other infrastructural problems that hinder effective execution of survey projects include: erratic electricity supply by the public power source (Power Holding Company of Nigeria), inadequate Information and Communication Technology (ICT) and statistical infrastructure as well as transport facilities.

VI.2 Prospects

The prospects of improving on the conduct of surveys in Nigeria hinges on the commitment of the government to ensure that accurate and timely information are made available to all stakeholders. The government must also be prepared to sponsor the survey exercise on regular basis. To this end, sufficient provisions should be made in the annual budget for this purpose.

The experience of the collaborative survey between the NBS and CBN demonstrated great commitment on the part of the two institutions to generate relevant economic data for the country. Such collaboration should be encouraged and extended to other institutions. Already, the National Communications Commission (NCC) had realized the need for synergy of efforts in the conduct of survey and had participated in the funding of the just concluded 2006 Annual Survey of Socio-economic Activities in Nigeria. The NCC example is worthy of note by other agencies that require field information, as this would assist in eliminating the duplication of efforts and multiple surveys that was prevalent in the past.

With regard to funding of surveys, effort should be intensified to reach out to end-users of survey products to provide assistance. The Department for International Development (DFID) of the UK and the European Union (EU) had, in the recent past, provided both financial and technical support to the National Bureau of Statistics to conduct some core surveys in the country. In fact, the initial effort of the NBS at generating quarterly GDP for Nigeria was an outcome of the DFID assistance.

Overall, the collaborative survey by NBS/CBN had provided the necessary impetus for generating timely and accurate macroeconomic data for Nigeria. There is therefore the need to sustain and improve upon the observed limitations in future endeavours.

VIII.   Recommendations and conclusion

To consolidate on the recent experience gained from the NBS/CBN collaborative survey of socio-economic activities in Nigeria, it would be necessary to adopt a more proactive approach in the future. The planning of subsequent surveys should start early enough and a bottom-top approach should be adopted. This implies that the subject matter experts from the two organizations should be involved in the planning from the beginning. This is to ensure that all the relevant details are taken into consideration in order to guarantee smooth operations.

It is obvious that the survey frames maintained by the two organizations are outdated and need serious updating. A quick-listing survey should be carried out to update the existing frames of the NBS. In particular, the frames for the agricultural survey should be robust enough to show the activity sectors in which the farmers are engaged and also identify those engaged in mixed cropping at State and Local government levels. There is also the need to employ standard statistical procedures in the conduct of the agricultural surveys. In this regard, the unit of measurements and the weights applied across the regions should be standardized. Weighing scales should be purchased for the NBS field officers so that crops and other items produced are weighed in a more scientific manner to ensure uniformity across the States. This pre-supposes that yield plots should have been laid appropriately, so as to enhance measurement of overall output and yield per hectare.

The importance of training of the enumerators and other field officers cannot be over-emphasized. The training programme should be well-focused to sharpen the survey participants on the best field practices. The use of enlightened staff in the field should be seen as a necessary pre-requisite for obtaining good quality returns.

Overall, the result of the collaborative survey was generally robust and quite revealing. Remarkable achievement was recorded in the generation of quarterly GDP series for Nigeria.

It is hoped that if the effort is sustained the problem of paucity of high frequency data for macroeconomic analysis will be an issue of the past. However, the planning and execution of the survey was fraught with some daunting challenges. For instance, the magnitude of the work involved was seriously under-estimated in terms of time, manpower, infrastructure and funding. Also, the number of survey instruments administered concurrently was quite overwhelming. Efforts should be geared towards eliminating these shortcomings in order to ensure better performance in future.

It is pertinent to note that a nation-wide survey is highly capital intensive. The government should be prepared to spend a substantial amount of money to generate good quality data for planning purposes. Going forward, the conduct of national surveys should form part of the annual budgets of the Federal and State governments.

Finally, we wish to recommend that for developing countries where resources are lean, collaborative efforts would not only lead to the optimization of resources, but would eliminate duplications of efforts and lead to the emergence of acceptable national aggregates.

Table 1

Nigeria: gross domestic product at current basic prices

₦ million

Activity sector	2004				Total	2005				Total
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Crop Production	618,328.25	811,555.83	1,062,751.68	985,460.65	3,478,096.41	749,924.60	984,276.03	1,288,932.90	1,195,192.33	4,218,325.85
Livestock	55,583.28	59,516.53	62,650.56	66,137.16	243,887.53	69,804.76	74,744.37	78,680.27	83,058.95	306,288.35
Forestry	11,959.96	12,676.10	13,211.28	13,810.92	51,658.25	15,224.04	16,135.63	16,816.87	17,580.17	65,756.72
Fishing	36,042.14	38,494.48	13,473.91	42,105.97	130,116.50	45,042.22	48,106.94	16,838.48	52,620.25	162,607.90
Coal Mining	0.09	0.09	0.09	0.09	0.36	0.10	0.10	0.10	0.10	0.41
Crude Petroleum & Natural Gas	1,156,329.14	968,706.54	1,023,856.69	1,098,823.67	4,247,716.05	1,499,081.90	1,255,845.24	1,327,342.69	1,424,530.98	5,506,800.81
Metal Ores	2.13	4.60	3.12	3.19	13.04	2.43	5.26	3.56	3.65	14.90
Quarrying & Other Mining	3,299.15	3,145.78	3,142.26	3,450.73	13,037.93	3,899.37	4,286.91	4,458.39	4,636.72	17,281.39
Oil Refining	6,337.51	4,998.19	5,604.89	5,515.99	22,456.58	8,194.71	6,462.91	7,247.40	7,132.44	29,037.47
Cement	1,438.83	1,518.58	1,308.55	1,211.40	5,477.36	1,860.48	1,963.60	1,692.02	1,566.39	7,082.50
Other Manufacturing	15,501.93	68,948.54	72,834.50	164,097.42	321,382.38	980.03	4,206.01	4,410.22	10,589.46	20,185.72
Electricity	4,536.04	5,953.55	7,796.32	7,229.31	25,515.22	4,949.32	6,495.99	8,506.65	7,887.98	27,839.94
Water	324.56	328.80	332.19	328.88	1,314.43	365.81	370.60	374.41	370.68	1,481.50
Building & Construction	43,502.39	37,725.81	38,274.78	46,575.49	166,078.47	51,785.23	48,696.59	51,853.07	63,007.86	215,342.74
Wholesale and Retail Trade	397,916.51	294,129.89	364,001.87	428,374.09	1,484,422.36	455,877.18	473,383.07	489,572.24	511,947.04	1,930,779.52
Hotel and Restaurants	8,585.93	8,021.89	9,416.60	9,225.34	35,249.77	10,897.76	10,421.62	12,276.83	12,288.71	45,884.92
Road Transport	89,207.14	84,356.94	85,673.13	85,675.81	344,913.02	87,280.48	94,727.52	95,897.78	95,648.47	373,554.25
Rail Transport & Pipelines	0.87	1.98	1.45	2.10	6.41	0.95	2.15	1.57	2.28	6.94
Water Transport	178.62	220.88	238.59	271.84	909.92	192.94	238.58	257.72	293.64	982.88
Air Transport	584.91	676.45	759.10	989.17	3,009.64	638.00	737.86	828.00	1,078.96	3,282.82

Table 1 (cont)

Nigeria: gross domestic product at current basic prices

₦ million

Activity sector	2004				Total	2005				Total
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Transport Services	3,282.80	3,796.60	4,260.45	5,551.73	16,891.58	3,615.55	4,181.42	4,692.29	6,114.45	18,603.71
Telecommunications	4,616.37	4,947.80	5,279.24	5,610.67	20,454.08	5,994.04	6,424.39	6,854.73	7,285.07	26,558.22
Post	265.75	263.01	282.17	344.49	1,155.42	303.42	300.29	322.17	393.32	1,319.20
Financial Institutions	22,701.87	24,841.44	24,717.49	27,611.63	99,872.43	28,761.00	31,471.62	31,314.59	34,981.17	126,528.38
Insurance	684.16	731.98	806.30	858.41	3,080.85	937.36	1,002.89	1,104.71	1,176.11	4,221.07
Real Estate	89,219.88	97,311.65	124,424.19	133,732.60	444,688.32	136,590.20	148,978.21	190,485.87	204,736.47	680,790.75
Business Services (Not Health or education)	5,278.70	4,590.99	4,445.76	4,237.71	18,553.16	6,525.37	7,549.98	9,249.00	10,789.02	34,113.37
Public Administration	24,494.21	24,494.21	24,494.21	27,555.98	101,038.60	27,925.04	27,925.04	27,925.04	31,415.66	115,190.77
Education	5,537.68	5,537.68	5,537.68	6,229.89	22,842.94	6,313.34	6,313.34	6,313.34	7,102.50	26,042.52
Health	1,450.68	1,450.68	1,450.68	1,632.01	5,984.04	1,653.87	1,653.87	1,653.87	1,860.61	6,822.22
Private Non Profit Organisations	36.36	36.36	36.36	40.90	149.98	37.45	37.45	37.45	42.13	154.48
Other Services	23,686.13	22,947.74	24,134.14	28,916.88	99,684.88	29,965.66	29,031.52	30,532.45	36,583.17	126,112.79
Broadcasting	341.58	341.58	341.58	384.27	1,409.00	422.36	422.36	422.36	475.15	1,742.22
GDP Current Basic Price	2,631,255.51	2,592,273.19	2,985,541.80	3,201,996.40	11,411,066.91	3,255,046.97	3,296,399.33	3,716,899.04	3,832,391.88	14,100,737.22

Table 2

Nigeria: gross domestic product at 1990 constant basic prices

₦ million

Activity sector	2004				Total	2005				Total
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Crop Production	34,213.72	44,905.50	58,804.83	54,528.11	192,452.16	36,567.63	47,995.01	62,850.61	58,279.66	205,692.91
Livestock	3,344.91	3,400.99	3,457.08	3,513.16	13,716.14	3,569.02	3,628.86	3,688.70	3,748.54	14,635.12
Forestry	701.38	706.70	712.02	717.34	2,837.43	742.76	748.39	754.03	759.66	3,004.84
Fishing	1,713.75	1,807.49	1,821.14	1,860.36	7,202.74	1,828.04	1,902.30	1,916.67	1,957.95	7,604.96
Coal Mining	0.03	0.03	0.03	0.03	0.11	0.03	0.03	0.03	0.03	0.12
Crude Petroleum & Natural Gas	34,549.50	33,301.80	33,505.69	34,313.72	135,670.71	33,768.34	32,548.86	32,748.14	33,537.89	132,603.23
Metal Ores	1.11	2.41	1.63	1.67	6.82	1.24	2.67	1.81	1.85	7.56
Quarrying & Other Mining	243.98	320.23	419.35	388.85	1,372.41	267.15	350.64	459.17	425.77	1,502.73
Oil Refining	156.55	155.69	156.08	156.02	624.34	172.20	171.26	171.69	171.62	686.77
Cement	93.84	97.56	88.20	78.58	358.19	103.23	107.32	97.02	86.44	394.01
Other Manufacturing	890.96	3,992.83	4,205.34	9,365.12	18,454.25	980.03	4,206.01	4,410.22	10,589.46	20,185.72
Electricity	3,244.90	4,258.93	5,577.16	5,171.55	18,252.54	3,447.80	4,525.24	5,925.91	5,494.94	19,393.90
Water	155.40	157.43	159.05	157.47	629.35	171.72	173.96	175.75	174.00	695.43
Building & Construction	2,021.10	1,765.32	1,760.62	2,075.43	7,622.47	2,142.17	1,966.95	2,025.23	2,383.93	8,518.28
Wholesale and Retail Trade	18,487.02	13,763.37	16,743.86	19,088.58	68,082.83	18,858.05	19,120.82	19,121.30	19,369.75	76,469.93
Hotel and Restaurants	499.39	442.39	515.41	494.30	1,951.49	530.08	487.13	569.55	558.08	2,144.85
Road Transport	3,063.15	3,066.17	3,203.92	3,247.40	12,580.64	3,222.04	3,292.88	3,429.81	3,467.20	13,411.93
Rail Transport & Pipelines	0.21	0.49	0.35	0.51	1.57	0.23	0.52	0.38	0.55	1.67
Water Transport	74.05	75.28	76.51	77.74	303.58	78.41	79.72	81.03	82.33	321.49
Air Transport	72.96	69.38	73.25	85.13	300.72	77.27	73.47	77.58	90.15	318.47

Table 2 (cont)

Nigeria: gross domestic product at 1990 constant basic prices

₦ million

Activity sector	2004				Total	2005				Total
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Transport Services	195.85	186.22	196.62	228.50	807.19	207.40	197.20	208.22	241.98	854.81
Telecommunications	1,357.76	1,455.24	1,552.72	1,650.20	6,015.91	1,762.95	1,889.53	2,016.10	2,142.67	7,811.24
Post	69.14	71.70	74.25	76.80	291.89	76.64	79.47	82.31	85.14	323.56
Financial Institutions	5,235.32	5,422.64	4,959.86	5,268.91	20,886.73	5,366.21	5,558.20	5,083.85	5,400.64	21,408.90
Insurance	158.06	160.07	162.08	164.10	644.31	175.21	177.44	179.67	181.90	714.21
Real Estate	1,731.59	1,757.00	1,782.78	1,808.94	7,080.32	1,919.46	1,947.62	1,976.20	2,005.20	7,848.48
Business Services (Not Health or education)	160.06	165.61	156.63	143.30	625.60	134.14	150.78	180.16	205.01	670.10
Public Administration	986.92	986.92	986.92	986.92	3,947.67	1,026.40	1,026.40	1,026.40	1,026.40	4,105.58
Education	218.12	218.12	218.12	218.12	872.48	241.13	241.13	241.13	241.13	964.53
Health	50.91	50.91	50.91	50.91	203.63	56.00	56.00	56.00	56.00	223.99
Private Non Profit Organisations	4.13	4.13	4.13	4.13	16.54	4.58	4.58	4.58	4.58	18.33
Other Services	825.95	838.46	851.17	864.07	3,379.65	912.67	926.50	940.54	954.79	3,734.51
Broadcasting	95.91	95.91	95.91	95.91	383.63	103.58	103.58	103.58	103.58	414.32
GDP Constant Basic Price	114,617.62	123,702.90	142,373.62	146,881.89	527,576.03	118,513.83	133,740.48	150,603.35	153,828.84	556,686.50
Agriculture GDP at Constant Basic Prices	39,973.76	50,820.68	64,795.06	60,618.97	216,208.46	42,707.45	54,274.57	69,210.01	64,745.81	230,937.84
Non-Oil GDP at Constant Basic Prices	80,068.13	90,401.10	108,867.92	112,568.17	391,905.32	84,745.49	101,191.62	117,855.21	120,290.95	424,083.27
Oil GDP at Constant Basic Prices	34,549.50	33,301.80	33,505.69	34,313.72	135,670.71	33,768.34	32,548.86	32,748.14	33,537.89	132,603.23

Table 2 (cont)

Nigeria: gross domestic product at 1990 constant basic prices

Per cent

Activity sector	2004				Total	2005				Total
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Overall GDP Growth Rate (%)		7.93	15.09	3.17		−19.31	12.85	12.61	2.14	5.52
Agriculture GDP Growth Rate (%)		27.14	27.50	−6.45		−29.55	27.08	27.52	−6.45	6.81
Non-Oil GDP Growth Rate (%)		12.91	20.43	3.40		−24.72	19.41	16.47	2.07	8.21
Oil GDP Growth Rate (%)		−3.61	0.61	2.41		−1.59	−3.61	0.61	2.41	−2.26
Share Agriculture GDP (%)	34.88	41.08	45.51	41.27	40.98	36.04	40.58	45.96	42.09	41.48
Share of Non-Oil GDP (%)	69.86	73.08	76.47	76.64	74.28	71.51	75.66	78.26	78.20	76.18
Share of Oil GDP (%)	30.14	26.92	23.53	23.36	25.72	28.49	24.34	21.74	21.80	23.82
Growth Rates Over 2004 Levels										
Agriculture GDP Growth Rate (%)						6.84	6.80	6.81	6.81	6.81
Non-Oil GDP Growth Rate (%)						5.84	11.94	8.26	6.86	8.21
Oil GDP Growth Rate (%)						−2.26	−2.26	−2.26	−2.26	−2.26
Overall GDP Growth Rate (%)						3.40	8.11	5.78	4.73	5.52

Table 3

Nigeria: gross domestic product at 1990 constant basic prices (revised)[1]

₦ million

Activity sector	2004				Total	2005				Total
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Crop Production	34,213.72	44,905.50	58,804.83	54,528.11	192,452.16	36,567.63	47,995.01	62,850.61	58,279.66	205,692.91
Livestock	3,344.91	3,400.99	3,457.08	3,513.16	13,716.14	3,569.02	3,628.86	3,688.70	3,748.54	14,635.12
Forestry	701.38	706.70	712.02	717.34	2,837.43	742.76	748.39	754.03	759.66	3,004.84
Fishing	1,713.75	1,807.49	1,821.14	1,860.36	7,202.74	1,828.04	1,902.30	1,916.67	1,957.95	7,604.96
Coal Mining	0.03	0.03	0.03	0.03	0.11	0.03	0.03	0.03	0.03	0.12
Crude Petroleum & Natural Gas	34,549.50	33,301.80	33,505.69	34,313.72	135,670.71	34,721.35	33,467.45	33,672.35	34,484.39	136,345.54
Metal Ores	1.11	2.41	1.63	1.67	6.82	1.24	2.67	1.81	1.85	7.56
Quarrying & Other Mining	243.98	320.23	419.35	388.85	1,372.41	267.15	350.64	459.17	425.77	1,502.73
Oil Refining	156.55	155.69	156.08	156.02	624.34	172.20	171.26	171.69	171.62	686.77
Cement	93.84	97.56	88.20	78.58	358.19	103.23	107.32	97.02	86.44	394.01
Other Manufacturing	890.96	3,992.83	4,205.34	9,365.12	18,454.25	980.03	4,206.01	4,410.22	10,589.46	20,185.72
Electricity	3,244.90	4,258.93	5,577.16	5,171.55	18,252.54	3,447.80	4,525.24	5,925.91	5,494.94	19,393.90
Water	155.40	157.43	159.05	157.47	629.35	171.72	173.96	175.75	174.00	695.43
Building & Construction	2,021.10	1,765.32	1,760.62	2,075.43	7,622.47	2,142.17	1,966.95	2,025.23	2,383.93	8,518.28
Wholesale and Retail Trade	18,487.02	13,763.37	16,743.86	19,088.58	68,082.83	18,858.05	19,120.82	19,121.30	19,369.75	76,469.93
Hotel and Restaurants	499.39	442.39	515.41	494.30	1,951.49	530.08	487.13	569.55	558.08	2,144.85
Road Transport	3,063.15	3,066.17	3,203.92	3,247.40	12,580.64	3,222.04	3,292.88	3,429.81	3,467.20	13,411.93
Rail Transport & Pipelines	0.21	0.49	0.35	0.51	1.57	0.23	0.52	0.38	0.55	1.67
Water Transport	74.05	75.28	76.51	77.74	303.58	78.41	79.72	81.03	82.33	321.49
Air Transport	72.96	69.38	73.25	85.13	300.72	77.27	73.47	77.58	90.15	318.47

Table 3 (cont)

Nigeria: gross domestic product at 1990 constant basic prices (revised)[1]

₦ million

Activity sector	2004				Total	2005				Total
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
Transport Services	195.85	186.22	196.62	228.50	807.19	207.40	197.20	208.22	241.98	854.81
Telecommunications	1,357.76	1,455.24	1,552.72	1,650.20	6,015.91	1,762.95	1,889.53	2,016.10	2,142.67	7,811.24
Post	69.14	71.70	74.25	76.80	291.89	76.64	79.47	82.31	85.14	323.56
Financial Institutions	5,235.32	5,422.64	4,959.86	5,268.91	20,886.73	5,366.21	5,558.20	5,083.85	5,400.64	21,408.90
Insurance	158.06	160.07	162.08	164.10	644.31	175.21	177.44	179.67	181.90	714.21
Real Estate	1,731.59	1,757.00	1,782.78	1,808.94	7,080.32	1,919.46	1,947.62	1,976.20	2,005.20	7,848.48
Business Services (Not Health or education)	160.06	165.61	156.63	143.30	625.60	134.14	150.78	180.16	205.01	670.10
Public Administration	986.92	986.92	986.92	986.92	3,947.67	1,026.40	1,026.40	1,026.40	1,026.40	4,105.58
Education	218.12	218.12	218.12	218.12	872.48	241.13	241.13	241.13	241.13	964.53
Health	50.91	50.91	50.91	50.91	203.63	56.00	56.00	56.00	56.00	223.99
Private Non Profit Organisations	4.13	4.13	4.13	4.13	16.54	4.58	4.58	4.58	4.58	18.33
Other Services	825.95	838.46	851.17	864.07	3,379.65	912.67	926.50	940.54	954.79	3,734.51
Broadcasting	95.91	95.91	95.91	95.91	383.63	103.58	103.58	103.58	103.58	414.32
GDP Constant Basic Price	114,617.62	123,702.90	142,373.62	146,881.89	527,576.03	119,466.84	134,659.07	151,527.56	154,775.34	560,428.81
Non-Oil GDP at Constant Basic Prices										**8.2**
Oil GDP at Constant Basic Prices										**0.5**
Overall GDP Growth Rate (%)										**6.23**

[1] The 2005 GDP figures were revised, using actual Crude Oil production figures for first and second quarters of 2005, which were not firmed up as at the time of the survey.

Table 4

Gross domestic product at 1990 constant basic prices

Naria billion unless otherwise stated

Activity Sector	Old series					New series	
	2000	2001	2002	2003	2004	2004	2005
Agriculture	117.95	122.52	127.72	135.99	144.84	216.21	230.94
(a) Crop Production	98.39	102.13	106.37	113.82	121.22	192.45	205.69
(b) Livestock	11.45	11.79	12.36	12.88	13.72	13.72	14.64
(c) Forestry	2.56	2.61	2.62	2.66	2.84	2.84	3.00
(d) Fishing	5.55	5.99	6.37	6.63	7.06	7.20	7.60
Industry	121.76	128.42	123.55	149.88	156.08	156.49	155.38
(a) Crude Petroleum & Natural Gas	106.83	112.42	106.00	131.34	135.67	135.67	132.60
(b) Mining & Quarrying	0.97	1.07	1.11	1.17	1.30	1.38	1.51
(c) Manufacturing	13.96	14.93	16.44	17.37	19.11	19.44	21.27
Building & Construction	6.43	7.21	7.52	8.18	8.99	7.62	8.52
Wholesale and Retail Trade	43.16	44.24	47.11	49.82	54.66	68.08	76.47
Services	39.87	41.92	50.38	48.89	52.15	79.18	85.38
(a) Transport	7.50	7.86	9.22	9.33	9.89	13.99	14.91
(b) Communications	0.37	0.45	0.69	0.83	1.03	6.69	8.55
(c) Utilities	1.45	1.60	1.94	2.04	2.26	18.88	20.09
(d) Hotel and Restaurants	0.68	0.72	0.76	0.80	0.89	1.95	2.14
(e) Finance & Insurance	17.13	17.91	23.17	20.96	21.53	21.53	22.12
(f) Real Estate & Business Services	6.25	6.56	6.78	6.99	7.75	7.71	8.52
(g) Producers of Govt. Services	4.10	4.19	4.81	4.88	5.41	5.02	5.29
(h) Comm., Social & Pers. Services	2.39	2.63	3.01	3.06	3.39	3.40	3.75
Total (GDP)	**329.17**	**344.31**	**356.28**	**392.76**	**416.72**	**527.58**	**556.69**
Non-oil (GDP)	**222.34**	**231.89**	**250.28**	**261.42**	**281.05**	**391.91**	**424.08**
Total GDP growth rate (%)		4.60	3.48	10.24	6.10	***	5.52
Oil (GDP) GR (%)		5.23	-5.71	23.91	3.30	***	–2.26
Non-oil (GDP) GR (%)		4.30	7.93	4.45	7.51	***	8.21
Agriculture (GDP) GR (%)		3.87	4.24	6.48	6.51	***	6.81
Share of Non-oil in total GDP (%)	67.55	67.35	70.25	66.56	67.44	74.28	76.18
Share of Oil in total GDP (%)	32.45	32.65	29.75	33.44	32.56	25.72	23.82
Share of Agric in total GDP (%)	35.83	35.58	35.85	34.62	34.76	40.98	41.48

*** = not applicable.

Table 5

Nigeria: old GDP series compared with the
2004 and 2005 survey data

₦ billion

Item	2001	2002	2003	2004	2005
Current: new[1]	6,469.8	7,459.9	9,592.8	11,411.1	14,100.7
Old	4,685.9	5,403.0	6,947.8	8,265.0	
Constant at 1990 basic price: new[1]	435.9	451.1	497.3	527.6	556.7
Old	344.3	356.3	392.8	416.7	
Difference	91.6	94.8	104.5	110.9	
Deflator: new[1]	1,484.2	1,653.6	1,928.9	2,162.9	2,533.0
Old	1,361.0	1,516.4	1,768.8	1,983.4	

[1] New GDP series for 2001-2004 were derived from the survey data using a common factor from the old 2004 and new 2004 series.

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