

Notes on the revision of the national accounts

Introduction

In the March 1988 edition of the *Quarterly Bulletin* of the South African Reserve Bank a revised set of national accounts statistics was released, using 1985 instead of 1980 as base year for constant price calculations. This was necessary as it had become clear that changes which had occurred in the sectoral composition of gross domestic product and the relative sizes of individual spending components since 1980, had rendered the 1980-based weighting structures invalid and had turned the then existing constant price estimates into inaccurate representations of the true performance of the South African economy.

Commenting on the 1988 revisions, the Bank observed that in view of the imminent release of certain census reports, further revisions would have to be considered when such information would become available. In November 1988, preliminary results of the 1984/85 census of manufacturing were released by the Central Statistical Service. To ensure that full use would be made of all available information, these and other recently released source data were incorporated during a fairly comprehensive revision of the entire set of national accounts estimates.

During the revision process, the Economics Department of the Bank co-operated closely with the Central Statistical Service. Whereas the Central Statistical Service concentrated their attention on estimating the gross domestic product at current and constant prices and certain components of private consumption expenditure, the Bank took responsibility for revising all the major components of gross domestic expenditure at current and constant prices, as well as for the compilation of a full set of national and sectoral accounts for the South African subregion.

Apart from the fact that the statistical estimates of the national accounts aggregates were recalculated, the revisions also presented an opportunity for introducing certain changes in the classification and presentation of data.

Although the revisions appear to be wide-ranging, the current set of national accounts is by no means final in the sense that no revisions are to be expected in future. No new source data were made available recently for a number of sectors of economic activity. When such data will have been made available, further revision of the current data set will be inevitable. Furthermore, as evidence of unrecorded and informal economic activity gains wider acceptance, these are also to be taken care of in the official national accounts estimates.

Revision of gross domestic product estimates

New source data obtained from various census and other reports were the main reason behind the revised

estimates of output originating in the sectors agriculture, mining, manufacturing, construction and commerce. In the case of the transportation sector, estimates of value added were adjusted to make due allowance for the increased prominence of private transportation and the resultant growth in the private passenger transport industry. Output generated in the tertiary sectors was adjusted in view of newly available information relating to the remuneration of domestic servants and revised valuations of imputed rent of owner-occupied dwellings.

Measured growth in the revised real gross domestic product estimates deviates somewhat from the previously published growth rates. Annual growth rates were revised upwards to -0,8 per cent in 1985 and scaled down to 0,3 per cent and 2,1 per cent in 1986 and 1987, i.e. by 0,4 percentage points, 0,7 percentage points and 0,5 percentage points, respectively. Nevertheless, the direction of the quarter-to-quarter changes in the seasonally adjusted real gross domestic product remained broadly unchanged. The third quarter of 1985 was a notable exception: the previously estimated increase was converted into a decline.

Revision of the components of gross domestic expenditure

Revisions of the components of gross domestic expenditure were occasioned by the release of the results of the 1985 survey of household expenditure, an in-depth analysis of certain components of private consumer spending, a thorough investigation of numerous sources containing data on the financial affairs of various governmental establishments and fresh information on gross domestic investment obtained from the censuses of mining and manufacturing institutions.

Revised estimates of private consumption expenditure were based essentially on the results of the 1985 survey of household expenditure, conducted jointly by the Central Statistical Service and the Bureau of Market Research of Unisa among all population groups. The Bureau of Market Research also compiled estimates of private consumption expenditure in the self-governing national states and in Transkei, Bophuthatswana, Venda and Ciskei as well as in thirteen major metropolitan areas in South Africa. By merging all these results with the Reserve Bank's own estimates of private consumption spending in the non-metropolitan areas, an estimate of aggregate private consumption expenditure in the entire subregion was reached.

All sub-categories of private consumption expenditure were subjected to revision. In many instances the original estimates were left unaffected or only marginal adjustments had to be made. In others the estimates indisputably needed revision. Among these, the following spending categories may be singled out:

personal transport equipment, expenditure on beverages and tobacco, medical and pharmaceutical products, and outlays on services such as rent, medical care, transport and communication. The revised estimates of spending on transportation reflect *inter alia* the growing importance of the private taxi industry.

The revisions resulted in upward adjustments of the annual growth rates in real private consumption expenditure amounting to 1,1 percentage points in 1983 and 1984 and to 0,8 and 0,7 percentage points in 1985 and 1986. The growth rate remained almost unchanged in 1987. Newly estimated quarterly figures as well as new seasonal factors resulted in slightly revised quarter-to-quarter growth rates in seasonally adjusted real private consumption expenditure.

Consumption expenditure by the general government was revised in accordance with up-to-date information contained in the reports of the Auditor General for numerous government and extra-budgetary institutions and in recent surveys of income and expenditure of local authorities conducted by the Central Statistical Service. It should be noted that extra-budgetary items include the self-governing national states and the government accounts of Transkei, Bophuthatswana, Ciskei and Venda. The official financial statements of some of these establishments are often released only after considerable delay. The utilisation of all available data sources caused revised estimates of government consumption expenditure to reach back as far as 1980. As a consequence the annual growth rates in real government consumption expenditure were changed by a margin varying between 0,3 and 2,5 percentage points in absolute terms. An upward revision of 2,5 percentage points in 1985 was necessary in view of final figures being made available which indicate a higher level of employment and labour remuneration than previously estimated. The quarterly changes in consumption expenditure by the general government were obviously also affected by the data revisions.

Data on capital expenditure contained in the 1984 mining census released in November 1987, preliminary results of the manufacturing census of 1985 released in November 1988, the 1982 census of construction activity released in October 1987, and the 1985 report on building plans passed and buildings completed, served as the main statistical input for the new estimates of gross domestic fixed and inventory investment. Agricultural censuses of 1981, 1983 and 1985 were made available in August and November 1987, and the 1986 census and preliminary results of the 1987 census were released in October and December 1988. All of these were taken into account in finalising the investment estimates.

The net outcome of these revisions was moderate upward adjustments in real gross domestic fixed investment in 1982, 1983 and 1984 and similar downward adjustments in 1985, 1986 and 1987. Real in-

ventory change was adjusted downwards with regard to 1982, but for the period since 1983 changes in real inventory levels are now estimated to exceed the earlier estimates.

Revisions of the financing of gross domestic investment

Changes in the income and spending of households, companies and the general government will inevitably have an impact on the savings ratios of these spending entities. Data revisions will have similar effects. The revised estimates of income and expenditure caused changes in the overall level of saving, but the broad tendencies and ratios of savings behaviour as reflected by the previous estimates were left essentially unaltered. General government saving, however, was transformed from negative amounts in 1982 and 1983 to small positive amounts in these two years.

Revision of tables

One of the existing set of published tables contains information of the constituent parts of national income and the disposal of national income. A new table has been designed specifically to illustrate the allocation of national disposable income between consumption and saving.

Other adjustments

Other adjustments were effected on account of the reclassification of the former parastatals, Sasol One and Sasol Two, as private business enterprises instead of as public corporations. Although the changed status of these concerns took place at an earlier date, the reclassification concerned was delayed until such time as a wide-ranging revision of the national accounts was undertaken.