

NATIONAL ACCOUNTING PRACTICE IN THE GERMAN FEDERAL REPUBLIC

A Summary

I. The organization of official national accounting in the Federal Statistical Office

by Hildegard Bartels

IN the early postwar years relatively few statistical records were available. Consequently the first attempts at preparing national income and product data for postwar years, starting with the year 1950, consisted in extrapolations of prewar national income data, adjusted to cover the Federal Republic only, with the help of indices of volume and price. As the indices concerned related to production and sales by industry, it proved necessary to establish also an industry breakdown of the prewar total of *national product*.

By 1957 it proved possible to detach the national product calculation entirely from its prewar basis as the turnover tax statistics for 1950 and 1954; the cost structure statistics of 1950 and numerous other postwar statistics had become available in the meanwhile. Thereafter this new calculation of national product was further improved and sub-divided on the basis of additional statistical material. It was also supplemented by a national income calculation and an overall productivity calculation.

In the autumn of 1960 and the spring of 1961 *national accounts* for 1950-9 were published. The underlying accounting system in its present provisional and simplified form comprises three sectors: (1) enterprises, (2) general government, (3) private households and non-profit making institutions; and for *each* sector seven accounts: (1) production and utilization of goods and services, (2) formation of income from economic activity and property, (3) distribution of same, (4) redistribution of income, (5) final consumption and saving, (6) capital transactions, (7) changes in financial assets and liabilities, and the system is completed by a consolidated account for the rest of the world. It should be noted that the financial accounts are

integrated in the framework of the traditional national accounts in this system. This integration is facilitated by using the enterprise rather than the establishment as the statistical unit throughout the system. The German Federal Bank computes in detail the changes in financial assets and liabilities and separates for this purpose banks and insurance companies from all other enterprises. This separation is also aimed at for the other accounts. Further subdivision of other sectors is also under consideration.

The accounts are supplemented by a number of *standard tables* providing additional detail by region (Länder), by industry, by type of public authority, by type of flow, etc. These tables are still in the process of being published. In addition to the accounts and standard tables a *matrix showing the flows of goods and services* will be published, probably by the end of 1961. This is not an input-output table in the usual sense of the term, but a record of purchases and sales over the market between twenty industries in the enterprises sector and between them and the other sectors including the rest of the world. Until there has been a general investment survey only the industries selling investment goods, but not those buying them, can be shown separately. Further extensions of the national accounts which are at present under consideration are: (1) a breakdown of private consumption on the basis of the 1960 census of distribution, (2) a breakdown of wages and salaries by industry, and (3) semi-annual and quarterly data on national product.

The most important weaknesses in the accounts as they stand at present are: (1) private consumption, the estimate for which is mainly based on sales and turnover tax statistics (family budget inquiries are in preparation, though), (2) private households' income from property and entrepreneurship, which is determined residually (but income and wage tax statistics can be used for control purposes), and (3) data for private non-profit-making institutions, which have many gaps.

Most of the statistics required for the national accounts and the various supporting tables are prepared by the Federal Statistical Office. This makes it possible to influence directly the arrangement of these statistics. Accordingly the national accounts division has a responsibility for the general co-ordination of definitions and classifications and for the improvement and completion of the *statistical programme* as a whole.

II. *The work of the Deutsche Bundesbank in the field of national accounts*

by Helmut Schlesinger

The Bank computes quarterly data on private and public consumption, gross investment in fixed assets and net exports of goods and services, but not on inventory changes or on gross national product for that matter. The Bank needs these data for its own purposes. Quick reporting is of the utmost importance in its decision-making process. It also publishes half-yearly data on gross and net earnings of employed persons and on public income transfer and on private savings.

Ten years ago the Bank started work on compiling statistics concerning the financing of fixed investment with the intention of replacing the method followed in the 'thirties by the Institut für Konjunkturforschung for similar purposes by a better one. The results of this work are published annually in *Wealth Formation and its Financing*. The financing surpluses or deficits by sector shown in this publication provide the link with the national accounts published by the Federal Statistical Office. The sectors distinguished in both publications are the same, except for the fact that in *Wealth Formation and its Financing* (1) financial institutions are separated from other enterprises and sub-divided into (a) banks, (b) building and loan associations and (c) insurance companies (including private pension funds), (2) public authorities are sub-divided into various territorial authorities (Federal, State, local, etc.) and social insurance institutions, and (3) the rest of the world is sub-divided into (a) foreign countries and (b) Berlin (West) and currency area of the DM (East). A further sub-division of banks into 'central bank' and 'other banks' is contemplated, and also a separation of 'dwelling construction' will be affected as soon as improved statistics permit this to be done. The classification of assets and liabilities is determined by both analytical considerations and statistical possibilities. A mixture of criteria – liquidity, financial institution concerned, type of financial claim – has been used in classifying assets and liabilities. In view of the importance attached to aggregates there is no intention, however, to make the classification of claims and of sectors much more detailed.

III. Official estimates of future economic development

by Gerhard Fürst

Every idea of 'planning' is alien to a free competitive economy such as the Federal Republic. Attempts at forecasting the development of the national product for the current year and the next year (or at best for a two-year period) are in effect made only (1) to satisfy the demands of O.E.E.C., which requests such estimates in the annual reports submitted to it by member governments, (2) to help in the preparation of the Federal budget by estimating future tax receipts, and (3) to provide the necessary data for inclusion in a report – demanded by law – concerning the situation of agriculture (the Green Report), which forms the basis of the Government's agricultural policy. Longer-term forecasts are prepared occasionally; examples are the European Coal and Steel Community's attempt to forecast long-term demand for coal and power, the 1956 O.E.E.C.s exercise in forecasting the 1960 economic situation, and the forecasts made in connection with legislation on the social pensions' reform. Such forecasts arouse considerable interest in non-official circles and particularly with industry.

The forecasts are prepared by an interministerial working party on which also the Bank and the Statistical Office are represented. Various important economic research institutes participate in the work of the committee. The President of the Federal Statistical Office is chairman of the working party. Normally it meets twice a year, in spring and in autumn.

Because there have been frequent changes in the territory of Germany long-term series of statistics are considered to be of doubtful value for determining trend movements. Since they are so short and so strongly influenced by special factors, the series for the afterwar period are considered unsuitable for econometric analysis. Hence the working party has to rely rather strongly on expert opinion. It approaches the forecasting problem from three different angles:

1. The development of *personal income* is estimated taking account of information on wage-rate agreements, probable wage demands, shortening of working hours (the Federal Republic is moving from a 48-hour week to a 40-hour

week, the average length of the working week at present being roughly 42 hours), variation in working days per year (this may account for as much as 1 per cent difference in product), probable development of social insurance income and pensions and of the income of self-employed. The income of self-employed persons represents about one-quarter of total personal income and its development is difficult to forecast. By making a guess at the propensity to save an estimate of *private consumption at current prices* is derived from the estimate of personal income.

2. The probable development of the *national product at current prices* is estimated from the *expenditure side* using (1) the estimate of private consumption (see above), (2) an estimate of Government consumption, for which a good deal of information is readily available (social services, defence, road construction, etc.), (3) estimates of fixed asset formation and changes in stocks for which only a few statistical indicators are available, and (4) an estimate of net exports, which is very dependent on rather unpredictable external factors.
3. The probable development of the *national product at constant prices* is estimated from the *production side* on the basis of expected development of labour supply and productivity, taking due account of changes in the age-structure of the population, the sizeable influx of refugees (400,000 economically active persons over the three years 1959-61) which at any time may come to a sudden halt, and the influx of foreign labour mainly from Italy, Spain and Greece (230,000 economically active persons over the last three years).

An estimate of the probable *price development* is obtained by comparing estimates 2 and 3 with each other. The results are checked against estimates for separate industries. Moreover, the three estimates have to be brought into harmony with each other so as to obtain a consistent overall picture.

In retrospect it appears that the forecasts were slightly too low; the strong upward trend of production was underestimated by a somewhat too cautious attitude on the part of the estimators. Estimating developments at current prices has improved the forecasts and made them decidedly more useful for estimat-

ing future tax revenue, but since this procedure contradicts the Government's policy of price stability it has caused the estimates to be given less publicity.

IV. National accounts as an instrument of economic analysis in German economic research institutes

by Klaus Dieter Arndt

The Institut für Konjunkturforschung in Berlin was founded in 1925 by Ernst Wagemann. In his book *Konjunkturlehre* (1928) he dealt with the economic circulation process and also presented an estimate of the 1913 German national income. In 1931 there followed a study by Keiser and Benning on capital accumulation and investment in Germany during the years 1924 to 1928. However, these studies made little impact, the main emphasis at the time being on business cycle analysis with 'barometers' of the Harvard type. No further progress was made during the period of the Hitler régime until in 1944 in the planning system of Speer a confrontation between army and civil requirements was made.

In 1947 the Deutsche Institut für Wirtschaftsforschung (formerly the Institut für Konjunkturforschung) published Ferdinand Grünig's estimates of German national product in the four occupation zones for 1936 and 1946. Since 1951 the same institute published quarterly data on the sources of income, its redistribution and its use and since 1955 it also publishes money-flow accounts for main sectors. Other institutes have followed suit. Today the half-yearly diagnosis of the economic situation prepared jointly by six different research institutes is entirely framed in terms of an analysis of total supply and demand based on national accounts data. The 'barometer' approach is no longer applied, since the assumptions on which it is based (historical analogy and inaction on the part of Government) are no longer valid.

The research institutes' short-term forecasts of supply and demand extend over periods from six to eighteen months. The domestic supply potential is determined on the basis of the estimated development of the labour force, hours worked per man, the capital stock and its use. The development of imports, in so far as it is not subject to direct control by the Government,

is treated as depending on total demand, the propensity to import being determined by means of simple correlation analysis. However, in estimating the effect of the revaluation of the DM in the spring of 1961 more specialized income and price elasticities were used on a large scale. The development of total demand is estimated on the basis of flow-of-funds data. The development of exports is estimated on the basis of individual indicators, such as orders received and orders in hand, which are partly obtained from official statistics and partly from the large-scale poll of enterprises conducted by the Ifo-Institut in Munich.

In all the estimates econometrics play a very small part and in every case preference is given to the simplest approach possible. In a country like Germany, where even simple forms of national accounting are by some politicians considered as the work of the devil, this is the only approach that can be expected to meet with success.

The merit of the institutes' work is that it poses the economic problems that lie ahead in good time, so that the right decisions can be taken at the right moment. Publication of their analysis and of quarterly data serve this purpose, but all this is no substitute for the work done in this field by the Federal Statistical Office.

In future more detail has to be brought into the analysis and a start will have to be made with long-term forecasting. The Ifo-Institut has already made a start in this direction with its estimates of the 1975 product by industry and by expenditure category in its study on future power supply.

V. National accounts as a tool of economic and fiscal policy

by K. H. Raabe

From the point of view of framing economic and fiscal policy, national accounts are useful in so far as they display the interdependence of various aggregates, portray the development of the economy as a whole and permit studies to be made on specific problems. However, delay in publication and the fact that no quarterly data are made available makes the national accounts useless from the point of view of continuous economic analysis and diagnosis.

Forecasts are treated with considerable reserve in Germany,

because the basic tenet of the policy-makers is that wherever possible economic decisions should be left to the market and also because past experience with forecasts has not been very encouraging. Yet in framing fiscal policy national accounts play an ever-increasing part. The financial report attached to the Federal Budget sketches the economic background in terms of national accounts and likewise in plans for fiscal reform national accounts data provide the quantitative background. The same is true with respect to agricultural policy (the so-called 'Green Plan').

Also in the framework of social policy national accounts have a part to play. Since the introduction of the social security reform in 1957 (law concerning the reorganization of the rights of labourers and employees to old age insurance) the Minister concerned has to submit to Parliament an annual report on the financial situation of old age insurance specifying the development of economic efficiency, productivity and income per gainfully employed person.

In the field of wages the Federal Government can only exert an indirect influence. However, the trade unions and the employers' organizations often invoke national accounts data to strengthen their position in the negotiations.

VI. Research in the field of national accounts in German universities

by J. Heinz Müller and Reimut Jochimsen

Before 1914 only a few private investigators indulged in computations of national income, but their colleagues had no sympathy for their work. Indeed, at the 1926 conference of the Verein für Socialpolitik, K. Diehl tried to prove that it was fundamentally impossible to devise a meaningful income concept free of 'psychic income'.

By 1932 the Reich Statistical Office entered the field by publishing figures based on income tax statistics, which were going back to the period before World War I. These data, which, *inter alia*, excluded indirect taxes, aroused considerable controversy. In the interwar period various authors also started to develop the theory of national accounting (Martens: *General bilanz der Volkswirtschaft*; Hermberg: *Volkswirtschaftliche Erfolgsrechnung*; Ischboldin: *Soziökonomische Bilanz*; Keller:

Volkswirtschaftliche Bilanz), and the theory of macro-economic circulation (Lederer, Löwe, Neisser, Föhl, Leontief, Peter and Grünig). However, the main stream of economic thought during that period was still that of the Historical School. State intervention and economic planning during the Great Depression and the National Socialist Era did nothing to foster work in the field of national accounts.

In the afterwar period the publication of Schneider's textbook (1947) and the O.E.E.C. Standardized System (1952) exercised a decisive influence on national accounts theory and practice in the Federal Republic. Moreover Keynesian economics, econometrics and macro-economic dynamic theory gained ground.

W. Hoffman's book, *Die volkswirtschaftliche Gesamtrechnung*, which questions the right to exist of national accounting, input-output analysis, and particularly national budgeting and planning in a free economy, caused a very lively discussion in which G. Bombach played a prominent part. By now sober and detailed research prospects aimed at perfecting the national accounts have taken the place of arguments about such 'fundamental' issues.

The Deutsche Forschungsgemeinschaft, a national institution to promote research at universities, has started in 1955 a research programme on national accounting focused at crucial issues. This programme consisted of projects on circulation analysis and the principal problems in input-output studies (University of Tübingen: H. Peter; Mannheim: W. Waffenschmidt; Heidelberg: W. Krelle), on separating gross and net balancing (Freiburg i. Br: M. Lohmann), on revenue burdens (Tübingen: W. Koch), on measuring and analysing productivity (Kiel: E. Schneider), on ex post-facto computation of the German national income from 1851 to date (Münster: W. G. Hoffmann; Freiburg i. Br.: J. H. Müller), in problems of verifying Leontief models (Münster: W. G. Hoffmann), and on empirical input-output interdependencies of sectors (Münster: H. Jecht). Most of these studies were finished in 1958 and have been published up to 1960.

As for teaching of national accounting at the universities, most courses are broad introductory and general courses and only a very few are concerned with specific aspects, but on the whole teaching in the field of national accounting is on the increase.