

IMPROVING ECONOMIC STATISTICS — THE CHANCELLOR'S INITIATIVE

In May 1990 the then Chancellor of the Exchequer announced a series of measures to improve economic statistics. They were aimed at improving the measurement of three key areas - services, companies and the balance of payments. This article describes the individual initiatives in the package and reports progress to date.

1. Background

Since the mid 1980's, the national accounts have been subject to considerable criticism in government, in Parliament and elsewhere. The quality of the National Accounts is characterised by the discrepancies between the three alternative ways of measuring the Gross Domestic Product (GDP); by balancing items in the accounts of the institutional sectors; and by revisions up to two or three years after the reference period.

In 1988, an efficiency scrutiny on economic statistics (the Pickford review) was set up to examine the deficiencies in the National Accounts as measured by these quality characteristics. The review team, reporting in May 1989, indicated that the problems were deep seated and pervasive, had multiple causes, and had existed for a long time. Pickford indicated a number of areas where improvements were needed or where further work was necessary.

In line with Pickford recommendations, the new CSO was set up in July 1989, with greater responsibility for the data input into the national accounts, and with clearer objectives for producing more coherent accounts. There is now greater consistency in the three measures of Gross Domestic Product (GDP), and in their quarterly growth paths, and there have been some significant reductions in sector balancing items for the past periods (particularly in the overseas and personal sectors). However, the degree of consistency in the GDP measures has, in part, been achieved by the introduction of statistical adjustments. Moreover, there is a long way to go before it can be said that the balancing items are down to acceptable levels. In particular, there is concern about the figures for the latest year (1989), in which the balancing items for the overseas and Industrial and Commercial companies sectors are currently unacceptably high.

In the early part of 1990 the quality of economic statistics continued to be of concern to the Treasury, and to the CSO. The Chancellor of the Exchequer indicated to the Treasury and Civil Service Committee on 3 April 1990 his continuing concern about the statistical base. This was quickly followed by the announcement by the Chancellor of the Exchequer on 17 May of the series of further measures to improve the quality of economic statistics.

2. Services

Turnover Inquiries

A new set of statutory Quarterly Turnover Inquiries (QTI) covering selected parts of the service trades is being introduced from the first quarter of this year. The inquiries are aimed mainly at improving the quarterly estimates of the output measure of gross domestic product - GDP(O). They will generally collect figures of turnover which will be used to replace those indicators currently used for GDP(O) which are thought to be weakest. In a few cases further information may be requested from respondents.

The service trades to be covered will fall mainly within road transport, private education and health, business and professional services. Initially the QTI will cover around ten per cent of the economy but this might subsequently be extended after further consideration is given to the inclusion of areas where quarterly data derived directly from the administration of VAT are currently used as indicators of output or where other improvements prove necessary.

The inquiries will be conducted on a sample basis and will be designed to give reliable and timely quarterly estimates. There will be periodic replacement of smaller firms in the sample. The sample size will be over 20,000 and could possibly rise if an extension is deemed necessary. The forms for the first phase will generally be despatched in late March to collect information relating to the first quarter of the year.

In order to make the most efficient use of the results of the inquiries it will be necessary to improve and extend the measures available of prices of the services covered. This will lead to the need for the collection of price information for some service trades broadly analogous to the information collected from manufacturers for the prices of manufactured goods.

There has been an extensive consultation programme with trade bodies, informing them of the proposal and seeking their assistance in its detailed implementation.

3. Company sector

(a) Company Profits

Company profits are a major and volatile component of the income measure of gross domestic product (GDP). Current estimates of these profits for the most recent quarters are very weak. For industrial and commercial companies these estimates are provided by the Inland Revenue's Quarterly profits enquiry to a voluntary panel. Recommendations in the Scrutiny Report on Government Economic Statistics (the Pickford Report) called for an investigation of the adequacy of the existing Quarterly Profits Enquiry and of the need for, and feasibility of, introducing a statutory quarterly inquiry into UK company profits. These investigations have been undertaken and concluded that only a statutory inquiry can produce estimates of acceptable quality. Good estimates of profits are essential to the production of good estimates of GDP, and to improve the measurement of the company sector.

A new statutory quarterly profits inquiry to industrial and commercial companies is to be introduced and run by the CSO. This will replace the existing Inland Revenue voluntary inquiry. The new inquiry will cover a representative selection of about 1,500 large industrial and commercial company groups, and the information will be sought in a form which should generally be available from companies' own management records. The first of the new inquiry forms will be despatched at the end of June asking for profits information relating to the first two calendar quarters of this year. In order to implement this inquiry the schedule of the Statistics of Trade Act 1947 has been amended to permit statutory collection of profits figures.

With the Bank of England, the CSO is also considering ways in which the coverage and quality of the figures for financial companies' profits can be improved. In particular, last autumn, new reporting forms giving a more detailed breakdown of banks' income and expenditure were agreed with the banks, to be introduced in the first quarter of 1992. In the meantime, the frequency of the banks' existing reports has been stepped up.

(b) Stockbuilding Inquiry

For many years estimates of stockbuilding have been derived from a quarterly voluntary inquiry covering a panel of businesses in the production industries and in wholesaling. Annual figures are also obtained from the statutory annual inquiries into production and services. The results of the quarterly inquiry have been "benchmarked" retrospectively to tie in with the annual results. The quarterly estimates are required for the Index of Production, the Output measures of gross domestic product (GDP(O)), for the expenditure measure GDP(E), and for estimates of stock appreciation in the income measure GDP(I).

The existing quarterly inquiries have not provided estimates of sufficient precision for these purposes, partly because the numbers of businesses sampled were too small, and also because the voluntary nature of the inquiry restricted efficient selection. The information of main interest is the change in stock levels between the start and finish of the quarterly periods rather than the levels themselves. Changes are relatively small differences between large aggregates and are difficult to measure; at times there have been substantial revisions between the provisional and final figures. This tendency to revision should be reduced with more businesses within a better sample structure.

The "Armstrong/Rees" Review of DTI Statistics in 1988 questioned the usefulness of voluntary inquiries, and favoured a statutory basis on the grounds that a given level of accuracy could be achieved with fewer forms through more efficient sampling. With effect from Q3 1990 for stocks in production industries and from Q1 1991 for wholesalers stocks, the existing quarterly inquiries became statutory. Advice received from the accountancy profession, and from the Production Statistics Advisory Committee (PSAC) suggested that smaller businesses may have difficulty with the completion of a quarterly stockbuilding return. For that reason the CSO conducted a small scale survey of businesses, to establish their ability to complete each quarter statutory stocks and capital expenditure forms. The results of this exercise confirmed that stocks would not be a problem for larger businesses with more than around 75-100 employees, but could be difficult for some of the smaller firms. Consequently, no production stocks forms are mailed to businesses with employment below 75.

The sample arrangements for the new inquiries will cover all production businesses with employment greater than a selected "threshold" for each industry, and wholesaling businesses above turnover "thresholds". Because of the link between stockbuilding and the Index of Production, for those activity headings covered by the monthly sales inquiries, the new production forms are sent, subject to the 75 employment limit, to the same businesses covered by those inquiries.

(c) Capital Expenditure Inquiry

In the past, estimates of capital expenditure covering most of the private sector have been made from quarterly voluntary inquiries. Annual figures are also obtained from the statutory annual inquiries

into production and services. The estimates from the quarterly inquiries have been "benchmarked" retrospectively to match these.

The information is required for the national accounts expenditure measure GDP(E), but as with stocks, the existing samples do not provide estimates of sufficient precision. For that to be achieved the number of forms is being increased and the inquiry is being made statutory. As for stockbuilding, this is in line with an Armstrong Rees recommendation. The small scale survey of business ability (described above) did not identify any problems of completion by contributors for quarterly capital expenditure.

Forms for the new statutory inquiry will be despatched in respect of Q1 1991. Studies into the optimal sampling arrangements have recommended a design proportional to size. However, for operational reasons, in the short term, the sample will be selected using thresholds in a similar way to stocks.

(d) Company Liquidity Survey

The national accounts estimates for the industrial and commercial company sector include for the latest years a large balancing item of unidentified flows. Much of this problem stems from lack of information on the financial transactions of these companies. The CSO is therefore introducing a statutory annual survey into the financial assets and liabilities of about 700 large industrial and commercial company groups. The first forms, in respect of end 1990, have recently been despatched. The existing voluntary quarterly company liquidity survey will be expanded to cover a wider range of assets and liabilities than at present and used alongside the statutory annual survey. These developments will improve the national accounts estimates for the industrial and commercial company sector and will also have indirect benefits for other sectors, particularly the overseas and personal sectors, that are counterparts to these transactions.

4. Balance of Payments

(a) Review

During the second half of the 1980's, the overseas sector had large balancing items and current account, especially invisibles, and capital account estimates have been subject to substantial revisions. As a result, the accounts, including the current account had been subject to widespread criticism.

A Chief Statistician, from outside the CSO was appointed last summer to review the entire system for measuring the balance of payments accounts and to investigate these problems. The review will last 12 months and is expected to identify further improvements that will reduce the frequency and scale of revisions and the size of the balancing items.

(b) Overseas Trade in Services

At present overseas trade in royalties and services is measured by a series of surveys (some quarterly, some annual) on particular services activities (eg financial services and telecommunications), and a general purpose annual survey to cover all overseas transactions in royalties and in those services not covered in particular service activity surveys.

There is widespread concern about the data quality and the paucity of quarterly information. The scale of cross-border service transactions has expanded considerably in recent years, especially

with the growth of multinationals, and new service activities have developed which are not fully reflected in the present estimates.

Priority has been given to obtaining more quarterly information to measure the latest trends in a more accurate and timely way. The general purpose annual survey of royalties and services has been transformed (from Q3 1990) into a quarterly survey covering major transactors, supplemented by an annual survey covering the remainder. Initially, retrospective reports for the earlier quarters of 1990 were sought, and the first results now enable a much earlier assessment of 1990 figures to be made.

To ensure that overseas trade in services is measured comprehensively, a series of investigations are being made to check (i) that no significant service activity is being missed, (ii) that the registers for existing surveys cover all firms with significant trade in services and (iii) that activities not surveyed recently are covered. The first category is covering, inter alia, the activities of fund managers and arts organisations. The second is examining, inter alia, consultancy and education services. The third is examining, inter alia, trade commissions and export houses. From these studies, additions are being made to the coverage of the 1990 annual inquiry into royalties and services (for example, to cover trade commissions and arts organisations) and supplementary inquiries are planned in other areas (for example, on fund managers).

To tie together the various surveys into trade in services, an integrated central register of firms engaged in trade in services is being prepared. This will be progressively enhanced as various investigations are completed, and ensure the progressive improvement in the data over the next two to three years.

Much overseas trade in services is conducted by financial companies. The banks have agreed to increase the frequency of their reporting of service transactions to the Bank of England from annual to quarterly. This will take effect in a temporary form from the first quarter to 1991 and will, with effect from 1992, form a part of the new quarterly integrated reporting of banks' income and outgoings mentioned earlier.

The Bank has also opened discussions with the Baltic Exchange, with the view to their increasing the frequency of their data collection from annual to quarterly. Similarly, the CSO is exploring the possibility of collecting quarterly data from the insurance industry.

(c) Direct Investment Inquiries

Direct investment income is an important component of the current account of the balance of payments, and direct investment capital flows, especially those associated with cross-border acquisitions and mergers, are substantial. In the past, quarterly estimates, based on a voluntary sample, have been subject to substantial revision in the light of subsequent more comprehensive annual data. From Q3 1990 the quarterly inquiry into direct investment has been made statutory and its coverage significantly widened. This led to a significantly improved coverage in the estimates incorporated in the balance of payments account published in December 1990: the coverage of outward investors increased by 25 per cent and that of inward investors by 10 per cent. Further improvements in coverage are anticipated as the new statutory survey beds down.

In addition, the annual direct investment inquiry for 1990 will be extended in scope to cover a range of questions on assets and liabilities (which was to have been deferred until 1992 as originally envisaged in the Armstrong Rees Report). These additional questions

will help to check the reporting of transactions in recent years. Also, an extensive register proving exercise will be undertaken to validate the coverage of the estimates and help improve grossing procedures. The expanded 1990 inquiry will be processed in 1991 with results available early in 1992.

The Bank of England has negotiated with the banks an increase from annual to quarterly in the frequency of reporting of the direct investment income (credits and debits) of banks. This forms a part of the new quarterly reporting of banks' income and outgoings, which will come into operation in 1992.

(d) Trade Valuation Survey

A major statutory survey of importers and exporters has been undertaken by Customs and Excise. The questionnaires, sent out in November 1990, were linked to a sample of Single Administrative Documents received by Customs in respect of trade recorded in August.

One aim of the survey is to confirm current estimates of the differences between the value of goods declared for Customs purposes and the amounts actually paid. Another is to confirm the accuracy with which traders report the value of trade and any differences from the required cif and fob valuation bases.

Although the coverage of the volume of visible trade is considered to be very good, there are doubts about the valuation procedure, which, especially for exports where there are no revenue implications, are largely handled by traders themselves. The last survey (for imports only) took place in 1980 with the last comprehensive information for exports coming from 1979 exchange control information. There has been a more recent series of export value verification exercises but they did not cover all aspects of the problem. If the survey reveals serious differences between current estimation procedures and what is happening on the ground, adjustments will be applied to the figures, and consideration will be given to the need for smaller continuing surveys. The results from this complex inquiry are expected to be available in the Summer.

5. Other measures

(a) Share Register Survey

A substantial part of the sector balancing items in recent years has been due to the poor quality of the estimates of holdings and transactions in UK company securities by the overseas, personal and industrial and commercial companies sectors. In 1990, a sample survey of around 100,000 holdings of listed ordinary shares of some 220 companies on the London International Stock Exchange was carried out. These 220 companies accounted for about two thirds of the total market capitalization of all companies on the Exchange. The survey was designed to establish the beneficial ownership of the shares classified to the broad sectors used in the national accounts.

The share registers were purchased on computer tape, in the format maintained by the registrar. The identities of the beneficial owners of nominee holdings were derived from an existing index of beneficial owners in nominee accounts, from firms' own registers of replies to enquiries made under Section 212 of the 1985 Companies Act, and from nominee companies.

Results of this survey (reported in more detail in an article in January 1991 *Economic Trends*) showed larger holdings of shares by the overseas sector and fewer by the personal sector than previously

estimated. This has led to reductions of around £13 billion in the cumulative balancing items for the overseas sector over the latest five years, with consequent reductions in counterpart sectors (mainly the personal sector). A further survey is now being undertaken in respect of end 1990, using information gleaned from the 1989 survey to refine the survey design. The CSO expect to run an annual survey of share registers as a major new source of data for the national accounts.

(b) Employment Statistics

Employment estimates are used, together with the Average Earnings Index, to calculate "income from employment", the major component of GDP(I) and personal sector income. Employment estimates also used as a proxy indicator for a small part of GDP(O). They are also used in measuring productivity and unit wage costs.

In September 1989 the then Secretary of State for Employment approved a package of measures to improve employment statistics compiled by his Department. The improvements package contains a number of elements which will be introduced in stages over several years.

Short-term employment estimates are based on benchmarks derived from the now biennial Censuses of Employment and on results from a panel of employers, supplemented by information from the current annual Labour Force Survey of households (LFS), both of which are used to project forward from Census benchmark. Results of the 1989 Census will be published in March some six months faster than the 1987 Census. At the same time, results from the 1990 LFS will be available. Both will be reflected in the monthly and quarterly employment estimates.

The monthly and quarterly employee estimates are based on information received from a panel of employers. The existing panel is not representative of current employment patterns - either industrially or geographically. A new panel is being selected from respondents to the 1989 Census. This will be the first major step towards improved reliability. The panel has now been recruited and the first batch of forms issued. Results are expected in the Autumn of 1991 when the June 1991 quarter figures are published.

On 9 March 1990, the Secretary of State for Employment announced the development of the LFS in Great Britain to deliver results on a quarterly rather than annual basis as at present. The Labour Force Survey offers a comprehensive and consistent picture of the labour market, employment, unemployment, occupation, hours of work, methods of job search, qualifications, training and other characteristics of people who are engaged in labour market activities. The introduction of a quarterly survey is expected to reduce the scale of revisions to the self-employed figures and be an additional contribution towards reducing revisions to the estimates of employees in employment.

The survey will be based on a sample of 60,000 households each quarter. The development will be carried out by the Department of Employment in partnership with the Social Survey Division of the Office of Population Censuses and Surveys. The enhanced survey

will use Computer Assisted Interviewing techniques to give highly reliable results and to allow results to be produced quickly. When the enhanced Survey is fully operational, it is expected that first results will be available 12 weeks after the end of the quarter to which they relate. Detailed planning for the enhanced LFS is well under way. The current aim is to have the first full-size quarterly survey in operation in the Spring of 1992.

(c) Sectorisation of Banking Flows

The banks provide information which analyses, for non-marketable instruments, business with other sectors of the economy. These flows are very large and any mis-allocation will affect the balancing items in the accounts of the individual sectors. Given the potential for mis-allocation a project has been initiated, to confirm that existing procedures provide reliable information. Terms of reference for the study provide for a report on the first phase of the inquiry, including the results of visits to a number of banks, by 31 March 1991. The report will note any areas where there might be substantial errors and, in the light of the work done, recommend whether a further phase of the project is necessary to quantify the errors found.

(d) Construction Industry

The construction industry accounts for six per cent of the country's gross domestic product. The diverse structure of the industry means there are considerable difficulties in obtaining accurate estimates of this contribution. Early estimates of construction are important as they provide a forward indicator of the state of the economy. Currently early estimates are frequently revised and their precision is thought not to be sufficient for national accounting purposes. Although, the Department of the Environment has undertaken continual research to improve these estimates, they are now doing further research to identify whether existing procedures can be changed to provide improved timely estimates. The research will also indicate whether the existing sampling scheme is optimal for the quality of the estimates required. A Report on this later research is expected in March. It will highlight the action required to make further improvements to the estimate of output of the construction industry.

(e) Offshore Centres

At present the balance of payments and financial transactions accounts define the UK to include the Channel Islands and the Isle of Man (off-shore UK), whereas the measures of gross domestic product relate only to mainland UK. Trade in goods and services by these islands with the rest of the world which are included in both are sufficiently small to make little practical difference. However, financial institutions in off-shore UK have substantial transactions and their treatment is known to be incomplete. This could lead to a biased picture and could explain part of the balance of payments' balancing item. Banking transactions are well covered but little information at present exists elsewhere.

A study is being undertaken during the first quarter of 1991 to look again at the availability of information within the off-shore UK centres which might be of use in compiling the balance of payments. This may point the way to the need for further research.