ESA95 terminology
The terminology used is in line with the conventions of the ESA95. The term *GDP* is now reserved for valuation at market prices while *Value Added* is used for other valuations of the aggregate previously known as GDP. There are now three valuations being shown i.e. Market Prices, Factor Cost and Basic Prices. The first two were always provided in the publications which preceded the adoption of the ESA95 methodology. The third one (GVA at basic prices) equals GDP (at market prices) minus product taxes plus product subsidies. This is also equal to GVA at factor cost plus other (non product) taxes minus other (non product) subsidies – see line 29 onwards in Table 2. The terms *Gross National Income (GNI)* and *Net National Income (NNI)* are also being used. GNI is equivalent to GNP plus EU subsidies minus EU taxes. Alternatively it may be described as GDP minus primary income payable by resident units to non resident units plus primary income receivable by resident units from the rest of the world. NNI is equal to GNI minus depreciation.

Methodology
The National Accounts form a comprehensive framework within which economic data can be presented in a coherent, consistent manner. There are three approaches to measuring National Income, each of which theoretically gives the same answer, i.e.

- output (value added by each producer);
- income (all income generated);
- expenditure (all spending on final demand).

In Ireland, the income and expenditure approaches are used. For the income estimate, the main components are:

* profits of companies and of the self-employed
* remuneration of employees (wages, salaries and employers' contributions to social insurance and pension funds including imputed contributions in respect of public service employees)
* rent of dwellings (imputed in the case of owner-occupied).

Adjustments are made in respect of stock appreciation i.e. to eliminate the effect of price changes on the level of stocks. Another feature of the national accounts is that interest is not regarded as part of income or expenditure in calculating GDP but the hidden margin which banks make on interest in the course of lending and borrowing is charged to customers. (See the paragraph on "profits of businesses" on page 38 in Appendix 1).

On the expenditure side, estimates are made of:

* personal expenditure on consumers' goods and services
* expenditure by central and local government on current goods and services
* gross domestic fixed capital formation
* value of physical changes in stocks.

The value of exports is then added and imports are deducted. The two approaches (income and expenditure) should theoretically give the same answer. However, they will always diverge to some extent as they arise from different data sources. The components of the two original estimates are shown unadjusted. The official level of GDP is taken to be an average of the expenditure and income estimates and a balancing item (statistical discrepancy) is displayed, which is half of the difference between the two estimates. This is the amount by which both estimates have to be adjusted to agree with the official level of GDP.

Volumes or Constant price estimates
Two measures of GDP (output and expenditure) are compiled annually to base the previous year and chain linked to a reference year. The output measure is obtained by using various output indicators to project forward the previous year's value added. On the expenditure side, the current price estimates are deflated to the previous year's prices using appropriate price indices. The average of the two provides the official GDP to base the previous year and is used to produce the annual volume change in GDP. The annual volume changes are then chain linked. The chain linked values for the components of both methods are shown in Tables 4 and 6.

Definitions

Appendices 1 and 2 contain detailed definitions and explanatory notes relating to all the variables contained in the various tables in this report. The following are the main features of the principal economic aggregates.

Gross Value Added at factor cost (previously called Gross Domestic Product at factor cost) is equal to the sum of the values of the goods and services (or part thereof) produced in the country without deducting an amount in respect of capital consumption (i.e. depreciation). It excludes taxes on production and includes subsidies on production.

Net Value Added at factor cost is equal to Gross Value Added at factor cost minus depreciation.

Gross Value Added at basic prices is equal to Gross Value Added at factor cost plus other (i.e.non product) taxes on production minus other (i.e. non product) subsidies on production.

Gross Domestic Product at market prices is equal to Gross Value Added at basic prices plus taxes on products less subsidies on products. It represents total expenditure on the output of final goods and services produced in the country ("final" means not for further processing within the country) and valued at the prices at which the expenditure is incurred.

Gross National Income at market prices is equal to Gross Domestic Product minus primary income payable by resident institutional units to non resident units plus primary income receivable by resident units from the rest of the world. It therefore represents total primary income available to resident institutional units of the country.

Retrospective historical series; availability of data in spreadsheet format
A continuous historical series of data along the lines of the main tables in this report covering the period from 1970 to 1995 is available in excel format on the web and in the CSO's database. There is however a discontinuity in this series due to the introduction of FISIM which is incorporated in the accounts from 1995 onwards but not for earlier years. Two sets of figures are available for the year 1995 i.e. one in the historical series without FISIM and one in the 1995 to 2006 series with FISIM included. This will allow users to assess the impact of FISIM on the various aggregates.
All tables in this publication are available in spreadsheet format on the CSO website http://www.cso.ie. They are also available in the CSO's database.

Appendix 1

Definitions and Concepts

The series of official estimates of national income and expenditure was inaugurated in the White Paper on National Income and Expenditure, 1938-44 (P.No. 7356) and continued in a second White Paper "Tables of National Income and Expenditure, 1938 and 1944-50" (Pr.No. 350), in the annual issues of the "Irish Statistical Survey" from 1950-51 to 1958 and in "National Income and Expenditure", 1959 to 2005. The latest estimates are contained in this issue of "National Income and Expenditure" (NIE 2006). These estimates are based, not on exact information but on incomplete data collected from many sources. The estimates of different items are therefore of varying accuracy, but where exact statistics were not available it was possible in some cases to compare independent estimates from alternative sources and thus obtain a check on the accuracy of the methods used.

Definitions

Net national product at factor cost may be defined as the total of all payments for productive services provided in this country or abroad accruing to the permanent residents of this country. The exact content of this definition is best shown by reference to the Explanatory Notes to Tables which appear in Appendix 2. Some income accrues to Irish residents as a result of economic activity abroad or property held abroad while some income arising in the State is paid to non-residents. **Domestic income** is the total income arising from productive activity within the State. **Domestic income plus net factor income from the rest of the world equals net national product at factor cost.**

Gross domestic product at factor cost is equal to net domestic product (domestic income) plus total provision for depreciation. **Gross national product at factor cost** is equal to net national product plus total provision for depreciation.

Gross national product at current market prices is equal to gross national product at factor cost plus taxes on expenditure less subsidies. It represents total expenditure on the output of goods and services of the national economy valued at the prices at which the expenditure is incurred. This expenditure is made up of personal expenditure on consumers' goods and services, net expenditure by central and local government on current goods and services, gross domestic physical capital formation (comprising fixed capital and stocks) and net expenditure by the rest of the world on goods and services originating in Ireland plus net factor income from the rest of the world.

The concept of gross national product at factor cost, together with the closely related concept of gross national product at current market prices suggest that there are three different methods of summarising the total economic activity of the country. These three different presentations are given in Tables 1, 2 and 5. Table 1 shows net national product broken down by type of income. Table 2 shows net national product at factor cost broken down by sector of origin. Table 5 shows expenditure on gross national product at market prices broken down by category of expenditure.

The following are some points regarding the constituents of net national product:

Wages, salaries and pensions include all such elements of earnings as overtime payments, bonuses, piece-work payments, commission earnings of distribution employees, directors' fees, etc. as well as income in kind (food, clothing, fuel and light). These are computed without deduction of employees' contributions to social insurance and to contributory pension funds. Where pension funds exist, the employers' contributions to pension funds are included in this item. Where pension funds do not exist, the actual pensions paid are included in this item, the payments being regarded as imputed superannuation contributions. The value of unpaid domestic services performed by spouses is excluded, whereas the remuneration in cash and kind of domestic servants is included.

Remuneration of employees includes, in addition to the above elements, employers' contributions to social insurance.

Transfer income such as emigrants' remittances and old age pensions, blind pensions, widows' and orphans' pensions, unemployment benefit or assistance and all other social welfare payments whether contributory or not, are excluded from net national product. Employees' and employers' contributions to social insurance funds are, therefore, regarded as taxes on income. Gross national disposable income is the sum of gross national product and net current transfer payments from the rest of the rest of the world.

Profits of businesses are taken before deduction of taxes on income but are net of taxes on expenditure (including rates). For 1990 and later years, royalty payments made or received by businesses are regarded as purchases or sales respectively of services, rather than as a form of investment income.

In measuring profits, receipts of investment income (interest and dividends) are in general not included in the output of businesses, and expenditures on investment income are in general excluded from their intermediate consumption. However, in the case of banks and similar businesses, output includes, in addition to invoiced fees and charges, an estimated service charge (called FISIM - financial intermediation services indirectly measured) in respect of their non-invoiced services, represented by the margin between the interest they pay on deposits and the interest they receive on loans. The estimation methodology makes use of a reference rate, approximating a pure interest rate, and calculated as the effective interest rate on inter-bank positions. In the case of loans (for which customers usually pay a higher rate than the inter-bank rate) the FISIM amount is calculated as the difference between the reference rate and the actual loan rate charged to customers, multiplied by the stock of loans of customers, and is subtracted from the original interest amount to yield the pure (FISIM-exclusive) interest amount. In the case of deposits (for which customers usually earn less than the inter-bank rate) it is the difference between the reference rate and the actual deposit rate paid by the bank to customers, multiplied by the stock of deposits from customers, and this is added to the original amount.

Of the total domestic production of FISIM, some is attributable to consumption in the form of final demand by depositing and borrowing customers (by households in their capacity as consumers, in the form of personal expenditure, by government in the form of government consumption, and by non-residents, in the form of exports). These components therefore add directly to GDP. The remainder of domestic production of FISIM is consumed as intermediate consumption by businesses or by households in their capacity as self-employed businesses and as borrowers for owner-occupation of dwellings, and has no net effect on aggregate GDP (although it does of course reduce the value added of the activity branches concerned, offsetting to some extent the increase in the value added of the financial services branch that produces the FISIM).

The presentation and content in the national accounts tables of interest flows to and from non-residents differs from the presentation in the balance of payments (BOP) statistics. In the BOP, the gross interest flows are reported on the original basis, that is on the ordinary basis as reported by banks and customers. In the national accounts, on the other hand, the estimated FISIM charged to non-resident depositors and borrowers by resident banks has been removed from the relevant flows, as described above, and a similar exclusion is made from the flows between resident customers and non-resident banks (which in turn is booked as imports in the calculation of GDP). The components for interest flows involving banks in the national accounts item **Net factor income from abroad** (i.e. the adjustment item from GDP to GNP) are therefore constructed on the basis of the “pure” interest rates (that is, exclusive of FISIM). FISIM is not computed on interest flows between entities neither of whom is a bank or bank-like entity (for example between a manufacturing company and its affiliates overseas on inter-company loans), or on interest flows on securities, and these are therefore treated in the same way in the BOP and the national accounts.

The provisions for depreciation deducted to arrive at *net profits* are normally based on those allowed for tax purposes adjusted, as appropriate, for *free depreciation,* etc. rather than the provisions made by the enterprises themselves in their business accounts.

Companies include all public and private companies incorporated either in or outside the State, as well as certain corporate bodies, such as, the Electricity Supply Board, the Central Bank, etc. **Companies’ Savings** comprise the undistributed income net of tax of all bodies counted as companies. In the case of subsidiaries or branches of foreign companies operating in the State the foreign direct investors’ share of the total trading income (less corporation tax payable in the State) is regarded as distributed to these investors. Correspondingly, the Irish direct investors’ share of trading profits of subsidiaries or branches operating abroad of Irish companies is regarded as having been distributed to these investors.

Income from dwellings is included in net national product. An imputed rent is included in respect of owner-occupied dwellings but no such element is imputed to other classes of durable goods.

Income of agriculturists is based on estimates of the value of gross output of agriculture (eliminating duplication due to inter-farm sales) after the deduction of estimates of various elements of costs, viz., the cost of marketing, feed-stuffs, fertilisers and seeds, petrol and oil, veterinary fees and medicines, depreciation, etc., as well as the interest element in land annuities paid. Farm produce consumed in farm households without process of sale is valued at the prices which farmers receive for similar goods sold. The value of changes in the numbers of livestock on farms and the value of the change in the stock of crops held on farms are included in agricultural income. **Income originating in the agricultural sector** includes, in addition to the above, the total interest element in land annuities, including both the interest element in annuities actually paid by farmers and that met by way of subsidy under the land acts.

Profits, interest, dividends, remuneration of employees from the rest of the world are included in national product and similar items arising in Ireland and paid to foreign residents are excluded. In the case of subsidiaries or branches of foreign companies operating in the State the foreign direct investors' share of the total trading income (less corporation tax payable in the State) is regarded as distributed to these investors and hence excluded from National Income. Correspondingly, the Irish direct investors' share of trading profits of subsidiaries or branches operating abroad of Irish companies is regarded as having been distributed to these investors and hence included in National Income.

Government trading and investment income which represents the income of central and local government in their entrepreneurial capacity, is included in net national product. The constituents of this item are (i) the trading income of the Post Office Savings Bank, (ii) interest receipts in respect of land annuities, (iii) interest on advances by the government to various concerns, such as the Electricity Supply Board, (iv) net dividend payments from state sponsored bodies and payments to the Exchequer out of the profits of the Central Bank, (v) income from foreign securities, (vi) proceeds of the National Lottery surplus, (vii) interest payments under the Housing Acts and (viii) rental income of local government, consisting of actual rents received plus the amounts of subsidies involved less expenses. Depreciation is deducted in respect of item (viii).

An **adjustment for stock appreciation is deducted** in the estimation of national product for years in which changes in commodity prices have been such that non-agriculture stocks held at the beginning of the year would have increased in value if no physical change had occurred. A similar provision is **added** for years in which price changes were such as to cause a fall in value of non-agricultural stocks held at the beginning of the year. The effect of this is to include in the various aggregates only the value of the change in volume of stocks between the beginning and end of the year, as distinct from the change in the value of stocks which, in general, is brought to account as part of income according to normal accounting definitions. (The value of the physical change in agricultural stocks is computed directly so no similar adjustment is required in this case.)

Personal income is the aggregate income from all sources in cash or kind, whether from productive services or not, at the disposal of individuals permanently resident in the State. It is equal to net national product plus provision for stock appreciation, less government trading and investment income, plus national debt interest and other current transfer payments, less undistributed profits before tax of companies and other corporate bodies. See the explanatory notes on Table 9 on pages xix-xx.
Private income is the aggregate income from all sources in cash or kind, whether from productive services or not, of all individuals, companies, charities, etc. which are permanent residents of the State. It is equal to personal income plus the undistributed profits before tax of companies and other corporate bodies. See the explanatory notes on Table 9 on pages xix-xx.

Changes in Concepts and Methods

To take account of developments in international standards, and as part of the ongoing process of improvement, many editions of the accounts over the years have introduced methodological or data changes. Changes since the late 1970s are summarised below. In addition to these systematic changes, routine revisions in the source data usually also result in revisions for a number of years in each edition.

In the **1978** report it was possible to produce an improved classification of local government expenditure by purpose for the years from 1976 onwards. This was due to changes in the local government accounting system which took effect in 1976.

In the **1979** report a fundamental revision of methodology produced changes in the figures for gross fixed capital formation. These are described in that report. Also a more complete survey of trading profits of unincorporated enterprises, professional earnings, etc. resulted in revisions to these data.

In the **1980** report following a review of methodology, changes were made to balance of international payments data. Changes were also made to the method of recording housing subsidies. These changes are described in that report.

The **1982** report included revisions to the estimates for a number of items in the accounts arising from an ongoing review of sources and methods. These changes principally affected the Balance of International Payments estimate, company profits and the residual items personal consumers' expenditure and savings.

The **1983/1984** report incorporated the new series of estimates for agricultural output and income released in July 1985. The classification used in the analysis of personal consumers' expenditure was also changed in that report and is now aligned with that of the European System of Accounts. The headings are more functional in concept and some additional detail is involved. The detail of the relationship between the new and the old classification can be supplied on request.

The **1985** report introduced the concept of real gross national disposable income.

The **1988** report introduced a change in the treatment of non-commercial bodies, which were principally funded by grants from the State. Prior to this, these bodies were excluded from the scope of *Central and local government* and transactions between them and government were shown explicitly. In the 1988 report they were classified within the *Central and local government* sector and their receipts and expenditure consolidated with those of government. The net current expenditure of central and local government now includes the intermediate consumption of these grant aided bodies.

Arising from the Local Loans Fund (Amendment) Act, 1987, certain circular flows involving transfers and loan transactions between central government and local government decreased significantly. From 1988 this affects the comparability of data, for some headings, in Tables 19, 20, 26 and 27 but has no effect on the consolidated tables for *Central and local government*.

A number of methodological improvements were introduced in the **1992** Report. These changes principally involved the estimates of Wages and Salaries (mainly through the use of new surveys), Profits (using improved estimation procedures), Rent of dwellings (use of 1987 Household budget data) and Imports and Exports (new Balance of Payments surveys of International Trade in Services). These revisions significantly increased the levels of some of the key national accounting aggregates including Personal Consumption which was derived as a residual. Revisions have been made retrospective to 1985 and it is intended, if resources permit, to extend the revisions back to 1980.

The **1993** Report incorporated a revised treatment of the deficit on the Local Government housing account, which was described in detail in the November 1993 issue of the Economic Series. Traditionally, in the Irish National Accounts, this deficit was treated as a subsidy. Following a legal decision published by the EU on the scope of subsidies in National Accounts (OJ L 224, 3.9.93, page 27), this deficit had to be reclassified as a current transfer payment from Local Government to households.

The **1994** report introduced the base 1990 for the constant price volume series.

The **1995** report revised the concept of Domestic Product and National Product by introducing two new points of methodology. They can be summarised as follows :

1. Royalty payments made by businesses are now excluded from profits as in normal company accounts. They are considered part of intermediate consumption and when the royalty payments are made abroad they are therefore considered as an import of services. Previously, royalty payments were included as part of profits (i.e. as a distribution out of profits). They were, however, considered part of *Factor Incomes* in the transition from GDP to GNP so while the level of GDP is affected by this change the level of GNP is unaffected.

2. In the transition from GDP to GNP the foreign direct investors' share of the profits of subsidiaries or branches operating in Ireland of foreign companies are considered to have been distributed to these investors. Correspondingly, the Irish direct investors' share of the profits of subsidiaries or branches operating abroad of Irish companies are considered to have been distributed to these investors. Previously only the profits actually remitted to/from abroad were taken into account in the transition from GDP to GNP.

A number of other changes were made in the 1995 Balance of Payments Statement, some of which also affected items in the main national accounts tables. The main ones were :

- Improved estimates were made of remuneration of employees working outside their country of residence
- There was improved coverage of transfers vis-à-vis the rest of the world
- A change was made to an accruals based timing for EU transfers (previously on a cash basis)

Much detailed work was done on improving the estimates of wages and salaries for the 1995 report. This led to significant revisions in several sectors. The most notable changes were as follows :

- the overall comprehensiveness of the estimates was improved by changing control totals for employment from the PES (Principal Economic Status) basis of the Labour Force Survey data to the ILO (International Labour Office) basis;
- new information from the annual CSO services inquiries was incorporated, notably in the distribution sector, leading to increases from 1992 onwards;
- revised calculations have reduced the estimate for wages in small enterprises not covered by the Census of Industrial Production.

A major revision was also made in the 1995 report to the estimates of imputed rent of owner-occupied dwellings following methodology laid down in 1994 in a Decision of the EU Commission based on the results of the 1991 Census of Population.

The full ESA95 methodology was brought into effect in the **1998** report. This widened the scope of capital formation. Computer software, original literary and musical works, unsuccessful mineral exploration, military equipment similar to that used by civilian producers e.g. hospitals, are now included as capital investment.

The output of the insurance sector was increased by regarding the income from the investment of the technical reserves as additional imputed premium contributions.

Some payments to Government which were previously regarded as transfers e.g. passport fees, are now classified as payments for services while others (e.g. stamp taxes on banking transactions) are now regarded as taxes on products.

Rent of dwellings was revised downwards in the **2003** report based on the results of the 2002 Census of Population. The Census of Population provides details of the rent paid by all tenants in respect of their dwellings as well as details of the size of and facilities in the dwellings. This allows the imputed rent of owner occupiers to be revised in line with current rates in similar rented dwellings.

The **2004** report introduced two significant methodological changes. Firstly, the volume (constant price) measures were calculated to base the previous year rather than to a fixed base as in previous publications. The annual volume changes were then chain linked to a reference year to produce indices and values of the main aggregates in “constant” prices. This system was introduced throughout the EU to comply with EU Decision 98/715. The output and expenditure measures of GDP are calculated to base the previous year and the average of the two measures provides the official volume measure of GDP. A practical consequence of the chain linking system is that the chain linked aggregates are not equal to the sum of their chain linked components.

Secondly, a new method was introduced for estimating and allocating the interest margin that banks and similar entities earn by taking deposits at a relatively low nominal interest rate and making loans at a relatively high nominal rate (the so-called FISIM – Financial Intermediation Services Indirectly Measured). Under the previous methodology, this margin was presented in the accounts as though it were produced by the financial services branch, and entirely consumed, as intermediate consumption, by a notional branch which produced no output. The resulting notional loss (the item *Adjustment for financial services* in the editions before the 2004 report) completely offset the apparent profit earned by the financial services branch, and the net effect on GDP was therefore nil.

The new FISIM methodology introduced in the 2004 report follows new guidelines set down in EU legislation. It involves some relatively minor changes in the method of calculating the total amount of FISIM. More importantly, the allocation to the consuming sectors was changed. Instead of being allocated to a notional sector, it is now allocated to the sectors of the depositors and borrowers, in proportion to the quantity of their deposits and loans, and to the margin between the de facto rate earned by or charged to the sector and a pure or FISIM-free reference rate, calculated as the de facto effective rate for inter-bank business. The effect on GDP depends therefore on which sectors consume the FISIM: consumption that constitutes final demand (such as by households in their capacity as consumers, by government, or by non-residents) adds to GDP, but intermediate consumption (such as by companies, or by households in their capacity as self-employed businesses or as owner-occupiers of dwellings) has no net effect. There is also some relatively small reduction in GDP arising from imports of FISIM, but the net effect for Ireland, as for most countries, is that the new methodology results in a net increase in GDP levels.

The 2004 report also introduced a new retrospective series from the year 1970 estimated according to the ESA95 rules and conventions. The main aggregates from this series are shown in Table A. Most of the standard tables in the NIE report are available from this retrospective series from 1970 onwards on the CSO's website in excel format and are also available in the CSO's database.

In the 2005 edition some changes were made to the estimation methods for the profits of companies and self-employed. The main changes were:

- The methodology and data sources for financial enterprises were overhauled: the coverage of the branch was more accurately delimited by improvements in the activity classification codes on the register, and more explicit and detailed use was made of survey data on financial enterprises collected in the CSO balance of payments and financial sector surveys
- Other improvements in the activity coding in the register also resulted in some reclassifications between branches
- Technical improvements were made to cater for situations where companies change their accounting periods, resulting in two or no accounting periods ending in a given calendar year
- Improvements have been made in aligning the profits of both companies and self-employed persons more closely to the calendar year.

These changes were implemented for the years 2000 to 2005. For the earliest years, the effect at the overall level was quite small, and it has not been possible to carry them through to years before 2000. Furthermore, while the effects on the branch results at the level published in this report (Tables 2 and 3) are also not very large (and in any event cannot readily be distinguished from routine revisions arising from more up-to-date source data), the effect on more detailed branch results may have been more significant.

Changes were also made to the estimation of the constant price output estimates (i.e. Table 4). New methodologies were developed for the calculation of the value added of the education and health services provided by government. The revised methodology for education uses pupil numbers, stratified by level of education in primary and second level, and by level of education and subject at third level to derive an overall volume index. This index is applied to base year unit costs. A quality adjustment is included in the calculation to take account of the number of teachers working in the education system.

The output of the health service is now being measured using a weighted index comprising measures of in-patient services, out-patient services and medical card services, applied to the base year contributions of these components to GVA. The value added for both education and health are captured as part of the total "Other Services" figure in Table 4.

Finally for 2005, changes were also made in the estimation of company and personal savings. In previous editions, item 124 (Undistributed profits of companies before tax) was estimated independently, and personal savings (item 129) was calculated as a residual. In the 2005 edition, additional independent information on households' investment income and savings was used, based on initial work on setting up a series of non-financial sector accounts results, and this yielded somewhat different estimates. Elements from the two methods have therefore been combined to give revised series for both items.

In this edition (2006 report) The establishment of the Health Service Executive (HSE) at the beginning of 2005 to replace the Health Boards has given rise to significant reclassifications and discontinuities in some of the Government Accounts tables, particularly Tables 19 and 20. The old Health Boards were considered to be part of the Local Government Sector but the new HSE belongs to Central Government. The Incomes and Expenditures of Health Boards are therefore recorded in Table 20 'Local Government' for all years up to and including 2004, with transactions between the Exchequer and the Health Boards explicitly shown. From 2005 onwards the corresponding transactions of the HSE are recorded as part of Table 19 'Central Government', with transactions between the Exchequer and the HSE consolidated out and no longer identifiable. Table 21, which includes the consolidated account for Central and Local Government is unaffected by the reclassification.

External Transactions at Constant Prices

In the external account imports and exports of merchandise are expressed at constant prices by using import and export unit value indices. Invisible (i.e. non-merchandise) non-factor items are deflated separately by the most appropriate price index on consideration of the nature of the flow in question. The aggregate value of the imports of goods and non-factor services at constant prices is then determined and a general price index for the aggregate is deduced. Similarly, a general price index for the aggregate value of the exports of goods and non-factor services is calculated.

This implied price index for exports of goods and non-factor services is then used to deflate net factor income from abroad in years when this item is negative. In years when it is positive it is deflated by the implied price index for imports of goods and non-factor services. Net current international transfers are similarly deflated. The rationale for this approach is that a positive net factor income flow can be used to finance imports while a negative net factor income flow must be met with increased exports. In recent years, (e.g. 1999 onwards) exceptional income payments have had to be deflated separately.

Gross National Product by Sector of Origin at constant prices

In the 1965 report estimates of the gross national product at constant prices subdivided by industrial sector were included for the first time. These estimates were compiled by aggregating the contributions, to the gross national product at factor cost, valued at constant prices, of the different industries, and of net factor income from the rest of the world, and adjusting to market prices by adding taxes on expenditure and deducting subsidies, both valued at constant prices.

Two principal methods have been used to derive gross value added at factor cost at constant prices as given in the tables.

The first method, which may be called the *double deflation* method, consists of valuing both the output and the input (expenses) of the sector at base year prices (now previous year prices). The difference between output and input is the gross product, *gross* signifying that depreciation has not been deducted as an expense. This is the basic approach used for the agricultural sector.

The second method consists of estimating an index of volume of output for the sector for a series of years and then multiplying the base year (now previous year) gross value added by these index numbers to derive the gross value added figures for other years. This method is widely used since, for most sectors, there is considerable difficulty in expressing the inputs at constant prices. Clearly, if at constant prices the ratio of input to output remains unchanged, both methods would give identical results.

The estimates for agriculture incorporate the official indices for agricultural output. In the case of industry, this report contains estimates of the contribution from four industrial sectors which are more than 90% foreign owned. These estimates, as well as those for the remainder of industry, are based on the official industrial production indices adjusted for the impact of royalties on intermediate consumption. The agricultural and industrial sectors together account for about forty per cent of gross national product and reliable indicators of volume are available and are used in compiling the official indices. The choice of suitable volume indicators on which to base volume index numbers in certain other sectors, however, raises conceptual problems which have not yet been solved satisfactorily. The service type industries include distribution, transport and communication, insurance, banking and finance, education, health, professional and miscellaneous services and public administration and defence. In certain industries, e.g. transport, suitable volume indicators such as passenger-miles and freight tonne-miles are available; in other industries it is more difficult to obtain volume indicators.

Particular difficulty is experienced in estimating the output of public administration and defence and other services provided by central and local government. In most of these cases no reasonable measure of output is available and the practice adopted is to apply an index of employment, where available, to the base year remuneration. Where reliable data are not available the implied index of rates of remuneration is used to deflate current values. The effect of using this method is to assume no increase in productivity. However, since NIE 2005, special methodologies have been developed for the calculation of the value added of the education and health services provided by government. The revised methodology for education uses pupil numbers, stratified by level of education in primary and second level, and by level of education and subject at third level to derive an overall volume index. This index is applied to base year unit costs. A quality adjustment is included in the calculation to take account of the number of teachers working in the education system.

The output of the health service is measured using a weighted index comprising measures of in-patient services, out-patient services and medical card services, applied to the base year remuneration. The value added for both education and health are captured as part of the total “Other Services” figure in Table 4.

In order to derive gross national product at constant market prices, net factor income from the rest of the world, taxes on expenditure and subsidies are also valued at constant prices. The method of expressing net factor income from abroad at constant prices is explained in the section *External transactions at constant prices*. Where taxes on expenditure and subsidies relate to particular goods, the rate of tax or subsidy per unit quantity of the item taxed or subsidised, if available, is used to derive an index to deflate current values. In the case of *ad valorem* duties both the rate of duty and an appropriate price index are used to compile constant price data. If neither of these methods of deflation can be used the estimation of a constant price series is made by using volume indicators appertaining to the relevant industry or by deflating by a suitable price index. In a few cases, where the taxes on expenditure or subsidies were not in operation in the base year, they are by definition, omitted from the constant price series.