

# **NEW SERIES OF NATIONAL ACCOUNTS STATISTICS (BASE YEAR, 1999-2000)**

## **1. INTRODUCTION**

1.1 The development of official estimates of national income and related aggregates to meet the requirements for planning and policy purposes began after Independence. Recognising the need for providing estimates of national income on a regular basis, the Government of India set up a High Powered Expert Committee in 1949 known as 'National Income Committee' under the Chairmanship of Prof. P.C. Mahalanobis. It was for the first time that this Committee provided the estimates of national income for the entire Indian Union. The estimates of national income and details of methodology adopted by the Committee were published in the First and Final reports of the National Income Committee brought out in April 1951 and February 1954 respectively. In accordance with the methodology and the pattern of presentation recommended by the National Income Committee, the first official estimates of national income were prepared by the Central Statistical Organisation (CSO) with base year 1948-49. These estimates at constant (1948-49) prices along with the corresponding estimates at current prices and the accounts of the Public Authorities were published in the publication, 'Estimates of National Income' in 1956.

1.2 With the gradual improvement in the availability of basic data over the years, a comprehensive review of methodology for national accounts statistics has constantly been undertaken with a view to updating the database and shifting the base year to a more recent year. As a result, base years of the National Accounts Statistics series have been shifted from 1948-49 to 1960-61 in August 1967, from 1960-61 to 1970-71 in January 1978, from 1970-71 to 1980-81 in February 1988 and from 1980-81 to 1993-94 in February 1999. In line with this practice, the CSO introduced the New Series of National Accounts Statistics with 1999-2000 as the base year, on 31<sup>st</sup> January, 2006 (hereinafter will be referred as New Series).

1.3 This brochure presents in brief, the changes in methodology adopted in the New Series from the one documented in the CSO's publications "National Accounts Statistics: Sources and Methods, 1989" and "New Series on National Accounts Statistics (Base Year 1993-94), 1999", alongwith the estimates in the New and Old series for the year 1999-2000. Both these publications are available on the website of the Ministry of Statistics and Programme Implementation, at [http://mospi.nic.in/nas\\_snm.htm](http://mospi.nic.in/nas_snm.htm), and [http://mospi.nic.in/brochure1\\_9june04.pdf](http://mospi.nic.in/brochure1_9june04.pdf), respectively. A detailed publication on Sources and Methods of National Accounts Statistics as per the new series will be brought out separately by the CSO.

1.4 In Section 2 of the Brochure, the guiding principles behind the changes made in the compilation of national accounts that have been incorporated in the New Series, including the reasons for choosing 1999-2000 as the base year, have been spelt. The details of changes made at industry/item level in the industry-wise estimates of Gross Domestic Product (GDP) and expenditure aggregates of GDP have been presented in Sections 3 and 4, respectively. Changes made in the data relating to public sector transactions are indicated in Section 5.

## **2. GUIDING PRINCIPLES FOR NEW SERIES**

2.1 The three major components influencing the present revision exercise include (i) revision of base year to a more recent year (for meaningful analysis of the structural changes in the economy), (ii) complete review of the existing data base and methodology employed in the estimation of various macro-economic aggregates including choice of the alternative databases on individual subjects and (iii) to the extent feasible, implementing the recommendations of the System of National Accounts (1993 SNA) prepared under the auspices of the Inter Secretariat Working Group on National Accounts comprising of the European Communities (EUROSTAT), International Monetary Fund (IMF), Organisation for Economic Cooperation and Development (OECD), United Nations and World Bank. Thus, the new series has been introduced by the CSO after a comprehensive review of both the databases and the methodology employed in the estimation of various macro-economic aggregates.

### **Choice of 1999-2000 as the Base Year**

2.2 In the past, National Accounts Statistics have mostly been revised decennially changing the base to a year synchronizing with the year of decennial Population Census. It was primarily because in the base year estimates, the information on work force has played an important role and workforce estimates were obtained from the Population Census which is conducted decennially in the years ending with 1. As a sequel to this sequence, the previous series of National Accounts Statistics should have been with the base year 1990-91. At that time, it was observed that the data on worker participation rate (WPR), captured by the National Sample Survey Organisation (NSSO) was better than the one estimated through the Population Census. Accordingly, the CSO used the workforce estimates based on National Sample Survey (NSS) workforce participation rates from the NSS 1993-94 (50<sup>th</sup> Round) survey results, and revised the base year of national accounts to 1993-94.

2.3 In continuation with this practice, the new series of national accounts released on 31<sup>st</sup> January, 2006 adopted 1999-2000 as the base year, as it has used the data on WPR from the NSS 55<sup>th</sup> round Quinquennial survey on Employment and Unemployment, conducted in 1999-2000. In the new series, the WPR data has been used in conjunction with population data of the Population Census, 2001.

### **Use of results of recent surveys and censuses and type studies**

2.4 In the new series, efforts have been made to make use of as much current data as possible. Further, the results of latest available surveys have also been made use of. Some of the important sources of data, which have been utilised in the new series, are as follows:

- (i) Quinquennial Survey on Employment and Un-employment, 1999-2000 (55<sup>th</sup> round), NSSO;
- (ii) Survey on Unorganised Manufacturing, 2000-01 (56<sup>th</sup> round), NSSO;
- (iii) Survey on Services Sectors, 2001-02 (57<sup>th</sup> round), NSSO;
- (iv) Survey on Housing Conditions, 2002-03 (58<sup>th</sup> round), NSSO;
- (v) All India Livestock Census, 2003, Department of Animal Husbandry, Dairying and Fisheries;
- (vi) Population Census, 2001, Registrar General of India;
- (vii) All India Census of Small Scale Industries, 2001-02, Development Commissioner, Small Scale Industries, Ministry of Small Scale Industries;

- (viii) Employment Review - published annually by the Directorate General of Employment and Training (DGET), Ministry of Labour;
- (ix) Indian Horticulture Database 2004, brought out by the National Horticulture Board (NHB);
- (x) Hand Book on Fisheries Statistics, 2004, published by Department of Animal Husbandry, Dairying and Fisheries;
- (xi) Operational Land Holdings and Livestock Holding Survey, 1991-92 (48<sup>th</sup> round), NSSO;
- (xii) Administrative records of the Ministry of Non-Conventional Energy Sources for information on Gobar gas plants, Wind Energy Systems;
- (xiii) Quinquennial Survey on Consumer Expenditure, 1999-2000 (55<sup>th</sup> round), NSSO;
- (xiv) All India Debt and Investment Survey (AIDIS) 1991-92, NSSO;
- (xv) Annual Accounts of the Employee's Provident Fund Organisation (EPFO)
- (xvi) Cost of Cultivation Studies (CCS) of the Ministry of Agriculture;
- (xvii) Cost structure of Wind Energy system, Plantation crops, NABARD;

2.5 In addition to using the results of above surveys and censuses, the CSO entrusted a number of studies to the State Governments, the Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Ministry of Agriculture (DESAg) and the Socio-Economic Research Centre (SERC), a Delhi based NGO, for updating the rates and ratios used in the compilation of national accounts. The CSO also conducted a study on yield rates of meat, meat products and meat by-products through its own personnel to update the old rates and ratios for these items. The results of the type studies considered for incorporation in the new series relate to those conducted by (i) SERC on rates and ratios in agriculture sector, (ii) CSO on yield rates for meat, meat products and meat by-products, (iii) CSO on yield rates of camel hair and pig bristles, (iv) DESAg on market charges paid by the farmers, (v) Directorate of Economics and Statistics, Government of Haryana, on input rates for inland fishing, and (vi) Indian Council for Forest Research Education (ICFRE) on output of forest products.

### **Improvements in coverage**

2.6 The improvements in terms of coverage in the new series in the GDP estimates have mainly been inclusion of production of (i) salt through seawater evaporation, (ii) betel leaves (for States of Assam & West Bengal), (iii) toddy, (iv) goat milk (in 16 States/UTs), buffalo milk (in 5 States/UTs) and camel milk having economic value and not presently covered in the production data, (v) duck eggs (in 15 States/UTs), and (vi) meat production from unregistered slaughtering in the States where the same is presently not covered in the production estimates. Further, capital expenditures incurred on (i) seven new tree crops during the gestation period, and (ii) installation of wind energy systems, are included in the estimates of output of construction sector, as well as in the capital formation. A new category of 'valuables', covering the expenditures made on acquisition of valuables namely gold, jewellery, etc. has been included in the gross capital formation, but as a separate category outside the Gross Fixed Capital Formation (GFCF) and Change in Stocks, in line with the recommendations of 1993 SNA.

2.7 Besides the above, economic activities like (i) other private communication, (ii) renting of machinery and other equipment without operator, (iii) computer related activities in unorganized segment, (iv) coaching centres, (v) social work with accommodation, and (vi) recreation and cultural and supporting activities, have been taken into account as per the latest available data from the NSS 55<sup>th</sup> and NSS 57<sup>th</sup> rounds.

These activities were not adequately captured in the earlier series, but are explicitly defined in the National Industrial Classification, 1998, according to which the NSSO collected the data in these Rounds.

### **Improvements in the procedures of compilation**

2.8 The important procedural changes made in the new series are (i) using the production data provided by the National Horticulture Board (NHB) for all horticultural crops (with the exception of those covered under principal crops) and using the price data provided by the State Directorates of Economics and Statistics (State DESs) for all crops; (ii) introduction of a new basic material, 'fixtures and fittings' in the construction sector in addition to the existing 4 basic materials for estimating the value of output of construction sector; (iii) netting the retained reserves and dividends paid from the property income of mutual funds for the purpose of estimating the output of banking sector; (iv) aligning the estimates of capital formation by industry of use with that of assets, (v) adjusting for reinvested earnings in India of foreign companies in the estimates of saving of private corporate sector and the consequential changes in the external transactions account, (vi) including in the private corporate sector's GFCF, the domestic consumption of software (net of public sector purchases) and the expenditures incurred on construction of assets by the newly set up companies before they commence production, and (vii) treating the operating losses of departmental commercial undertakings as imputed subsidies, in line with the practice currently followed for irrigation departments.

### **Implementation of recommendations of 1993 SNA**

2.9 While undertaking the new base year exercise, efforts have also been made to implement the recommendations of the 1993 System of National Accounts (1993 SNA) to the extent data are available. Some of the recommendations of the 1993 SNA which presently form part of the new series are:

- (i) valuation of non-market agricultural crops on the basis of prices of similar products made by market producers and their inclusion in the production boundary;
- (ii) inclusion of own-account production of housing services by owner-occupiers and of domestic and personal services produced by employing paid domestic staff;
- (iii) inclusion of premium supplements in respect of life and non-life insurance output estimates;
- (iv) Inclusion of reinvested earnings of foreign direct investors in the rest of the world account. This treatment affects gross national product, saving and capital formation;
- (v) imputed value of own-account labour treated as mixed income of self-employed;
- (vi) expenditures on mineral exploration treated as capital expenditure;
- (vii) allocation of financial intermediation services indirectly measured (FISIM) to the users of these services, as intermediate consumption to industries and as final consumption to final users;
- (viii) inclusion of expenditures on valuables, which are held as stores of value, and are treated as Gross Capital Formation;
- (ix) treatment of expenditures on software as Gross capital formation;
- (x) inclusion of natural growth of livestock as Gross capital formation
- (xi) inclusion of expenditures made on few tree crops during the gestation period as Gross capital formation;

- (xii) addition of capital expenditure incurred on installing the wind energy systems in the Gross Fixed Capital Formation
- (xiii) estimation of consumption of fixed capital of all fixed assets including government buildings, roads, dams etc. as Perpetual Inventory Method (PIM);
- (xiv) adopting the practice of changing base year every 5 years.

### **Estimation of workforce for use in New Series**

2.10 In the absence of annual enterprise surveys, the GDP estimates in respect of (i) unorganized segments of manufacturing and services sectors, and (ii) for some segments of private organized services sectors, are compiled through indirect methods, using the benchmark-indicator procedure. In this procedure, the benchmark GDP estimates are initially prepared at detailed activity level for the base year of national accounts series using the estimated workforce engaged and the value added per worker (VAPW) in the activity. For subsequent years, the GDP estimates are extrapolated with appropriate indicators relevant to the economic activity. Therefore, for estimating the GDP for these segments of the economy, data on workforce and VAPW are required, for the base year.

2.11 Traditionally, the estimates of workforce used in the national accounts were from the Population Census. However, estimates of workforce are also available from other alternative sources, namely (i) large-scale household sample surveys on Employment and Unemployment conducted by the NSSO, which provide work force participation rates (WPR). These WPRs used in conjunction with the estimated population, provide work force estimates; (ii) Economic Census conducted by the CSO; and (iii) the follow-up enterprise surveys of the Economic Census conducted by the CSO and the NSSO. While introducing the 1993-94 series, various sources were examined in depth for identifying the appropriate data source for use in national accounts compilation. After a detailed analysis of all these sources and with the approval of the Advisory Committee on National Accounts Statistics, it was decided to adopt, at 1-digit level of the National Industrial Classification (NIC), the WPRs (separately for rural/urban and male/female) available from the Quinquennial Survey on Employment and Un-employment, 1993-94 (50<sup>th</sup> round) of the NSSO and the estimated population for the period made available by the Office of the Registrar General of India (RGI). The estimates of workforce thus obtained at the 1-digit level with rural/urban and male/female break up were further distributed to 2 and 3-digit levels of NIC in proportion to the working force as on 31<sup>st</sup> March 1991 available from the 1991 Population Census.

2.12 For arriving at appropriate workforce estimates for use in the new series, the Advisory Committee on National Accounts Statistics (presently Chaired by Prof. S.D. Tendulkar) appointed a Working Group (WG) on Workforce estimation under the chairpersonship of Smt. Grace Mazumdar, in December, 2002. The Committee submitted its Report in March, 2004 and the same was published by the CSO, entitled “Report of the Working Group on Workforce Estimation for Compilation of National Accounts Statistics with Base Year 1999-2000”. This publication is also available on the Ministry of Statistics and Programme Implementation’s website at, [http://www.mospi.nic.in/mospi\\_cso\\_rept\\_pubn.htm](http://www.mospi.nic.in/mospi_cso_rept_pubn.htm).

2.13 In its Report, the Working Group recommended the detailed sources and methodology to be adopted for the new series for arriving at the estimates of workforce in various compilation categories, using the data available from the NSS 55<sup>th</sup> Round and Population Census, 2001. The Working Group refers to the workforce (number of

workers) in each of the economic activities as *labour input*, which is also the job count in these activities. The data on total number of jobs performed in each economic activity is not directly available. The available data on employment from the NSSO is through household enquiry method, which gives data on number of workers. The difference between the number of workers and the number of jobs is the multiple jobs performed by employed persons. The detailed procedure of obtaining the number of jobs performed in each economic activity from the available data sources is given in the Report of the Working Group. In this context, the following is quoted from the Report of the Working Group:

“The WG recommends that the CSO should continue to use the data available from the following sources for estimating *labour input* at the national level:

- ❖ Population Census(PC);
- ❖ Employment and Unemployment Survey(EUS) of the NSSO;
- ❖ Employment in the Organised Sector data of the DGET; and
- ❖ Annual Survey of Industries.

For manufacturing and services, the recommended method also specifies the levels at which compilation of national accounts should be attempted – the corresponding activity-groups recommended for this purpose are called compilation categories in this report. The method described below is meant for restricted application only to the segments of the economy comprising the manufacturing and service-producing activities. The following is a step-wise description of the recommended method:

- (i) Obtain the mid-year population from the PC for the four segments of the population, viz. rural male, rural female, urban male and urban female.
- (ii) Obtain the activity-specific rates of *labour input* as the *labour input* per thousand population estimated from EUS for each identified compilation category. The survey-based estimate of *Labour input* would be arrived at as the sum of EUS estimates of (a) persons reporting *principal-capacity* employment, and (b) persons reporting *subsidiary-capacity* employment (usual status) in the respective manufacturing or service-producing activities, separately for the four population segments.
- (iii) Apply the rates of *labour input*, as obtained in Step (ii), on the male and female populations of rural and urban areas, as obtained in Step (i), to get the required estimates of *labour input* in each of the four segments of the population, separately for each of the compilation categories.
- (iv) Obtain the base year estimates of *labour input* for each of the compilation categories as the sum of the respective estimates of *labour input* in the four population segments.
- (v) Extrapolate the base-year estimate of *labour input* for each compilation category using the respective growth rate in *labour input*

observed between the two most recent EUSs to arrive at estimated *labour input* for the subsequent years.

- (vi) Finally, for the base year as well as the subsequent years, obtain the estimates of unorganised segment *labour input* in the identified compilation categories using the Employment Market Intelligence (EMI) data of the DGET of the respective years.”

2.14 The Working Group also provided national-level estimates of total *labour input* for the recommended compilation categories obtained by applying steps (i) to (iv) mentioned above, in Appendix 4.3 of the Report. The data presented in the Report under this Appendix refers to the *labour input* for the mid-financial years of 1993-94 and 1999-2000, based respectively on the EUS of the 50<sup>th</sup> and 55<sup>th</sup> rounds of the NSSO and PC-based population projections, and also the annual compound growth rates derived from these estimates for the compilation categories. On the estimates of labour input and annual growth rates in the labour input, the Working Group observed that these are consistent in most cases with the general perception of developments during the 1990s. However, the Working Group also observed that for some of the activities like selling motor vehicles, wholesale trade except motor vehicles, textile industry and food processing, the growth rates are doubtful, perhaps due to misclassification of the workers and lack of exact concordance between NIC 1987 and NIC 1998. In view of these observations, the Working Group recommended external validation of the *labour input* estimates of all the compilation categories in general and the doubtful cases in particular, using data from other sources like PC 2001 and the contemporary enterprise surveys, whenever these become available.

2.15 In view of the observations of the Working Group, further validation of estimates of workers for some compilation categories was done for the new series using the limited single-digit (industry) level (NIC 1998) workforce data obtained from the RGI (detailed information on workforce was not released by the Office of the Registrar General of India at the time of the release of new series), and the same was compared with the NSS 55<sup>th</sup> round data obtained from the NSSO. While comparing the two sets of data, the number of workers in both sources was adjusted to bring them as on 1<sup>st</sup> October, 1999. Since the basic structure of the recommendations and data on workforce provided by the Working Group was to be adopted for the new series, the adoption of alternative sets of data compiled using the NSS and Population Census, 2001 based workforce data [for individual activities, the NSS data was multiplied by 1-digit (NIC 1998) level ratio of workforce from Population Census to the workforce from NSS] was restricted to the doubtful cases mentioned in the Working Group Report, in addition to few others. These compilation categories are (i) sale of motor vehicles, (ii) wholesale trade except for motor vehicles and auctioning activities, (iii) storage and warehousing, (iv) sewage and refuse disposal, sanitation and similar activities, (v) activities of membership organizations, n.e.c. and social work with accommodation, (vi) recreational, cultural and sporting activities, and (vii) private households with employed persons and the workforce estimates for these 7 categories are from the Population Census, 2001 based workforce data at 1-digit level, distributed to these compilation categories on basis of the distribution of NSS workforce data.

2.16 The estimates of overall workforce adopted in the new series for the compilation categories are presented in *Annex-I*. While the estimates of workforce in public sector and private organized sector are available annually from the DGET, those for the

unorganized sector are derived as residual by deducting the organized sector workforce estimates from the total workforce of that compilation category.

### **Estimates of value added per worker (VAPW)**

2.17 The estimates of VAPW for the unorganized and some private organized segments of manufacturing (non-SSI part) and services sectors have been compiled from the detailed data available from the NSS 55<sup>th</sup> round (1999-2000) on informal non-agricultural enterprises, NSS 56<sup>th</sup> round (2000-01) on manufacturing enterprises in the unorganised sector, and NSS 57<sup>th</sup> round (2001-02) on unorganised enterprises in service sector (excluding trade and finance). The estimates of VAPW at the compilation category level have been arrived at as a ratio of the gross value added to the total employees in the particular compilation category. The following adjustments have been made while processing the data for estimating the VAPW.

- (i) Rent on land and building has been treated as factor income, in the absence of data on rent on land;
- (ii) Wherever the survey results are for years other than 1999-2000, suitable adjustments have been made on the VAPWs using CPI-AL and CPI-IW to arrive at the estimates for the benchmark year 1999-2000.
- (iii) Wherever the unit level data has shown either zero or very low value of output, but has entries against inputs and salary and wages, the same have been assumed to be outliers and have been removed from the estimation of VAPW. However, the number of such records removed from the data processing were very low.

*The compilation category wise estimates of VAPW are given at Annex-II*

### **Consultation with Expert Bodies**

2.18 The new series involves a number of revisions arising out of conceptual and methodological improvements as well as use of latest available data. The comprehensive revisions in the new series are also the results of a number of studies initiated by the CSO in the recent past and also the outcomes of the two Sub-Committees of the Advisory Committee on National Accounts Statistics, namely, the Working Group on Workforce Estimation under the Chairpersonship of Smt. Grace Mazumdar, mentioned in the previous paragraphs and the Sub-Committee to suggest suitable sources of data for area, production and prices for estimating value of output of horticulture crops for the new series under the chairmanship of Shri Pratap Narain.

2.19 Some of the proposals leading to the changes employed in the new series were discussed in the Conference and Seminar of the Indian Association for Research in National Income and Wealth (IARNIW) held at Ooty, Tamil Nadu in November, 2004 and at Goa, in December, 2005, respectively. The changes effected in the new series in terms of methodology, use of alternative data sources and the consequential changes in the estimates were also deliberated upon in detail in the last four meetings of the Advisory Committee on National Accounts Chaired by Prof. S. D. Tendulkar and having eminent economists/statisticians and representatives of Ministry of Agriculture, Finance, Planning Commission, Reserve Bank of India, State Governments as members, held on 6 May, 2004, 14-16 December, 2004, 11-12 August, 2005 and 9 January, 2006. The changes effected in the new series are in accordance with the advice of the Advisory Committee.



### **3. CHANGES IN GDP ESTIMATES, BY INDUSTRY**

3.1 In this section, changes made in the new series in the methodology and in the choice of sources of data in compiling estimates of gross domestic product by economic activity, have been discussed. The consequential impact in the estimates of other income aggregates like net domestic product, net national product, per capita national income and growth pattern of income aggregates have also been discussed.

#### **Overall Estimates of Gross Domestic Product**

3.2 The estimates of GDP by economic activity for the year 1999-2000, according to the new series and the 1993-94 series, have been presented in Table 1 below. According to this Table, the overall GDP at factor cost in the new series for the year 1999-2000 is estimated at Rs. 17, 92,292 crore as against the old series estimate of Rs. 17, 61,838 crore at current prices for the same year, thereby indicating that the level of GDP has gone up by Rs. 30,454 crore or 1.7 per cent, in the new series. This overall increase is the net result of upward/downward revisions in the estimates of various sectors. Out of the industries, maximum upward revision in GDP data is witnessed in the 'real estate, ownership of dwellings and business services' sector, which is on account of increase in the number of dwellings than what was earlier projected for the year 1999-2000, as per the data available from the Population Census, 2001.

#### **Sectors showing increase in the levels of GDP estimates in the new series are:**

- mining and quarrying (Rs. 296 crore);
- registered manufacturing (Rs. 2,181 crore);
- electricity, gas and water supply ( Rs. 2,433 crore);
- trade (Rs. 2,874 crore);
- hotel and restaurants ( Rs. 5,232 crore);
- railways ( Rs. 3,881 crore);
- transport by other means (Rs. 522 crore);
- storage ( Rs. 165 crore);
- communication (Rs. 2,879 crore);
- real estate, ownership of dwellings and business services (Rs. 25,606 crore);
- public administration and defence (Rs. 2,985 crore); and
- Other services (Rs. 7,636 crore).

#### **On the other hand, the GDP in the new series is lower in the following sectors:**

- agriculture (Rs. 7,058 crore);
- forestry and logging (Rs. 73 crore);
- fishing ( Rs. 772 crore);
- un-registered manufacturing (Rs. 4,772 crore);
- construction (Rs. 148 crore); and
- banking and insurance (Rs. 13,413 crore).

The details of changes in the methodology/data sources by economic activity, alongwith the reasons, are discussed in the succeeding paragraphs.

**Table 1: Estimates of GDP at factor cost by kind of economic activity, 1999-2000**  
(Rs. crore)

Industry	1993-94 series	New Series	Difference (3) - (2)
(1)	(2)	(3)	(4)
<b>1. agriculture, forestry and fishing</b>	<b>4,61,964</b>	<b>4,54,061</b>	<b>-7,903</b>
1.1 agriculture	4,22,392	4,15,334	-7,058
1.2 forestry and logging	19,555	19,482	-73
1.3 fishing	20,017	19,245	-772
<b>2. mining and quarrying</b>	<b>41,298</b>	<b>41,594</b>	<b>296</b>
<b>3. manufacturing</b>	<b>2,66,704</b>	<b>2,64,113</b>	<b>-2,591</b>
3.1 registered	1,70,822	1,73,003	2,181
3.2 unregistered	95,882	91,110	-4,772
<b>4. electricity, gas and water supply</b>	<b>42,299</b>	<b>44,732</b>	<b>2,433</b>
<b>5. construction</b>	<b>1,05,297</b>	<b>1,05,149</b>	<b>-148</b>
<b>6. trade, hotels and restaurants</b>	<b>2,46,037</b>	<b>2,54,143</b>	<b>8,106</b>
6.1 trade	2,29,004	2,31,878	2,874
6.2 hotel and restaurants	17,033	22,265	5,232
<b>7. transport, storage and communication</b>	<b>1,24,307</b>	<b>1,31,754</b>	<b>7,447</b>
7.1 railways	15,623	19,504	3,881
7.2 transport by other means	81,855	82,377	522
7.3 storage	1,262	1,427	165
7.4 communication	25,567	28,446	2,879
<b>8. financing, insurance, real estate and business services</b>	<b>2,20,559</b>	<b>2,32,752</b>	<b>12,193</b>
8.1 banking and insurance	1,19,075	1,05,662	-13,413
8.2 real estate, ownership of dwellings and business services	1,01,484	1,27,090	25,606
<b>9. community, social and personal services</b>	<b>2,53,373</b>	<b>2,63,994</b>	<b>10,621</b>
9.1 public administration and defence	1,16,686	1,19,671	2,985
9.2 other services	1,36,687	1,44,323	7,636
<b>10. total GDP at factor cost</b>	<b>17,61,838</b>	<b>17,92,292</b>	<b>30,454</b>

### Agriculture

3.3 The agriculture sector comprises agriculture proper, livestock and livestock products and operations of Government irrigation system. In the new series, the GDP of agriculture sector for the year 1999-2000 has been estimated at Rs. 4,15,334 crore, as compared to the estimate of Rs. 4,22,392 crore in the old series. Thus, the GDP in agriculture sector has decreased by Rs. 7,058 crore in the new series during 1999-2000. The differences in the estimates of value of output and value of inputs between old and new series at item level have been presented in Table 2.

### *Cereals, pulses, oilseeds, sugars, fibres, indigo, and condiments and spices crops*

3.4 In the old series, valuation of cereal crops for the non-procured quantities was done on the basis of price data provided by the States. However, in cases where the prices reported by the States for non-procured quantities was less than the Minimum Support Price (MSP) for paddy and wheat crops, the MSP was adopted for valuing these crops. The Sub-Committee under the Chairmanship of Shri Pratap Narain mentioned in para 2.17 above, which had representatives from the Commission for Agricultural Costs and Prices (CACP) and the DESAg recommended that the price data furnished by the States might be applied for non-procured quantities, even if they were below the MSP. Due to the adoption of this recommendation by the Advisory Committee on National

Accounts, value of output in the new series is lower by Rs. 1,784 crore in the year 1999-2000 under cereal crops. The changes in other crop-groups are marginal.

**Table 2: Estimates of Value of Output, Value of Inputs and GVA, Agriculture Sector, 1999-2000**

<i>(Rs. crore)</i>			
<b>Crop/Crop-group/Item</b>	<b>1993-94 series</b>	<b>New series</b>	<b>Difference (3) - (2)</b>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>
1. cereals	1,38,767	1,36,982	-1,784
2. pulses	18,275	18,524	248
3. oilseeds	29,996	29,744	-252
4. sugars	24,381	24,528	147
5. fibres	12,636	12,623	-12
6. indigo	20	20	0
7. drugs and narcotics	9,219	10,574	1,355
8. condiments and spices	17,468	17,101	-367
9. fruits and vegetables	93,560	91,400	-2,159
10. other crops	12,531	26,576	14,044
11. by products	25,957	25,465	-492
12. kitchen garden, and toddy	1,955	2,443	488
<b>VALUE OF OUTPUT - CROPS</b>	<b>3,84,766</b>	<b>3,95,981</b>	<b>11,215</b>
13. Milk	87,608	88,378	770
14. Meat	23,038	22,824	-214
15. Eggs	3,853	3,874	21
16. Wool, hair and pig bristles	290	308	18
17. Dung	10,937	10,980	43
18. Silk	1,385	1,385	0
19. increment in livestock	2,841	2,927	86
<b>VALUE OF OUTPUT - LIVESTOCK</b>	<b>1,29,952</b>	<b>1,30,677</b>	<b>725</b>
<b>TOTAL VALUE OF OUTPUT</b>	<b>5,14,718</b>	<b>5,26,658</b>	<b>11,940</b>
20. seed	9,368	10,210	842
21. organic manure	6,318	6,322	4
22. chemical fertilisers	20,618	20,846	228
23. current repairs	3,245	3,247	2
24. feed of livestock	44,095	57,610	13,515
25. irrigation charges	547	547	0
26. market charges	4,973	9,366	4,393
27. electricity	2,573	2,573	0
28. pesticides and insecticides	986	986	0
29. diesel oil	7,436	7,436	0
30. financial intermediation services indirectly measured(FISIM)	3,011	2,735	-276
<b>TOTAL INPUTS</b>	<b>1,03,170</b>	<b>1,21,878</b>	<b>18,708</b>
<b>GDP – AGRICULTURE</b>	<b>4,11,548</b>	<b>4,04,780</b>	<b>-6,768</b>
<i>GDP-OPERATION OF IRRIGATION SYSTEM</i>	<i>10,844</i>	<i>10,554</i>	<i>-290</i>
<b>GDP AGRICULTURE SECTOR</b>	<b>4,22,392</b>	<b>4,15,334</b>	<b>-7,058</b>

### **Drugs and narcotics crops**

3.5 The production of betel leaf in Assam was not included in the estimates of value of output of the State. The same has now been included in the new series at the suggestion of the Directorate of Economics and Statistics (DES), Assam. Inclusion of

this crop, together with marginal changes in other crops, resulted in an increase of Rs.1, 355 crore under this crop-group in the new series.

### ***Fruits and Vegetables***

3.6 One of the terms of reference for the Sub-Committee under the Chairmanship of Shri Pratap Narain, mentioned in para 2.17 above was to examine the available databases on horticultural crops and recommend appropriate sources of data on production and prices for these crops. In the old series, the sources for production data for fruits and vegetables were (i) DESAg for the 5 principal crops of banana, potato, onion, tapioca and sweet potato, (ii) State governments implementing the centrally sponsored plan scheme, "Crop estimation survey on Fruits, Vegetables and minor crops" for 11 crops, and (iii) the National Horticulture Board (NHB) for all other crops. For valuing these crops, price data provided by the State governments in respect of (i) and (ii) and the NHB data on prices for (iii) were used. The Sub-Committee examined this issue at length in consultation with all concerned and observed that the Ministry of Agriculture treated the NHB data as official data and maintained that the plan scheme Crop Estimation Survey for Fruits and Vegetables and other minor crops (CES-F&V) had not yet been evaluated in terms of quality of data generated by it. The Sub-committee, therefore, recommended that the NHB data on production might be used by the CSO in respect of horticultural crops (other than those covered under principal crops). For valuing these crops, the Sub-committee recommended adoption of price data provided by the state governments. Due to adoption of these recommendations, the value of output under the crop group, "fruits and vegetables", is lower by Rs. 2,159 crore in the new series in 1999-2000, as compared to the estimates in the old series.

### ***Other crops***

3.7 Under this crop-group, there is an increase of Rs. 14,044 crore in value of output in the new series in 1999-2000. The increase has been due to the updation of yield rate in respect of fodder crops. In the old series, the yield rates for fodder crops were based on old NSS survey results, and the yield rate used ranged from 2.82 tonne/ha. to 9.342 tonne/ha, across the States. For updating the rates and ratios used in agriculture sector, a type study was entrusted to the Socio Economic Research Centre (SERC). The SERC study gave new yield rates (state-wise) ranging from 30 tonne/ha to 70 tonne/ha; and also separately for irrigated areas at 50 tonne/ha and unirrigated areas at 25 tonne/ha. The new yield rates have been used in the new series for estimating the value of output of fodder crops, which is the reason for increase in the value of output of this crop-group. However, there has been no change in the GVA of agriculture sector due to adoption of the new yield rates for fodder crops, as entire output of fodder is treated as input in the agriculture sector as feed of livestock.

### ***By-products***

3.8 Under this group, there is a fall of Rs. 492 crore in the new series, mainly due to using the latest data on cost of cultivation studies available from the DESAg.

### ***Kitchen garden and toddy***

3.9 There is a marginal fall of Rs. 56 crore in the value of output in the new series in 1999-2000 under kitchen garden due to adoption of state governments' prices for fruits and vegetables, as value per hectare of fruits and vegetables is applied on the estimated area under kitchen garden. In respect of toddy, this item has been included for the first time, at the instance of DES, Andhra Pradesh. The output of this is estimated through indirect methods on the basis of NSS consumption expenditure data. The value of output

of toddy during 1999-2000 has been estimated at Rs. 544 crore and the same have been included in the new series.

### **Milk**

3.10 In the new series, coverage of milk production has been extended to goat milk, buffalo milk and camel milk (having economic value) in States, where the same are presently not included in the total milk production, as per the state-wise details of production and livestock population provided by the Department of Animal Husbandry, Dairying and Fisheries (DAHD). Due to this and other changes made in respect of prices and production, there is an overall increase of Rs. 770 crore in the value of output of milk in the new series in 1999-2000.

### **Meat**

3.11 The following changes have been made under this item in the new series:

- i) inclusion of meat production from places other than registered slaughter houses, in Tamil Nadu, Karnataka and Gujarat; and
- ii) revision of yield rates of meat products and meat by-products.

3.12 Presently, meat production from places other than registered slaughter houses in respect of the three States mentioned above is not included in the estimated meat production. The same has now been included in the new series. Also in the old series, the yield rates of meat products and meat by-products were based on old studies of Directorate of Marketing Intelligence (DMI). These rates have now been updated through the studies conducted by the CSO and the SERC. The results of both these studies show that the rates obtained through these studies are quite close to each other. While the SERC study is based on secondary sources, the CSO study is based on field survey and was carried out in several States in collaboration with the State DESs.

**Table 3: Average yield rates of products and by products of meat**  
(Kg.)

S. No.	Product /By-Products	New Average Yield Rates			Old Average Yield Rates		
		Cattle/ Buffalo	Goat/ Sheep	Pig	Cattle/ Buffalo	Goat/ Sheep	Pig
1	Edible offal, glands	4.44/5.09	0.71/0.57	1.574	7.585	1.595	3.712
2	Heads	5.89/7.31	0.813/0.72	3.485	2.96 for all categories		
3	Legs	4.89/6.09	0.501/0.49	1.042			
4	Fats	4.81/8.97	0.289/0.16	3.003	1.150 for all categories		
5	Esophagus	0.21/0.31	0.073/0.03	0.185	0.032	-	
6	Blood	8.28/8.84	0.769/0.49	2.267	0.533 for all categories		
7	Tail stumps	0.88/0.68	-	-	0.099	-	
8	Bones	11.83/14.31	-	-	6.119 for cattle/buffalo, goat		
9	Guts	3.39/4.22	0.642/0.76	2.031	1.044 for cattle/buffalo, goat		
10	Horns	0.54/1.28	0.075/0.05	-	0.240 for cattle/buffalo, goat		
11	Hoofs	0.35/0.34	0.60	0.157	0.131 for cattle/buffalo, goat		
12	Useless meat	2.97/6.56	0.348/0.20	0.799	0.329 for cattle/buffalo, sheep		

3.13 The overall implication of accounting for unregistered slaughtering in select states and updation of rates and ratios under meat group is a fall of Rs. 214 crore in the value of output, during 1999-2000 in the new series.

#### ***Eggs***

3.14 In the new series, production of duck eggs in States, where the same is presently not covered in the total egg production, has been included. Due to this, there is marginal increase of Rs. 21 crore in the value of output of eggs in the new series in 1999-2000.

#### ***Wool, hair and pig bristles***

3.15 For estimating the output of goat hair, camel hair and pig bristles, yield rates per animal, based on old DMI studies, were used in the 1993-94 series. The SERC in its study results gave an average yield rate of hair for single humped camel as 700 gm./animal/year and that of a double humped camel as 3.0 kg./animal/year. This data is based on secondary data source, the National Research Centre (NRC) on Camel, Bikaner (Rajasthan). However, the NRC on Camel has given the yield rate per camel per year for single humped camel as 800 gm. /year. Using the data provided by the NRC, the yield rate of camel hair has been revised to 800 gm. /year. For the yield rates of pig bristles, the CSO conducted a study on its own in the Pig Fair of Bhongaon, District Mainpuri, Uttar Pradesh. From this study, the average yield rate of pig hair per year is estimated at 155 gm, as against the yield rate of 92 grams used in the old series. The new yield rate has been used in the new series. The implication of revising the yield rates of pig bristles and camel hair in the new series is Rs. 18 crore in the value of output during 1999-2000.

#### ***Dung and increment in livestock***

3.16 The latest 2003 livestock census data has been used to estimate the population of livestock and dung production in the new series. The implications of using the latest livestock population data is an increase of Rs. 86 crore in the value of output of increment in livestock, and Rs. 43 crore in the value of output of dung.

#### ***Inputs***

3.17 Major changes in the new series under this are in the items, (i) seed, (ii) chemical fertilizers, (iii) feed of livestock, (iv) market charges and (v) financial intermediation services indirectly measured (FISIM). In respect of seed, the increase in the input by Rs. 842 crore has been due to the usage of seed rates based on the latest data from cost of cultivation studies. In respect of feed of livestock, the increase has been due to the increase in the value of output of fodder crops, which has already been taken into account on the output side, as mentioned in para 3.7 above.

3.18 For estimating the market charges paid by the farmers, the CSO conducts a study through the DESAg, Ministry of Agriculture at the time of revising the base year. The rate used in the old series was 1.29 per cent of value of output of agricultural crops. This rate was based on the study conducted by the DESAg, during 1997-98, and was limited to two crops, paddy and wheat. However, the Ministry of Agriculture's recent study on this was extended to 8 crops, namely, paddy, wheat, maize, gram, ginger, mango, potato and onion. Based on the results of this study, the market charges paid by the farmers are estimated at 2.358 per cent of total value of output of agriculture sector. The new rate has been adopted for the new series and as a result of which, there is an increase of Rs. 4,393 crore in the input on account of market charges in the new series in the year 1999-2000.

## Forestry

3.19 For estimating the production of firewood, the NSS consumer expenditure data is used. For the new series, the results available from the NSS 55<sup>th</sup> round (1999-2000) on consumer expenditure, have been used. The per capita consumption rates of firewood, as available from different NSS rounds, are indicated below:

**Table 4: Estimated consumption of firewood and chips**

NSS Round	Consumption per person per 30 days	
	Rural (Kg.)	Urban (Kg.)
27 <sup>th</sup> (1972-73)	21.87	12.42
32 <sup>nd</sup> (1977-78)	17.89	10.02
38 <sup>th</sup> (1983-84)	15.74	8.79
43 <sup>rd</sup> (1987-88)	16.24	7.40
50 <sup>th</sup> (1993-94)	17.27	6.09
55 <sup>th</sup> (1999-2000)	17.70	5.34

3.20 The NSS 55<sup>th</sup> round survey results were already used in the old series; as such there has been marginal change in the GDP of forestry sector in the new series.

## Fishing

3.21 Although no changes are made in the fishing sector, the reduction in GDP to the extent of Rs. 772 crore in the new series has been due to the adoption of data on prices provided by the State governments, and in particular to those relating to prawns.

## Mining and quarrying

3.22 The marginal upward revision in the GDP of mining and quarrying sector in the new series of Rs. 296 crore has mainly been due to inclusion of the economic activity of salt production by solar evaporation in the coverage of national accounts. Salt mining and quarrying including crushing, screening and evaporating in pans was covered under the 3-digit code 154 (mining sector) in NIC, 1987, while the 3-digit code 208 (manufacturing sector) was covering production of common salt. On the other hand, in the NIC, 1998, extraction of salt, including salt mining, crushing and screening and salt production by solar evaporation of sea water, like brine or other natural brines, is covered under the code 14220 (mining sector), while code 24298 (manufacturing sector) covered manufacture of processed salt. It was observed that though data on rock salt production as provided by the IBM was covered in the GDP estimates of mining and quarrying sector, salt production by evaporation of sea water, pan drying was not being covered in the old series. This economic activity has now been included in the new series on the basis data available from the Office of the Salt Commissioner.

## Manufacturing

3.23 Manufacturing activities are classified into two broad sectors 'registered' and 'unregistered'. The registered sector includes all factories (NIC 1998 group code 151 to 372 and 01405) covered under Section 2m(i) and 2m(ii) of the Indian Factories Act, 1948, which respectively refers to the factories employing 10 or more workers using power and those employing 20 or more workers but not using power on any day of the preceding 12 months, and bidi and cigar establishments registered under Bidi and Cigar Workers (conditions of employment) Act 1966 and employing 10 or more workers using power or 20 or more workers not using power. Factories registered under Factories Act but not engaged in manufacturing activities are excluded from the coverage of the sector.

However, the contribution of some activities such as Railway workshops, currency coinage and mints and security printing are included in the manufacturing sector. The output of production units under Defence establishments is also included in the estimates of GDP of the sector. The manufacturing units not covered in registered sector, including household industries, form the 'unregistered' manufacturing sector.

### ***Registered manufacturing***

3.24 To estimate the Gross Value Added (GVA) for the registered manufacturing sector, production approach is used and the production data in respect of units registered under Factories Act and others is available through the results of Annual Survey of Industries (ASI). The estimates of GDP for the year 1999-2000 have been compiled from the results of ASI, 1999-2000.

3.25 The changes made in this sector in the new series relate to (i) adoption of National Industrial Classification, 1998 (NIC 1998) in place of NIC 1987 which was followed in old series, (ii) inclusion of the activities of currency, coinage and mint units under public sector, and (iii) exclusion of industry group "repair services" (3-digit codes 394, 398 and 97 under NIC 1987) as a result of adopting the NIC 1998 classification. This in the new series would be accounted under 'trade sector' resulting in a fall of Rs. 711 crore in the gross value added of registered manufacturing sector. Due to the inclusion of currency, coinage and mint units under registered manufacturing sector, there is an increase of Rs. 559 crore in GVA under this sector. After accounting for the changes in the levels of FISIM (for details on this, please refer to the write up under Banking and Insurance sector below), the overall GDP of the sector has gone up by Rs. 2,181 crore in the new series during 1999-2000.

### ***Unregistered manufacturing***

3.26 The All-India estimates of GVA from un-registered manufacturing sector are obtained as a product of workforce and GVA per worker in terms of labour productivity and labour input based on (i) estimates from the latest surveys on unorganized manufacturing and (ii) census of small scale undertakings.

3.27 The GVA estimates for the new series for this sector for the base year 1999-2000 have been prepared separately for the two segments of the unregistered manufacturing sector, namely (i) the segment of Small Scale Industries (SSI) (other than those covered under the ASI), and (ii) the rest of the unorganized manufacturing sector, i.e. the manufacturing sector which is not covered under either the ASI or the SSI. The industry-group-wise estimates for these segments are presented in Table 5.

3.28 The GVA for the SSI segment for the new series has been estimated using the value of output data available from the results of Third All India Census on Small Scale Industries units, 2001-02 published by the Development Commissioner, Small Scale Industries and the GVA/GVO ratios available from the results of NSS 56<sup>th</sup> round survey on unorganized manufacturing (The estimates of GVA are not separately available in the results of SSI Census). Due adjustments have been made to bring the estimates of GVA of the SSI segment to the price levels of 1999-2000.



**Table 5: Estimates of workforce in the unregistered manufacturing sector, 1999-2000**

NIC-98 Code	Description	Total workers - manf. sector	Total workers – regd. manf. sector	Total workers - unregd. manf. sector – SSI part	Total workers - unregd. manf. sector non-SSI part
		(1)	(2)	(3)	(4)=(1)-(2)-(3)
151	production, processing and preservation of meat fish, fruits, vegetable oils & fats	8,02,725	1,16,794	1,06,165	5,79,766
152	manufacturing of dairy products	2,72,514	54,333	19,973	1,98,208
153	manufacturing of grain mill products, etc and animal feeds	27,60,601	2,46,385	2,91,912	22,22,304
154	manufacturing of other food products	24,86,186	5,69,731	1,81,679	17,34,776
155	manufacturing of beverages	4,55,419	54,110	40,762	3,60,547
16	manufacturing of tobacco products	46,35,640	4,49,257	27,732	41,58,651
171+172+173	spinning, weaving and finishing of textiles etc.	81,11,709	12,06,747	4,04,113	65,00,849
181-18105	wearing apparel, except fur apparel & tailoring	25,84,668	2,49,878	1,30,910	22,03,880
182+19	tanning and dressing of leather, fur and fur products.	11,90,030	1,00,568	1,02,949	9,86,513
20	manufacturing of wood and products of wood except furniture	53,34,786	40,259	1,79,366	51,15,161
361	manufacturing of furniture	8,54,054	17,838	2,59,766	5,76,450
21+22	manufacturing of paper and paper products, publishing, printing etc.	12,89,544	2,12,917	2,24,323	8,52,304
23+25	coke, refined petroleum products, nuclear, rubber & plastic products	12,18,254	2,56,843	1,98,835	7,62,576
24	mfg of chemical and chemical products	19,04,312	5,52,446	2,73,858	10,78,008
26	manufacturing of other non-metallic mineral products	40,08,775	3,59,945	4,69,885	31,78,945
271+272+2731+2732	manufacturing of basic iron and steel and non-ferrous metals	11,48,808	4,79,567	1,48,993	5,20,248
371+372	recycling of metal waste and scrap+ non-metal scrap	20,799	280	3,633	16,886
28+29+30	manufacturing of fabricated metal products, machinery & equipment n.e.c	37,39,000	5,16,858	7,84,793	24,37,349
31+32	elect. machinery and apparatus n. e. c.+ radio, tv & communication equipment	11,47,288	2,39,231	1,14,340	7,93,717
33+369	manufacturing of medical, precision and optical instruments, watches clocks etc.	27,05,017	1,31,694	98,542	24,74,781
34+35	motor vehicles, trailers and semi-trailers& other transport equip	6,18,226	3,40,241	75,207	2,02,778
<b>Total</b>		<b>4,72,88,355</b>	<b>61,95,922</b>	<b>41,37,736</b>	<b>3,69,54,697</b>

**Table 5A: Estimated GVA of unregistered manufacturing sector, 1999-2000***(Output and GVA in Rs. crore, workforce in numbers and VAPW in Rs.)*

Compilation category	Description	SSI			Non-SSI			TOTAL GVA
		Output	Ratio GVA/GVO	GVA	Workforce	VAPW	GVA	
151	Production, processing and preservation of meat fish, fruits, veg, oils, fats	6,192	0.1707	1,057	5,79,766	18,945	1,098	2,156
152	Mfg. of dairy products	900	0.2120	191	1,98,208	15,774	313	503
153	Mfg. of grain mill products, animal feed	14,105	0.2246	3,168	22,22,304	14,610	3,247	6,415
154	Mfg. of other food prods	3,655	0.2836	1,037	17,34,776	18,079	3,136	4,173
155	Mfg. of beverages	773	0.4653	360	3,60,547	13,584	490	849
16	Mfg. of tobacco prods.	775	0.6373	494	41,58,651	6,583	2,738	3,232
171* +172 +173	Spinning, weaving and finishing of textiles, etc.	8,985	0.4075	3,661	65,00,849	13,404	8,714	12,375
181- 18105	Wearing apparel, except fur apparel & tailoring	3,299	0.6444	2,126	22,03,880	15,779	3,478	5,603
182+19	Tanning and dressing of leather, fur and products	3,159	0.3610	1,140	9,86,513	26,588	2,623	3,763
20	Mfg. of wood, products of wood except furniture	2,716	0.5110	1,388	51,15,161	11,397	5,830	7,217
361	Mfg of furniture	2,601	0.4505	1,172	5,76,450	25,944	1,496	2,667
21+22	Mfg. of paper, prods. publishing, printing etc.	4,065	0.3646	1,482	8,52,304	26,518	2,260	3,743
23+25	Coke, refined petroleum products, nuclear, rubber & plastic products	5,577	0.2729	1,522	7,62,576	28,585	2,180	3,702
24	Mfg of chemical and chemical products	10,043	0.2010	2,018	10,78,008	15,385	1,658	3,677
26	Mfg of other non-metallic mineral prods.	5,039	0.3991	2,011	31,78,945	15,290	4,861	6,872
271+272 +2731 +2732	Mfg of basic iron and steel and non-ferrous metals	8,913	0.2005	1,787	5,20,248	44,471	2,314	4,101
371+372	Recycling of metal waste and scrap+ non-metal scrap	272	0.3348	91	16,886	21,497	36	127
28+29+ 30	Mfg of fabricated metal products, machinery and equipment n.e.c.	16,723	0.3651	6,106	24,37,349	26,133	6,370	12,475
31+32	Elect. Machinery and apparatus n. e. c. + radio, TV & commn. equip.	4,061	0.0415	168	7,93,717	37,904	3,009	3,177
33+369	Mfg of medical, precision and optical instruments, watches, clocks etc.	2,080	0.4676	973	24,74,781	21,224	5,252	6,225
34+35	Motor vehicles, trailers & other transport equip	2,628	0.3607	948	2,02,778	42,307	858	1,806
<b>Total GVA excl. FISIM</b>		<b>1,06,564</b>		<b>32,901</b>	<b>3,69,54,697</b>		<b>61,959</b>	<b>94,859</b>

\* includes 01405 cotton ginning and baling.

3.29 The estimates of other unregistered manufacturing units, i.e. the units not belonging to SSI group mentioned above, have been compiled using information on GVA per worker from the integrated surveys of enterprises and households in the 56<sup>th</sup> round (2000-01). The GVA per worker from 56<sup>th</sup> round of NSS that relates to the year 2000-01

has suitably been deflated to 1999-2000. The estimates of work force for this portion of unregistered manufacturing i.e. for the units neither belonging to ASI nor to SSI, have been obtained from the total work force on manufacturing activities by subtracting the workforce relating to ASI and SSI (non-ASI) segments. With these changes, and the shifting of repair services to the trade sector as per NIC 1998, the estimates of GDP from this sector for the base year 1999-2000 gets revised downwards by Rs. 4,772 crore and now stands at Rs. 91,110 crore as against Rs. 95,882 crore estimated in the old series.

## Electricity, Gas and Water supply

### Electricity

3.30 In the new series, the operating losses of departmental commercial undertakings (DCUs) have been treated as imputed subsidies, in line with the treatment for the irrigation departments in the old series. Due to this, there is an increase of Rs. 3,084 crore in the GVA of the sector.

### Water supply

3.31 **Public Sector:** The estimates of NVA consists of compensation of employees as obtained from budget expenditure on salaries and wages Central and State governments as well as local bodies. Due to the inclusion of Kerala Water Authority data in this sub-sector, there is an increase of Rs.73 crore in the year 1999-2000 in the new series.

3.32 **Private Sector:** The estimates of compensation of employees for the new series for this part have been prepared using the estimates of workforce and average compensation of municipal workers engaged in water supply services. The downward revision in the estimated GVA of this sub-sector is due to the use of data on workforce (as mentioned in Section 2).

**Table 6: Estimated GDP of electricity, gas and water supply, 1999-2000**

(Rs. crore)

Activity	1993-94 series	New series	Difference
1. Electricity	35,264	38,348	3,084
2. Gas	2,286	2,287	1
3. Water Supply	4,749	4,097	-652

## Construction

3.33 The construction sector comprises two components namely (i) accounted construction (pucca construction) and (ii) unaccounted construction (kutchha construction). The former is measured through the commodity flow approach, while the later through the expenditure approach. The broad methodology adopted in the new series for working out the total output, gross value added and the Gross Fixed Capital Formation from construction sector is more or less same as the one used in 1993-94 series except some minor modifications.

3.34 After the estimates of accounted construction of the entire economy are compiled through the commodity flow approach, the estimates of public sector and private corporate sector are independently compiled utilizing the data sources of budget, profit and loss accounts, and the balance sheets. Some of the components of construction in the household sector are also independently estimated.

3.35 In respect of the household sector, the estimates of the new construction and repair and maintenance for (i) rural residential buildings (RRB), (ii) rural non-residential and

other construction works (RNRB and OCW), (iii) urban residential buildings, and (iv) urban nonresidential and other construction works are prepared initially for the benchmark years using the results of All India Debt and Investment (AIDIS). These benchmark estimates are extrapolated with various indicators such as norms derived from various housing censuses and other survey results, and composite price indices, for compiling the estimates for subsequent years. The above said estimates are further apportioned to accounted and unaccounted construction using the norms derived from the results of relevant NSSO surveys. The new series estimates, additional items included in the coverage and the differences from the previous series are recorded below.

### ***Accounted construction***

3.36 The commodity flow approach is followed to estimate the output and GVA of the accounted construction. The accounted construction includes both new construction and repair and maintenance. The approach covers the cost of basic materials and factor payments such as labour cost, rent/rentals, interest etc. It captures the construction costs incurred on five basic materials used in construction activity instead of four basic materials covered in old series (1993-94). The basic materials considered for construction include (i) cement and cement products, (ii) iron and steel, (iii) bricks and tiles, (iv) timber and round wood and (v) fixtures and fittings. The item “fixtures and fittings” which was merged with the item “other materials” in 1993-94 series has been segregated from the item “other materials” in the new series, as this item plays an important role and makes significant contribution in construction activities. Further, under item (iv) timber and round wood, the imports of wood and timber products and veneer plywood have also been included in the new series. In addition to these two changes, the detailed results of ASI, 1999-2000 have been used for finalising the item basket and estimates of value of output, at the 4-digit level of NIC 1998, separately for each of the 5 basic materials mentioned above.

3.37 From the results of NSS 58<sup>th</sup> round survey on housing conditions and the studies done by few states, it has been estimated that the five basic material groups account for 72.5 per cent of the total construction materials while the remaining 27.5 per cent is estimated to come from ‘other materials’. Once the estimate of value of output of accounted construction from basic materials has been obtained, the output on account of ‘other materials’ is estimated using these ratios.

3.38 From the above mentioned sources, it has been estimated that the factor payments account for 53.4 per cent of the total construction output, which incidentally is the same as that used in the old 1993-94 series. Therefore, the revised norms for basic materials, other materials and factor inputs used in new series for construction activity are 72.5 per cent, 27.5 per cent, and 53.4 per cent as against the norms of 70 per cent, 30 per cent, and 53.4 per cent, respectively in old series.

### ***Unaccounted construction***

3.39 In the old series, the unaccounted construction included kutcha construction undertaken in public sector, households sector and capital expenditure in cultivating three plantation crops (tea, coffee, and rubber). In the new series, the coverage under unaccounted (kutcha) construction has been extended to include civilian construction in installing wind energy systems and 7 additional plantation crops (coconut, areca nut, cashew nut, mango, sapota, grapes and citrus fruits) under cultivated assets. The capital expenditure incurred on cultivation of plantation crops during the gestation period is treated as output under kutcha construction of the ‘Construction Industry’ for that year.

In respect of wind energy, 8.7 per cent of the total capital expenditure incurred in constructing the wind energy systems, which include wind mills, aero-generators and wind turbines, has been treated as new construction in un-accounted (kutchra) construction, based on the cost structures of the projects undertaken.

3.40 The costs of new construction, repair and maintenance of public and private corporate sectors have been estimated independently from the budget documents/ annual reports. For the household sector, the results of AIDIS, 1991-92 have been used for compiling the estimates of construction in rural - urban residential and non-residential buildings, and other construction works by the households both in farm and non-farm business with minor adjustments, because of non-availability of the results of AIDIS, 2002-03. The revised norms used for apportioning the rural residential buildings into accounted and unaccounted constructions are 79:21 in the new series, in place of norms of 72:28 used in the old series and for urban residential buildings, they are 97:3, instead of 80:20, respectively. These norms have been adopted on the basis of results of NSS 58<sup>th</sup> Round survey on housing conditions. Other construction works taken up by households engaged in farm business has been treated as unaccounted construction and that in non farm business as accounted construction.

3.41 The estimate of Gross Value Added (GVA) from construction is compiled as sum of (i) factor payments in accounted construction and (ii) 75 per cent of output in unaccounted construction. From the total value of output, expenditure on repair and maintenance of construction assets is subtracted to derive the fixed capital formation from construction which means that only new construction forms part of the GFCF.

**Table 7: Estimated value of output of construction sector, 1999-2000**

(Rs. crore)

S. No	Item	1993-94 series	New Series	Difference
<b>1</b>	<b>New Construction</b>	<b>2,02,569</b>	<b>2,27,831</b>	<b>25,262</b>
1.1	Accounted (Pucca)	1,85,558	2,10,345	24,787
1.2	Un-accounted (Kutchra)	17,011	17,485	474
<b>2</b>	<b>Repair and Maintenance</b>	<b>41,677</b>	<b>55,823</b>	<b>14,146</b>
2.1	Accounted (Pucca)	38,795	53,078	14,283
2.2	Un-accounted (Kutchra)	2,882	2,745	(-) 137
	<b>Total output of construction</b>	<b>2,44,246</b>	<b>2,83,654</b>	<b>39,408</b>

**Table 8: Estimated GVA of construction sector, 1999-2000**

(Rs. crore)

S. No	Item	1993-94 series	New Series	Difference
1	GVA unadjusted	1,07,074	1,06,873	-201
1.1	Accounted ( Pucca)	92,154	91,700	-454
1.2	Un-accounted (Kutchra)	14,920	15,173	253
2	FISIM	1,777	1,724	-53
<b>3</b>	<b>GVA of construction sector</b>	<b>1,05,297</b>	<b>1,05,149</b>	<b>-148</b>

3.42 With the adoption of above mentioned expanded coverage and use of fresh data, the total value of construction is estimated at Rs. 2,83,654 crore in the new series for the year 1999-2000 as against Rs. 2, 44,246 crore estimated in 1993-94 series. This increase in output by Rs.39,408 crore has been due to the additional coverage of items in both accounted and unaccounted constructions, revised norms and upward revision in the

overall repairs and maintenance expenditure. For institutional sectors, revision in the public and private sectors has mainly been due to the inclusion of extended coverage of cultivated assets and wind energy systems. Adjustments in estimates of construction of private corporate sector, in respect of expenditures on construction made by new companies before they commence production, have also been made in the new series.

3.43 The values of GVA (unadjusted) and GVA adjusted from construction are estimated at Rs. 1,06,873 crore and Rs. 1,05,149 crore in the new series for the year 1999-2000 as against Rs. 1,07,074 crore and Rs. 1,05,297 crore estimated in 1993-94 series respectively. The decrease in adjusted and unadjusted GVAs from construction is due to the removal of price effect on factor payments in the accounted construction and marginal decrease in the component of Financial Intermediation Services Indirectly Measured (FISIM). In the 1993-94 series, price indices were also applied at component level on the basic materials and the factor inputs, after estimating them using the normal rates and ratios, to account for intra-price differentials among these components. As a result of this procedure, the ratio of factor inputs to total output, which was 53.4% for accounted construction in 1993-94 became about 69% by 1999-2000, in the 1993-94 series. Since for the new series, the ratio was to remain at 53.4%, the GDP estimates (which are same as the factor inputs) were lower in the new series.

## **Trade, hotels and restaurants**

### *Trade*

3.44 The Trade sector includes wholesale and retail trade in all commodities whether produced domestically, imported or exported. It also includes the activities of purchase and selling agents, brokers and auctioneers. In the old series, the GDP estimates were prepared for the trade sector as a whole covering categories (NIC 1987 codes of 6, excluding 69, 840, 841, and 890). The bench mark year estimates of GDP for this sector in the old series were prepared separately for the public sector, private organized sector and private unorganized sector. While, estimates of GDP relating to public sector trading units were based on analysis of accounts of public sector trading enterprises and budget documents, private organized segment had two components namely, private corporate and cooperatives. The estimates of private corporate sector were based on the results of Reserve Bank of India's (RBI) sample study (inflated by paid-up capital data obtained from the Ministry of Company Affairs), whereas the estimates for cooperative societies of organized trading activity were based on the data provided by the National Bank for Agriculture and Rural Development (NABARD). The private unorganized sector estimates were compiled using the estimates of the corresponding workforce separately for rural and urban areas and the estimate of value added per worker derived from Directory Trade Establishments (DTE) survey, 1996-97 and Non-Directory Trade Establishment (NDTE) survey, 1997. The workforce estimates were prepared using Employment-Unemployment Survey of 50<sup>th</sup> round (1993-94) along with Population Census, 1991. The workforce for private unorganized sector was obtained as a residual from the estimated workforce in trade sector, by subtracting the estimated employment in public sector (assumed to be only in urban areas) and private organized sector, data on both these segments is available from the Directorate General of Employment and Training (DGET).

3.45 In the new series, there is change in the coverage of trade sector. This sector now comprises the following five categories, as per NIC 1998 classification:

- (i) 502+50404, "Maintenance and repair of motor vehicles" (new item)

- (ii) 50-502-50404, "Sale of motor vehicles"
- (iii) 51+74991, "Whole sale trade except of motor vehicles + Auctioning activities"
- (iv) 526, "Repair of personal and household goods" (new item)
- (v) 52-526, "Retail trade (except motor vehicles)."

3.46 The GVA estimates of Trade sector have been prepared separately for:

- (i) Public sector having units engaged in retail and whole sale trade (except of motor vehicles) + Auctioning activities;
- (ii) Private Organised sector consisting of (a) Private Corporate units engaged in retail and wholesale trade (except of motor vehicles) + Auctioning activities, (b) Trading Co-operative units engaged in retail and wholesale trade (except of motor vehicles) + Auctioning activities, (c) Maintenance and repair of motor vehicles and (d) Repair of personal household goods;
- (iii) Private Unorganised sector having units engaged in all the five categories.

3.47 The revision in GDP estimates of public, private and unorganized components in 1999-2000 in the new series has been due to the availability of latest data from different source agencies. For public sector trading units, estimates have been compiled by analysing the annual accounts of public trading enterprises and budget documents. Estimates for private organized (workforce from DGET source) part comprising private corporate sector and co-operative societies engaged in trade have been prepared for 1999-2000 using the results of the RBI study on company finances, total paid-up capital of companies available from Ministry of Company Affairs and information available from the NABARD publication entitled "Statistical statements relating to the Co-operative movement in India 1999-2000".

3.48 The contribution of the unorganized segment has been estimated as a product of workforce and value added per worker. The workforce estimates have been prepared using the results of NSS 55<sup>th</sup> round survey on Employment-Unemployment (WPRs), 1999-2000 along with the data on population from the Population Census 2001. The estimates of workforce of private unorganized part for all five categories (rural and urban) has been obtained for the benchmark year 1999-2000, by subtracting the estimated workforce in public sector and the private organized segment, available from DGET (assuming that DGET workforce includes the workforce of co-operative as well) from the total workforce of the sector. The GVA per worker used for the new series is that of 'all enterprises' category available in informal sector survey conducted in NSS 55th round (1999-2000).

3.49 It may be noted that in the new series for trading activity, the activities relating to NIC, 1998 codes, 502 and 526 have also been included for the first time. The estimates of GDP for 1999-2000 for trade sector as a whole has gone up marginally from Rs. 2,29,004 crore in the 1993-94 series to Rs. 2,31,878 crore in the new series showing an increase of Rs. 2,874 crore. The category wise estimates of GDP for the Trade sector for 1999-2000 at 1993-94 series as well as at new series are given below.

**Table 9: Estimates of GDP of trade sector, 1999-2000***(Rs. crore)*

<b>Trade Sector</b>	<b>1993-94 series</b>	<b>New series</b>	<b>Difference</b>
<b>(1) Public</b>	5,640	5,640	
(i) Wholesale and retail trade except motor vehicles + Auctioning activities (52-526+51+74991)	5,640	5,640	
<b>(2) Private organized</b>	37,703	29,305	-8,398
(i) Wholesale and retail trade except motor vehicles+ Auctioning activities(52-526+51+74991)		27,585	
(ii) Maintenance and repair of motor vehicles (502+50404)		1,393	
(iii) Repair of personal household goods (526)		327	
<b>(3) Private unorganized</b>	1,93,638	2,04,199	10,561
(i) Maintenance and repair of motor vehicles (502+50404)]		5,237	
(ii) Sales of motor vehicles (50-502-50404)		4,497	
(iii) Repair of personal household goods (526)		9,752	
(iv) Retail trade except motor vehicles (52-526)		1,42,901	
(v) Wholesale trade (except motor vehicles)+ Auctioning activities (51+74991)		41,812	
Total – Unadjusted for FISIM	2,36,980	2,39,143	2,163
FISIM	7,976	7,265	-711
<b>Total - net of FISIM</b>	<b>2,29,004</b>	<b>2,31,878</b>	<b>2,874</b>

***Hotels and restaurants***

3.50 This sector comprises activities covered in the categories 551 and 552 as per NIC, 1998. In 1993-94 series, hotel and restaurants corresponded to category 69 of NIC, 1987.

3.51 The methodology followed for estimating GDP of public, private organized and private unorganized in the new series is the same as that of 1993-94 series. The revision in GDP estimates of public, private and unorganized components is due to latest data made available by different source agencies. For public sector, the estimates are based on analysis of annual accounts of public enterprises and budget documents. Estimates for private organized part have been prepared for 1999-2000 using the results for the RBI study on company finances, total paid-up capital of companies available from Ministry of Company Affairs. For private unorganized segment, in 1993-94 series, the GVA per worker was taken from Enterprise Survey of 1993-94 on 'Hotels, Restaurants and other lodging places'. The workforce estimates were prepared using EUS 50<sup>th</sup> round along with Population Census 1991. For the new series, GVA per worker from Enterprise survey conducted during 57<sup>th</sup> round (2001-02) of NSS and workforce estimates from Employment –Unemployment Survey, 1999-2000 along with Population Census 2001 have been used.



3.52 As a result, the estimates of GDP in hotels and restaurants for 1999-2000 have gone up from Rs.17, 033 crore to Rs. 22,265 crore in the new series.

**Table 10: Estimates of GDP of Hotels and restaurants sector, 1999-2000**  
(Rs. crore)

Hotels and restaurants	1993-94 series	New series	difference
(1) Public	294	294	-
(2) Private organized	6,752	6,010	-742
(3) Private unorganized	10,006	16,709	6,703
Total – unadjusted for FISIM	17,052	23,013	5,961
FISIM	19	748	729
<b>Total – Net of FISIM</b>	<b>17,033</b>	<b>22,265</b>	<b>5,232</b>

### Transport by means other than railways and storage

3.53 The GDP of Transport by other means and storage for the year 1999-2000 at current prices has been revised from Rs. 83,117 crore in the old series to Rs 83,804 crore in the new series. This upward revision in the GDP in the new series has been due to use of results of latest surveys. In the 1993-94 series, the GVA per worker was taken from Enterprise Survey of 1993-94, whereas for the new series, the GVA per worker has been taken from the Enterprise Survey of NSS-57<sup>th</sup> round (2001-02).

3.54 In the 1993-94 series, GVA estimation for services incidental to transport (sub sector of transport by other means) was on the basis of annual data on commissions paid to the booking agencies by shipping companies and air companies. Whereas in the 1999-2000 series, GVA estimate has been prepared by multiplying the workforce (duly adjusted for public sector) with GVA per worker available from the Enterprise Survey 2001-02 results for the respective NIC codes. The economic activities of Airport Authority were included under Air transport sub-sector in the 1993-94 series. This has now been shifted to the sub-sector 'service incidental to transport'. Similarly, supporting service to water transport which was part of water transport, has been shifted to 'service incidental to transport' in the new series. The estimates of GDP for 'transport by other means and storage' sector for the year 1999-2000 in the old and new series are given below:

**Table 11: Estimates of GDP for Transport by other means and storage, 1999-2000**  
(Rs. crore)

	1993-94 series	New series	difference
<b>A. Transport by other means</b>			
<b>(1) Public</b>			
(i) Mechanised road transport	6,811	7,206	395
(ii) Water transport	3,345	954	-2,391
(iii) Air transport	3,940	2,965	-975
<b>(2) Private organized</b>			
(i) water transport	1,375	1,375	-
(ii) Air Transport	485	485	-
<b>(3) Private unorganized</b>			
(i) Mechanized road transport	48,854	51,126	2,272
(ii) non-mechanised road transport	5,654	9,807	4,153
(iii) Water transport	6,600	1,399	-5,201

	1993-94 series	New series	difference
<b>(4) Service incidental to transport</b>	5,848	8,038	2,190
Total – Unadjusted for FISIM	82,911	83,356	445
FISIM	1,056	979	-77
<b>A. Total - net of FISIM</b>	<b>81,855</b>	<b>82,377</b>	<b>522</b>
<b>B. Storage</b>			<b>0</b>
1. Warehousing corporations (public)	481	481	0
2. Cold storage	180	250	70
3. Storage (unorganized)	617	711	94
Total – Unadjusted for FISIM	1,278	1,443	165
FISIM	16	16	0
<b>B. Total – net of FISIM</b>	<b>1,262</b>	<b>1,427</b>	<b>165</b>

## Communication

### *Private Communication Services*

3.55 The economic activities covered under this sector are (i) Courier activities (NIC-98, code-64120), (ii) Activities of the cable operators (NIC-98, code-64204) and (iii) Other communication (NIC-1998, code- 642 (-) 64204). In the 1993-94 series, initially the estimates of GVA of private communication services as a whole for the base year 1993-94 were prepared using NSS based estimates of workforce and value added per worker from the Enterprise Survey, 1991-92. The private sector work force was obtained after subtracting the public sector work force of communication services taken from DGET publication "Employment Review" from the total work force of communication services. The methodology was reviewed and latest available data were used from the year 1997-98 onwards keeping in view the activities covered under "Pvt. Communication" and separate estimates for cellular mobile, courier services, and public call office booths (PCOs) were compiled. Activity-wise methodology of estimation of GVA for the new series is given below.

### *Courier Services*

3.56 The estimates of GVA for courier services for the year 1999-2000 have been compiled using the estimates of value added per worker (VAPW) from the results of NSS 57<sup>th</sup> round survey on services sectors, 2001-02 and workforce estimates mentioned in Section 2 above, separately for Rural/Urban/organized/un-organised segments. The organized sector estimate has been prepared using DGET workforce and corporate sector value added per worker from the results of NSS 57<sup>th</sup> round survey. The estimated GVA for the un-organised sector has been compiled by subtracting the estimated workforce in organized sector (DGET source) from the total workforce and the estimated VAPW for un-organised sector from the results of NSS 57<sup>th</sup> round. The estimates of GVA for the year 1999-2000 are Rs. 902 crore and Rs. 485 crore, in the old and new series respectively. The fall in GVA in the new series has primarily been due to difference in the extrapolated workforce estimate for the year 1999-2000 between the old series and that in the new series. It appears that this activity continued to grow as a mixed activity of some other industries.

### *Activities of cable operators*

3.57 The activities covered under this compilation category are the activities of cable operators, and the estimates of GVA for these services for the year 1999-2000 have been compiled using the estimated VAPW of rural/ urban from the NSS 57<sup>th</sup> round survey results and the estimated workforce in the economic activity. No separate estimates for this

category were prepared in 1993-94 series. The estimated GVA for the year 1999-2000 is Rs. 394 crore in the new series, for this activity.

### ***Communication services other than those of couriers and cable operators***

3.58 The activities covered under this compilation category are all communication activities in the private sector other than those of couriers and cable operators. This sub-sector covers the activities of cellular and basic telecom services, and the activities of PCOs. This category of activities corresponds to the 'PCO services and other communication services' of 1993-94 series of national accounts statistics (NAS).

3.59 The estimates of GVA for other communication services for the year 1999-2000 have been compiled using the estimated VAPW from NSS 57<sup>th</sup> round survey results and the estimated workforce in the activity, separately for Rural/Urban/organized/un-organised segments. The private organized sector estimates have been prepared using the data on estimated workforce (from the DGET source) and the estimated VAPW from NSS 57<sup>th</sup> round survey results in respect of corporate sector. The estimates for the year 1999-2000 are Rs. 850 crore and Rs. 3,714 crore in the old and new series, respectively. The increase is due to broader coverage of the activity in the new series. In the old series the estimates were prepared only for PCOs and cellular mobile services. In the new series the economic activities of internet, cyber cafés, etc. have also been included. Moreover, the difference between the extrapolated workforce estimate used in old series for the year 1999-2000 and the latest data available from the NSS 55<sup>th</sup> round for the year 1999-2000 has also been quite high. The estimated GVA in respect of private communication sub-sector for the year 1999-2000 in the new series is given in the table below.

**Table 12: GVA of Private Communication, 1999-2000**

<i>(Rs. crore)</i>			
<b>Activities</b>	<b>1993-94 Series</b>	<b>New Series</b>	<b>Difference</b>
Courier	902	485	-417
Organised		34	
Unorganised		451	
Cable operators - unorganised		394	394
Other communication	850	3,714	
Organised	397	188	
Unorganised	453	3525	2,864
<b>Total private communication</b>	<b>1,752</b>	<b>4,593</b>	<b>2,841</b>

### **Banking and insurance**

3.60 The estimates of GDP for the banking and insurance sector have changed significantly due to the change in the methodology in the new series. However, there has not been much overall impact on the national level estimates of GDP, due to the corresponding reduction in the Financial Intermediation Services Indirectly Measured (FISIM), which in turn has led to higher GDP in user industries. The details may be seen under "*Transactions of the Public Sector*".

### **Real estate, ownership of dwellings, legal and business services**

3.61 The economic activities covered in this sector are (i) ownership of dwellings (occupied residential houses), (ii) real estate services (activities of all types of dealers such as operators, developers and agents connected with real estate), (iii) renting of machinery and equipment without operator and of personal and household goods, (iv) computer and related activities, (v) accounting, book-keeping and related activities, (vi) research and

development, market research and public opinion polling, business and management consultancy, architectural, engineering and other technical activities, advertising and business activities and (vii) legal services. The activity of ownership of dwellings includes the imputed value of owner occupied dwellings. Services rendered by non-residential buildings are considered to be a subsidiary activity of the industries, which occupy the buildings and, therefore, are not included in this sector.

3.62 In the new series, research and scientific services have been included under "real estate, ownership of dwelling and business services sector", whereas the same was part of "other services" sector in the old series.

3.63 The major data sources for estimating the GVA for this sector are, NSS 55<sup>th</sup> round survey on Employment and Unemployment, 1999-2000, and Population Census, 2001 for estimates of workforce and the results of NSS 57<sup>th</sup> round survey on services sector for estimates of VAPW, annual reports of software companies, The National Association of Software and Service Companies (NASSCOM) data on output of software services, Population Census, 2001 for information on residential houses in urban and rural areas, and the results of NSS 55<sup>th</sup> round on consumer expenditure for estimates on rent per household, and various price indices, namely, CPI (agricultural labourers), CPI (industrial workers) and CPI (urban non-manual employees).

#### ***Real estate***

3.64 This sub-sector includes buying, selling, renting and operating of self-owned or leased real estate such as apartment building and dwellings, non-residential buildings, developing and subdividing real estate into plots, etc. Also included are developments and sale of land and cemetery lots, operating of apartment hotels and residential mobile home sites. Purchase, sale, letting and operating of real estate – residential and non-residential buildings, developing and subdividing real estate into lots, lessors of real property, Real estate activities with own or leased property, real estate activities on a fee or contract basis.

3.65 The estimates of GVA for these services in 1993-94 series were prepared using NSS 50<sup>th</sup> round results for work force and VAPW estimates from the Enterprise Survey, 1991-92 duly adjusted for 1993-94 prices, separately for rural and urban areas. The price indices, CPI (AL) and CPI (UNME) were used for rural and urban areas respectively for moving forward the 1991-92 VAPW estimates to 1993-94 prices.

3.66 The estimates of Value Added for the base year (1999-2000) from these services in the new series have been prepared using the estimates of VAPW from NSS 57<sup>th</sup> round and the estimated workforce from NSS 55<sup>th</sup> round (as mentioned in Section 2), separately for rural / urban /organized/unorganized sectors. The estimates for the year 1999-2000 are Rs.708 crore and Rs.1, 373 crore, respectively in the old and new series. Increase in the new series estimate for the year 1999-2000 has been due to the increase in workforce and the estimated VAPW.

#### ***Renting of machinery and equipment without operator***

3.67 The activities covered under this compilation category are the activities of renting of machinery and equipment without operator and personal and household goods. The estimates of GVA for these activities have been compiled separately in the new series by using the estimated VAPW and workforce in the activity, from the results of NSS 57<sup>th</sup> round and NSS 55<sup>th</sup> round, respectively. The estimate for the year 1999-2000 is Rs 1,407 crore in the new series. This activity has been covered for the first time.

### ***Computer and related activities in private sector***

3.68 The activities covered under this compilation category are hardware consultancy, software consultancy and supply, data processing, database activities, maintenance and repair of office/ accounting/ computing machinery and other computer related activities. In the old series, GVA estimates for software activities in the private sector were prepared using data on production of software services made available by NASSCOM and the value added ratio (GVA to output ratio) estimated from the analysis of annual reports of few software companies.

3.69 The estimates of GVA for the new series of NAS have been compiled for organised and unorganised segments, separately. The GVA estimates for organised sector have been prepared using NASSCOM's data on production of software services and the value added ratio estimated from the analysis of annual reports of few software companies. The estimates of GVA for the year 1999-2000 for the unorganised segment have been prepared using the data on workforce and VAPW from the results of NSS 55<sup>th</sup> round and NSS 57<sup>th</sup> rounds, respectively. The estimates were prepared separately for rural and urban areas. The estimates of GVA for the year 1999-2000 are Rs 14,619 crore and Rs 17,187 crore in old and new series respectively. The increase is due to broader coverage in the new series.

### ***Legal activities***

3.70 The activities covered in this category are legal services such as those rendered by advocates, barristers, solicitors, pleaders, mukatiars, etc. The estimates of GVA for these services in 1993-94 series were prepared using data obtained from the Bar Council of India on workforce and VAPW estimated from the results of Enterprise Survey, 1991-92 duly adjusted for 1993-94 prices, separately for rural and urban areas. The estimates of GVA for legal services in the new series for the year 1999-2000 have been prepared using the data on workforce and VAPW from the results of NSS 55<sup>th</sup> round and NSS 57<sup>th</sup> rounds, respectively, also separately for rural / urban/organized/ un-organised sectors. The estimates of GVA for the year 1999-2000 in are Rs 3,572 crore and Rs 3,062 crore in the old and new series respectively. The change is due to difference in workforce of Bar-council used in the old series and the estimates of workforce adopted in the new series for the NSS 55<sup>th</sup> round.

### ***Accounting, book-keeping and related activities in private sector***

3.71 The activities covered under this compilation category are accounting, book-keeping and auditing activities and tax consultancy services. In the 1993-94 series, GVA estimates for activities of accounting and book-keeping etc. in the private sector for the base year were prepared using VAPW estimates of public administration and defence and labour input estimates based on NSS Employment and Unemployment Survey, 1993-94 (50<sup>th</sup> round). The estimates of GVA for accounting and book-keeping services etc. in the private sector in the new series for the year 1999-2000 have been prepared following the labour input method by using the data on workforce and VAPW from the results of NSS 55<sup>th</sup> round and NSS 57<sup>th</sup> rounds, respectively, separately for rural and urban areas. The estimates for the year 1999-2000 in the new series are Rs. 2,019 crore and Rs. 1,725 crore in the old and new series, respectively. The marginal fall in the level of GVA estimates in this activity has been due to the adoption of the estimates of VAPW from the NSS 57<sup>th</sup> round, as compared to the previous series, where the VAPW of public administration was adopted.

***Research and development, market research and public opinion polling, business and management consultancy, architectural, engineering and other technical activities, advertising and business activities n. e. c. excluding auctioning***

3.72 This compilation category has been introduced after re-grouping the activities under business services and other services. In the 1993-94 series, the estimates of Research and scientific services (NIC-87 code 922) were included under 'other services'. In NIC-98, this activity is classified under code 73, which is under 'business services', and as such in the new series this activity has been included under 'business services'. Similarly, the GVA estimates of 'press agency activities' falling under NIC-87 code 897 were being compiled, though not exclusively, under the category of 'business services' in the 1993-94 series. Now, this activity falls under 'news agency activities', which is classified under NIC-98 code 922, and the GVA estimates for this activity have been included under 'other services' in the new series. Thus, the comparison of GVA estimates of 'business services' in the 1993-94 series, and the new series, has to be done keeping these aspects in view.

3.73 A table giving all the activities to be covered in this category vis-à-vis the activities of NIC-87, for which GVA estimates under business services were prepared in 1993-94 series, is presented below.

**Table 13: Coverage of activities under business services in NIC 1998 and NIC 1987**

NIC-98 code	Activity description	NIC-87 code	Activity description
73	Research and development	922	Research and scientific services
7413	Market research and public opinion polling	893	Business and management consultancy activities (including market research)
7414	Business and management consultancy activities		
742	Architectural, engineering and other technical activities (including technical testing and analysis)	894	Architectural, engineering and other technical consultancy activities
		895	Technical testing and analysis services
743	Advertising	896	Advertising
749(-) 74991	Business activities n.e.c. (excluding auctioning)	898	Recruitment and provision of personnel
		899	Other business activities n.e.c.

3.74 In the 1993-94 series, GVA estimates for these activities were prepared separately for organised and unorganised segments using labour input method (estimated workforce in the activity x average VAPW in the activity) separately for rural and urban areas. The estimates of GVA for this compilation category have been prepared separately for organized and unorganised segments and for rural and urban areas for the base year in the new series by using the data on workforce and VAPW from the results of NSS 55<sup>th</sup> round and NSS 57<sup>th</sup> rounds, respectively. The estimates for the year 1999-2000 are Rs. 10,568 crore and Rs. 10,819 crore in the old and new series, respectively. The difference in the estimates has mainly been due to regrouping of activities and use of latest data.

### *Ownership of dwellings*

3.75 The economic activities covered in this sector are ownership of dwellings (occupied residential houses) including imputed value of owner occupied dwellings also. Services rendered by non-residential buildings are considered to be a subsidiary activity of the industries, which occupy the buildings and therefore, are not included in this sector.

3.76 In the old series, the GDP estimates for the ownership of dwelling units was estimated as gross rental of the residential census houses *less* the cost of repairs and maintenance. The number of 1991 census residential houses in rural and urban areas was projected to get the estimates for the mid year 1993-94 by applying the average compound growth rates observed between 1981-1991 population censuses. The 1991 census residential houses (wholly/partially residential census houses) and rent per household obtained from the results of NSS 50<sup>th</sup> round were used to estimate the gross rental separately for rural and urban areas. Cost of repairs and maintenance was subtracted from the gross rentals to get the estimates of GVA in the base year.

3.77 In the new series, the data on dwellings and rent per dwelling, separately for rural and urban areas has been taken from the Population Census, 2001 and the results of NSS 55<sup>th</sup> round on consumer expenditure. The procedure followed for estimating the GVA of ownership of dwellings remains the same as in the old series. The estimates for the year 1999-2000 are Rs. 77,564 crore and Rs. 92,185 crore, in the old and new series, respectively. The number of residential houses in rural and urban areas during 1999-2000, as per PC 2001 were 1,336 lakh and 513 lakh, respectively, as against the projected residential houses for the same year based on PC 1991 were 1,293 lakh and 520 lakh, respectively. The rent per dwelling in rural and urban areas as per NSS 55<sup>th</sup> round was Rs. 3,21 and Rs. 10,667, respectively, whereas the respective rents for the same year as per NSS 50<sup>th</sup> round projections were Rs. 2,429 and Rs. 9,919, respectively.

**Table 14: GVA from real estate, ownership of dwellings, business and legal services sector, 1999-2000**

*(Rs. crore)*

Activity	1993-94 Series	New Series	Difference
Real estate activities	708	1,373	665
Organised		96	
Unorganised		1277	
Renting of machinery, equipment without operator-unorgd.	-	1,407	1,407
Computer and related activities	14,619	17,187	2,568
Organised	14,619	14,619	--
Unorganised	--	2,568	2,568
Legal activities	3,572	3,062	-510
Organised		96	
Unorganised		2966	
Accounting, book keeping	2,019	1,725	-294
Organised		172	
Unorganised		1553	
Research and development	10,568	10,819	251
Organised	8587	4720	
Unorganised	1981	6099	
Ownership of dwellings	77,564	92,185	14,621
<b>GDP (*)</b>	<b>1, 09,050</b>	<b>1, 27,758</b>	<b>18,708</b>
<b>FISIM</b>	<b>710</b>	<b>668</b>	<b>-42</b>
<b>GDP adjusted for FISIM (*)</b>	<b>1, 08,240</b>	<b>1, 27,090</b>	<b>18,850</b>

(\*) estimates are not strictly comparable due to re-classification.

### Other services

3.78 The economic activities covered under this sector are (i) coaching and tuition (NIC-98 codes 80903 and 80904), (ii) education excluding coaching and tuition (NIC-98 code 80 (-) 80903 (-) 80904), (iii) human health activities including veterinary activities, (iv) sewage and refuse disposal, sanitation activities (nic-98 code 90), (v) activities of membership organisations (+) social work (NIC-98, code 91+ 853), (vi) recreational cultural and sporting activities (NIC-98, code 92), (vii) washing and cleaning of textiles and fur products (NIC-98, code-9301), (viii) hair dressing and other beauty treatment (NIC-98, code 9302) (ix) funeral and related activities (NIC-98 code 9303+9309), (x) private households with employed person (NIC-98 code 95), (xi) custom tailoring (NIC-98, code 18105), and (xii) extra territorial organisations and bodies (NIC-98 code 99).

3.79 The method generally followed for estimation of value added for different categories of services in the non-public segment is the labour input method (estimated workforce multiplied by the average value added per person in the activity). For the public sector part, estimates are compiled by analyzing the budget documents of central and state governments and annual reports of public undertakings. For the private organized part, estimates of workforce are from the DGET source and the VAPW from the NSS 57<sup>th</sup> round in respect of the enterprises recorded as companies. For the private unorganized part, estimates of workforce are from the NSS 55<sup>th</sup> round (total workforce in each economic activity), reduced by the workforce in the public and private organised sectors (available from the DGET), and the VAPW from the NSS 57<sup>th</sup> round in respect of enterprises recorded as non-corporate. Following are the major data sources used for the compilation of estimates of GVA in the new series:

- NSS 55<sup>th</sup> round (1999-2000) EUS
- Population Census, 2001
- DGET-Employment Review, annual data
- NSS 57<sup>th</sup> round (2001-02) on services
- Budget documents and annual reports for data relating to activities of these services under public sector
- Consumer price indices of agricultural labourers and industrial workers

### *Educational services*

3.80 In the 1993-94 series, GVA estimates in respect of education were prepared separately for recognized and non-recognised educational institutions. The GVA for the recognised institutions under public sector was taken to be equivalent to the expenditure on salaries and wages of teaching and non-teaching staff of educational services as available from the budget documents of centre and states and consumption of fixed capital (CFC). For the private recognised educational institutions, the estimates of GVA were obtained as a residual from the data on total salaries and wages paid to teaching and non-teaching staff of recognised institutions as available in the publication 'Education in India' for the year 1986-87, after subtracting the public part. For the private unorganised educational institutions, the method adopted for estimating the GVA in the old series was the labour input method. The estimates of work force in this activity was estimated as a residual from the total workforce by subtracting the workforce in the activity in the public and private organised sector (DGET source) and the estimates of VAPW were from the Enterprise Survey, 1991-92. The overall workforce was obtained from the NSS 50<sup>th</sup> round survey results. The procedure followed in the new series for the base year 1999-2000 is described below:



***Coaching and tuition***

3.81 The activities covered under this compilation category are the activities of coaching centres and individuals providing tuitions. The estimates of GVA for coaching and tuition activities have been prepared for the year 1999-2000 following the labour input method using the results of NSS 55<sup>th</sup> round on employment and unemployment and NSS 57<sup>th</sup> round on services sectors. The estimate for the year 1999-2000 for new series is Rs. 3,147 crore.

***Education excluding coaching and tuition***

3.82 The activities covered under this compilation category are the activities of private education institutions, excluding those of coaching centres and individuals providing tuitions. The GVA estimates for education in the new series have been prepared separately for recognized and non-recognised institutions. The GVA for the recognised institutions under public sector is taken to be equivalent to the expenditure on salaries and wages of teaching and non-teaching staff of educational services as available from the budget documents of centre and states and consumption of fixed capital (CFC). The estimates for recognized institutions under private sector have been prepared following the labour input method using the data on workforce available from the DGET and the estimated VAPW from the NSS 57<sup>th</sup> round (corporate sector part).

3.83 The GVA estimates for private un-recognized institutions the year 1999-2000 have been compiled following the labour input method separately for rural and urban areas, using the results of NSS 55<sup>th</sup> round (after excluding the workforce in the organised sector from the DGET source) and the results of NSS 57<sup>th</sup> round on VAPW (unorganised part). The estimates for the year 1999-2000 in the new series are Rs. 72,589 crore and Rs. 67,284 crore in the old and new series, respectively. The Value Added is less in the new series due to the change in methodology for estimating the GVA of private recognised institutes, as explained in paras 3.80 and 3.82. The change in procedure has been necessitated due to the non availability of data on salaries and wages in recognised educational institutions after 1986-87.

***Human health activities and veterinary activities***

3.84 The activities covered under this compilation category are the activities of human health and veterinary services. In the 1993-94 series, GVA estimates for health and veterinary services were prepared separately for public, private organised and private unorganised sectors. The GVA for the public sector was taken to be equivalent to the expenditure on salaries and wages of medical personnels obtained from the analysis of the budget documents and consumption of fixed capital. The GVA for private organised sector was prepared using work force estimates from DGET, and the VAPW estimate of public sector in health and veterinary services. For the unorganised segment, the labour input method was followed. The work force estimates were obtained by subtracting the organised sector workforce available from the DGET from the total workforce estimated from the NSS 50<sup>th</sup> round EUS results and the VAPW estimates were from the Enterprise Survey, 1991-92.

3.85 In the new series estimates of GVA in human health and veterinary services have been prepared separately for public, private organised and private unorganised sectors using the labour input method. The GVA for the public sector has been taken to be equivalent to the expenditure on salaries and wages of medical personnel obtained from the analysis of the budget documents plus the consumption of fixed capital. The GVA for private organised sector has been estimated using workforce estimates from DGET, and VAPW of corporate sector estimated from the results of NSS 57<sup>th</sup> round survey on

services sectors. For the unorganised segment, the labour input method was followed for estimating GVA for 1999-2000, with work force estimates in the unorganised sector compiled as a residual by subtracting the organised sector workforce (DGET source) from the total workforce as per NSS 55<sup>th</sup> round survey on employment and unemployment; and the VAPW for the unorganised segment estimated from the NSS 57<sup>th</sup> round survey results. The estimates of GVA for this activity for the year 1999-2000 are Rs. 22,303 crore and Rs. 27,985 crore, in the old and new series, respectively.

#### ***Sewage and refuse disposal, sanitation activities***

3.86 The activities covered in this category are the sewage and refuse disposal, sanitation and similar activities. The estimates of GVA of these services in the 1993-94 series were prepared separately for public and private segments. The GVA for public sector was the sum of expenditure on salaries and wages of activities falling under NIC 910 covered under government and consumption of fixed capital. The private sector estimates were prepared separately for rural and urban areas using NSS work force and average compensation of municipal workers engaged in sanitary services. The average compensation of all the 5 types of municipalities i.e. (i). 5 lakhs and above, (ii). 1 lakh to 5 lakhs, (iii). 75000 to 1 lakh, (iv). 5000 to 75000 and (v). below 50000 was used for urban areas. The average compensation of the smallest municipality was used for rural areas. The smallest municipalities were taken as the proxy for rural sectors on the assumption that these municipalities were close to the rural areas. The private sector work force was obtained after subtracting the public sector work force, from the total work force in the sanitary services sub-sector.

3.87 The GVA estimates for these activities for the new series have also been prepared separately for public and private sectors. Public sector estimates are the sum of expenditure on salaries and wages of activities covered under government and consumption of fixed capital. The public sector workforce (WF) as obtained from DGET has been subtracted from the total EUS workforce estimate from NSS 55<sup>th</sup> round to get the WF estimates for private segment. Thus obtained private sector WF estimates have been divided into rural and urban areas and have been multiplied with VAPW of sanitary workers (data obtained from municipal returns) to get the GVA estimates for the base year. The estimates for the year 1999-2000 are Rs. 4,374 crore and Rs. 4,288 crore in the old and new series, respectively.

#### ***Activities of membership organisations and social work***

3.88 This sub-sector includes the activities of associations of writers, painters, lawyers, doctors, journalists and other similar organizations, activities of trade unions, interested chiefly in the representation of their views concerning their work situation, activities of other membership organizations, activities of religious organisations, activities of political organizations, activities of other membership organizations, social work with accommodation, and social work without accommodation. The estimates of these services in the 1993-94 series of NAS were prepared using NSS 50<sup>th</sup> round estimates of work force and VAPW estimate from the results of Enterprise Survey, 1991-92 duly adjusted for 1993-94 prices, separately for rural and urban following the labour input method.

3.89 The GVA estimates in the new series for the base year (1999-2000) from these services have been compiled using NSS 57<sup>th</sup> round (2001-02) survey results for estimating the VAPW and NSS 55<sup>th</sup> round EUS survey results for estimating the workforce. This has been done separately for rural, urban areas and also by organized and unorganized sectors. This activity corresponds to community services of 1993-94

series. The estimates for the year 1999-2000 are Rs. 6,901 crore and Rs. 10,923 crore in the old and new series, respectively. The increase in GVA in the new series has been due to broader coverage of the activity.

### ***Recreational, cultural and sporting activities***

3.90 The activities covered in this category are recreational, cultural and sporting activities. The estimates of these services in 1993-94 series of NAS were prepared separately for recreation and entertainment services and T.V. and Radio. The GVA estimates of recreation and entertainment services (other than Radio and T.V. broadcasting) were obtained on the basis of value of output of these services on year-to-year basis and the value added ratio as observed in the Enterprise Survey, 1991-92. In the old series, estimates of GVA for the public part of television and radio were obtained by analyzing the budget documents of Ministry of Information and Broadcasting. The estimates for private segment were compiled separately for rural and urban areas, following the labour input method, using the VAPW of public administration and defence.

3.91 In the new series, however, the estimates of GVA for this activity have been compiled for the base year 1999-2000, separately for public, private organized and private unorganized segments. While the estimates of GVA for the Public Sector are from the budget documents and annual reports of public undertakings, those of private organized and private unorganized have been compiled following the labour input method, with workforce data from the DGET and the NSS 55<sup>th</sup> rounds (total workforce), respectively, and the estimates of VAPW for these two segments from the NSS 57<sup>th</sup> round survey results. The estimates for the year 1999-2000 are Rs. 938 crore and Rs. 6,422 crore in the old and new series, respectively. The increase in new series is due to broader coverage, change in the procedures and use of latest survey results.

### ***Washing and cleaning of textiles and fur products***

3.92 The activities covered in this category are washing and dry cleaning of textile and fur products. The estimates of GVA of these services in the 1993-94 series were prepared using NSS 50<sup>th</sup> round estimates of work force and VAPW estimate from the Enterprise Survey, 1991-92 duly adjusted for 1993-94 prices, separately for rural and urban areas. The GVA estimates for the base year (1999-2000) in the new series in respect of these services have been prepared using NSS 57<sup>th</sup> round (2001-02) survey results for the estimates of VAPW and the NSS 55<sup>th</sup> round EUS results for workforce, separately for rural and urban areas. The estimates for the year 1999-2000 are Rs. 2,327 crore and Rs. 3,745 crore in the old and new series, respectively. The increase is due to use of latest survey results.

### ***Hair dressing and other beauty treatment***

3.93 The activities covered in this category are hairdressing and other beauty treatment. The estimates of GVA of these services in 1993-94 series of NAS were prepared using NSS 50<sup>th</sup> round estimates of work force and VAPW of the Enterprise Survey, 1991-92 duly adjusted for 1993-94 prices, separately for rural and urban areas. The VAPW was estimated for 1993-94 series based on the data of establishments (those employing at least one hired worker) only, and the data in respect of Own Account Enterprises (OAE) was not taken into account.

3.94 The GVA estimates for the base year (1999-2000) in the new series from these services have been prepared using NSS 57<sup>th</sup> round (2001-02) survey results for VAPW and NSS 55<sup>th</sup> round EUS results for the workforce, and following the labour input method, separately for rural and urban areas. The estimates for the year 1999-2000 are

Rs. 2,015 crore and Rs. 4,249 crore in the old and new series, respectively. The increase in the new series has been due to broader coverage and use of latest survey results.

### ***Custom tailoring***

3.95 The estimates of these services in 1993-94 series of NAS were prepared following the labour input method using NSS 50<sup>th</sup> round estimates of work force and VAPW of manufacturing of readymade garments (estimated from the NSS 51<sup>st</sup> round survey, 1994-95 results). In the new series, the GVA for these services in the base year has been estimated using NSS 56<sup>th</sup> round (unorganized manufacturing) data on VAPW and NSS 55<sup>th</sup> round data on work force, separately for rural and urban areas. The estimates of GVA for the year 1999-2000 are Rs. 8,638 crore and Rs. 4,874 crore in the old and new series, respectively. The fall is primarily due to difference between the extrapolated workforce estimate and VAPW used in old series and the estimates from the latest survey results.

### ***Funeral and related activities***

3.96 The activities covered in this category are funeral and related activities (NIC-98, code 9303) and other service activities, n. e. c. (NIC-98, code 9309). The estimates of GVA of these services in the 1993-94 series of NAS were prepared using NSS 50<sup>th</sup> round estimates of work force and VAPW estimate from the results of Enterprise Survey, 1991-92 duly adjusted for 1993-94 prices, separately for rural and urban areas. The VAPW estimates were based only on the Establishments data and Own Account Enterprises (OAE) were not taken into account. The GVA estimates for the base year (1999-2000) in the new series in respect of these services have been prepared using NSS 57<sup>th</sup> round (2001-02) results for the VAPW estimates and NSS 55<sup>th</sup> round EUS results for workforce, following the labour input method, separately for rural and urban areas. The estimates for the year 1999-2000 are Rs. 4,192 crore and Rs. 9,399 crore in the old and new series, respectively. The increase in the new series has been due to regroup of the activities and use of latest survey results.

### ***Private households with employed person***

3.97 The activities covered in this category are private households with employed persons. The estimates of GVA of these services in the 1993-94 series were prepared using NSS 50<sup>th</sup> round estimates of work force and VAPW estimates in respect of NIC-961 to 969 from the results of Enterprise Survey, 1991-92 duly adjusted for 1993-94 prices, separately for rural and urban areas (as a proxy). The VAPW used for 1993-94 series was based on the Establishments only and data in respect of Own Account Enterprises (OAE) was not taken into account.

3.98 Data on private households with employed persons was not collected in the NSS 57<sup>th</sup> round survey on services sectors, as it was not found to be feasible to identify such households as enterprises. The value added generated by this activity relates to wages paid to 'employed persons' by the households. Therefore, the VAPW for this activity in the new series for 1999-2000 has been estimated on the basis of wage data collected in the NSS 55<sup>th</sup> round Employment Unemployment Survey. The total weekly earnings of the workers falling under this category have been divided by the number of workers to arrive at weekly wages/salaries. The GVA estimates in respect of these services have been compiled using average weekly wage per unit of labour input (adjusted for annual wages), separately for rural and urban areas in the base year.

3.99 The estimates for the year 1999-2000 are Rs. 4,070 crore and Rs. 3,004 crore in the old and new series, respectively. In the old series VAPW of personal services as a whole was taken as proxy which has been replaced by wage data of NSS-55<sup>th</sup> round

estimate. Moreover, the estimated workforce is also less as per NSS 55<sup>th</sup> round in 1999-2000, as compared to the projected workforce estimate in the old series for the same year.

### *Extra territorial organisations and bodies*

3.100 The activities covered in this category (NIC-98, Code 99) are extra territorial organisations and bodies including the activities of international organizations such as United Nations and its agencies, regional bodies etc., and of International Monetary Fund, World Bank, European Commission, etc. The estimates of GVA of these services in the 1993-94 series were prepared using the results of NSS 50<sup>th</sup> round workforce and thrice the VAPW of Public Administration and Defence (as a proxy), separately for rural and urban areas. There has been no change in the procedure of estimating the GVA for this activity in the new series for the base year 1999-2000, excepting that the estimates of workforce are from the NSS 55<sup>th</sup> round and DGET sources. The estimates of GVA for the year 1999-2000 are Rs. 3,433 crore and Rs. 805 crore in the old and new series, respectively. The fall in GVA in the new series is due to the reporting of fewer workforces under this activity in NSS 55<sup>th</sup> round, than the projections in the old series.

**Table 15: Value added from other services, 1999-2000**

<b>Activities</b>	<b>1993-94 Series</b>	<b>New Series</b>	<b>Difference</b>
Education	72,589	70,431	-2,158
Organised	70,873	57,540	
Public	38,450	39,269	
Private	32,423	18,271	
Unorganised	1,715	12,891	
Human health and veterinary services	22,303	27,985	5,682
Organised	13,591	14,296	
Public	12,489	12,488	
Private	1,102	1,808	
Unorganised	8,712	13,689	
Sewage and refuse disposal, sanitation activities	4,374	4,288	-86
Organised	2,830	2,847	
Public	2,830	2,847	
Unorganised	1,544	1,441	
Activities of membership organisations, social work	6,901	10,923	4,022
Organised		8,664	
Unorganised		2,259	
Recreational cultural and sporting activities	938	6,422	5,484
Organised	33	2,462	
Public	-91	719	
Private	124	1,743	
Unorganised	905	3,960	
Washing, cleaning of textiles & fur products – unorgd.	2,327	3,745	1,418
Hair Dressing and other Beauty Treatment – unorgd.	2,015	4,249	2,234
Custom Tailoring – unorgd.	8,638	4,874	-3,764
Funeral and related activities – unorgd.	4,192	9,399	5,207
Private households with employed person	4,070	3,004	-1,066
Extra Territorial Organisations and Bodies	3,433	805	-2,628
<b>GDP Total (*)</b>	<b>1, 31,780</b>	<b>1, 46,125</b>	<b>14,345</b>
<b>FISIM</b>	<b>1,949</b>	<b>1,802</b>	<b>-147</b>
<b>GDP adjusted for FISIM (*)</b>	<b>1, 29,831</b>	<b>1, 44,323</b>	<b>14,492</b>

(\*) estimates are not strictly comparable due to reclassification of activities between the two series.

### Consumption of fixed capital

3.101 The consumption of fixed capital (CFC) is the replacement value of reduction in the assets used up in the process of production during the accounting period resulting from deterioration, normal obsolescence or normal accidental damage. The CFC is calculated for all fixed assets i.e. tangible (buildings, other construction, roads and bridges, transport equipment and other machinery and equipment) and intangible fixed assets (software and mineral exploration) owned by producers. Fixed assets must have been produced as outputs from the process of production. Exceptions to the above cases are the following:

- CFC is not calculated for
  - valuables that are acquired precisely because their value, in real terms, is not expected to decline over time;
  - livestock;
  - non-produced assets such as land, mineral or other deposits
  - work in progress; and
  - value of fixed assets destroyed by acts of war or major natural disasters, which occur very infrequently.

3.102 The estimates of Gross and Net Fixed Capital Stock (GFCS) and CFC both at current and constant prices are based on the Perpetual Inventory Method (PIM), as recommended under the System of National Accounts-1993 (1993 SNA). For these estimates, it is essential to have the following:

- Annual series of the estimates of the Gross Fixed Capital Formation (GFCF) at current prices for long period prior to the base year;
- Average economic age of the assets; and
- Appropriate price indices for use as deflator;

3.103 In the new series, some modifications have been done in terms of transferring the assets from Departmental Commercial Undertakings (DCU) to Non-departmental Commercial Undertakings (NDCU) and from NDCUs to private sector in respect of some units keeping in view their current status, as per the definitions of these institutional sectors (examples are Mahanagar Telephone Nigam Ltd., Bharat Sanchar Nigam Ltd., Videsh Sanchar Nigam Ltd., Prasar Bharati, etc.). Further, on the basis of latest availability of data, the ages of different categories of assets have been modified. Also, the changes made in the coverage of capital formation have a bearing on the estimates of capital stock and CFC in the new series. The following Table shows the estimates of CFC in the old and new series:

**Table 16: Estimates of CFC, 1999-2000**

(Rs. crore)

S. NO.	Industry	1993-94 series	New series	Difference
1	Agriculture, forestry, fishing	23,810	22,830	-980
1.1	Agriculture	20,895	20,388	-507
1.2	Forestry and logging	636	637	1
1.3	Fishing	2,279	1,805	-474
2.	Mining and quarrying	9,323	8,567	-756
3.	Manufacturing	57,049	59,685	2,636
3.1	Registered manufacturing	43,325	44,693	1,368
3.2	Unregistered manufacturing	13,724	14,992	1,268

S. NO.	Industry	1993-94 series	New series	Difference
4.	Electricity, gas and water supply	21,226	20,463	-763
5.	Construction	3,915	2,785	-1,130
6.	Trade, hotels, and restaurants	5,537	6,295	758
6.1	Trade	3,928	4,430	502
6.2	Hotels and restaurants	1,609	1,865	256
7.	Transport, Storage and communication	26,637	25,927	-710
7.1	Railways	4,529	5,510	981
7.2	Other transport	16,451	14,720	-1,731
7.3	Storage	92	96	4
7.4	Communication	5,565	5,601	36
8.	Finance, ins., real estate, etc.	21,124	20,102	-1,022
8.1	Banking and insurance	4,870	3,053	-1,817
8.2	Real est., o'ship of dwellings, bus. servs.	16,254	17,049	795
9.	Community, social and personal servs.	13,738	19,995	6,257
9.1	Public administration and defence	9,660	12,635	2,975
9.2	Other services	4,078	7,360	3,282
<b>10.</b>	<b>Total</b>	<b>1,82,359</b>	<b>1,86,649</b>	<b>4,290</b>

3.104 Following is the step-wise description of the methodology in the new series:

- (i) Rebasing of the price indices at 1999-2000, i.e., making it 100 for the year 1999-2000;
- (ii) Review and revision of average life of assets, due to changes in technology or some other reasons;
- (iii) Incorporating the latest estimates of Gross Fixed Capital Formation for the year 1999-2000 as per the new series;
- (iv) Estimating the GFCF for the back years using splicing techniques. The splicing is suitably done upto the year from which the change has taken place; and
- (v) Calculation of GFCS, CFC and NFCS following the PIM.

### Comparison between estimates in the Old and New Series

#### Level of GDP

3.105 Normally, when the base year of national accounts statistics is changed, there is some change in the levels of GDP estimates. This happens due to widening the coverage and inclusion of long-term survey results. The statement below illustrates the changes in the levels of GDP due to the introduction of the new series of national accounts. The increase in the level of GDP ranges from zero to 1.7 per cent during 1999-2000 to 2004-05.

**Table 17: GDP at factor cost, 1999-2000 to 2004-05 (at current prices)**

(Rs. crore)

YEAR	1993-94 Series	New Series	Difference (%)
1999-2000	17,61,838	17,92,292	1.7
2000-01	19,02,999	19,30,184	1.4
2001-02	20,81,474	20,97,446	0.8
2002-03	22,54,888	22,55,574	0.0
2003-04	25,19,785	25,43,396	0.9
2004-05	28,30,465	28,43,897	0.5

**Growth rates**

3.106 There are no major changes in the overall growth rates of GDP at constant (1999-2000) prices with the change in the base year, although there are changes in growth rates at sectoral level. The major change is in the year 2004-05 Quick Estimates, which is due to the availability of detailed data at sectoral level, whereas the earlier estimates for 2004-05 were based on indicators. The growth rates in the new and old series are shown in Table 18.

**Table 18: Growth Rates of GDP at factor cost at constant prices***(Rs. crore)*

YEAR	Old Series (Base Year 1993-94)	New Series (Base Year 1999-2000)	Growth Rate (%)	
			Old Series	New Series
1999-2000	11,48,367	17,92,292		
2000-01	11,98,592	18,70,387	4.4	4.4
2001-02	12,67,945	19,78,055	5.8	5.8
2002-03	13,18,362	20,52,586	4.0	3.8
2003-04	14,30,548	22,26,041	8.5	8.5
2004-05	15,29,408	23,93,671	6.9	7.5

3.107 The growth rates at industry level show some major changes, which are on account of changes in procedures, methodology and data sources and use of latest data from long term survey results, the details of which have been explained in the previous paragraphs. The Table 19 presented below, shows growth rates at constant prices in the old and new series, during 2000-01 to 2004-05, at industry level.

**Table 19: Growth rates of GDP at factor cost at industry level***(at constant prices)**[old series at 1993-94 prices and new series at 1999-2000 prices]*

industry	2000-01		2001-02		2002-03		2003-04		2004-05	
	old	new	old	new	old	new	old	new	old	new
<b>1. agriculture, forestry &amp; fishing</b>	<b>-0.1</b>	<b>0.0</b>	<b>6.3</b>	<b>6.2</b>	<b>-7.0</b>	<b>-6.9</b>	<b>9.6</b>	<b>10.0</b>	<b>1.1</b>	<b>0.7</b>
1.1 agriculture	-0.4	-0.3	6.5	6.5	-8.0	-7.8	10.3	10.7	1.0	0.7
1.2 forestry & logging	2.4	2.4	1.5	1.2	0.9	1.0	1.4	1.4	2.3	1.7
1.3 fishing	4.0	2.5	7.7	4.6	7.3	5.6	4.1	4.9	2.5	1.6
<b>2. mining &amp; quarrying</b>	<b>2.4</b>	<b>2.5</b>	<b>2.5</b>	<b>1.8</b>	<b>9.0</b>	<b>8.7</b>	<b>6.4</b>	<b>5.3</b>	<b>4.5</b>	<b>5.8</b>
<b>3. manufacturing</b>	<b>7.4</b>	<b>7.7</b>	<b>3.6</b>	<b>2.5</b>	<b>6.5</b>	<b>6.8</b>	<b>6.9</b>	<b>7.1</b>	<b>9.2</b>	<b>8.1</b>
3.1 registered	7.9	7.8	4.6	4.6	7.0	7.6	7.1	7.4	9.5	9.0
3.2 unregistered	6.6	7.6	1.8	-1.3	5.6	5.3	6.5	6.5	8.6	6.2
<b>4. elect. gas &amp; water supply</b>	<b>4.3</b>	<b>2.0</b>	<b>3.7</b>	<b>1.7</b>	<b>3.1</b>	<b>4.8</b>	<b>3.7</b>	<b>4.8</b>	<b>5.5</b>	<b>4.3</b>
<b>5. construction</b>	<b>6.7</b>	<b>6.1</b>	<b>4.0</b>	<b>4.0</b>	<b>7.3</b>	<b>7.7</b>	<b>7.0</b>	<b>10.9</b>	<b>5.2</b>	<b>12.5</b>
<b>6. trade, hotels &amp; restaurant</b>	<b>4.0</b>	<b>4.9</b>	<b>8.9</b>	<b>9.6</b>	<b>8.2</b>	<b>6.7</b>	<b>8.8</b>	<b>10.2</b>	<b>8.7</b>	<b>8.1</b>
6.1 trade	3.8	4.8	8.6	9.8	8.5	6.8	8.6	10.4	8.7	7.5
6.2 hotels & restaurants	6.8	6.7	12.1	7.8	4.0	5.4	10.9	7.9	9.5	15.1
<b>7. transport, storage &amp; commn.</b>	<b>12.2</b>	<b>11.3</b>	<b>9.2</b>	<b>8.3</b>	<b>12.6</b>	<b>13.7</b>	<b>17.0</b>	<b>15.2</b>	<b>15.6</b>	<b>14.8</b>
7.1 railways	4.3	4.1	7.0	7.4	5.7	6.1	6.4	5.0	7.2	7.2
7.2 transport by other means	6.7	7.7	3.9	4.0	6.1	10.3	11.2	11.9	11.4	12.6
7.3 storage	3.1	6.1	-0.6	0.6	10.7	-4.4	7.9	5.4	1.1	2.0
7.4 communication	26.8	26.9	18.8	19.5	24.6	25.6	27.2	26.0	22.2	21.3
<b>8. financing, insurance, real estate &amp; business services</b>	<b>3.5</b>	<b>4.1</b>	<b>4.5</b>	<b>7.3</b>	<b>8.7</b>	<b>8.0</b>	<b>7.1</b>	<b>4.5</b>	<b>7.1</b>	<b>9.2</b>



industry	2000-01		2001-02		2002-03		2003-04		2004-05	
	old	new	old	new	old	new	old	new	old	new
8.1 banking & insurance	-1.2	-2.0	3.5	9.1	11.4	11.3	7.5	0.7	7.3	10.2
8.2 real estate, ownership of dwell-	9.2	9.1	5.7	5.9	5.8	5.5	6.8	7.7	7.0	8.4
inks, business & legal services										
<b>9. community, social &amp; personal services</b>	<b>5.2</b>	<b>4.7</b>	<b>5.1</b>	<b>3.9</b>	<b>3.9</b>	<b>3.8</b>	<b>5.8</b>	<b>5.4</b>	<b>5.9</b>	<b>9.2</b>
9.1 public administration & defence	2.3	1.8	2.6	2.4	1.7	1.1	5.7	4.6	4.4	8.2
9.2 other services	7.7	7.2	7.0	5.1	5.6	5.8	6.0	5.9	7.1	10.0
<b>10. GDP at factor cost</b>	<b>4.4</b>	<b>4.4</b>	<b>5.8</b>	<b>5.8</b>	<b>4.0</b>	<b>3.8</b>	<b>8.5</b>	<b>8.5</b>	<b>6.9</b>	<b>7.5</b>

Old: 1993-94 series; new: new series

### *Composition of various sectors between the two Series*

3.108 The weighting pattern of various sectors in the GDP in the old and new series for the year 1999-2000 also influences to some extent the overall growth rate in GDP. This can be seen under the industry-group “financing, insurance, real estate and business services”, which has two component industries, namely, ‘banking and insurance’ and ‘real estate, ownership of dwellings, and business services’. In this industry group, the growth rate has significantly changed between the old and new series, although there are marginal changes in the growth rates in the two component industries during 2002-03. The composition of the various industries in the old and new series, may be seen in Table 20, presented below. From this Table, it is evident that the share of agriculture, forestry and fishing sector has fallen from 26.2 per cent in the old series to 25.3 per cent in the new series, the share of secondary sectors has fallen from 25.9 per cent in the old series to 25.4 per cent in the new series, while the share of services sectors has been higher in the new series at 49.2 per cent, as compared to the share of 47.9 per cent in the old series. The higher share of services sectors in the new series has mainly been due to increase in the level of GDP of the industries, hotels and restaurants, railways, communication, and real estate, ownership of dwellings and business services, as also due to the fall in the levels of GDP in agriculture and manufacturing sectors, reasons for which have been explained in the previous paragraphs.

**Table 20: Weights of Various Sectors in the New Series and Old Series, 1999-2000**

Industry		1993-94 Series	New Series
<b>1</b>	<b>agriculture, forestry &amp; fishing</b>	<b>26.2</b>	<b>25.3</b>
1.1	Agriculture	24	23.2
1.2	forestry & logging	1.1	1.1
1.3	Fishing	1.1	1.1
<b>2</b>	<b>mining &amp; quarrying</b>	<b>2.3</b>	<b>2.3</b>
<b>3</b>	<b>Manufacturing</b>	<b>15.1</b>	<b>14.7</b>
3.1	Registered	9.7	9.7
3.2	Unregistered	5.4	5.1
<b>4</b>	<b>elect. gas &amp; water supply</b>	<b>2.4</b>	<b>2.5</b>
<b>5</b>	<b>Construction</b>	<b>6</b>	<b>5.9</b>
<b>6</b>	<b>trade, hotels &amp; restaurant</b>	<b>14</b>	<b>14.2</b>
6.1	Trade	13	12.9
6.2	hotels & restaurants	1	1.2

Industry		1993-94 Series	New Series
<b>7</b>	<b>transport, storage &amp; comm.</b>	<b>7.1</b>	<b>7.4</b>
7.1	Railways	0.9	1.1
7.2	transport by other means	4.6	4.6
7.3	Storage	0.1	0.1
7.4	Communication	1.5	1.6
<b>8</b>	<b>financing, insurance, real estate &amp; business services</b>	<b>12.5</b>	<b>13.0</b>
8.1	banking & insurance	6.8	5.9
8.2	real estate, ownership of dwellings & business services	5.8	7.1
<b>9</b>	<b>community, social &amp; personal services</b>	<b>14.4</b>	<b>14.7</b>
9.1	public administration & defence	6.6	6.7
9.2	other services	7.8	8.1
<b>10</b>	<b>GDP at factor cost</b>	<b>100.0</b>	<b>100.0</b>

### Net Domestic Product and National Income

3.109 The following Table 21 presents the estimates of GDP at factor cost, Net Domestic Product (NDP) at factor cost, Net National Product (NNP) at factor cost (also known as National Income), and per capita income for the period, 1999-2000 to 2004-05 in the 1993-94 series and new series. The estimates are presented in the Table at current prices, for the sake of comparison in the levels of estimates between the two series in various aggregates. Also presented in this Table are the growth rates alongwith the estimates

3.110 For assessing the performance of the economy, growth rates at constant prices are used, as they are free from price fluctuations and present the year to year changes in volume terms. For the sake of comparison in growth rates at constant prices between the old and new series, estimates of various aggregates have been provided in Table 22 below, alongwith the estimates.

**Table 21: Estimates of GDP, NDP, NNP and Per Capita Income, 1999-2000 to 2004-05**  
(at current prices)

(Rs. crore)

Year	GDP at factor cost (Rs. Crore)		NDP at factor cost (Rs. Crore)		NNP at factor cost (Rs. Crore)		Per capita income (Rs.)	
	1993-94 Series	New Series	1993-94 Series	New Series	1993-94 Series	New Series	1993-94 Series	New Series
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1999-00	17,61,838	17,92,292	15,79,479	16,05,643	15,64,048	15,90,212	15,625	15,886
2000-01	19,02,999	19,30,184	17,05,104	17,27,452	16,86,995	17,04,719	16,555	16,729
2001-02	20,81,474	20,97,446	18,63,795	18,76,285	18,48,229	18,56,217	17,823	17,883
2002-03	22,54,888	22,55,574	20,21,936	20,19,972	20,08,770	20,03,282	19,040	18,988
2003-04	25,19,785	25,43,396	22,66,148	22,86,826	22,52,070	22,68,576	20,989	21,142
2004-05	28,30,465	28,43,897	25,53,334	25,49,139	25,35,627	25,31,223	23,241	23,222
<b>Growth rates (%)</b>								
2000-01	8.0	7.7	8.0	7.6	7.9	7.2	6.0	5.3
2001-02	9.4	8.7	9.3	8.6	9.6	8.9	7.7	6.9
2002-03	8.3	7.5	8.5	7.7	8.7	7.9	6.8	6.2
2003-04	11.7	12.8	12.1	13.2	12.1	13.2	10.2	11.3
2004-05	12.3	11.8	12.7	11.5	12.6	11.6	10.7	9.8

**Table 22: Estimates of GDP, NDP, NNP and Per Capita Income, 1999-2000 to 2004-05**  
(at constant prices)

[old series at 1993-94 prices and new series at 1999-2000 prices]

(Rs. crore)

Year	GDP at factor cost (Rs. Crore)		NDP at factor cost (Rs. Crore)		NNP at factor cost (Rs. Crore)		Per capita income (Rs.)	
	1993-94 Series	New Series	1993-94 Series	New Series	1993-94 Series	New Series	1993-94 Series	New Series
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1999-00	11,48,367	17,92,292	10,19,296	16,05,643	10,08,114	15,90,212	10,071	15,886
2000-01	11,98,592	18,70,388	10,62,492	16,75,633	10,50,338	16,53,088	10,308	16,223
2001-02	12,67,945	19,78,056	11,25,480	17,75,952	11,15,171	17,55,281	10,754	16,910
2002-03	13,18,362	20,52,586	11,69,793	18,41,931	11,61,902	18,23,126	11,013	17,281
2003-04	14,30,548	22,26,041	12,74,074	20,04,703	12,66,005	19,86,858	11,799	18,517
2004-05	15,29,408	23,93,671	13,64,259	21,58,718	13,54,599	21,41,776	12,416	19,649
<b>Growth rates (%)</b>								
2000-01	4.4	4.4	4.2	4.4	4.2	4.0	2.3	2.1
2001-02	5.8	5.8	5.9	6.0	6.2	6.2	4.3	4.2
2002-03	4.0	3.8	3.9	3.7	4.2	3.9	2.4	2.2
2003-04	8.5	8.5	8.9	8.8	9.0	9.0	7.1	7.2
2004-05	6.9	7.5	7.1	7.7	7.0	7.8	5.2	6.1

### Net Factor Income from the Rest of the World

3.115 The estimates of Net factor Income from the Rest of the world at current prices have been revised downward due to inclusion of reinvested earnings of foreign companies in the property and entrepreneurial income from the rest of the world for the years 2000-01 to 2004-05. For working out the estimates at constant (1999-2000) prices, double deflation method has been adopted in the new series. In the old series, constant price estimates of net factor income from abroad were prepared using single deflation method by adopting unit value index of imports on the current price estimate of net factor income from abroad, as the net income was always negative. The current price estimates of exports have been deflated by unit value index of imports and Imports by unit value index of exports with base 1999-2000=100. The estimates at current prices are presented at Table 23.

**Table 23: Net Factor Income from Rest of the World, 1999-2000 to 2004-05**

(Rs. crore)

Year	At current prices		
	1993-94 series	New Series	Difference (3) – (2)
(1)	(2)	(3)	(4)
1999-00	(-)15,431	(-)15,431	0
2000-01	(-)18,109	(-)22,733	(-)4,624
2001-02	(-)15,566	(-)20,068	(-)4,502
2002-03	(-)13,166	(-)16,690	(-)3,524
2003-04	(-)14,078	(-)18,250	(-)4,172
2004-05		(-)17,916	

## 4. EXPENDITURE AGGREGATES AND SAVING

4.1 The expenditure aggregates of GDP comprise, consumption expenditure (government final consumption expenditure and private final consumption expenditure) gross fixed capital formation, change in stocks, valuables, and net exports. These estimates are compiled at market prices. The GDP at factor cost by economic activity discussed in the previous section is adjusted by adding indirect taxes net of subsidies to arrive at the estimate of GDP at market prices, so that it equals the expenditure on gross domestic product. As the expenditure components of the GDP, namely, consumption expenditure and capital formation are measured at market prices, the discussion in the following paragraphs is in terms of market prices.

### Private Final Consumption Expenditure (PFCE)

4.2 The basic data on output and prices utilized in the estimation of private final consumption expenditure (PFCE) are mostly the same as those used in the preparation of GDP estimates and as such the improvements/changes in data sources and coverage etc. in GDP estimates are included in the estimates of PFCE. Table 24 presents the estimates of PFCE for the year 1999-2000 by object i.e. according to the purpose for which the goods and services are acquired, in the old and new series.

**Table 24: Estimates of Private Final Consumption Expenditure, 1999-2000**

*(Rs. crore)*

Items	1993-94 Series	1999-00 Series	Difference (3)-(2)
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>
<b>1. Food, bev. and tobacco</b>	<b>6,52,627</b>	<b>6,54,321</b>	<b>1,694</b>
1.1 Food	5,83,963	5,77,810	-6,153
1.1.1 Cereals and bread	1,62,731	1,69,270	6,539
1.1.2 Pulses	19,043	18,894	-149
1.1.3 Sugar and gur	36,422	36,074	-348
1.1.4 Oils and oilseeds	31,523	31,153	-370
1.1.5 Fruits and vegetables	1,20,069	1,21,700	1,631
1.1.6 Potato and other tuber	10,826	10,576	-250
1.1.7 Milk and milk products	1,05,396	1,03,244	-2,152
1.1.8 Meat, egg and fish	47,893	51,066	3,173
1.1.9 Coffee, tea and cocoa	9,371	9,477	106
1.1.10 Salt and Spices	31,240	17,715	-13,525
1.1.11 Other foods items	9,449	8,641	-808
1.2 Bev. Pan and intoxicants	17,408	20,010	2,602
1.2.1 Beverages	9,300	9,863	563
1.2.2 Pan and other intoxicants	8,108	10,147	2,039
1.3 Tobacco and products	34,286	33,572	-714
1.4 Hotels and restaurants	16,970	22,929	5,959
<b>2. Clothing and footwear</b>	<b>60,517</b>	<b>66,292</b>	<b>5,775</b>
2.1 Clothing	52,446	57,936	5,490
2.2 Footwear	8,071	8,356	285
<b>3. Rent, fuel and power</b>	<b>1,29,724</b>	<b>1,45,349</b>	<b>15,625</b>
3.1 Gross rent and water charges	84,554	99,268	14,714
3.2 Fuel and power	45,170	46,081	911

Items	1993-94 Series	1999-00 Series	Difference (3)-(2)
3.2.1 Electricity	9,859	9,859	0
3.2.2 Liquefied petroleum gas	5,607	5,971	364
3.2.3 Kerosene	3,640	4,036	396
3.2.4 Other fuel	26,064	26,215	151
<b>4. Furniture, furnishing, appliances</b>	<b>35,684</b>	<b>40,939</b>	<b>5,255</b>
4.1 Fur. furnishing and repairs	3,112	1,648	-1,464
4.2 Ref. , cooking & washing appliances	3,093	6,257	3,164
4.3 Glassware, tableware and utensils	15,409	15,284	-125
4.4 Other goods	6,099	9,510	3,411
4.5 Services	7,971	8,240	269
<b>5. Medical care &amp; health services</b>	<b>84,359</b>	<b>54,825</b>	<b>-29,534</b>
<b>6. Transport and communication</b>	<b>1,59,730</b>	<b>1,64,176</b>	<b>4,446</b>
6.1 Personal transport equipment	6,101	9,178	3,077
6.2 Operation of transport equipment	50,986	47,081	-3,905
6.3 Purchase of transport services	91,555	93,727	2,172
6.4 Communication	11,088	14,190	3,102
<b>7. Recreation, education, culture</b>	<b>43,515</b>	<b>42,779</b>	<b>-736</b>
7.1 Equipments, paper and stationery	14,569	17,147	2,578
7.2 Recreation and cultural services	1,950	1,851	-99
7.3 Educational Services	26,996	23,781	-3,215
<b>8. Misc. goods and services</b>	<b>1,05,400</b>	<b>97,613</b>	<b>-7,787</b>
8.1 Personal care and effects	25,265	37,588	12,323
8.2 Personal goods n.e.c.	37,242	26,001	-11,241
8.3 Other miscellaneous services	42,893	34,024	-8,869
<b>Total PFCE in domestic market</b>	<b>12,71,556</b>	<b>12,66,294</b>	<b>-5,262</b>

4.3 It may be observed that the total PFCE as per the new series, as a net result of upward/downward revisions of various items, is lower by Rs. 5,262 crore (lower by 0.4%) as compared to the present series. The reasons for some of the major variations are in the estimates of PFCE for the base year 1999-2000 are given below.

#### ***Marketable surplus ratios***

4.4 In the 1993-94 series, the marketable surplus ratios for agricultural commodities were based on the data for the year 1993-94 provided by the Directorate of Economics and Statistics (DESAg), Ministry of Agriculture. These ratios have been revised in the new series for most items on the basis of latest data available with the DESAg for the years 1999-2000 to 2001-02. In the new series, the average of the marketable surplus ratios for the years 1999-2000, 2000-01 and 2001-02 has been used as the benchmark ratios for the base year, for different agricultural commodities.

#### ***Government Final Consumption Expenditure***

4.5 In order to estimate the net availability of each item of private final consumption, item wise details of Government Final Consumption Expenditure (GFCE) are required, as compilation of PFCE is mostly through the commodity flow method, in which estimates of PFCE are compiled as residual from the total output of each item by subtracting from it, the estimated inter-industry utilization and other final uses. The item-wise estimates of GFCE are compiled at the time of preparation of 5-yearly Input Output Transactions

Tables (IOTT) for the Indian economy. While preparing the IOTTs, item-wise expenditure data, which is otherwise not available in the budget documents, is collected from a sample of departments of Central and State Governments. For the new series, the item-wise GFCE data has been compiled using the norms of IOTT 1998-99 and the budget head-wise expenditures for the year 1999-2000.

#### ***Manufactured goods used for PFCE***

4.6 For the majority of manufactured items, database for the preparation of estimates of PFCE is the same as that used for estimating the domestic product. While data on output according to products and industries is available from the Annual Survey of Industries (ASI) every year, such data is not available for the unregistered manufacturing sector. Therefore, for estimating the item/group-wise value of output of unregistered manufacturing sector, the value added to output ratios of registered manufacturing sector for the corresponding industry groups have been used. Once the value of output of manufacturing sector is estimated at item/group level, it is necessary to know the extent of PFCE out of this output. For this purpose, the item basket, against which data on value of products and byproducts for consumable/durable goods for the year 1999-2000 are available from the Annual Survey of Industries (ASI), 1999-2000, has been examined to identify the items of final consumption. The total value of output of identified items of consumption has been estimated from the ASI detailed results and with this; ratios of PFCE out of the total output have been developed at broad group level for use in the new series. These ratios at broad group level (at which annual ASI data on output are available) have been used for estimating PFCE for subsequent years in respect of manufactured goods

#### ***Food, beverages and tobacco***

4.7 For most food items, PFCE is estimated by the commodity flow approach. Increase in Marketable Surplus Ratios (MSR) has resulted in higher quantity of market supply, and the same has been valued at retail prices. Since retail prices are higher as compared to the ex-farm prices, the total PFCE for the group 'cereals and bread' has increased by Rs. 6,539 crore.

4.8 For 'salt and spices' group, the PFCE for the base year is estimated using the results of NSS Consumer Expenditure Survey. For subsequent years, the base year estimates are extrapolated with the inter-survey annual growth in the per capita consumption expenditure (PCCE) on these items. As the inter-survey growth was high between 43<sup>rd</sup> (1987-88) and 50<sup>th</sup> (1993-94) rounds, the PFCE estimates for the year 1999-2000 are at higher levels in the 1993-94 series. The PFCE estimates for the new series are, however, based on NSS 55<sup>th</sup> round results on PCCE, which are lower as compared to the extrapolated estimates for the year 1999-2000 in the 1993-94 series. The use of NSS 55<sup>th</sup> round results in the new series has led to a downward revision in the base year estimates to the extent of Rs. 13,525 crore in the case of spices, and Rs. 1,161 crore in the case of salt. For 'hotels and restaurants', the PFCE is estimated as a percentage of output, which in turn is estimated on the basis of GDP to output ratios. Increase in the GDP has resulted in an increase of Rs. 5,959 crore in the PFCE estimates under this group. The estimated PFCE for the group 'meat, egg and fish' is higher by Rs. 3,173 crore due to increase in trade and transport margins (TTM), which in turn is based on IOTT 1998-99. The PFCE estimates of other items also showed some variation. Due to these reasons, the over all PFCE for the group has increased by Rs. 1,694 crore.

### ***Clothing and footwear***

4.9 The item-wise data on value of output at NIC (National Industrial Classification, 1998) 3-digit level available from the ASI 1999-2000 has been analysed for estimating the PFCE in the new series for this group, as mentioned in para 4.6. The use of ASI data as per NIC, 1998 and identification of consumption basket of items resulted in an increase of Rs. 5,775 crore in the PFCE under this Group.

### ***Gross rent, fuel and power***

4.10 The PFCE for this group is estimated as a percentage of output/GDP. The rise in the level of estimated GDP has resulted in an increase in the PFCE estimates for this group by Rs 15,625 crore.

### ***Furniture, furnishing appliances and services***

4.11 Under this Group, major variation is noticed in the PFCE in respect of the items (i) furnishing appliances and repairs, (ii) refrigeration, cooking and washing appliances and (iii) other goods. The reasons for this variation are the same as those mentioned under the group 'clothing and footwear' and the procedure explained in para 4.6. As a result of updation of rates and ratios based on ASI 1999-2000, the PFCE for 'furnishing appliances and repairs' has decreased by Rs. 1,464 crore, while the PFCE in respect of 'refrigeration, cooking and washing appliances' and 'other goods' has risen by Rs. 3,164 crore and Rs. 3,411 crore, respectively, resulting in an overall increase of Rs. 5,255 crore in the PFCE of this Group.

### ***Medical care and health services***

4.12 In the 1993-94 series, the estimates of expenditure of households on health care were based on the results of NSS 50<sup>th</sup> round Consumer Expenditure Survey data. For subsequent years, the estimates were compiled by extrapolating the base year estimates with the inter-survey growth rate observed between the NSS 43<sup>rd</sup> (1987-88) and 50<sup>th</sup> (1993-94) round survey results. This inter-survey growth rate was quite high and resulted in consumption expenditure of households under this Group reach higher levels. For the new series, the benchmark PFCE estimates are based on the 52<sup>nd</sup> round NSS Health Care Survey results, which showed estimated PFCE under this Group at much lower level as compared to the projected figures in the old series for the same year. The PFCE for subsequent years has been estimated using the inter-survey growth rate in the per capita consumption expenditure observed between NSS 52<sup>nd</sup> and 57<sup>th</sup> round survey results. Further, estimates of PFCE for the new series have also been prepared in consultation with the Ministry of Health and Family Welfare and the World Health Organisation, who were also engaged at the same time in compiling the National Health Accounts for the country. Thus, it has been ensured that the consumption data for this group appearing in the National Health Accounts and the PFCE are consistent. As a result of using the latest NSS data, which showed lower consumption expenditure of households under this group as compared to the earlier extrapolated series (between 1987-88 and 1993-94), the estimated PFCE for this group for the year 1999-2000 is lower by Rs. 29,534 crore.

### ***Transport and communication***

4.13 The major variation in the PFCE estimates between the old and new series is in the case of (i) personal transport equipments, (ii) operation of transport services and (iii) communication. Regarding item (i), the PFCE estimates are based on ASI 1999-2000 and unregistered manufacturing data and the reasons for variation are as mentioned under the Group, 'clothing' above and the procedure explained in para 4.6. As a result of this, the PFCE under 'transport equipment' has shown a rise of Rs. 3,077 crore in 1999-2000.

The PFCE for operation of transport equipments has decreased by Rs. 3,905 crore primarily due to decline in the repair charges. The PFCE for communication is estimated as a percentage of output/GDP. Increase in the GDP of private communication, which in turn is due to expansion of coverage, has resulted in an increase in the PFCE estimates by Rs. 3,102 crore. Thus, the overall PFCE for this group has risen by Rs. 4,446 crore in the new series as compared to the old series, in the year 1999-2000.

#### ***Recreation, education and cultural services***

4.14 The PFCE estimates for TV/Radio have increased by Rs. 3,247 crore in the new series during 1999-2000, which is due to reasons similar to those mentioned under the manufacturing items. The PFCE in the case of education has, however, fallen by Rs. 3,215 crore in 1999-2000 in the new series, due to decrease in the level of GDP for this industry-group, as PFCE estimates for this group are based on GDP data. The over all PFCE for this group is lower by Rs. 736 crore in the new series, in the year 1999-2000.

#### ***Miscellaneous goods and services***

4.15 The PFCE for 'personal care and effects' has increased by Rs. 12,323 crore, primarily due to increase in the GDP in some of the services under this Group. While the PFCE for personal goods, n.e.c. has decreased by Rs. 11,241 crore due to shifting of valuables purchased by households from PFCE to capital formation. The PFCE estimates for other miscellaneous services are also lower in the new series for the year 1999-2000 by Rs. 10,494 crore due to reduction in FISIM, the reasons for which have been explained under the banking and insurance sector. Due to these reasons, the PFCE for this group has decreased by Rs. 7,787 crore during 1999-2000 in the new series.

#### ***Level of PFCE***

4.16 The above paragraphs explain the reasons resulting in overall downward revision in the estimates of PFCE during 1999-2000 in the new series. It may be seen from Table 25 that in other years also there is a corresponding downward revision. As a result, the per capita consumption expenditure in the year 1999-2000, which was of the order of Rs 12,703 (1993-94 series), is now estimated at Rs. 12,650 in the new series, showing a marginal fall of Rs. 53.

**Table 25: PFCE and Per Capita PFCE, 1999-2000 to 2004-05**  
(at current prices)

Year	PFCE (Rs. Crore)		Per capita PFCE (Rs.)	
	1993-94 Series	New Series	1993-94 Series	New Series
1999-00	12,71,556	12,66,294	12,703	12,650
2000-01	13,60,018	13,50,520	13,347	13,253
2001-02	14,88,781	14,70,421	14,357	14,166
2002-03	15,85,132	15,40,181	15,025	14,599
2003-04	17,65,849	17,22,288	16,457	16,051
2004-05	NA	18,90,619	NA	17,345

#### ***Growth rates in PFCE***

4.17 The annual growth rates in the PFCE at the aggregate level and the per capita levels according to the 1993-94 series and the new series are presented in Table 26 for four year period 2000-01 to 2003-04. The new series shows marginal lower annual growth rates as compared to those in the old series.



**Table 26: Growth Rates in PFCE and Per capita Expenditure, 2000-01 to 2004-05**  
(at constant prices)

	PFCE		Per capita PFCE	
	1993-94 series	New Series	1993-94 series	New Series
2000-01	2.8	2.3	0.9	0.5
2001-02	5.8	5.9	3.9	4.0
2002-03	2.8	1.6	1.1	-0.1
2003-04	8.2	7.9	6.4	6.1
2004-05	----	6.3		4.6

## Capital Formation

4.18 The methodology adopted for compilation of estimates of saving and capital formation of various institutional sectors in the new series, is mainly based on reports of 'Capital Formation and Saving in India: 1950-51 to 1979-80' (Raj Committee) and 'Saving and Capital Formation in India 1950-51 to 1994-95' (Chelliah Committee) and on the changes suggested in concepts and methodology by the Advisory Committee on National Accounts Statistics from time to time in accordance with the framework of System of National Accounts 1993.

### Gross Capital Formation

4.19 Gross Capital Formation (GCF) refers to the aggregate of gross additions to fixed assets (fixed capital formation), increase in stocks of inventories or change in stocks (CIS) and valuables. Gross Fixed Capital Formation (GFCF) comprises two main components, (i) construction, and (ii) machinery and equipment. Only new 'Construction' forms part of GFCF from construction. The GFCF from machinery and equipment includes the ex-factory value of capital goods produced in the registered and unregistered manufacturing sectors and the excise duties paid on them, net imports of capital goods and TTMs, software production, fixed assets in livestock and installation charges of wind energy systems. Besides the above, a new category 'valuables' which covers the expenditures made on acquisition of valuables, has been included for the first time in the gross capital formation, in accordance with the recommendations of 1993 SNA. The estimates of gross capital formation are compiled separately by type of assets and by industry of use. Under type of assets, the estimates in respect of (i) construction and (ii) machinery and equipment are derived at the aggregate level through the commodity flow approach. The estimates of GFCF and change-in-stocks by industry of use, on the other hand, are prepared by expenditure approach, separately for each of the institutional sectors.

### GCF by type of assets

4.20 The estimates of GFCF and GCF by type of assets as per the new and old series for the year 1999-2000 have been presented in Table 27. In the new series, under institutional sectors, the estimates for public sector show an increase of Rs. 11,999 crore, which is mainly due to the reclassification of expenditures of government in the new series (details may be seen under the paragraphs dealing with Public Sector Transactions, below). Similarly, an increase of Rs. 14,968 crore under private corporate sector has been due to inclusion of expenditures on software, wind energy systems, additional coverage of cultivated assets and expenditures made by new industries before commencing production. Finally, the household sector has shown an increase of Rs. 11,466 crore mainly due to the overall increase in gross fixed capital formation, estimated

through commodity flow approach, which in turn was due to the increase in the output of construction (explained under GDP of construction above) and due to the revision in item-baskets of machinery and equipment as per NIC 1998 and use of latest available data on registered and unregistered manufacturing sectors. The overall revision for the year 1999-2000 in GFCF by type of assets has been from Rs. 4,21,903 crore in the old series to Rs. 4,57,239 crore in the new series.

**Table 27: GCF by type of assets and institutions, 1999-2000**

(Rs. crore)

S. No.	Item	1993-94 series	New series	Difference
<b>1</b>	<b>Gross Capital Formation</b>	<b>4,58,262</b>	<b>5,12,214</b>	<b>53,952</b>
1.1	Public Sector	1,34,484	1,46,483	11,999
1.2	Private Corporate Sector	1,25,120	1,40,088	14,968
1.3	Household Sector	1,98,658	2,10,124	11,466
1.4	Valuables*	-	15,519	15,519
<b>2</b>	<b>Gross Fixed Capital Formation</b>	<b>4,21,903</b>	<b>4,57,239</b>	<b>35,336</b>
2.1	Public Sector	1,20,389	1,29,286	8,897
2.1.1	Construction	73,495	80,658	7,163
2.1.2	Machinery and Equipment	46,894	48,628	1,734
2.2	Private Corporate Sector	1,09,057	1,24,025	14,968
2.2.1	Construction	17,267	18,753	1,486
2.2.2	Machinery and Equipment	91,790	1,05,272	13,482
2.3	Household Sector	1,92,457	2,03,928	11,471
2.3.1	Construction	1,11,807	1,28,420	16,613
2.3.2	Machinery and Equipment	80,650	75,508	-5,142
<b>3</b>	<b>Change in Stocks</b>	<b>36,359</b>	<b>39,456</b>	<b>3,097</b>
3.1	Public Sector	14,095	17,197	3,102
3.2	Private Corporate Sector	16,063	16,063	0
3.3	Household Sector	6,201	6,196	-5
<b>4</b>	<b>Valuables*</b>	<b>-</b>	<b>15,519</b>	<b>15,519</b>

\* Compiled for the first time

### Construction

4.21 The broad methodology adopted in the new series for working out the total output and gross fixed capital formation from construction sector is more or less same as the one used in 1993-94 series. However, some minor modifications in norms, inclusion of imports of wood products, and use of ASI 1999-2000 results on basic materials etc., have been made in the case of accounted (pucca) construction. The coverage in un-accounted (kutcha) construction has been further extended to include civilian construction in installing wind energy systems and 7 more additional plantation crops in cultivated assets. The revised norms used are based on latest available NSSO Survey Results and the additional items taken into account in the construction have been discussed in the compilation of GDP of construction sector.

4.22 From the total estimated GFCF of construction, the GFCF in respect of public and private corporate sectors (construction part) is subtracted to obtain the GFCF of the households, as residual. With the adoption of above mentioned expanded coverage and use of fresh data, the GFCF in the form of construction is estimated at Rs. 2,27,831 crore in the new series for the year 1999-2000, as against Rs. 2,02,569 crore estimated in 1993-94 series.

4.23 Among the public and private corporate sectors, revision in estimates is mainly due to inclusion of the extended coverage of cultivated assets and wind energy in the new series. The details of GFCF from construction are given in the Table presented below, separately in the old and new series for the year 1999-2000 and also separately for the segments of accounted and un-accounted new construction.

**Table 28: GFCF from Construction, 1999-2000**

(Rs. crore)

S. No	Item	1993-94 Series	New Series	Difference
1	GFCF from construction	2,02,569	2,27,831	25,262
1.1	Accounted – ( Pucca)	1,85,558	2,10,345	24,787
1.2	Un-accounted ( Kutcha)	17,011	17,485	474
2	GFCF by Institutions			
2.1	Public Sector	73,495	80,658	7,163
2.2	Private Corporate Sector	17,267	18,753	1,486
2.3	Household Sector	1,11,807	1,28,420	16,613

#### ***Machinery and equipment***

4.24 The main changes that have been made in the new series under this are (i) preparation of a revised capital goods item basket using the detailed results of ASI 1999-2000 based on NIC 1998 classification and (ii) use of results of NSS 56<sup>th</sup> Round unregistered manufacturing survey, 2001-02 results.

4.25 For the registered manufacturing sector, the estimated value of capital goods at four/ three/ two digit level was prepared considering the nature of capital goods - fully capital goods (FCG), parts of fully capital goods (PCG), partly capital goods (Ply CG) and parts of partly capital goods (PPlyCG) for the year 1999-2000. At 2-digit NIC 1998 level, the value of capital goods have been regrouped into the four categories, namely (i) non-electrical, (NIC 1998 codes 29 and 30), (ii) electrical (NIC 1998 codes 31 and 32), (iii) transport and other transport equipment (NIC 1998 codes 34 and 35), and (iv) others (NIC 1998 codes 20, 21, 22, 25, 27, 28, 33, 36, 37). For the succeeding years, the ratio observed between the value of capital goods and the value of products and byproducts (GVO) at 4-digit level in the base year has been used to compile the value of capital goods.

4.26 For the unregistered manufacturing sector, results of NSS 56<sup>th</sup> round survey (2000-01) on unorganized manufacturing enterprises (GVO estimates at three and four digit level) have been used in compiling the estimates of value of capital goods from unorganized sector. Using the GVO estimates at the relevant 4-digit level from this survey and the ratio of value of capital goods to the GVO as available from the ASI 1999-2000, the estimates of value of capital goods at 4-digit levels have been compiled for the unorganized sector.

4.27 Besides the ex-factory value of capital goods produced in registered and unregistered manufacturing sectors, GFCF in respect of machinery and equipment includes excise duties, net imports of capital goods and trade and transport margins (TTM) on capital goods, expenditures made on the purchases of software, fixed assets in livestock and installation charges in the Wind Energy Systems. The estimates of GFCF in the form of machinery and equipment for the year 1999-2000 has now been estimated at Rs. 2,29,408 crore in the new series as against Rs. 2,19,334 crore in the 1993-94 series.

The increase in GFCF from machinery and equipment by Rs. 10,074 crore has mainly been due to the adoption of latest available data and revision in item-baskets of capital goods, as also to other changes explained above.

**Table 29: GFCF from Machinery and Equipment, 1999-2000**

(Rs. crore)

S. No	Item	1993-94 series	New series	Difference
1	Production of capital goods from registered and unregistered manufacturing, (Electrical, non-electrical, transport equipment and other capital goods) inclusive of excise duty, net imports, TTMs	2,11,571	2,18,369	6,798
2	Fixed Assets in livestock	1,028	1,055	27
3	Software	6,735	9,961	3,226
4	Installation charges of wind energy systems	-	23	23
<b>5</b>	<b>GFCF from Machinery and Equipment</b>	<b>2,19,334</b>	<b>2,29,408</b>	<b>10,074</b>

### **Valuables**

4.28 In accordance with the recommendations of 1993 SNA and in consultation with the Advisory Committee on National Accounts Statistics, the data on expenditures made on net acquisition of valuables on precious items like gold, gems, ornaments and precious stones etc, has been included under GCF, as a separate category under “produced fixed assets” (separately from the GFCF and Change in Stocks).

As per SNA 1993 (Page308), valuables are classified as given below.

- *Precious metals and stones that are not held for use as inputs into production processes;*
- *Other valuables such as collections of jewelry of significant value fashioned out of precious stones and metals; and*
- *Antiques and other art objects such as paintings and sculptures.*

4.29 In the new series the coverage of valuables has been restricted to include the precious articles with HS codes 7102 (diamonds), 7103 (other gems and stones), 7106 (silver), 7108 (gold), 7110 (platinum), 7113 and 7114 (gold and silver ornaments), keeping in view the data availability. The total production of valuables and net imports has been taken into for compiling the estimates of valuables. Since these valuables also have industrial use, norms of 5% and 90%, respectively for gold and silver, have been used, to arrive at the estimates on acquisition of these items as store of value. Suitable adjustments have been made on the export data on valuables to account for value addition done in the country, so that imports and exports on valuables are on comparative quantity terms. The monetary gold was not regarded as ‘Valuables’.

4.30 The estimated purchases of jewellery and ornaments by the households reported in the NSS 55<sup>th</sup> round survey on consumer expenditure has been treated as ‘Valuables’ and the same has not been accounted under PFCE in the new series.

### **Gross capital formation by industry of use**

4.31 The Gross capital formation estimates are prepared for each industry group by aggregating the GFCF and CIS estimates, which are prepared separately. Broadly, institution wise estimates of GFCF are prepared wherever possible and aggregated to arrive at the industry level estimate. Data from budget documents and books of accounts are used in compiling the estimates of Public and Private Corporate Sector. However, for

the household sector for some specified items, bench mark results obtained from various NSSO surveys and growth rates in GVO, GVA etc are used to obtain the GFCF estimates. The overall revision in GFCF by industry of use for the year 1999-2000 has been from Rs. 3,44,532 crore in the 1993-94 series to Rs. 4,57,238 crore in the new series. The GFCF estimates obtained from commodity flow approach for the entire economy have been taken as firmer estimates and the industry wise GFCF estimates for Private Corporate and Household Sectors compiled by the expenditure method, have been adjusted proportionately with the estimates compiled by institutions through the commodity flow approach. Details on GFCF and CIS,1999-2000 are given below:

**Table 30: GFCF by industry of use, 1999-2000**

(Rs. crore)

Industry	GFCF		Change in Stocks		GCF		Diff
	Old	New	Old	New	Old	New	GCF
1. agriculture & allied	29,492	46,375	2,816	3776	32308	50,151	17,843
1.1 agriculture	25,363	39,724	2,789	3,749	28,152	43,473	15,321
1.2 forestry and logging	975	1,024	27	27	1,002	1,051	49
1.3 fishing	3,154	5,627	0	0	3,154	5,627	2,473
2. mining & quarrying	9,901	10,007	-1,035	-1,358	8,866	8,649	-217
3. manufacturing	1,19,919	1,42,211	30,123	29,230	1,50,042	1,71,441	21,399
3.1 registered	94,365	96,961	29,361	29,492	1,23,726	1,26,453	2,727
3.2 unregistered	25,554	45,250	762	-262	26,316	44,988	18,672
4. elec., gas & WS	35,811	38,914	-1,556	-1,513	34,255	37,401	3,146
5. construction	6,371	10,210	-3,619	-3,409	2,752	6,801	4,049
6. trade, hotels & rests.	9,367	12,517	9,088	9,088	18,455	21,605	3,150
6.1 trade	6,621	9,601	8,764	8,764	15,385	18,365	2,980
6.2 hotels & restaurants	2,746	2,916	324	324	3,070	3,240	170
7. trans., storage, commn	41,320	54,235	-455	-428	40,865	53,807	12,942
7.1 railways	5,121	5,121	186	186	5,307	5,307	0
7.2 other transport	22,044	32,202	-772	-772	21,272	31,430	10,158
7.3 storage	227	255	126	152	353	407	54
7.4 communication	13,928	16,657	5	6	13,933	16,663	2,730
8. financing, insurance, etc	49,104	80,952	169	2,043	49,273	82,995	33,722
8.1 banking and insurance	7,087	7,139	169	170	7,256	7,309	53
8.2 real estate, etc.	42,017	73,813	0	1,873	42,017	75,686	33,669
9. community services	43,247	61,817	828	2,027	44,075	63,844	19,769
9.1 public admn. & defence	27,690	34,415	252	1,408	27,942	35,823	7,881
9.2 other services	15,557	27,402	576	619	16,133	28,021	11,888
10. GCF unadjusted	3,44,532	4,57,238	36,359	39,456	3,80,891	4,96,694	1,15,803
11. Valuables						15,519	15,519
12. GCF unadj. (10+11)	3,44,532	457,238	36359	39456	3,80,891	5,12,213	131,322
13. GCF adjusted					4,90,669	5,09,289	18,620
14. difference (13-12)					1,09,778	-2,924	-112,702

***Agriculture***

4.32 In the new series, estimates of the GFCF in respect of farm business in the household sector are based on the results of the AIDIS 1991-92, as the latest results of AIDIS, 2002-03 are not yet available. The governments' capital transfers to the agricultural households (purpose item no 8.2) have also been accounted for in the new series. The coverage of plantation crops has been extended to seven more crops instead of 3 crops in the earlier series. These changes have resulted in an upward revision in the estimate for the year 1999-2000 for the whole sector to Rs. 39,724 crore as against Rs. 25,363 crore in the 1993-94 series.

***Mining and quarrying***

4.33 Under Household Sector for minor minerals, the Enterprise Survey results for the year 1992-93 are used. For compiling the estimate of GFCF for other years, the revised output of this part of the sector has been applied on the bench mark level GFCF output ratio estimate. The estimate of GFCF for the year 1999-2000 is estimated as Rs. 10,007 crore in the new series as against Rs. 9,901 crore in the 1993-94 series.

***Registered manufacturing***

4.34 The estimates of GFCF are prepared separately for each of the three institutional sectors, namely, public sector, private corporate sector and household sector. While the estimates for the public sector are from the budget documents, those of private corporate sector are on the basis of data provided by the RBI on joint stock companies. The estimates for the household sector are compiled from the results of Annual Survey of Industries (ASI) in respect of units under individual proprietorship, joint family and partnership factories. While current data is available for public and private corporate sectors, those of household are prepared from the ASI for the benchmark years and for the subsequent years, the benchmark data is extrapolated with the growth rate observed in the output of registered manufacturing. For the new series, the ASI, 1999-2000 results have been adopted.

***Unregistered manufacturing, construction, trade and other transport***

4.35 For these four industries, namely (i) unregistered manufacturing, (ii) household construction, (iii) trade and (iv) transport other than Railways, the ratios of capital to output is used to estimate the GFCF. In the construction sector, the ratio of output to capital stock for the year 1998-99 has been used and the difference in successive estimates of capital stocks gives the estimate of GFCF. For the other three sectors, the GVA to capital stock ratios of 1998-99 have been used.

***Electricity, gas and water supply***

4.36 The capital investment made in the bio-gas plants has been continued to be covered in the new series by estimating the same with the data available from the Ministry of Non-Conventional Energy Resources. In respect of water supply, the capital transfers from government to corporations for the purposes of water supply (purpose item no. 8.4) have been taken as fixed capital formation in the new series. The capital expenditure incurred in the installation of wind energy systems has been estimated separately using the NABARD data on cost structures and year wise installation capacities data released by the M/o Non-Conventional Energy Resources. For this purpose, wind mills, aero generators and wind turbines have been considered. The total capital expenditure estimated by this method has been distributed to the three institutional sectors, and by type of assets. These changes in the methodology have resulted in an

upward revision in the estimates of GFCF of the sector from Rs. 35,811 crore in the old series to Rs. 38,914 crore in the new series in 1999-2000.

#### ***Hotels and restaurants***

4.37 For the household part of this sector, the bench mark GFCF estimate has been prepared using the data available from the enterprise survey, 1993-94. For subsequent years, the benchmark estimates have been extrapolated with the growth rate in the number of enterprises (obtained from the results of enterprise surveys 1988-89 and 1993-94) to obtain the GFCF estimate at constant prices. The WPI of construction and machinery has been used to arrive at GFCF estimate at current prices.

#### ***Communication***

4.38 The estimates of GFCF for private sector have been prepared using the ratio of GFCF to GVA of public sector.

#### ***Financing, real estate, ownership of dwellings and business services***

4.39 The data obtained from AIDIS, 1991-92 in respect of 'Ownership of dwellings' is continued to be used as AIDIS, 2002-03 results are not yet available. The governments' capital transfers to the households under this sector have also been accounted for in the new series.

#### ***Public administration and defence***

4.40 The GFCF by type of assets for public sector is from the budget documents.

#### ***Other services***

4.41 The results of Enterprise survey, 1991-92 on other services in the un organised sector have been made use of in the case of services other than educational and medical services. The estimates of GFCF of quasi-government bodies of private scientific and research services not elsewhere classified have also been taken into account in the new series. As a result of these changes for the year 1999-2000, the new series estimate for the sector is Rs. 27,402 crore, as against the old series estimate of Rs. 15,557 crore for the year 1999-2000.

#### ***Change in stocks by industry of use***

4.42 The estimates of change in stock (CIS) at current prices (CP) and Constant Prices (KP), and of inventory at CP and KP are being compiled for all three institutional sectors (public sector, private corporate sector and household sector) and for each industry, separately. These are estimated first for each of the three institutional sectors separately within the industry activity and the industry level CIS and inventory estimates are obtained by combining them.

4.43 For the public sector, the data on CIS / book value of the inventory for the current year are obtained from budget documents and books of accounts. For private corporate sector, the data on CIS estimates are obtained from the RBI which in turn compiles the same through detailed analysis of profit and loss accounts and balance sheets of the selected companies. For cooperative sector, the data is obtained from the NABARD. For the Household Sector, the bench mark level data is collected from various surveys conducted by the NSSO on working capital, GVA, GVO. The GVO/ GVA ratios with the inventory are used to arrive at the current years estimates of inventory / CIS. Appropriate price indices are also used for constant price estimation.

4.44 For some institutional sub sectors, namely government administration, DCUs and NDCUs, only book value estimates of inventory for the current year are obtained and using the concerned inventory estimate of the previous year and relevant WPI estimates, the inventory estimates and CIS estimates are prepared both at KP and CP for the current year. For some other institutional sub sectors, CIS estimates at CP are directly available and inventory estimates and CIS estimates both at CP and KP are prepared. WPI index for the appropriate industry group is used to convert CP estimates to KP estimate and vice versa in a specific industry. Wherever, an appropriate WPI is not available, WPI of all commodities is used.

4.45 In the current series there was no major change effected in the methodology for compilation of change in stock estimates of private corporate sector and household sector except in agriculture industry, where in case of livestock, the methodology has been slightly modified for two species of cattle and donkeys. In fact for poultry and piggery, the entire change in population has been taken as CIS, whereas for other 15 species only that proportion of the species which is not used as capital asset (breeding, dairying and as draught animal) is considered for compilation of the CIS estimate. In public sector, the methodology for compilation of CIS has been slightly modified from the previous series. In the 1993-94 series, a specified norm was applied for estimating the book value of inventory during the year incase of administration and DCUs sub institutional sectors, whereas the actual value has been obtained from the budget and books of accounts for the new series.

4.46 Table 31 below gives the institutional wise break up of the estimates of CIS for the year 1999-2000 along with the old series estimates and difference.

**Table 31: Estimates of Change in Stocks, 1999-2000**

(Rs. crore)

Institutional sector	1993-94 Series	New Series	Difference
(i) Public Sector	14,095	17,197	3,102
(a) Administration	252	3,752	3,500
(b) DCUs	353	127	-226
(c) NDCUs	13,490	13,499	9
(ii) Private corporate sector	16,063	16,063	0
(a) Joint stock Companies	10,283	10,283	0
(b) Cooperatives	5,780	5,780	0
(iii) Household Sector	6,201	6,196	-5
<b>(iv) Grand Total</b>	<b>36,359</b>	<b>39,456</b>	<b>3,097</b>

4.47 The overall estimate of CIS for the year 1999-2000 in the new series for public, private corporate and household sectors are Rs. 17, 197 crore, Rs. 16, 063 crore and Rs. 6,196 crore, respectively, as against the old series estimates of Rs. 14,095 crore, Rs. 16,063 crore and Rs. 6,201 crore, respectively.

### **Saving**

4.48 The estimates of domestic saving are prepared separately for three institutional sectors namely, household, private corporate and public. In the new series, income accrued to households but not paid on account of investment to the units of Unit Trust of India (UTI) has been included in the estimates of households' saving in the form of shares and debentures. Earlier the same was being treated as saving of UTI and included under



public sector. Household investment in the life funds of private insurance companies has also been included in its saving since the year 2002-03. The saving in provident fund has undergone revision due to incorporation of data in respect of provident fund contributions of local authorities. The data on households' net deposits have also been revised downward due to revision in the deposits with non-banking companies and advances by co-operative societies to households. All these have contributed to an increase of Rs. 859 crore in the financial savings of household sector in the year 1999-2000. The households' savings in physical assets has been revised upward by Rs.11,466 crore due to revisions in the capital formation estimates. These changes have increased the savings of household sector by Rs.12,325 crore for the year 1999-2000 in the new series.

4.49 The Estimates of reinvested earnings of foreign companies, a component of foreign direct investment (FDI) in India has been excluded from the saving of private corporate sector and included in the property and entrepreneurial income from the rest of the world. The same, now, forms part of net factor income from the rest of the world in the new series. Also, there is an upward revision in the estimates of gross saving of co-operative societies and quasi corporate bodies on account of availability of fresh data on co-operative societies and revision of consumption of fixed capital (CFC). The estimates of saving of private corporate sector have thus been revised for the year 1999-2000 from Rs. 84,329 to Rs. 87,234 crore, in the new series.

4.50 The saving of public sector has also been revised due to exclusion of undistributed profit accrued to the unit holders from the saving of UTI and inclusion of estimates of saving of Kerala Water Authority and Indraprastha Gas Limited under Non departmental commercial undertakings. The undistributed profit of UTI accrued to the unit holders has now been included under household sector. The savings of Public authorities have been revised due to segregation of current and capital expenditures from "Office expenses and treatment of losses of departmental enterprises as subsidies. The dissaving of public sector has thus decreased from (-) Rs. 20,049 crore to (-) Rs.16,659 crore for the year 1999-2000 in the new series.

4.51 Table 32 and 33 present the gross domestic saving (GDS) and net domestic saving (NDS) by institutional sectors for the years 1999-2000 to 2002-03 as per 1993-94 series and new series. The estimates of GDS are higher in all the years in the new series. As in the case of gross saving, the estimates of net domestic saving have also been revised. However, the revisions are comparatively less because of the upward revisions in the estimates of consumption of fixed capital (CFC). Thus, for example there is an upward revision to the extent of Rs. 18,620 crore in GDS for the year 1999-2000. However, due to the upward revision of CFC estimates by Rs. 4,290 crore, the NDS has increased only by Rs.14,330 crore in the new series for the year 1999-2000.

**Table 32: Estimates of GDS by Institutional Sectors, 1999-2000 to 2004-05**

(at current prices)

(Rs. crore)

Sector	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
<b>1. Public Sector</b>						
1993-94 series	-20,049	-48,361	-61,912	-26,652	-9,429	
New Series	-16,659	-37,062	-46,377	-16,181	28,026	69,390
Difference*	3,390	11,299	15,535	10,471	37,455	
<b>2 Private Corporate Sector</b>						

Sector	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1993-94 series	84,329	86,142	81,076	94,269	1,14,157	
New Series	87,234	87,017	81,669	99,767	1,20,852	1,50,947
Difference*	2,905	875	593	5,498	6,695	
<b>3. Household Sector</b>						
<b>3.1 Financial Saving</b>						
1993-94 series	2,05,743	2,16,774	2,53,964	2,54,439	3,14,261	
New Series	2,06,602	2,15,219	2,47,476	2,53,256	3,16,444	3,20,777
Difference*	859	-1,555	-6,488	-1,183	2,183	
<b>3.2 Saving in Physical Assets</b>						
1993-94 series	1,98,658	2,35,494	2,59,146	3,20,242	3,57,431	
New Series	2,10,124	2,31,098	2,55,198	3,12,152	3,32,190	3,66,302
Difference*	11,466	-4,396	-3,948	-8,090	-25,241	
<b>4. Total Economy</b>						
1993-94 series	4,68,681	4,90,049	5,32,274	6,42,298	7,76,420	
New Series	4,87,301	4,96,272	5,37,966	6,48,994	7,97,512	9,07,416
<b>Difference*</b>	<b>18,620</b>	<b>6,223</b>	<b>5,692</b>	<b>6,696</b>	<b>21,092</b>	

\*estimates of new series minus 1993-94 series

**Table 33: Estimates of NDS by institutional sectors, 1999-2000 to 2004-05**  
(at current prices)

(Rs. crore)

Sector	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
<b>1. Public Sector</b>						
NAS-2005	-91,920	-1,24,612	-1,44,613	-1,14,307	-1,03,881	
New Series	-90,020	-1,14,675	-1,30,118	-1,04,509	-66,881	-37,285
Difference*	1,900	9,937	14,495	9,798	37,000	
<b>2. Private Corporate Sector</b>						
NAS-2005	35,655	30,579	22,920	31,489	46,747	
New Series	45,407	39,336	28,235	42,551	58,274	78,508
Difference*	9,752	8,757	5,315	11,062	11,527	
<b>3. Household Sector</b>						
<b>3.1 Financial Saving</b>						
NAS-2005	2,05,743	2,16,774	2,53,964	2,54,439	3,14,261	
New Series	2,06,602	2,15,219	2,47,476	2,53,256	3,16,444	3,20,777
difference*	859	-1,555	-6,488	-1,183	2,183	
<b>3.2 Saving in Physical Assets</b>						
NAS-2005	1,36,844	1,69,413	1,82,324	2,37,725	2,65,656	
New Series	1,38,663	1,53,660	1,71,212	2,22,094	2,33,105	2,50,658
difference*	1,819	-15,753	-11,112	-15,631	-32,551	
<b>4. Total Economy</b>						
NAS-2005	2,86,322	2,92,154	3,14,595	4,09,346	5,22,783	
New Series	3,00,652	2,93,540	3,16,805	4,13,392	5,40,942	6,12,658
<b>Difference*</b>	<b>14,330</b>	<b>1,386</b>	<b>2,210</b>	<b>4,046</b>	<b>18,159</b>	

\*estimates of New Series minus 1993-94 series

### ***Rates of gross/ net saving***

4.52 Table 34 presents the rates of GDS and NDS. The rates are worked out as a percentage of Gross/Net domestic saving to the GDP/NDP at current market prices. It can be seen that the rates of saving as per new series are consistently higher as compared to 1993-94 series. The absolute amount of Gross/Net domestic saving as well as Gross/Net

Domestic Product at market prices has gone up for all the years. As such there is not much increase in the rate of saving in the new series as compared to 1993-94 series except in the years 1999-2000 and 2003-04 where increase in the saving is comparatively more than that of other years.

**Table 34: Rates of Gross/Net Domestic Saving, 1999-2000 to 2004-05**  
(at current prices)

*(percent)*

Year	Gross Domestic Saving			Net Domestic Saving		
	1993-94 series	New Series	Difference (3) – (2)	1993-94 series	New Series	Difference (6) – (5)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1999-00	24.2	24.9	0.7	16.3	17.0	0.7
2000-01	23.5	23.5	0.0	15.4	15.4	0.0
2001-02	23.4	23.6	0.2	15.3	15.4	0.1
2002-03	26.1	26.5	0.4	18.4	18.7	0.3
2003-04	28.1	28.9	0.8	20.9	21.6	0.7
2004-05		29.1			21.7	

#### ***Rate of gross/net capital formation***

4.53 Table 35 presents the rates of gross and net capital formation for the years 1999-2000 to 2003-04 for the two series. The rates are worked out as a percentage of Gross/net domestic capital formation to the GDP / NDP at current market prices. The estimates of domestic capital formation for this purpose are obtained from funds flow approach and are equivalent to the domestic saving plus the net inflow of capital from rest of the world. It can be observed that these rates also broadly follow a similar pattern as that of the rates of the domestic saving discussed above.

**Table 35: Rates of gross and net capital formation, 1999-2000 to 2004-05**  
(at current prices)

*(percent)*

Year	Gross Domestic Capital Formation			Net Domestic Capital Formation		
	1993-94 series	New Series	Difference	1993-94 series	New Series	Difference
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1999-00	25.3	26.0	0.7	17.6	18.2	0.6
2000-01	23.8	24.2	0.30	15.9	16.1	0.2
2001-02	22.6	23.0	0.4	14.4	14.7	0.3
2002-03	24.8	25.3	0.6	16.9	17.4	0.5
2003-04	26.3	27.2	0.9	18.9	19.8	0.9
2004-05	-	30.1		-	22.8	

## **5. TRANSACTIONS OF PUBLIC SECTOR**

### **Non-departmental commercial undertakings (NDCUs)**

5.1 In the new series, changes both in the coverage and estimation procedures have been made in the compilation of national income aggregates for non-financial and financial Sectors of NDCUs. These are discussed in the following paragraphs.

### *Non-financial NDCUs*

5.2 The national income aggregates in respect of industries, electricity, gas and water supply sector, relating to NDCUs have been revised to the extent of inclusion of estimates of Kerala Water Authority (KWA) and Indraprastha Gas Pvt. Ltd.(IGPL).

#### Electricity, gas and water supply

5.3 In the new series, Kerala Water Authority (KWA) has been included under the coverage of NDCUs. It is the only NDCU under the industry 'water supply'. The KWA was notified on 30<sup>th</sup> December 1992 as an Autonomous Authority by the Government of Kerala, vide Gazette Notification No. 19615/Leg. C2/92/Law. It was declared as a market producer, necessitating its inclusion as an NDCU of 'water supply' sub-sector.

5.4 In the 1993-94 series, Gas Authority of India Ltd.(GAIL) was the only central company in the public sector which was engaged in the transmission of natural gas. In the new series, a new State PSU, Indraprastha Gas Pvt. Ltd. (IGPL) has been included in the Gas sector. The activity of the sector has been expanded to include transmission of Compressed Natural Gas (CNG) and Piped Natural Gas (PNG).

5.5 The methodology for estimation of macro-aggregates for these units has been the same as that followed for any other NDCU. The contribution of these two undertakings in the GVA has been estimated at Rs. 73 crore in 1999-2000.

### *Financial NDCUs*

5.6. The estimates of GDP for the banking and insurance sector have changed significantly due to the change in the methodology adopted for the new series. However, there has not been much overall impact on the national level estimates of GDP, due to the corresponding reduction in the Financial Intermediation Services Indirectly Measured (FISIM), as the same has lead to higher GDP of user industries.

#### GVA from mutual funds (MFs)

5.7 The Unit Trust of India is considered as a financial intermediary. In the 1993-94 series, the imputed value of services in respect of UTI was estimated in the same manner as that of banks and other financial intermediaries. The income side represents the income from assets, namely, equity as well as debt instruments. This income includes income from dividend, interest and profit on sale/redemption of investment. Since, MFs do not work on deposits of other sectors, the interest payments are either nil or negligible. The MFs work on the funds raised by collective investments made by its unit holders. Hence, the major returns to unit holders/shareholders are dividends, unlike the interest payments in the case of banks. The subtraction of only interest paid in the 1993-94 series (being insignificant in MFs) had resulted in an output of the MFs, which was not an appropriate measure of its implicit output, as the entire property income becomes the implicit output.

5.8 In the new series the imputed value of services of UTI has been calculated as total income on account of dividend, interest, profit on sale/redemption of investment minus interest, dividend paid to the unit holders and undistributed profit.

### Non-government non-banking financial companies (NGNBFCs)

5.9 In the 1993-94 series, the current price estimates of GVA and FISIM of this sub-sector were prepared by analysing the data on income, expenditure and profits provided in the RBI sample study on “Performance of non-government financial and investment companies” published annually. The GVA for the population (excluding two major NBFCs namely, ICICI (prior to 2002-03) and HDFC) was obtained by blowing up the sample estimate. The ratio of the paid up capital of the population to the paid up capital of the sample formed the blowing up factor. The accounts of two major companies in the NGNBFCs sector, namely, ICICI and HDFC were analysed separately and their GVA was subsequently added. However, it may be noted that the ICICI Ltd has merged later with the ICICI Bank in the year 2002-03, hence now only the GVA of HDFC is estimated separately.

5.10 The sample study publication of RBI presents the data for three consecutive financial years for a common set of companies. Thus, for a particular year, three different estimates of GVA can be derived based on the successive sample studies. However, it has been observed that at times, the results of the study for a financial year vary considerably and therefore, have a bearing on the estimates of GVA and other aggregates. Further, the Quick Estimates of GDP (which are released with 10 months time-lag) are prepared by applying the growth rate observed in the paid up capital of these sample companies to the GDP estimate of the previous year. It has been observed that growth rate based on PUC is always positive, while the sector itself may actually have a negative growth. Such situations give scope for arbitrariness in using a particular set of estimates.

5.11 In the new series, current price estimates of GVA of NGNBFCs have been prepared using the RBI studies of a particular year appearing in 3 studies. The pooling of the sample companies has been done to get a more stable estimate. For the Quick Estimates, the present methodology remains unchanged as no study is available for that year.

### Banking department of RBI

5.12 In the 1993-94 series, volume index prepared on the basis of deflated aggregate deposits and credits of all scheduled commercial banks was used to move the base year GVA, for arriving at the constant price estimates of the Banking department of RBI. However, it has been observed that income of the RBI in the recent years is negative, as large part of its earnings is from foreign securities, which are out of the preview of GVA. Hence, the current price GVA of RBI’s banking department is becoming negative in the recent years, whereas due to the method of moving the base year estimates by deflated aggregate deposits and credits of all scheduled commercial banks, the estimates of GVA at constant prices had been positive, thus resulting in an anomalous situation due to mismatch between current and constant price GVA estimates of the activity.

5.13 In the new series, the implicit price indices, as observed from current and constant price GVA estimates of commercial banks have been used to deflate current price estimates of GVA of Banking Department of RBI, to arrive at the constant price estimates of GVA for the Banking Department of RBI.

### Life insurance

5.14 In the 1993-94 series, estimates of GVA for the activity at constant prices were prepared as cumulative amount of sum assured + bonuses and life fund at the end of the year, provided in the annual reports of LIC, deflated separately with the help of WPI. Two volume indices were constructed separately and averaged (simple average) to get a combined volume index. This combined Volume Index was used to move the base year value added of life insurance for subsequent years.

5.15 In the new series, the annual changes in the life fund and sum assured, have been deflated to get a volume index for these two separately. The simple average of two indices, one each for life fund and sum assured, thus prepared has been combined to get the volume index for moving the base year estimates of GVA of life insurance to obtain the estimates of GVA for subsequent years, at constant prices.

### Changes in allocation of FISIM

5.16 Due to the change in the methodology of estimation of GDP of UTI and NBFIs, there are consequential changes in the allocation of FISIM to user industries and households.

5.17 Based on the changes discussed in the earlier paragraphs, the new series estimates of banking and insurance sector at current and constant prices are given in Table 36.

**Table 36: Estimates of GDP - Banking and Insurance, 1999-2000**  
(Rs. crore)

S. No.	Sector/Sub Sectors	1993-94 Series	New Series	Change
<b>1</b>	<b>Gross Domestic Product</b>	<b>1,19,075</b>	<b>1,05,662</b>	-13,413
<b>1.1</b>	<b>Banking</b>	<b>1,07,527</b>	<b>94,114</b>	-13,413
1.1.1	Banks	40,485	40,485	0
1.1.2	Banking Deptt. of RBI	10,875	10,875	0
1.1.3	Post office saving banks	745	745	0
1.1.4	Non-banking financial cos. & Corpn. incl. UTI	50,877	34,088	-16,789
1.1.5	Co-op. credit societies	4,304	7,733	3,429
1.1.6	E.P.F.O.	241	188	-53
<b>1.2</b>	<b>Insurance</b>	<b>11,548</b>	<b>11,548</b>	0
1.2.1	Life insurance	5,930	5,930	0
1.2.2	Postal life insurance	75	75	0
1.2.3	Non-life insurance	5,543	5,543	0

### Administrative departments, departmental enterprises, and quasi-government bodies

5.18 Estimates in this sector are mainly based on the analysis of Central and State governments' budget documents. The expenditures on various items are reckoned

according to economic and purpose classification. Significant improvements brought out in the new series are as follows:

#### ***Adoption of detailed purpose classification***

5.19 In the new series, a new purpose classification has been adopted as per recommendations of 1993 SNA and Government Finance Statistics (GFS), 2001. The new classification gives expenditure pattern in terms of 52 detailed descriptions as against 19 of earlier series, as indicated in *Annex-III*.

#### ***Changes in economic classification***

##### **Identification of capital expenditure incurred under object head office expenditure**

5.20 It has been observed that some capital expenditure is being incurred for procurement of machinery and equipments like furniture, photocopiers, computer hardware, software and other accessories under the object head, office expenditure. In consultation with some states as well as central government departments, it has been observed that this expenditure is around 25 % of total office expenditure. Out of this, 10% is on machinery outlay, 2% is on software outlay and the remaining 13% is other capital outlay. Assuming such expenditure has gone up along with IT expansion over the years, the ratio for IT is considered to be 13, 15, 17 and 20 *per cent* in the years 1999-00 to 2002-03 respectively (However, it is expected that in future data on expenditures on IT will be available separately from the budget documents). In the old series, this expenditure was treated as purchase of commodities/services and thus formed part of consumption expenditure. Due to the proposed treatment of 'office expenditure' in the new series (to treat part of this as capital expenditure), there is fall in the estimated consumption expenditure with corresponding increase in the estimates of saving and Gross Fixed Capital Formation (GFCF). The upward revision of GFCF estimates has also resulted in an upward revision of estimates of consumption of fixed capital (CFC) and thus, the GVA of public administration and defence (which is sum of salaries and wages and CFC). However, there is no change in the estimates of NVA.

##### **Inclusion of data in respect of some government schemes like Indira Awaas Yojana (IAY), Prime Minister Grameen Sadak Yojana (PMGSY), Rural water supply and sanitation programme (RWSP) in the GFCF**

5.21 In the old series, the outlays on IAY & PMGSY were taken as other capital transfers and not analyzed for inclusion in the Gross fixed capital formation (GFCF) of the Administrative Departments of the government. These schemes are basically aimed at improving the rural infrastructure. The entire 100% outlay of IAY is for construction of houses for the people below poverty line and the entire outlay of PMGSY is for construction of link roads for rural villages. Like wise 100% of outlay on RWSP is intended for improving infrastructure of local bodies. In 1999-2000, a total outlay of Rs. 2079 crores was allocated for the above 3 schemes. In the new series these expenditures are included under GFCF.

##### **Analysis of schemes like Sarva Shiksha Abhiyan (SSA), District Primary Education Programme (DPE) and Mid-day meal scheme (MDM).**

5.22 In the old series, outlays on above three plan schemes were taken as other current transfers and therefore consumption expenditure or capital formation taking place with

the use of funds from these schemes were not accounted for. Central components of these schemes are basically to improve the elementary education by recruiting more teachers and improving infrastructure of schools by construction of new buildings, shades, laboratories etc. In 1999-2000, a total outlay of Rs.2180 crore was allocated for above three schemes as central components. Department of Elementary Education hinted that in the case of DPE and SSA, nearly 40% of funds are spent on salaries, 50% for construction of buildings, 5% for purchase of commodities and 5% on maintenance. Therefore 50% of DPE and SSA are covered in GFCE and remaining 50 % is earmarked to GFCF. On the other hand 100% of MDM scheme is covered under GFCE. As a result of this analysis, GDP, GFCE, GFCF and Savings have gone up.

### *Imputed Subsidies*

5.23 In the old series, operating losses of Departmental Enterprises in electricity, manufacturing, transport etc., with the exception of irrigation, were treated as negative operating surplus. The Departmental Enterprises incur losses as a result of government policies on pricing of the final products. Such losses due to charging non-market prices for the products have been treated as imputed subsidies in the New Series, as per the 1993 SNA recommendations. As a result, the subsidies have gone up by Rs. 8,470 crore in 1999-00 resulting in higher estimates of GDP.

5.24 As a result of changes mentioned above in the analysis, the base year estimates of the new series have undergone changes as under:

**Table 37: Estimates of various aggregates in public administration and defence, 1999-2000**

*(Rs. in crore)*

	<b>GDP</b>	<b>Subsidies</b>	<b>GFCE</b>	<b>GFCF</b>	<b>CFC</b>	<b>Savings</b>
<b>1993-94 series</b>	1,16,686	46,585	2,51,109	27,690	9,660	-85,052
<b>New series</b>	1,19,671	55,055	2,52,285	34,661	12,635	-75,132
<b>Difference</b>	2,985	8,470	1,176	6,971	2,975	9,920

\*\*\*