

## CAPITAL STOCK AND CONSUMPTION OF FIXED CAPITAL

### Introduction

- 26.1 Capital stock of a country is broadly referred to as that part of national wealth which is reproducible; it consists of all resources which contribute to the production of goods and services. The changing relationship between output and capital stock is an important aspect of the study of changes in productive efficiency in the various industries of a developing economy. Firm estimates of capital stock enhance the ability to associate capital formation with economic growth and to project future production possibilities, thereby leading to formulation of policies designed to achieve the desired economic objectives. These also provide a firm basis for estimating capital consumption needed to arrive at the estimates of various macro-economic aggregates on net basis.
- 26.2 Present estimates of capital Stock are based on the recommendations of the Advisory Committee on National Accounts, working Group on saving, set up by the Govt. of India in May 1981 under the chairmanship of Prof. K.N. Raj, and Expert Group on Saving & Capital Formation appointed in 1995 under the chairmanship of Prof. Raja J. Chelliah. In pursuance of their recommendations, studies on the construction of life-table of assets and estimation of Net Fixed Capital Stock (NFCS) using Perpetual Inventory method (PIM) were initiated in the National Accounts Division (NAD). The NAD concentrated its efforts to prepare firm estimates of capital stock as on 31 March, 1981 so that the corresponding estimates of Consumption of Fixed Capital (CFC) based on these estimates could be prepared for use in the series with base 1980-81 and also for subsequent series. To begin with, the estimates of NFCS were attempted by type of institution, i.e., public sector, private corporate sector and household sector. These estimates were, however, deficient in as much as the private non-profit institutions were not covered for want of data. The NAD in its subsequent exercise constructed life-table of assets, separately for the public and private sectors and prepared the estimates of NFCS by industry of use. It may be useful to mention that the estimates prepared by NAD as early as in 1981 were compiled by carrying forward the bench mark estimates of NFCS at the end of 1949-50, available in the paper entitled "*An Estimate of the Reproducible Tangible Wealth of India*", *Review of Income and Wealth, Series VIII*. by M. Mukherjee and N.S.R. Sastry (1959). The conceptual details and the method of estimation used in working out the estimates are discussed in the following paragraphs.
- 26.3 **Concepts of capital stock and consumption of fixed capital**  
The guidelines issued by the United Nations Statistical Office (UNSO) in 1977 defined the national wealth as 'total of various kinds of net tangible and intangible non-financial assets of residents, plus financial claims on non-residents less financial liabilities to non-residents'. Tangible assets have been further classified into (i) reproducible tangible assets (i.e., capital stock) comprising fixed assets and stocks (i.e., inventories) and (ii) non-reproducible tangible assets comprising land, timber tracts and forests, sub-soil assets & extraction sites, fisheries and historical monuments. The reproducible fixed tangible assets (i.e., fixed assets used for the production of goods & services) commonly known as fixed capital stock comprise assets in the form of residential buildings, non-residential buildings, dams, irrigation & flood control projects, other construction works, transport equipment, machinery and equipment, breeding stock, draught animals, dairy cattle and the like, and capital expenditure on land improvement, plantations, orchard developments and afforestation. The fixed assets include uncompleted construction assets also. The stocks include the inventories of goods producing industries, trade, other industries and stocks of government services. These comprise stocks of finished and semi-finished goods and young livestock except breeding stock, dairy cattle and the like which form part of the fixed assets. However, the durable goods in the hands of households which are not used for further production of goods and services such as automobiles, refrigerators, washing machines, furniture, sewing machines, etc., as well as fixed assets mainly meant for defence purposes such as warships, fighter aircrafts and war materials do not form part of the fixed capital stock as these are assumed to have been consumed as soon as they are purchased. However, the construction works undertaken by the households including buildings and capital expenditure on residential dwellings for defence personnel, border roads, ordnance factories etc., form part of the fixed capital stock. The details of various types of assets which constitute reproducible and non-reproducible wealth are given in *Appendix 26.1*.

- 26.4 As per SNA 1993 (Para 6.199) gross capital stock is the value of all fixed assets still in use at the end of an accounting period, at the actual or estimated current purchasers' prices for new assets of same type, irrespective of age of the assets. The net or written-down values of all the fixed assets is equal to the actual or estimated current purchaser's price of new assets of same type less the cumulative values of consumption of fixed capital accrue up to that point in time. CFC is the cost of production. It may be defined in general terms as the decline, during the course of the accounting period, in the current value of the stock of fixed assets owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage. It excludes the value of fixed assets destroyed by acts of war or exceptional events such as major natural disasters which occur very infrequently. Its value may deviate considerably from depreciation as recorded in business accounts. Thus CFC, in short, can be defined as that part of gross product which is required to replace fixed capital used up in the process of production during the period of account. This flow is based on the concept of economic life time of the individual assets.
- 26.5 CFC is calculated for all fixed assets i.e. tangible and intangible fixed assets owned by producers except the following cases:
- ✚ Valuables (precious metals, precious stones etc.).
  - ✚ Depletion or degradation of the non-produced assets such as land, mineral, etc.
  - ✚ Livestock.
- Perpetual inventory method**
- 26.6 SNA 1993 recommends that the estimates of CFC should be compiled in conjunction with the estimates of capital stock. These can be built up from the data on gross fixed capital formation in the past combined with estimates of the rate at which the efficiency of fixed assets declined over their service lives. This method of estimation of capital stock and changes in capital stock overtime is known as the perpetual inventory method (PIM). Estimates of CFC are obtained as a by product of the PIM. The various steps involved in PIM are as follows:
- ✚ Assumptions are made about the average length of life of each class of assets separately distinguished;
  - ✚ GFCF is then estimated for each class of assets for 'L' years prior to 'Y', where 'L' is the average life of an asset and 'Y' is the year for which capital consumption and gross stock are to be estimated;
- ✚ Appropriate price indices are to be identified and applied to the estimates of GFCF to convert them to constant prices;
  - ✚ The estimates of GFCF at constant prices are then aggregated for 'L' years to obtain the estimates of GFCS at constant prices at the end of the year;
  - ✚ The GFCS of an asset is then divided by 'L' to obtain the estimate of capital consumption at constant prices;
  - ✚ The price indices are used to convert the estimates of capital consumption to current prices;
  - ✚ The estimates of NFCS (i.e. GFCS for the year 'Y' minus accrued capital consumption during 'L' years) for the year 'Y' are first calculated at constant prices and then converted to current prices using appropriate price indicators; and
  - ✚ Having arrived at the capital stock at the end of the year 'Y', it is maintained year-by-year by the same procedure as outlined above.
- 26.7 The above steps obviously involve collection, compilation and categorization of considerable amount of data on various types of assets and their prices for estimation of fixed capital formation and CFC separately for each class of assets and working out the same at constant prices under certain assumptions about their average life.
- Assumed life of assets**
- 26.8 As mentioned earlier, PIM necessitates the availability of reliable estimates of average age of various types of fixed assets in different industries. However, no life table of fixed assets is currently available in India. Based on extensive discussions held by CSO with the concerned agencies like Ministry of Industry; Railway Board; Bureau of Industrial Costs & Prices; National Productivity Council; Departments of Posts and Tele-communications; Central Road Research Institute; Central Water Commission; Ministry of Shipping, Road Transport and Highways, Indian Roads Congress etc. the requisite information on average age of various assets have been obtained. Data on average life of machine tools in the reports of Censuses of Machine Tools (1968 & 1986) conducted by Central Machine Tools Institute, Bangalore, are also examined. The average life of assets on the basis of depreciation provision under Income-Tax Rules as well as in the Companies (Amendment) Act, 1988 have also been considered. On the basis of

the above materials as well as discussions held with concerned experts, the average life for each type of assets has been estimated. In the case of canals, it has been felt that the current expenditure on repairs and maintenance are sufficient to maintain these assets for a long time. As such no depreciation is provided for such assets. Again at the time of base year revision, elaborate exercise with the latest industry-wise and asset-type wise data relevant for revision of average age of assets is undertaken. Revised estimates of average age by asset type as used for calculation of CFC estimates are presented in the *Appendices 26.2 to 26.5*.

### Method of Estimation

- 26.9 The estimates of net capital stock separately for NFCS and stock of inventories as on 31 March, 1981 and onward and the CFC during each year have been prepared by type of institution and by industry of use for each type of asset. It has not been possible to make adjustment for capital losses.
- 26.10 The estimates of GFCF at industry level available in the NAS at current prices have been converted into constant (1999-2000) prices for all industries and for all types of assets by applying the relevant price indices which are shown in *Appendix 26.6*. In the mathematical formulae, the same can be expressed as following:

i)	$GFCF(Y) = (GFCF(Y_{current}) * 100) / Index(Y)$ Where $GFCF(Y_{current}) = GFCF$ at current prices for year Y, and $GFCF(Y)$ is GFCF at constant prices for year Y
ii)	$GFCF(Y) = GFCF(Y) + GFCF(Y-1) - GFCF(Y-L)$ , if $Y > L$ (life in years)
iii)	$GFCF(Y) = GFCF(Y) + GFCF(Y-1)$ , if $Y < \text{or} = L$ ,
iv)	$CFC(Y) = GFCF(Y) / L$
v)	$CCFC(Y) = CCFC(Y-1) + CFC(Y) - GFCF(Y-L)$ , if $Y > L$
vi)	$CCFC(Y) = CCFC(Y-1) + CFC(Y)$ , if $Y < \text{or} = L$ , where CCFC is cumulative CFC
vii)	$NFCS(Y) = GFCF(Y) - CCFC(Y)$ or
viii)	$NFCS(Y) = NFCS(Y-1) + GFCF(Y) - CFC(Y)$

### Net Fixed Capital Stock

- 26.11 **Public Sector:** Public sector comprises administrative departments, departmental commercial undertakings (DCUs) and

non-departmental commercial undertakings (NDCUs). For each of the sub-sectors industry-wise estimates of NFCS and CFC have been prepared separately. Data on GFCF by different type of assets are compiled on the basis of analyses of budget documents and annual reports of non departmental undertakings.

- 26.12 **Private corporate sector:** This sector comprises public limited companies and private limited companies i.e., companies in the private sector set up under the Companies Act and credit and non-credit co-operative societies. The GFCF estimates as supplied by the RBI have been used for preparing NFCS estimates.
- 26.13 **Household Sector:** This sector comprises household and non-household unincorporated enterprises and non-profit institutions. The estimates of GFCF of household sector as obtained by utilizing bench mark survey results and appropriate indicators / ratios / norms etc or capital-output ratio have been used to derive the NFCS estimates.
- 26.14 The details on compilation of industry-wise estimates of GFCF have already discussed in the chapter on Capital Formation.

### Stock of inventories

- 26.15 In order to estimate the stock of inventories as on 31 March, 1981 and onwards an attempt has been made to compile such estimates by type of institution, i.e., public sector, private corporate sector and household sector within each industry group using available source material. In order to arrive at the estimates of stock of inventory at constant prices, change in stock estimates are revalued utilizing appropriate price index numbers. The method of estimation has been discussed in the chapter 25 on Capital Formation- "Change in Stock".

### Estimates of capital stock

- 26.16 The estimates of NFCS, inventories and net capital stock by type of institution and by industry of use at the overall level and separately for the public sector at current prices and at 1999-2000 prices as on 31<sup>st</sup> March, 2000 and onwards are available in the NAS Statements Nos. 21, 22 and 34. The estimates as on March, 2000 are given in *Table Nos. 26.1 to 26.4*.

**CLASSIFICATION AND DEFINITION OF ASSETS \***

<b>Non-financial assets</b>	Entities, over which ownership rights are enforced by institutional units, individually or collectively, and from which economic benefits may be derived by their owners by holding them, or using them over a period of time, that consist of tangible assets, both produced and non-produced, and most intangible assets for which no corresponding liabilities are recorded.
<b>Produced assets</b>	Non-financial assets that have come into existence as outputs from production processes. Produced assets consist of fixed assets, inventories and valuables, as defined below.
<b>Fixed assets</b>	Produced assets that are used repeatedly or continuously in production processes for more than one year. Fixed assets consist of tangible and intangible fixed assets, as defined below.
<b>Tangible fixed assets</b>	Fixed assets that consist of dwellings; other buildings and structures; machinery and equipment and cultivated assets, as defined below.
<i>Dwellings</i>	Buildings that are used entirely or primarily as residences, including any associated structures, such as garages, and all permanent fixtures customarily installed in residences. Houseboats, barges, mobile homes and caravans used as principal residences of households are also included, as are historic monuments identified primarily as dwellings. Costs of site clearance and preparation are also included.  Examples include products included in Central Product Classification (CPC) a class 5211, residential buildings and CPC group 387, prefabricated buildings, such as one- and two-dwelling buildings and other residential buildings intended for non-transient occupancy. Uncompleted dwellings are included to the extent that the ultimate user is deemed to have taken ownership, either because the construction is on own-account or as evidenced by the existence of a contract of sale/purchase. Dwellings acquired for military personnel are included because they are used, as are dwellings acquired by civilian units, for the production of housing services.
<i>Other buildings and structures</i>	Non-residential buildings and other structures, as defined below. Uncompleted buildings and structures are included to the extent that the ultimate user is deemed to have taken ownership, either because the construction is for own use or as evidenced by the existence a contract of sale/purchase. Buildings and structures acquired for military purposes are included to the extent that they resemble civilian buildings acquired for purposes of production and are used in the same way.
	<i>Non-residential buildings</i> Buildings other than dwellings, including fixtures, facilities and equipment that are integral parts of the structures and costs of site clearance and preparation. Historic monuments identified primarily as nonresidential buildings are also included. Examples include products included in CPC class 5212, non-residential buildings, such as warehouse and industrial buildings, commercial buildings, buildings for public entertainment, hotels, restaurants, educational buildings, health buildings, etc.
	<i>Other structures</i> Structures other than buildings, including the cost of the streets, sewers and site clearance and preparation other than for residential or

	<p>non- residential buildings. Also included are historic monuments for which identification as dwellings or non-residential buildings is not possible and shafts, tunnels and other structures associated with mining subsoil assets. (Major improvements to land, such as dams and dykes for flood control, are included in the value of land.)</p> <p>Examples include products included in CPC group 522, civil engineering works, such as highways, streets, roads, railways and airfield runways; bridges, elevated highways, tunnels and subways; waterways, harbours, dams and other waterworks; long-distance pipelines, communication and power lines; local pipelines and cables, ancillary works; constructions for mining and manufacture; and constructions for sport and recreation.</p>
<i>Machinery and equipment</i>	<p>Transport equipment and other machinery and equipment, as defined below other than that acquired by households for final consumption. Tools that are relatively inexpensive and purchased at a relatively steady rate, such as hand tools, may be excluded. Also excluded are machinery and equipment integral to buildings that are included in dwellings and non-residential buildings.</p> <p>Uncompleted machinery and equipment are excluded, unless produced for own use, because the ultimate user is deemed to take ownership only on delivery of the asset. Machinery and equipment acquired for military purposes are included to the extent that they resemble goods acquired by civilian units for purposes of production and that the military uses in the same way.</p> <p>Machinery and equipment acquired by households for final consumption are not treated as an asset. They are instead included in the memorandum item "consumer durables" in the balance sheet for households. Houseboats, barges, mobile homes and caravans used by households as principal residences are included in dwellings.</p>
	<p><i>Transport equipment</i></p> <p>Equipment for moving people and objects. Examples include products other than parts included in CPC division 49, transport equipment, such as motor vehicles, trailers and semi trailers; ships; railway and tramway locomotives and rolling stock; aircraft and spacecraft; and motorcycles, bicycles, etc.</p>
	<p><i>Other machinery and equipment</i></p> <p>Machinery and equipment not elsewhere classified. Examples include products other than parts included in CPC divisions 43, general purpose machinery; 44, special purpose machinery; 45, office, accounting and computing equipment, 46, electrical machinery and apparatus, 47, radio, television and communication equipment and apparatus; and 48, medical appliances, precision and optical instruments, watches and clocks. Other examples are products other than parts included in CPC groups 337, fuel elements (cartridges) for nuclear reactors; 381, furniture; 383, musical instruments; 384, sports goods; and 423, steam generators except central heating boilers.</p>
<i>Cultivated assets</i>	<p>Livestock for breeding, dairy, draught, etc. and vineyards, orchards and other plantations of trees yielding repeat products that are under the direct control, responsibility and management of institutional units, as defined below. Immature cultivated assets are excluded unless produced for own use.</p>
	<p><i>Livestock for breeding, dairy, draught, etc.</i></p> <p>Livestock that are cultivated for the products they provide year after year. They include breeding stocks (including fish and poultry), dairy</p>

	cattle, draft animals, sheep or other animals used for wool production and animals used for transportation, racing or entertainment.
	<i>Vineyards, orchards and other plantations of trees yielding repeat products</i> Trees (including vines and shrubs) cultivated for products they yield year after year, including those cultivated for fruits and nuts, for sap and resin and for bark and leaf products.
<b>Intangible fixed assets</b>	Fixed assets that consist of mineral exploration, computer software, entertainment, literary or artistic originals and other intangible fixed assets, as defined below, intended to be used for more than one year.
<i>Mineral exploration</i>	The value of expenditures on exploration for petroleum and natural gas and for non-petroleum deposits. These expenditures include pre-licence costs, licence and acquisition costs, appraisal costs and the costs of actual test drilling and boring, as well as the costs of aerial and other surveys, transportation costs, etc., incurred to make it possible to carry out the tests.
<i>Computer software</i>	Computer programs, program descriptions and supporting materials for both systems and applications software. Included are purchased software and software developed on own account, if the expenditure is large. Large expenditures on the purchase, development or extension of computer databases that are expected to be used for more than one year, whether marketed or not, are also included.
<i>Entertainment, literary or artistic originals</i>	Original films, sound recordings, manuscripts, tapes, models, etc., on which drama performances, radio and television programming, musical performances, sporting events, literary and artistic output, etc., are recorded or embodied. Included are works produced on own account. In some cases, such as films, there may be multiple originals.
<i>Other intangible fixed assets</i>	New information, specialized knowledge, etc., not elsewhere classified, whose use in production is restricted to the units that have established ownership rights over them or to other units licensed by the latter.
<b>Inventories</b>	Produced assets that consist of goods and services that came into existence in the current period or in an earlier period held for sale, use in production or other use at a later date. They consist of materials and supplies, work-in-progress, finished goods and goods for resale, as defined below.  Included are all inventories held by government, including, but not limited to, inventories of strategic materials, grains and other commodities of special importance to the nation.
<b>Materials and supplies</b>	Goods that their owners intend to use as intermediate inputs in their own production processes, not to resell.
<b>Work-in-progress</b>	Goods and services that are partially completed but that are not usually turned over to other units without further processing or that are not mature and whose production process will be continued in a subsequent period by the same producer. Excluded are partially completed structures for which the ultimate owner is deemed to have taken ownership, either because the production is for own use or as evidenced by the existence of a contract of sale/purchase. They consist of work-in-progress on cultivated assets and other work-in-progress, as defined below.
<i>Work-in-progress on cultivated assets</i>	Livestock raised for products yielded only on slaughter, such as fowl and fish raised commercially, trees and other vegetation yielding once-only products on destruction and immature cultivated assets yielding repeat products.

<i>Other work-in-progress</i>	Goods other than cultivated assets and services that have been partially processed, fabricated or assembled by the producer but that are not usually sold, shipped or turned over to others without further processing.
<b>Finished goods</b>	Goods that are ready for sale or shipment by the producer.
Goods for resale	Goods acquired by enterprises, such as wholesalers and retailers, for the purpose of reselling them without further processing (that is, not transformed other than by presenting them in ways that are attractive to the customer).
Valuables	Produced assets that are not used primarily for production or consumption, that are expected to appreciate or at least not to decline in real value, that do not deteriorate over time under normal conditions and that are acquired and held primarily as stores of value. Valuables consist of precious metals and stones, antiques and other art objects and other valuables, as defined below.
<i>Precious metals and stones</i>	Precious metals and stones that are not held by enterprises for use as inputs into processes of production.
<i>Antiques and other art objects</i>	Paintings, sculptures, etc., recognized as works of art and antiques.
<i>Other valuables</i>	Valuables not elsewhere classified, such as collections and jewellery of significant value fashioned out of precious stones and metals.
<b>Non-produced assets</b>	Non-financial assets that come into existence other than through processes of production. Non-produced assets consist of tangible assets and intangible assets, as defined below. Also included are costs of ownership transfer on and major improvements to these assets.
<b>Tangible non-produced assets</b>	Non-produced assets that occur in nature and over which ownership may be enforced and transferred. Environmental assets over which ownership rights have not, or cannot, be enforced, such as open seas or air, are excluded. Tangible non-produced assets consist of land, subsoil assets, non-cultivated biological resources and water resources, as defined below.
Land	The ground, including the soil covering and any associated surface waters, over which ownership rights are enforced. Also included are major improvements that cannot be physically separated from the land itself. Excluded are any buildings or other structures situated on it or running through it; cultivated crops, trees and animals; subsoil assets; non-cultivated biological resources and water resources below the ground. Land consists of land underlying buildings and structures, land under cultivation, recreational land and associated surface water and other land and associated surface water, as defined below.
<i>Land underlying buildings and structures</i>	Land on which dwellings, non-residential buildings and structures are constructed or into which their foundations are dug, including yards and gardens deemed an integral part of farm and non-farm dwellings and access roads to farms.
<i>Land under cultivation</i>	Land on which agricultural or horticultural production is carried on for commercial or subsistence purposes, including, in principle, land under plantations, orchards and vineyards.
<i>Recreational land and associated</i>	<i>surface water</i> Land that is used as privately owned amenity land, parklands and pleasure grounds and publicly owned parks and recreational areas, together with associated surface water.
<i>Other land and associated surface water</i>	Land not elsewhere classified, including private gardens and plots not cultivated for subsistence or commercial purposes, communal grazing land, land surrounding dwellings in excess of those yards and gardens deemed an integral part of farm and non-farm dwellings and associated surface water.

<b>Subsoil assets</b>	Proven reserves of mineral deposits located on or below the earth's surface that are economically exploitable, given current technology and relative prices. Ownership rights to the subsoil assets are usually separable from those to the land itself. Subsoil assets consist of coal, oil and natural gas reserves, metallic mineral reserves and non-metallic mineral reserves, as defined below.
<i>Coal, oil and natural gas reserves</i>	Anthracite, bituminous and brown coal deposits; petroleum and natural gas reserves and fields.
<i>Metallic mineral reserves</i>	Ferrous, non-ferrous and precious metal ore deposits.
<i>Non-metallic mineral reserves</i>	Stone quarries and clay and sand pits; chemical and fertilizer mineral deposits; salt deposits; deposits of quartz, gypsum, natural gem stones, asphalt and bitumen, peat and other non-metallic minerals other than coal and petroleum.
<b>Non-cultivated biological resources</b>	Animals and plants that yield both once-only and repeat products over which ownership rights are enforced but for which natural growth and/or regeneration is not under the direct control, responsibility and management of institutional units. Examples are virgin forests and fisheries within the territory of the country. Only those resources that are currently, or are likely soon to be exploitable for economic purposes should be included.
<b>Water resources</b>	Aquifers and other groundwater resources to the extent that their scarcity leads to the enforcement of ownership and/or use rights, market valuation and some measure of economic control.
<b>Intangible non-produced assets</b>	Non-produced assets that are constructs of society. They are evidenced by legal or accounting actions, such as the granting of a patent or the conveyance of some economic benefit to a third party. Some entitle their owners to engage in certain specific activities and to exclude other institutional units from doing so except with the permission of the owner. Intangible non-produced assets consist of patented entities, leases and other transferable contracts, purchased goodwill and other intangible non-produced assets.
Patented entities	Inventions in categories of technical novelty that, by law or by judicial decision, can be afforded patent protection. Examples include constitutions of matter, processes, mechanisms, electrical and electronic circuits and devices, pharmaceutical formulations and new varieties of living things produced by artifice.
Leases and other transferable contracts	Leases or contracts where the lessee has the right to convey the lease to a third party independently of the lessor. Examples include leases of land and buildings and other structures, concessions or exclusive rights to exploit mineral deposits or fishing grounds, transferable contracts with athletes and authors and options to buy tangible assets not yet produced. Leases on the rental of machinery are excluded from non-financial intangible assets.
Purchased goodwill	The difference between the value paid for an enterprise as a going concern and the sum of its assets less the sum of its liabilities, each item of which has been separately identified and valued. The value of goodwill, therefore, includes anything of long-term benefit to the business that has not been separately identified as an asset, as well as the value of the fact that the group of assets is used jointly and is not simply a collection of separable assets.
Other intangible non-produced assets	Intangible non-produced assets not elsewhere classified.

\* Source: *System of National Accounts, 1993*

### Appendices showing assumed life of assets used in 1999-2000 series

#### Appendix 26.2

##### Asset wise age (in years) in Administrative Department

S. No.	Industry	Building	Roads & Bridges	Other Construction	Transport Equipment	Machinery and Equipment	Software
1.	Construction	-	-	-	-	15	5
2.	Water Supply	80	800	50	20	20	5
3.	Real Estate, Ownership of Dwellings & Business Services	80	-	-	-	-	-
4.	Public Administration and Defence (excluding broadcastings)	80	800	35	10	15	5
5.	Other Services	80	800	35	20	15	5
6.	Government Quasi Bodies	80	-	35	20	15	-

#### Appendix 26.3

##### Asset wise age (in years) in Departmental Enterprises

S. No.	Industry	Building	Roads & Bridges	Other Construction	Transport Equipment	Machinery and Equipment	Software
1.	Agriculture (Irrigation)	80	800	100	20	25	5
2.	Forestry and Logging	80	800	35	20	25	5
3.	Manufacturing including Rly Mfg. & Telecom Factory	80	800	50	20	25	5
4.	Electricity	80	800	50	20	25	5
5.	Trade	80	-	35	20	25	-
6.	Railway Transport	80	100	35	35	20	-
7.	Other Transport excluding Port Trusts	80	800	35	20	25	5
8.	Communication	80	-	35	15	15	-
9.	Railway Manufacturing	80	100	35	20	25	-
10.	Telecom Factory	80	-	-	20	25	-
11.	Other Services (Broadcasting)	80	-	-	20	15	-

## Appendix 26.4

**Asset wise age(in years) in Non-Departmental Enterprises**

S. No.	Industry	Building	Roads & Bridges	Other Construction	Transport Equipment	Machinery and Equipment including software
1.	Agriculture	80	-	35	20	25
2.	Forestry and Logging	80	-	35	20	25
3.	Fishing	80	-	35	20	25
4.	Mining and Quarrying	45	-	33	20	25
5.	Manufacturing	80	-	50	20	25
6.	Construction	80	-	36	20	25
7.	Electricity	80	-	50	20	25
8.	Gas	80	-	50	20	25
9.	Trade	80	-	35	20	25
10.	Hotel & Restaurants	80	-	35	20	25
11.	Road Transport	80	-	35	20	25
12.	Water Transport	80	-	35	20	25
13.	Air Transport	80	-	50	20	25
14.	Port Trust	80	-	35	20	25
15.	Concord	65	-	35	20	25
16.	Storage	80	-	35	20	25
17.	Communication	80	-	35	20	25
18.	Banking and Insurance	80	-	35	20	25
19.	Other Services	80	-	35	20	25
20.	Water Supply	80	-	50	-	20

## Appendix 26.5

**Asset wise age (in years) in Private Sector**

S. No.	Industry	Non-residential Building	Other Construction	Machinery and Equipment	Software
1.	Agriculture	40	25	25	-
2.	Agriculture Plantation	-	35	-	-
3.	Forestry and Logging	-	35	25	-
4.	Fishing	-	-	15	-
5.	Mining and Quarrying	-	33	25	5
6.	Manufacturing Registered	-	65	25	5
7.	Manufacturing Un-registered	-	65	25	5
8.	Electricity	-	45	25	5
9.	Construction	-	65	25	5
10.	Trade (Private Corporate)	-	65	25	-
11.	Trade (Co-operative Societies)	-	65	25	-
12.	Trade (Household)	-	65	25	-
13.	Hotel & Restaurants	-	65	25	5
14.	Transport by other means – Mechanised Road Transport	-	50	20	5
15.	Transport by other means –Non-Mechanised Road Transport	-	-	8	-
16.	Water Transport	-	50	20	-
17.	Private Air Transport	-	35	25	-
18.	Storage	-	65	25	-
19.	Banking and Insurance – Private Banks	-	65	25	5
20.	Banking and Insurance – Non Banking Financial Companies	-	65	25	-

S. No.	Industry	Non-residential Building	Other Construction	Machinery and Equipment	Software
21.	Banking and Insurance- Co-operative Banks / Credit Societies	-	65	25	-
22.	Ownership of Dwellings - Urban Res. Building (Pucca)	-	80	-	-
23.	Ownership of Dwellings - Urban Res. Building (Kutcha)	-	10	-	-
24.	Ownership of Dwellings - Rural Res. Building (Pucca)	-	80	-	-
25.	Ownership of Dwellings - Rural Res. Building (Kutcha)	-	10	-	-
26.	Real Estate & Business Services	-	20	20	5
27.	Other Services	-	65	25	5
28.	Joint Stock Companies	-	65	25	5
29.	Co-operative Societies- non financial (Other Services)	-	65	25	-
30.	Communication	-	-	25	5
31.	Private Quasi Bodies	-	65	25	-

## Appendix 26.6

**Indices used for deflation of estimates of Capital in 1999-2000 series**

Indices used in Public Sector
1. CPI, UNME: for building
2. Weighted Index No. of Roads & Bridges: for Roads & bridges
3. Weighted Index No. of rural/urban construction works (accounted ):for other construction
4. WPI of transport equipment (Locomotive + Motor): for transport equipment
5. WPI of non-electrical machinery : for machinery equipment and Software
6. WPI of Iron and Steel: for other construction in railways transport only.

**Indices used in Private Sector**

1. CPI-UNME:	For Ownership of Urban Pucca Dwelling, Urban Kutcha Dwelling
2. WPI for non-electrical machinery:	For 1. Machinery Equipment of Agriculture, Forestry & Logging, Unregistered Manufacturing, Non-mechanized Road Transport, Communication, and 2. Software of Mining & Quarrying, Manufacturing, Electricity, Construction, Hotel & Restaurants, Banking Insurance, Real Estate, Other Services, Joint Stock Companies, Communication, Private Quasi Bodies.
3. WPI for Transport Equipment (Locomotive + Motor)	For Machinery Equipment of Mechanised Road Transport, Water Transport.
4. Weighted Index No. of wages of rural & urban construction workers (unaccounted)	For Non- residential building of Agriculture
5. Weighted Index No. of cost of general pucca construction	For Other Construction of Mining & Quarrying, Registered Manufacturing, Unregistered Manufacturing, Electricity, Construction, Trade, Hotel & Restaurants, Mechanised Road Transport, Non-mechanised Road Transport, Water Transport, Air Transport, Storage, Banking Insurance, Other Services, Joint Stock Companies, Quasi Private Bodies.
6. Weighted Index No. of cost of construction-rural housing	For Ownership of Rural Pucca Dwelling, Rural Kutcha Dwelling
7. WPI for electrical machinery	For Machinery Equipment of Electricity,

Indices used in Private Sector	
8. Index used for fishing (weighted index of WPI of Timber, Diesel Engine, Nylon)	For Machinery Equipment of Fishing
9. WPI for Machinery & Transport Equipment (Motor)	For Machinery Equipment of Mining & Quarrying, Registered Manufacturing, Construction, Trade, Hotel & Restaurants, Air Transport, Storage, Banking Insurance, Other Services, Joint Stock Companies, Quasi Private Bodies.
10. CPI, Agricultural Labourer	For Other Construction of Agriculture Plantation, Forestry & Logging
11. Weighted Index No. of wages of rural & urban construction workers(accounted)	For Other Construction of Agriculture

**Table 26.1: Estimates of Capital Stock as on 31 March, 2000 by type of institution**

(Rs. Crore)

Institution	Net Fixed Capital Stock	Inventories	Net Capital Stock
<b>1 public sector</b>	<b>1931394</b>	<b>105042</b>	<b>2036436</b>
1.1 administrative departments	681952	4577	686529
1.2 departmental enterprises	493065	6483	499548
1.3 non departmental enterprises	756378	93982	850360
<b>2 private sector</b>	<b>2621838</b>	<b>284493</b>	<b>2906331</b>
2.1 private corporate sector	911761	160860	1072620
2.1.1 joint stock companies	862780	143386	1006167
2.1.2 co-operatives	48980	17474	66454
2.2 household sector	1710078	123633	1833711
<b>3 Total</b>	<b>4553233</b>	<b>389535</b>	<b>4942767</b>

**Table 26.2: Estimates of Capital Stock as on 31 March, 2000 by industry of use***(Rs. Crore)*

Industry	Public Sector			Total		
	Net Fixed Capital Stock	Inventory	Net Capital Stock	Net Fixed Capital Stock	Inventory	Net Capital Stock
<b>1 agriculture, forestry &amp; fishing</b>	<b>296093</b>	<b>2597</b>	<b>298690</b>	<b>662578</b>	<b>42927</b>	<b>705505</b>
1.1 agriculture	282308	2211	284519	630832	42541	673373
1.2 forestry & logging	13725	387	14112	14225	387	14612
1.3 fishing	61	-1	60	17522	-1	17521
<b>2 mining &amp; quarrying</b>	<b>143542</b>	<b>6055</b>	<b>149597</b>	<b>149032</b>	<b>7703</b>	<b>156734</b>
<b>3 manufacturing</b>	<b>169038</b>	<b>50488</b>	<b>219526</b>	<b>1340635</b>	<b>229034</b>	<b>1569670</b>
3.1 registered	169038	50488	219526	932754	209996	1142751
3.2 unregistered	0	0	0	407881	19038	426919
<b>4 elect. gas &amp; water supply</b>	<b>435539</b>	<b>9407</b>	<b>444946</b>	<b>483051</b>	<b>9293</b>	<b>492343</b>
<b>5 construction</b>	<b>5865</b>	<b>3901</b>	<b>9766</b>	<b>48811</b>	<b>10666</b>	<b>59477</b>
<b>6 trade, hotels &amp; restaurants</b>	<b>5938</b>	<b>22421</b>	<b>28359</b>	<b>159046</b>	<b>74067</b>	<b>233112</b>
6.1 trade	4811	22399	27210	112690	72883	185573
6.2 hotels & restaurants	1127	22	1149	46356	1184	47540
<b>7 transport, storage &amp; communication</b>	<b>218354</b>	<b>4221</b>	<b>222575</b>	<b>378996</b>	<b>6588</b>	<b>385584</b>
7.1 railways	67058	1174	68232	67058	1174	68232
7.2 transport by other means	46278	1247	47525	187732	3389	191121
7.3 storage	2796	823	3619	4292	1047	5339
7.4 communication	102222	977	103199	119914	978	120892
<b>8 financing, insurance, real estate &amp; business services</b>	<b>57589</b>	<b>941</b>	<b>58530</b>	<b>640882</b>	<b>2645</b>	<b>643526</b>
8.1 banking & insurance	25452	941	26393	83651	2463	86114
8.2 real estate, ownership of dwellings & busi. services	32137	0	32137	557231	181	557412
<b>9 community, social &amp; personal services</b>	<b>599436</b>	<b>5011</b>	<b>604447</b>	<b>690203</b>	<b>6613</b>	<b>696816</b>
9.1 public administration & defence	553052	4286	557338	553052	4286	557338
9.2 other services	46384	725	47109	137151	2327	139478
<b>10 total(1 to 9): net capital stock</b>	<b>1931394</b>	<b>105042</b>	<b>2036436</b>	<b>4553233</b>	<b>389535</b>	<b>4942767</b>

**Table 26.3: Estimates of Consumption of Fixed Capital during 1999-2000 by industry of use**

*Rs. crore*

Industry	Public Sector	Total
<b>1 agriculture etc.</b>	4570	21956
1.1 agriculture .	3931	19374
1.2 forestry & logging	635	687
1.3 fishing	4	1895
<b>2 mining &amp; quarrying</b>	8229	8619
<b>3 manufacturing</b>	9987	57987
3.1 registered	9987	44350
3.2 unregistered	0	13637
<b>4 elect. gas &amp; water supply</b>	18357	20322
<b>5 construction</b>	448	2695
<b>6 trade, hotels &amp; restaurants</b>	230	5947
6.1 trade	177	4246
6.2 hotels & restaurants	53	1701
<b>7 transport , storage &amp; communication</b>	15461	27578
7.1 railways	6495	6495
7.2 transport by other means	3308	14515
7.3 storage	59	91
7.4 communication	5600	6477
<b>8 financing, ins., real estate &amp; b. s.</b>	1456	20520
8.1 banking & insurance	937	3051
8.2 real estate, ownership of dwellings & busi. Services	519	17469
<b>9 community, social &amp; personal services</b>	17417	19969
9.1 public administration & defence	15348	15348
9.2 other services	2069	4621
<b>10 total ( 1 to 9 )</b>	<b>76154</b>	<b>185593</b>

**Table 26.4: Estimates of Consumption of Fixed Capital during 1999-2000 by type of institution**

*Rs. crore*

Institution	
1 Public Sector	76154
1.1 Admin. Departments (Inclusive of Quasi)	19377
1.2 Depart. Enterprises	18628
1.3 Non Dept.	38149
2 Private Sector	109439
2.1 Pvt Corporate	44540
2.1.1 Joint Stock Cos.	42223
2.1.2 Co-operatives	2317
2.2 Household	64899
<b>3 Total</b>	<b>185593</b>