

FOREWORD

This report has been prepared in the framework of the OECD programme of dialogue and co-operation with China, co-ordinated by the Centre for Co-operation with Non-Members (CCNM). When this programme was launched in 1995, it was decided to include activities on economic statistics because mutually understood and respected statistics are a prerequisite for meaningful policy dialogue. Co-operation between OECD's Statistics Directorate and China's National Bureau of Statistics (NBS) has been developing now for nearly five years in a cordial and effective manner, through seminars, training, reciprocal visits and joint work. The topics, which were mutually agreed, have covered national accounts, purchasing power parities, business cycle analysis, business tendency surveys, foreign trade statistics, regular publication of short-term statistics for China by OECD and consultations on NBS's strategy for implementing international standards.

The present report describes how China's GDP and other national accounts statistics are compiled by the NBS, using the UN-OECD System of National Accounts as reference. The Introduction gives an overview and offers analysis and comments on the practices used in China as compared to usual practice in OECD Member countries. Selected tables at the end provide figures on the main aggregates. A bibliography is attached.

The main body of the report was written by two senior statisticians from China's Department of National Accounts, Mr. XU Xianchun, Deputy Director-General, and Mr. YE Yanfei, Director of the Social Funds Division. They were assisted by several of their colleagues at NBS. The Introduction and general supervision of this report are the work of Mr. Derek Blades, Head, Division for Non-Members, Statistics Directorate, OECD.

The detailed information supplied by the NBS staff for this report shows that they are committed to transparency and are open to ideas for improving their estimates. I believe that this report will promote a better understanding of a key element of China's economic statistics and that it marks a milestone in the effort to build a reliable and efficient statistical system that is more responsive to China's needs in the current critical stage of its transition towards a market-oriented economy.

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INTRODUCTION

Main features of national accounts in China

Accounting system

1. The first official accounts for China were compiled in 1952 according to the Material Product System (MPS). The MPS was developed in the Soviet Union and has been used by most countries with centrally planned economies. The main difference between the MPS and the System of National Accounts (SNA) which is used by countries with market economies, is that the MPS excludes “non-material services” from the production boundary. Official SNA estimates were first produced for 1985. From 1985 to 1992 accounts were compiled according to both the MPS and the SNA, although the latter were essentially derived from the MPS accounts using a conversion system developed by the United Nations Statistical Office. In 1992, the SNA was adopted as the official accounting system in China, replacing the MPS. Since then, the National Bureau of Statistics has concentrated on developing data sources and refining its estimation procedures to estimate directly national accounts according to the SNA¹. This report describes these data sources and estimation procedures.

2. China currently uses the 1968 SNA and follows its recommendations quite closely. Two departures are that mineral exploration is treated as capital formation (as in the 1993 SNA) and China has gone some way to implementing the 1993 SNA recommendations regarding the treatment of “financial intermediation services indirectly measured” (FISIM). The method used by China is described in paragraphs 27 to 30 below.

3. While China is now committed to the SNA as its official accounting system, statistical procedures in China are still in transition between those developed for the MPS system and those required for the SNA. Examples of the continuing influence of MPS conventions include the use of artificial “comparable” prices for valuing agricultural and industrial output, the use of the Sauerbeck formula for price indices and the valuation of depreciation at historic values. China's national accounts will only be fully comparable with the SNA statistics produced by OECD countries when these relics of MPS procedure have been replaced by modern methods.

Input-output tables

4. Input-output tables are a central feature of both the MPS and the SNA. The first input-output table for China was compiled in 1981 according to the MPS rules. An input-output table according to the SNA was first compiled in 1987 and they have been produced since then in a reduced form every two or three years, with more detailed tables being compiled every five years. The more detailed tables for the latest year available (1997) identify 124 commodities. Input-output tables were originally devised as an analytic tool for central planning but for most countries that use the SNA, the main purpose now in compiling input-output tables is to ensure consistency between the supply of goods and services and

between final expenditures and value added. At the present time, the NBS uses the input-output tables only to provide a broad consistency check and the GDP estimates are not fully consistent with the input-output tables. The NBS is now considering developing an alternative type of input-output table – a “supply and use” table – which could more easily be used to provide consistency checks for the national accounts².

Regional accounts

5. China is divided, for administrative purposes, into provinces. Regional accounts were first compiled in 1980s and have been continued since then on an annual basis. Up to 1993, regional accounts were available for every province except Tibet. Regional accounts for Tibet were compiled for the first time in 1999. These regional accounts are compiled by teams of ten or so statisticians in provincial statistical offices. The NBS has developed the rules and procedures for compiling the regional accounts and exercises some supervision over the work of the regional offices. However, the national accounts are not well reconciled with regional accounts because of differences in data sources and in calculation methods for small enterprises in the industry sector and some service activities³. The national accounts are compiled independently of the regional accounts.

Quarterly national accounts

6. Quarterly national accounts have been estimated since the first quarter of 1992. The estimates are made from the “production side” and show the value added in eight kinds of activity – agriculture (including forestry and fishing), industry (including mining, manufacturing, gas, water and electricity), construction and five service activities. The quarterly estimates are compiled on a cumulative basis rather than for each quarter separately and are calculated in both current and constant prices. The quarterly estimates for the current year are obtained by extrapolating the latest annual figures by monthly and quarterly indicators. The indicators cover only part of the total value added included in the eight kinds of activities so when the annual estimates become available, the quarterly estimates need to be revised to equal the annual figures. These revisions are often quite large. The NBS is developing estimates of quarterly GDP from the expenditure side⁴.

Data sources

7. In most countries, national accounts are based on a mixture of statistical sources and administrative records. Statistical sources include censuses, regular sample surveys and ad hoc enquiries to fill specific data gaps. Administrative records include tax reports, company accounts, central bank records and data assembled by government ministries in carrying out various supervisory functions. The NBS uses both types of data. Because of the history of central planning, government ministries in China collect a particularly wide range of statistics and the NBS makes extensive use of this information. A common problem with administrative records is that the coverage and definitions are designed to meet administrative rather than statistical needs and may be changed to meet new administrative rules without considering the statistical implications. Inconsistencies in time series are a feature of administrative statistics in all countries and China is no exception. Box 1 summarises the main statistical sources and administrative records used to compile the national accounts.

Revision policy

8. National accounts may need to be revised for several reasons. The first release of the estimates is usually based on incomplete information so that revisions need to be made when more complete information becomes available a few months later. This gives rise to the need for regular revisions at set times each year. In addition, major “benchmark” revisions need to be made when new data sources are developed or estimation procedures are improved.

9. In China, the first estimates for a given year are published in February of the following year in “China’s Statistical Communiqué” and then published with more detail in May in the NBS publication “A Statistical Survey of China”. These are referred to as “preliminary” estimates. In September of the same year, revised figures, referred to as “first confirmed” estimates, are published in the Statistical Yearbook. The next year’s issue of “A Statistical Survey of China” contains the “second confirmed” estimates for that year. This concludes the cycle of regular revisions. Benchmark revisions are also made when new data sources become available. A recent example is the revisions made in respect of services following the completion of the 1993 Census of the Tertiary Sector. This resulted in an increase in GDP of 10 per cent in 1992 falling to 1 per cent in 1978, which was believed to be the first year when service activities in the private sector became significant. Benchmark revisions will also be needed, but have not yet been introduced, to reflect new data from the Industry Census (reference year 1995) and the Agricultural Census (reference year 1996).

Box 1. Main statistical and administrative sources used in compiling the national accounts of China

The data sources used for China’s national accounts include statistics collected by the National Bureau of Statistics and by other government agencies, financial statements and other administrative records. Below is a list of the main sources used.

Statistics collected by the NBS include statistics on agriculture, forestry, animal husbandry and fishing; industry statistics; construction statistics; statistics on transport and post and telecommunications; statistics on wholesale, retail and catering services; statistics on real estate; statistics on other services; population statistics; statistics on employment and labour compensation; statistics on fixed assets; price statistics; sample surveys of urban and rural households.

Statistics collected by other government agencies include statistics on government financing; statistics on tax revenues; statistics on state-owned assets; statistics on assets owned by urban collectives; statistics on assets owned by rural collectives; banking statistics; insurance statistics; social insurance statistics; statistics on transport, post and telecommunications; statistics on culture and education; statistics on civil affairs; statistics on urban infrastructure; statistics on the development of real estate; statistics on private dwellings; statistics on the sale of commercial dwellings; customs statistics; statistics on foreign trade; statistics on the balance of payments; statistics on foreign investment; statistics on foreign debt; statistics on foreign exchanges.

Financial statements mainly include the final accounts of the following institutions: banks; insurance companies; the Ministry of Communications; the Ministry of Railways; the Administration for Civil Aviation; the China Natural Gas Corporation; the Ministry of Post and Telecommunications; state-owned enterprises governed by the Ministry of Finance; state-owned enterprises governed by the Ministry of Foreign Trade and Economy; state-owned enterprises governed by the Bureau of Internal Trade; departments of the management of urban real estate under the Ministry of Construction.

Other administrative records include the registry of the Administration for Industry and Commerce; records of the taxation registry.

10. The revisions policy for China's national accounts is in line with standard practice in most developed countries. By contrast, some transition economies, particularly countries of the former Soviet Union, rarely or never revise their national accounts. This is either because they believe that making revisions would reflect badly on their professional competence or, more often, because they lack the human and software resources to rework past estimates. The failure to make revisions introduces inconsistencies in the time series if new data sources or estimation procedures are incorporated in the most recent estimates but not carried back to earlier periods.

Statistical discrepancies

11. In China, estimates of GDP are made independently from the production side (sum of value added) and the expenditure side (sum of final expenditures). Different estimates are obtained by the two methods. The NBS considers that its estimates from the production side are more reliable and the statistical discrepancy is therefore shown in the estimates of GDP from the expenditure side. The discrepancies are not large and over the period 1991 to 1997 they averaged 0.9 per cent of GDP in absolute terms. The largest discrepancy was -2.9 per cent in 1992 (i.e. the expenditure estimate was 2.9 per cent larger than the production estimate), but for the other years the discrepancy was well under 1 per cent of GDP.

12. Many OECD countries also report statistical discrepancies between independently derived GDP estimates, although more and more countries now derive the expenditure and production estimates simultaneously using an input-output or supply-use framework, thus eliminating the statistical discrepancy. As noted above, the NBS is now considering adopting a similar approach.

National Accounts Department

13. The national accounts department in the NBS presently consists of 26 staff members. The department produces annual and quarterly national accounts and input output tables and supervises preparation of the regional accounts. This is a relatively small number compared with most developed countries, although it should be noted that the senior members of the department have had many years of experience in national accounts compilation. In comparison there are about 50 staff working on national accounts in the Russian Federation and between 150 and 200 in the United States, Australia and Canada. The small size of the national accounts department clearly limits the extent to which the basic statistics can be cross-checked and better estimation techniques developed. In most OECD countries, national accounts statisticians spend a considerable amount of time researching and cross-checking their sources of basic data, making plausibility checks on their estimates and experimenting with alternative estimation procedures. At the NBS, the staff are fully involved in regular production activities and have limited time for development work.

Publication of national accounts

14. National accounts for China are published on a regular basis in two sources – A Statistical Survey of China which comes out in May each year and in the Statistical Yearbook of China published in September. In 1997, the State Statistical Bureau (forerunner of the NBS) published historical estimates in The Gross Domestic Product of China 1952–1995, Dongbei University of Finance and Economics Press, Beijing, 1997. The Bibliography lists a number of NBS reports on methodological aspects of China's national accounts. Most of these are available only in Chinese.

Reliability

Bias in the basic statistics

15. Many of the basic statistics on which China's national accounts are based are collected at the local level and pass through several aggregation stages before reaching the provincial administrations which send them to the NBS or the government ministries responsible for collecting statistics in their areas of competence. This transmission chain provides opportunities for officials at different levels to adjust the basic statistics so that they reflect well on their management of the local or provincial economies. The NBS and other centralising agencies are aware of the possibility that the basic statistics may be corrupted in the transmission process. The NBS carries out independent surveys to check the accuracy of the basic statistics on crop production and on small enterprises in the industrial sector. These surveys are used to correct the basic statistics when there is evidence of bias, but it is clear that the NBS does not have the resources to guarantee the accuracy of all the basic statistics that are used in compiling the national accounts.

Agriculture

16. Both the World Bank⁵ and the OECD Agriculture Directorate⁶ have recently questioned the official NBS estimates of agricultural output. Satellite images made available to the World Bank suggested that the area under crops was being underestimated by the NBS by between 10 per cent and 30 per cent. The World Bank also considered that the yield estimates used by the NBS, which are based on crop-cutting in sampled areas, were too high and, starting in 1994, the World Bank increased the official estimates of crop output by 10 per cent. In discussions with the World Bank, the NBS pointed out that the crop areas estimated from satellite images included "hill-fields with angles over 25 degrees, flood-land, irrigation canals and ditches and roads between fields"⁷. Since 1999 the World Bank has accepted the NBS estimates of grain output without adjustment. The OECD Agricultural Directorate has questioned both the crop area estimates, noting that there is a strong tax incentive to under-report areas under crops, and the official yield estimates, as well as the estimates for livestock production. The NBS is aware that the official estimates for both crops and livestock are biased. They now make independent estimates of the areas under crops in the sampled villages. Moreover, since 1998 the regular surveys of grain output have been supplemented by "grain balances" based on NBS surveys of rural households. When the results of the 1996 Agricultural Census are fully incorporated into the NBS estimates, it is likely that there will be some revisions to the official estimates of crop output, but at the present time there is no firm evidence of serious error.

17. On the other hand, according to the latest Agriculture Census (reference year 1996) there are reasons to think that value added in animal husbandry and fishing may be biased upwards. Meat and fish production are significant activities in China. Estimates for these activities are usually based on regular annual statistical reports and the NBS is discussing how to correct suspected overstatement using data from the Agriculture Census.

Industry

18. In the Chinese accounts, industry covers mining and quarrying, manufacturing, electricity, gas and water. Unfortunately the NBS does not give any breakdown for this sector which now accounts for 42 per cent of total GDP. The reason given by the NBS is that the basic information is collected using industrial classifications that have different degrees of detail for larger industrial enterprises (i.e. those at the cut-off level and above) and smaller enterprises. The lack of detail for the industrial sector makes it difficult for outsiders to evaluate the quality of the estimates.

19. Harry X. Wu⁸ has made alternative estimates of industrial value added in China from 1949 to 1994. Wu used data on physical output of 114 industrial products from the official Industrial Economic Statistics Yearbook to estimate industrial value added using data from the 1987 input-output table as weights. Wu's estimates of industrial value added show considerably lower growth rates than the official estimates. For example, Wu's average annual growth rate for 1978-1994 is 8.5 per cent compared with the official estimate of 12 per cent.

20. A problem with Wu's estimates is that he assumes that both the ratio of gross output to value added and the price structure shown in the 1987 input-output table remained constant over the entire period. This is a serious problem with estimates going back to the 1950s, but is less of a problem for the seven-year period since 1987. Wu's estimation methods are similar to those used in some OECD countries, although most would try to update the weighting system at least every five years. The NBS acknowledges that their estimates for small industrial enterprises - those with a turnover of less than 5 million yuan per annum - may be unreliable. The NBS also acknowledges that its present procedures for estimating industrial value added at constant prices are unsatisfactory. They are now experimenting with calculations at constant prices by extrapolation of base year value added using volume indices and with the deflation of current prices value using producers' price index. (See Chapter 3, paragraph 175). When the results of the 1995 Industry Census are incorporated into the official GDP estimates, it is probable that there will be some downward adjustment to both levels and growth rates of industrial value added.

Services

21. The Census of the Tertiary Sector (reference year 1992) was the first extensive survey of the service sector in China. It resulted in very large revisions to value added in service activities and in GDP. For 1992, service value added (in current prices) was revised upwards by 33.1 per cent, with particularly large increases in retail and wholesale trade and catering (+88.7 per cent) and in transport and communications (+9.5 per cent). Total GDP was increased by 9.3 per cent. The Census provided only a point estimate and the NBS has carried the 1992 revisions back to 1978, which is the first year when these activities are thought to have become significant. Various indicators were used for this purpose. They came mainly from household expenditure statistics, data on employment and on the growth of the urban and rural populations. The NBS also carries the results of the Census forward to the recent period using similar methods. They believe that value added in service activities may have been underestimated for years since 1992 and that some new service activities are probably omitted altogether.

22. Value added in "non-market services", i.e. government health and education services and public administration and defence, is estimated at current prices by adding depreciation and compensation of employees. This is the standard procedure used by all countries but there is a problem for China because depreciation is almost certainly underestimated. (See paragraph 31 below.) To obtain estimates at constant prices the NBS deflates depreciation by a price index for capital goods, which is again standard procedure, but deflates compensation of employees by various service components of the consumer price index for urban areas. (See Chapter 3, paragraph 184.) The usual method of obtaining net value added of non-market services is to either deflate compensation of employees by a price index of wages or to extrapolate base year compensation by a volume index of the numbers employed. These methods produce either a zero growth in labour productivity for non-market services or small changes in productivity if the price or volume indices take account of changes in the composition of the labour force as between more and less skilled employees.

23. In his major study of Chinese economic performance, Professor Maddison has pointed out that the method used by the NBS implies a high growth rate for labour productivity for the period 1978 to 1995⁹. In his own estimates of China's GDP for 1952 to 1995, Maddison reworked value added for

non-market services assuming zero growth in labour productivity for the entire period. There could have been some increase in labour productivity in non-market services if, for example, the composition of the labour force was changing to include a higher share of more skilled employees, but it is probable that the NBS procedure has overstated real growth of value added in non-market services.

Prices

24. The NBS periodically issues a list of prices that are to be used by enterprises in reporting their output statistics. Lists were issued in 1952, 1957, 1970, 1980 and 1990. These are referred to as “comparable” prices. This practice developed under the central planning regime, when prices were used as part of the planning mechanism, and the comparable prices issued by the NBS are not necessarily market prices. Both agricultural and industrial output are reported to the NBS using these comparable prices. The NBS partially corrects for the use of these artificial prices because when a new set of comparable prices is released by the NBS, agricultural and industrial output for that year is revalued using market prices. For the intervening periods, however, output is extrapolated using volume measures that incorporate these artificial prices. This must introduce a bias into the constant price estimates, and the bias may be in different directions in different periods depending on the extent to which the comparable prices deviate from market prices.

25. Another problem with these price lists is that they cannot cover all products and certainly not new products that are introduced after the latest list has been issued. The latest list (1990) covers about 2000 items. It is not clear exactly how enterprises value products that are not on the price list, but this is likely to be an additional source of error.

Methodological issues

Price indices

26. The NBS calculates price indices using the “Sauerbeck” formula. This was the standard method used by the Soviet Union. Although the Sauerbeck formula does not have any particular features that recommend its use in centrally planned economies, it was adopted by other countries with central planning regimes. The Sauerbeck formula calculates price-relatives by chaining, but uses fixed weights to combine the price relatives to obtain the index. It can be shown that the Sauerbeck formula produces erratic results when inflation is irregular. For example, if prices move strongly upwards in one period followed by a slower increase and then another large increase, the Sauerbeck index will show prices rising more rapidly than will the Paasche, Fisher or chain indices recommended in the 1993 SNA¹⁰.

Financial intermediation services indirectly measured (FISIM)

27. The 1993 SNA treats the difference between interest received and interest paid by banks as an implicit (or hidden) charge levied by banks for their services as financial intermediaries. This is the traditional treatment and was also followed in the earlier versions of the SNA. The 1993 SNA, however, differs from its predecessor because it recommends that these implicit charges should be shown as purchases of intermediation services by the sectors that consume them. (In the previous SNA they were all shown as intermediate consumption of a fictitious bank.) The NBS partly follows the 1993 SNA recommendation but does so in an inconsistent fashion.

28. In the sector accounts showing the distribution and use of income (Tables 5 and 7 in the Statistical Annex), receipts and payments of bank interest are divided into implicit service charges and

pure interest – referred to in the text as “adjusted interest”. This is in accordance with the recommendations in the 1993 SNA. However, the 1993 SNA also requires that the implicit service charges be included in the final consumption expenditures of households and general government. At the present time this is not being done with the result that final consumption expenditure of the government and household sectors is too low and their saving is too high. Net lending to the rest of the world is also too low by the amount of net exports of FISIM, although such exports are not significant in the case of China.

29. If the complete recommendations of the 1993 SNA are followed, GDP is increased by the amounts of FISIM consumed by government and households and by net exports of FISIM. In the Chinese accounts, a special adjustment is made to raise the level of GDP by the amount of FISIM consumed by households. The adjustment consists in creating an artificial sub-sector within the financial enterprise sector which has a value added equal to net interest received by households from banks and other financial institutions.

30. The treatment of FISIM in China’s accounts is acknowledged to be unsatisfactory by NBS staff and is currently under review.

Depreciation

31. Value-added estimates for all service activities are obtained by adding estimates of the components of value added, i.e. employee compensation, net operating surplus and depreciation. This latter item is directly obtained from financial statements where it is calculated at historic cost or, in the case of ownership of dwellings, indirectly calculated from the estimated stock of dwellings at historic cost and an assumed depreciation rate. For national accounts purposes, depreciation should be calculated at current replacement cost. Using historic cost means that depreciation is calculated by reference to the value of the asset when it was first acquired; the correct procedure is to revalue existing assets to their current values before calculating depreciation. China has experienced considerable inflation since the reforms began in 1978 and if depreciation were calculated in the correct way it would be substantially higher than the historic cost estimates now being used by NBS. This does not affect the value added for market producers because the under-estimation of depreciation is compensated by an equal over-statement of net operating surplus. For government services and owner-occupied dwelling services, however, gross value added is being under-estimated. To obtain better estimates of depreciation, the NBS is considering developing its own estimates of the capital stock at current and constant prices.

Overall assessment

32. There can be no doubt that China's official national accounts are regarded with suspicion by many users outside China. Professor Maddison's 1998 study (See Box 2) raised serious questions about both the levels and growth rates of China's GDP. His criticism carries particular weight because it is based on a careful reworking of the GDP estimates and because he consulted widely with Chinese scholars who have first-hand knowledge of economic developments in China. The lower rates of growth reported in his study are regarded by most observers outside China (and by some experts in China) as more plausible than the official estimates.

33. This report on the sources and methods underlying the national accounts since 1992, shows that NBS staff draw on a wide range of statistical and administrative sources, that they are aware of possible biases in the basic data and make some adjustments for them, and that they are, in general, using the same kinds of estimation procedures as used in other countries. The detailed information supplied by NBS staff for this report also shows that they are committed to transparency and are open to ideas for improving their

estimates. At the same time, the sheer size of China, together with the limited resources currently devoted to national accounts and the continuation of MPS-oriented statistical procedures, inevitably means that the official GDP estimates are subject to margins of error that are somewhat larger than for other developing countries and substantially larger compared with most OECD countries.

34. The various problems noted in the sections above suggest that in some sectors GDP levels are over-stated in the official figures but under-stated in others. Overstatement appears probable in industry - notably for enterprises below the cut-off point - and in meat and fish production. Under-statement appears probable for most service activities both because historic depreciation is used in calculating value added for non-market services and because there has been no comprehensive survey of services since 1992. For agricultural crops, there is no clear evidence of bias in either direction.

35. As regards real growth rates, the NBS acknowledges that their existing procedures need improvement. Wu's estimates for industry show much lower growth than the official statistics and the NBS is now looking at alternative ways of measuring real value added in this sector. Maddison's estimates for the agricultural sector tend to confirm the official growth estimates, although the use of volume indicators based on artificial "comparable" prices will introduce a bias of unknown sign. As regards non-market services, deflation of compensation of employees by the consumer price index appears to have over-stated growth, but it seems probable that the real growth in market services is under-estimated in the official statistics because there has been no comprehensive study of service activities since the 1992 Census.

36. Professor Maddison's insight that the official growth rates and levels give an implausible level of per capita GDP for the 1950s is compelling. It is possible that most of the errors occurred in the early years of the period when the GDP estimates were being derived indirectly from MPS data rather than in the last decade when the SNA statistics have been estimated directly. However, as noted above, estimates of China's national accounts are likely to be subject to quite large error margins. A reasonable assessment might be that the official growth estimates represent an upper bound and the Maddison estimates represent a lower bound, with the true growth rates lying somewhere between the two.

Box 2. Alternative GDP Estimates made by Angus Maddison

Professor Maddison's study, *Chinese Economic Performance in the Long-Run*, reviews economic developments in China since A.D. 50, but concentrates mainly on economic policy and performance in the second half of the twentieth century. In looking at the official national accounts estimates for the period from 1952 to 1995, he concluded that the official estimates of the level of GDP in the 1990s, together with the official growth rates recorded since 1952, produced per capita GDP estimates for 1950 that were implausibly low. It therefore appeared that the levels of GDP must be under-estimated, or that the growth rates over the period from 1952 must be over-estimated, or that both errors are present. Professor Maddison reworked the GDP estimates for the period from 1952 to 1995¹¹. The main modifications are:

- ◆ He made detailed estimates of gross value added for farming using price and quantity data for 125 crops and livestock items, with adjustments for changes in the proportion of farm and non-farm inputs over time. He used official estimates for other activities in *agriculture*. Maddison found approximately the same rates of growth for *agriculture* as the official estimates but levels of value added nearly a fifth higher in the 1990s.
- ◆ He used Wu's (1997) estimates of gross value added in *industry*. These show substantially slower growth than the official estimates.
- ◆ For public administration and defence, health, education, banking, housing services, real estate, entertainment and personal services, Maddison extrapolated 1987 value added by the numbers employed in these activities. Thus he assumes no labour productivity growth in these activities, whereas high rates of labour productivity growth are implicit in the official figures. He augmented the 1987 weight for these services by a third because he believes that the official estimates undervalue housing, military outlays and welfare benefits in kind provided to employees.
- ◆ For retail and wholesale trade, transport and communications, hotels and restaurants he accepted the official figures except for the period 1952-1957. For construction Maddison accepted the official estimates for the whole period.
- ◆ Finally, Maddison used value-added weights from the 1987 input-output table for the full period 1952-1995. The official estimates are constructed in five linked segments with weights of 1952, 1957, 1970, 1980 and 1990.

Professor Maddison's estimates show a much higher level of real GDP at the beginning of the period and somewhat lower levels at the end of the period. (The "cross-over point", when the two sets of estimates are approximately equal is 1991/1992.) These estimates produce substantially lower growth rates throughout the period. For 1952-1995 Maddison reports an average annual GDP growth rate of 5.6 per cent compared with an official estimate of 7.6 per cent and for the reform period since 1978 he estimates average annual growth at 7.5 per cent compared with the official estimate of 9.9 per cent.

END NOTES

1. For a brief history of China's national accounts, see Li Qiang, "China's Practice in National Accounts", in *Research of Methodological Issues on National Accounts*, Department of National Economic Accounting, State Statistical Bureau, Beijing, 1997.
2. For a description of the 1992 Input-Output Table, see Cao Jie and Yang Hongcheng, "The Compilation Method of 1992 Input-Output Table at Constant Prices", in *Research of Methodological Issues on National Accounts*, Department of National Economic Accounting, State Statistical Bureau, Beijing, 1997.
3. For a description of the problems of reconciling the regional and national GDP estimates see Liu Liping, "The Reconciliation of National GDP Estimates with Regional Ones in China", in *Research of Methodological Issues on National Accounts (No. 3)*, Department of National Accounts, National Bureau of Statistics and National Accounts Division, OECD, Beijing, 1999.
4. For a description of NBS work on quarterly national accounts see Liu Huiping, "Brief Introduction to the Estimation of Quarterly GDP in China", and "The Reconciliation of Quarterly and Annual GDP Estimates", in *Research of Methodological Issues on National Accounts, Department of National Economic Accounting*, State Statistical Bureau, Beijing, 1997.
5. WORLD BANK (1994), *China GNP per Capita*, World Bank Document no. 13580-CHA, Washington D.C.
6. OECD (1998), *Agricultural Policies in Emerging and Transition Economies - Monitoring and Evaluation*, Paris.
7. XU Xianchun (1999), "Evaluation and Adjustments of China's official GDP by the World Bank and Professor Maddison", in *The Journal of Econometric Study of North East Asia*, Vol.1, no.2, (page 43).
8. WU, Harry W. (1997), *Reconstructing Chinese GDP according to the National Accounts Concepts of Value Added: the Industrial Sector*, COPPA Paper no.4, Griffith University, Brisbane.
9. MADDISON, Angus (1998), *Chinese Economic Performance in the Long Run*, OECD, Paris.
For what are termed "non-material services" in the MPS, Maddison calculated that the annual average growth rate of labour productivity was 4.7 per cent for the period 1978 to 1995. "Non-material services" consist of banking, housing services, real estate, entertainment and personal services and non-market services produced by government.
10. See, for example: McCARTHY, Paul, "Price Collection and Estimates at Constant Prices", in *Research of Methodological Issues on National Accounts (No.3)*, Department of National Accounts, NBS and National Accounts Division, OECD. Beijing.
11. See Maddison, page 151.

CHAPTER ONE

THE ESTIMATION OF GDP AT CURRENT PRICES BY INDUSTRIES

1. The estimate of GDP at current or constant prices can be made from the production side or from the expenditure side. Measured from the production side, GDP is the sum of value-added by industries; measured from the expenditure side, GDP is the sum of final expenditures, namely consumption, capital formation and net export of goods and services. Estimates at current prices mean using the prices in the current period of account while estimates at constant prices means using the prices of a base period. This chapter describes the data sources and calculation methods used for estimates of GDP from the production side at current prices. The next chapter describes the methods used to estimate GDP from the expenditure side at current prices. Chapter 3 explains how these current price estimates are converted to constant prices.

2. The estimation of value added for industries can be done by subtracting intermediate consumption from gross output or by adding up the components of value added, i.e. compensation of employees, taxes on production, net (i.e. taxes minus subsidies on production), depreciation of fixed assets and operating surplus. Both methods are used in China.

Section One. Agriculture, forestry, animal husbandry and fishing

3. Value added for this group of activities is estimated by deducting intermediate consumption from gross output.

I. Gross output

4. The gross output of agriculture, forestry, animal husbandry and fishing is generally calculated by the “product method”, that is, by multiplying the quantities of goods produced by their prices per unit.

A. The gross output of agriculture

5. The gross output of agriculture is equal to the gross output of the cultivation of crops and the gross output of “sideline activities”.

6. The gross output of the cultivation of crops is equal to the sum of the 11 items of gross output below:

- (1) the gross output of grain crops, including the value of the principal products such as rice, wheat, maize, millet and Chinese sorghum, and the value of by-products such as stalks, straw and bran;
- (2) the gross output of bean crops, including the value of the principal products such as soya bean, black soya bean, green soya bean, broad bean and pea, and the value of by-products such as bean stalks and bean pods;
- (3) the gross output of oil crops, including the value of peanuts, rapeseed, sesame seed, sunflower seed, castor seed and their by-products.
- (4) the gross output of hemp crops, including the value of jute, bluish dogbane, fiberflax, hemp, sisal hemp and their by-products;
- (5) the gross output of sugar crops, including the value of sugarcane, sweet beet and their by-products;
- (6) the gross output of tobacco crops, including the value of tobacco leaf and tobacco stalks;
- (7) the gross output of medicinal herbs, i.e. the value of the principal and by-products of the herbs grown by farmers;
- (8) the gross output of tuber crops, including the value of the principal and by-products of sweet potato, potato, etc.;
- (9) the gross output of vegetables and melons, i.e. the value of a variety of vegetables and melons;
- (10) the gross output of tea, mulberry and fruit, including the value of green tea, red tea, oolong, etc., the value of folium mori used to feed silkworms, and the value of varied fruits and nuts;
- (11) the gross output of other crops, i.e. those not classified above, such as forage plants, green manure crops, water plants, flowers, citronella, etc.

7. Their values are usually calculated by multiplying their quantities by their prices per unit. These quantities include agricultural products that are produced by farmers for their own consumption. The prices are calculated as the weighted average of prices in markets and the prices of government purchases. As regards flowers that are grown in gardens for sale, gross output is calculated as the value of sales; for forage plants and green manure crops, gross output is calculated by multiplying the sown areas by production costs per unit of area.

8. The gross output of “sideline activities” consists of the gross output of the wild vegetables collected by farmers and the gross output of the industrial products made by farmers as a “sideline” to farming. The value of the wild vegetables collected is calculated by multiplying their quantities by their prices per unit. The gross output of the industrial product made by farmers as a sideline covers the value of industrial products produced for sale by persons whose principal activity is farming. As for the simple processing of agricultural products and the repair of farm tools, gross output is calculated as processing or repair charges; for brewing, oil extracting, mining, brick-making, manufacture of farm tools, and weaving, gross output is calculated by multiplying the quantities of the products by their unit prices.

B. The gross output of forestry

9. The gross output of forestry is equal to the sum of the gross output of afforestation, the gross output of forestry products, and the gross output of bamboo-and-tree felling:

- (1) The gross output of afforestation consists of the gross output of afforestation on a large scale, slash renovation, tree planting in a scattered way, sapling growing, and tending young and mature trees, etc. This is calculated by multiplying the estimated volume of work done by the cost per unit.
- (2) The gross output of forestry products refers to the value of the products collected from man-grown bamboo and trees without felling or uprooting them. This is estimated as the quantities of forestry products collected, times their prices per unit.
- (3) The gross output of bamboo and tree-felling consists of the value of the bamboo and trees felled by farmers and collective farms at the level of village and below, but excluding bamboo and trees felled by state-owned farms. Output of bamboo and timber by state-owned farms is recorded under industry. This is calculated by multiplying the volume of the bamboo and trees felled by their prices per unit.

C. The gross output of animal husbandry

10. The gross output of animal husbandry comprises the gross output of large livestock (cows, donkeys, horses, mules, camels, etc.) through breeding and through weight increase as they mature; the gross output of pig raising; the gross output of sheep raising; the gross output of raising other livestock; the gross output of poultry raising; the gross output of poultry products and other livestock products; the gross output of hunting; the gross output of raising other animals and their products.

- (1) The gross output of large livestock consists of the value of new-born animals and the increase in value of young animals as they mature. New-born animals are defined as livestock less than one year old; their value is calculated by multiplying the numbers born by their price per head. The increase in value of young animals as they mature is calculated according to age groups. The value of each group is equal to the number of animals in each age group at the end of the accounting period times the difference in price of animals in that group and the price of animals in the age group one year younger. Animals are assumed to reach maturity (and therefore no longer increase in value) after three years for cows and donkeys and after four years for horses, mules and camels.
- (2) The gross output of pig raising is calculated according to the following formula:

The gross output of pig raising
equals half the net increase in the number of pigs in the accounting year
plus the number of the pigs slaughtered and net sales of pigs in the accounting year
times the prices per pig

In this calculation:

Net increase in the number of pigs in the accounting period
equals the number of pigs on hand at the end of the accounting year
minus the number of pigs on hand at the beginning of the accounting year.

(Only half the net increase in the number of pigs is included in the calculation because the pig price refers to mature animals and pigs are assumed to take two years to reach maturity)

The number of the pigs slaughtered and net sales of pigs in the accounting year
equals the number of the pigs slaughtered in the accounting year
plus the number of the pigs sold in the accounting year
minus the number of the pigs bought in the accounting year

(For China as a whole the numbers of pigs sold will equal the number of pigs bought so that the calculation of net sales has no impact on GDP. Net sales are calculated because the livestock estimates are made for provinces, as well as for the nation as a whole.)

- (3) The gross output of sheep raising is calculated according to the following formula:

The gross output of sheep raising
equals the net increase in the number of sheep in the accounting year
plus the number of the sheep slaughtered and net sales of sheep in the accounting year
plus one third of the number of the sheep that died in the accounting year
times the prices per grown sheep

(Sheep dying from natural causes are assumed to have one third of the value of a mature sheep.)

In this calculation:

Net increase in the number of sheep in the accounting period
equals the number of sheep on hand at the end of the accounting year
minus the number of sheep on hand at the beginning of the accounting year

The number of the sheep slaughtered and net sales of sheep in the accounting year
equals the number of the sheep slaughtered in the accounting year
plus the number of the sheep sold in the accounting year
minus the number of the sheep bought in the accounting year

- (4) The gross output of other livestock refers to raising animals with a commercial value such as forest deer, river deer, bears, martens and foxes. The gross output is equal to the value of the live animals sold in the accounting period plus the sales of furs, skin and meat of the animals slaughtered in the accounting year.
- (5) The gross output of poultry raising is equal to the sum of the gross outputs of the different kinds of poultry raised - chickens, geese, ducks, guinea fowl, etc. For each type of bird, gross output is calculated by the following formula:

The gross output of a given type of poultry
equals the number of poultry at the end of the accounting year
minus the number of the poultry at the beginning of the accounting year
plus the number of the poultry slaughtered in the accounting year
plus the number of the poultry sold in the accounting year
minus the number of the poultry bought in the accounting year
times the price per head

- (6) The gross output of poultry products and other livestock products is the value of products such as silkworm cocoon, honey and beeswax, which is calculated as the product of the quantities produced times their unit price.

- (7) The gross output of hunting consists of the value of animals captured. It is calculated by multiplying the numbers caught by their price per head.
- (8) The gross output of raising other animals and their products consists of the value created by raising animals not listed above. It is calculated by multiplying the numbers of animals or quantities of animal products by the corresponding prices. The value of the fur and skin from valuable animals raised is equal to their quantity times their price per unit.

D. The gross output of fishing

11. The gross output of fishing covers the gross output of marine products and fresh water products. The gross output of marine products is calculated by multiplying the quantities of fish, shellfish, crustacea, seaweed and other plants taken from the open sea or marine tanks by their corresponding unit prices. The gross output of fresh water products is similarly calculated by multiplying the quantities of the products taken from rivers and from natural or artificial lakes and ponds by their unit prices.

II. Intermediate consumption

12. The intermediate consumption of agriculture, forestry, animal husbandry and fishing consists of the values of the goods and services that are consumed in the process of production. This is calculated by multiplying the quantity of each type of good consumed by its market price plus purchases of services. The calculations are made separately for the following 13 types of goods and services.

- (1) ***Seed.*** This includes the seeds used to grow grain crops, bean crops, oilseed plants, etc., in agriculture, the seeds and seed saplings in forestry and the “seed” eggs used to raise poultry and the “seed” silkworms used for breeding in animal husbandry. The consumption of crop seeds is calculated by multiplying the average quantity of the seeds used per unit of area by the total area sown. The consumption of tree seeds or saplings is computed by multiplying the average quantity of seeds or saplings used per unit of area by the areas of trees planted. The consumption of seed eggs is estimated on the basis of the number of poultry raised adjusted for losses and consumption of seed silkworms is equated with the value of the silkworms actually harvested.
- (2) ***Forage.*** This includes various fine fodder such as grain, bran and oil cake and various crude fodder like fresh feed and stalks or straw of crops that are consumed in raising draught animals in agriculture, in raising domestic animals, poultry, rabbits, silkworms and bees in animal husbandry, and in raising fish or growing water plants in fishing. The amount of forage consumed by large livestock is estimated by multiplying the amount of the forage used per head of livestock by the annual average number of large livestock on hand. The amount of forage consumed by pigs, sheep and poultry is computed by multiplying the annual average amount of forage used per head by the number of each type.
- (3) ***Fertiliser.*** This covers chemical fertiliser, oil cake manure, green manure crops and by-products of crops such as crop stalks or straw dug back into the soil as mulch in agriculture and forestry. Data on the consumption of chemical fertiliser and green manure crops are shown in the “*Annual Statistical Report of Agriculture, Forestry, Animal Husbandry and Fishing*”. Consumption of oil cake manure and crop stalks or straw is calculated by multiplying the amount used per unit of area by the crop areas sown.

- (4) **Fuel.** This consists of fuels like gasoline, diesel, coal, etc., that are consumed by machinery in agriculture, forestry, animal husbandry and fishing. Where statistics are available, fuel consumption is calculated by multiplying the quantity of fuel consumed by each type of machine for a given unit of each type of work by the total amount of work performed. In other cases, it is computed as the fuel sold by commercial enterprises to farmers, plus fuel purchased by farmers directly from manufacturers, plus fuel produced by town and township enterprises for use in agriculture, forestry, animal husbandry and fishing.
- (5) **Pesticide.** This consists of the pesticide that is used in agriculture, forestry and animal husbandry. It is calculated on the basis of the physical quantities used as reported in the “*Annual Statistical Report on Agriculture, Forestry, Animal Husbandry and Fishing*”.
- (6) **Agricultural film.** This consists of the plastic film consumed in agriculture and includes mulch film and plastic film sheds. It is computed according to the data in “*Annual Statistical Report on Agriculture, Forestry, Animal Husbandry and Fishing*”.
- (7) **Electric power.** This consists of electricity consumed in agriculture, forestry, animal husbandry and fishing. It includes the power purchased and generated by units belonging to agriculture, forestry, animal husbandry and fishing. Consumption of electricity is calculated by subtracting power used for domestic purposes by farmers and in production other than agriculture, forestry, animal husbandry and fishing from the total power consumption in rural areas. The source is again the “*Annual Statistical Report on Agriculture, Forestry, Animal Husbandry and Fishing*”.
- (8) **Small farm tools.** These refer to small farm tools that are used in agriculture whose value is below 50 yuan and whose service lives are less than two years. The value of these purchases is either estimated from the social and economic surveys in rural areas or is calculated as the sales of small farm tools by commercial enterprises plus the value of the small farm tool produced by economic co-operatives in rural areas and by farmers themselves for use in agriculture.
- (9) **Office supplies.** These consist of office supplies purchased for agriculture, forestry, animal husbandry and fishing, including low-priced, non-durable goods such as paper, ink, etc. It excludes equipment and apparatus classified as fixed assets. The value is estimated from the social and economic surveys in rural areas.
- (10) **Medicine used for animals.** This covers medicine and medical appliances consumed in agriculture and animal husbandry for animal breeding, animal disease prevention and treatment of sick animals. The values are computed by multiplying the average costs of medicine and medical appliances per head by the number of animals.
- (11) **Crude materials.** These are mainly materials, spare parts, and packing materials that are consumed in manufacturing activities which farmers carry out as “sideline” activities. They are estimated from social and economic surveys in rural areas or from special survey statistics. The value is estimated from the social and economic surveys in rural areas.
- (12) **Outlays on “material” services.** These are payments for various “material” services in agriculture, forestry, animal husbandry and fishing, such as charges for repairs, transport, post and telecommunications, etc. They are from statistics of social and economic surveys in rural areas and special cost surveys.
- (13) **Outlays on “non-material” services.** These are purchases of various “non-material” services in agriculture, forestry, animal husbandry and fishing. Examples are livestock and poultry endemic

prevention, animal mating, insurance, advertising, training of employees, consultation on techniques, etc.

Section Two. Industry

13. Industry covers the following activities:

- (1) The exploitation of natural resources, such as mining, quarrying, bay-salting, logging, etc., but excluding hunting and fishing which belong to agriculture.
- (2) Primary and secondary processing of agricultural products and by-products, like grain processing, edible oil processing, food processing, cotton-rolling, textile production, paper products, curing skins and hides, production of leather goods, etc.
- (3) Primary and secondary processing of minerals, such as metallurgy, crude oil refining, chemical processing, timber production, production of metal goods, etc., as well as the production and supply of electricity, gas and water.
- (4) The repair and renovation of industrial products such as machinery, vehicles, etc.

14. In terms of the Chinese “Industrial Classification of the National Economy”, “industry” includes three broad categories: mining and quarrying; manufacturing; and the production and supply of electricity, gas and water.

15. The value added of industry is calculated separately for two types of producers:

- (1) State-owned industrial enterprises and non-state-owned industrial enterprises with annual sales of five million yuan or more. This group is referred to below as “industry above the cut-off level”.
- (2) Non-state-owned industrial enterprises whose annual sales are below five million yuan and affiliated industrial production units. This group is referred to below as “industry below the cut-off level”. Affiliated industrial production units are industrial production units that do not keep their own separate accounts and that are attached to non-industrial enterprises, public utility units and government administrative units. For example, an enterprise in the wholesale and retail trade may open a non-independently-accounting food processing factory.

I. The value added of industry above the cut-off level

16. These enterprises generally have rather sound business accounts and high professional quality of accountants and statisticians. These staff calculate the value added of industry for their enterprises and report them to the National Bureau of Statistics (NBS) directly in accordance with the principles and methods formulated by the NBS. The NBS calculates the value added of industry above the cut-off level by aggregating these reports.

17. The principles and methods of calculation is explained as follows.

A. Gross output

18. The value of gross output is calculated by the “factory method”. This involves taking an industrial enterprise as a whole and calculating the gross output of the enterprises on the basis of the final

results of its productive activities. Using the factory method means that it is not possible to calculate value added for workshop (or “establishment”) within the enterprises. Take, for example, a factory producing both cotton yarn and cloth and printing and dyeing cloth. The gross output of the factory consists of the value of the cotton yarn, white cloth and cloth printed and dyed which are sold to outsiders. It does not include the value of the cotton yarn and white cloth that are produced by the factory in one production process and then consumed in a subsequent production processes in a different workshop belonging to the same factory.

19. The gross output of industry consists of:

- (1) the value of the finished goods produced in the accounting period;
- (2) processing charges paid by outsiders; and
- (3) the value of changes in semi-finished goods and work-in-progress produced by the enterprise itself between the beginning and end of the accounting period.

20. The value of the finished goods is the value of all the finished goods, that have been sold or are going to be sold from inventories after being tested, inspected, packed, and needing no further processing, the value of fixed capital assets produced for own use and the value of finished goods that are provided for construction work within the enterprise and for other non-industrial production units and welfare units of the enterprise. The first component is calculated by multiplying the number of finished goods by the average current selling prices excluding taxes on sales; the last two components are considered as equal to the costs incurred. The value of finished goods does not contain the value of finished goods that are produced by processing materials supplied by those who order the goods.

21. Processing charges on outsiders refer to the charges paid by outside customers (including those who provide materials for their orders) for processing or repairing goods for them in the accounting period, excluding taxes on sales.

22. The value of changes in semi-finished goods and work-in-progress between the beginning and end of the accounting period refers to the difference between the values of the intermediate goods at the beginning and end of the accounting period that have been processed in some production processes in the accounting period but are to be processed further in a subsequent accounting period.

B. Intermediate input

23. The intermediate input of industry is also called intermediate consumption and includes the consumption of goods and services. The consumption of goods consists of the value of the raw materials, fuel, power and other goods that are consumed in industrial production activities; the consumption of services consists of the value of services such as transport, post and telecommunications, advertising, consultancies, insurance, etc., that are consumed in industrial production activities.

24. The intermediate input of industry is defined in a way that is consistent with the gross output of industry calculated by the “factory method”. It includes the value of the raw materials, fuel, power and other industrial goods that are purchased by an enterprise from the outside but excludes the value of raw material, fuel, power and other industrial inputs that are produced by the enterprise for its own use. The intermediate input of industry is valued at purchaser’s prices excluding value added taxes.

25. In accordance with the entries in business accounts, the intermediate input of industry includes intermediate inputs contained in “direct materials”, production overheads, general and administrative

expenses, selling expenses, and net interest payments. The intermediate input in “direct materials” consists of the value of the raw materials, other supplies and spare parts, semi-finished goods purchased from other enterprises, fuel, power, packing materials and other items included in the “direct materials” entry of business accounts that are actually consumed in the production process. It excludes special taxes on fuel oil.

26. The intermediate input in production overheads consists of maintenance expenses, office expenses, water and electricity charges, materials consumed, labour protection expenses, heating charges, experimental and inspection expenses, rental expenses, travelling expenses and insurance expenses, calculated according to the “production overheads” entry of business accounts.

27. The intermediate input in general and administrative expenses consists of maintenance expenses, office expenses, materials consumed, transport charges, amortisation of low-value consumables, amortisation of deferred expenses, travelling expenses, insurance expenses, entertainment expenses, research and development expenses, technology transfer fees, staff training expenses, consulting fees, legal fees and afforestation charges, calculated in accordance with the “general and administrative expenses” entry of business accounts.

28. The intermediate input in selling expenses consists of office expenses, transport charges, packaging expenses, materials consumed, amortisation of low-value consumables, rental expenses, insurance expenses, exhibition expenses, advertising expenses and travelling expenses, calculated according to the “goods-selling expenses” entry of business accounts.

29. The net interest payments are the difference between interest payable and interest receivable that are related to the production process, calculated in accordance with the “financial expenses” entry of business accounts. Net interest payments measure financial services indirectly measured (FISIM) which is an item of intermediate consumption.

C. Value added

30. Value added of industry includes value added taxes. It is calculated by the following formula:

The value added of industry
equals the gross output of industry
minus the intermediate input of industry
plus the value added taxes payable

Here value added taxes payable refers to the value added taxes that industrial enterprises are due to pay in the accounting period.

31. Industrial enterprises are divided into ordinary taxpayers and small-scale taxpayers. The calculation of value added taxes payable is different from one to another. The value added taxes paid by ordinary taxpayers are equal to taxes on sales in the accounting period minus taxes on purchases in the same period. Tax reimbursement on exports and taxes on purchases transferred have to be added if these items are relevant for the enterprise. Value added tax payable is then defined as follows:

Value added taxes payable
equals taxes on sales
less taxes on purchases
plus tax reimbursement for export

plus taxes on purchases transferred

32. The taxes on sales refer to sales of finished products and taxes on purchases refer to purchases of raw materials. Consequently the formula above is only valid in the special case where the goods produced in the accounting period are all sold in the same period and the raw materials purchased in the period are all used up in production in the period. In most cases, however, the production and sale of goods, and the purchase and consumption of raw materials do not take place simultaneously. Thus the timing of taxes on sales is usually different from that of taxes on purchases for an enterprises. In the usual case, therefore, value added taxes payable for an accounting period have to be estimated using the following formula:

The value added taxes payable
equals taxes on sales
times (gross output/sales of goods)
less taxes on purchases
times (consumption of raw materials/purchases of raw materials)
plus tax reimbursement for export
plus taxes on purchases transferred

33. If the tax reimbursement for exports is paid in a period longer than a year, it should be adjusted to a receivables basis for the accounting year.

34. No distinction between taxes on sales and taxes on purchases is made for small-scale taxpayers. The value added taxes payable by them is calculated by multiplying their sales by the tax rate which is currently 6 per cent.

II. The value added of industry below the cut-off level

35. For the non-state-owned industrial enterprise whose annual sales are below five million yuan, the NBS uses sample surveys. First the gross output of this group is estimated on the basis of data on sampled enterprises. Value is then obtained by multiplying the gross output by the average ratio of value added (consisting of compensation of employees, taxes on production, net, depreciation of fixed assets and profits) to gross output.

36. The value added of industry as a whole is equal to the value added of industry above the cut-off level plus the value added of industry below the cut-off level.

Section Three. Construction

37. Construction covers the following activities: the construction of buildings and other structures; the installation of power lines, pipelines, machinery and equipment; the repair of old buildings and other structures; the construction of non-standard equipment; the decoration and refurbishment of buildings and other structures, etc. In the "Industrial Classification of National Economy" construction is broken down into three categories: civil construction; the installation of circuits, pipelines and equipment; the decoration and refurbishment of structures. Civil construction is sub-divided into building construction; mine construction; the construction of railways, highways, tunnels and bridges; the construction of dams, power stations and wharves; other civil construction.

38. The government has established a grading system for construction enterprises which is determined by a comprehensive assessment of the quality of staff, management level, the amount of capital

and its past record. Enterprises assigned a rating of four or higher are qualified to undertake the more complex and expensive engineering and construction work. Different estimation procedures are used for enterprises rated at qualification four and above and for enterprises with a lower qualification rating.

39. The value added of construction is calculated in two steps. The first is to estimate gross output and value added (calculated by summing the components of value added) for construction enterprises at qualification four and above. The ratio of value added to gross output for this group of construction enterprises is then applied to the estimated gross output construction as a whole.

I. Gross output and value added of construction enterprises rated at qualification four and above

A. Gross output

40. Gross output of construction enterprises at qualification four and above is calculated in the same way as the gross output of industry above the cut-off level. Business accountants or statisticians in construction enterprises calculate the gross output for these enterprises following the standard principles and methods of calculation formulated by the NBS for nation-wide use. Statistics on gross output calculated in enterprises are first reported to local statistical agencies and then aggregated by to the NBS from lower level to upper level.

41. Gross output of the construction at qualification four and above has five components:

- (1) ***The gross output of construction engineering.*** This consists of the value of various types of construction engineering, including:
 - (a) the value of buildings such as factory plants, storehouses, offices, dwellings, shops, schools, hospitals, clubs, canteens, garages and restaurants, including the value of pipelines for water supply, drainage, steam supply, etc., power lines and cables that are contained in the budget of the buildings, the value of equipment for heating, sanitation, ventilation, lighting, gas supply, etc., and the value of decoration and painting;
 - (b) the value of construction engineering such as foundations, pillars, operational decks, ladders, chimneys, water-cooling towers, water pools, lime towers, masonry engineering and metal structure engineering such as coke furnaces, cracking furnaces, steam boilers, etc.;
 - (c) the cost of preparing construction sites, geological prospecting, the removal of old structures and obstacles, land levelling, the construction of temporary roads and facilities for the supply of water, electricity and steam, and the cost of clearing up construction sites and environmental afforestation after the completion of the work;
 - (d) the value of construction engineering such as railways, highways, bridges and wharves, and the value of shaft sinking, open-mine stripping and well drilling for oil and natural gas, etc.;
 - (e) the value of water conservancy facilities like reservoirs, dams, irrigation works and channel improvement;
 - (f) the value of special engineering and other engineering such as structures for air defense, underground shelters, etc.
- (2) ***The gross output of equipment installation.*** This consists of the value of equipment installation, including:

- (a) the cost of engineering work to install equipment used for production, power generation, lifting, transport, medical treatment and experiments, the cost of engineering work to install service platforms, ladders and rails connected to the equipment, to lay pipes attached to the equipment, and the value of the work to provide insulation, anticorrosion, heat preservation and painting for the equipment installed;
- (b) the value of the work to make experimental operation of one or more items of equipment or to make experimental zero-loading, co-ordinated operation of the system.

The value described above does not contain the value of the equipment installed itself.

- (3) ***The gross output of repairing buildings and other structures.*** This consists of the value of repairs to buildings and other structures, excluding the value of the buildings and other structures themselves and excluding the value of repairs to productive equipment.
- (4) ***The gross output of producing non-standard equipment.*** This consists of the value of the revenue received for producing non-standard equipment whose final design has not yet been standardised, such as tanks and troughs used by chemical factories, oil refineries, funnels, triangle grooves and valves used in the production system of shafts.
- (5) ***The gross output of decoration and refurbishment.*** This consists of the value of interior or exterior decoration or refurbishment of buildings.

42. In principle the gross output of construction is valued at the prices agreed between construction units and the units responsible for managing projects. If the contract signed by both parties stipulates that the project shall be settled at the budgetary or pre-estimated prices, then these are the prices used. Engineering projects that are open to competitive bidding are valued at the actual prices of the winning bidding. The gross output of construction is measured as the amount of work that is finished during the accounting period and excludes those parts of the total value of the project that are completed in other periods.

B. Value Added

43. The value added of construction enterprises at qualification four and above is calculated by the Department of Fixed Assets Investment Statistics of the NBS from data in the reporting form “*Financial Statements of Construction Enterprises*”. This is one of the set of comprehensive statistical forms used for the construction industry. Value added is obtained from these forms by summing the following components of value added:

- (1) ***Compensation of employees.*** This is equal to the sum of “wages and salaries payable in principal activities”, “welfare expenses payable in principal activities”, and “insurance expenses on labour and waiting-for-employment” plus other expenses incurred for employees from general administrative expenses. Insurance expenses for labour refer to pension payments, subsidies for medical expenses, etc., that are made by enterprises to their retired employees and the contribution to pool retirement pensions made by enterprises on behalf of their employees; the insurance expenses on “waiting for employment” refer to the contribution to the waiting-for-employment funds made by enterprises according to the regulations concerned. The other expenses made for employees from the general and administrative expenses refer to payments to employees under the headings of business travel, conference expenses and expenses for trade unions. These latter are the amounts paid by enterprises

to support trade unions and are used to pay union organisers and to provide food and entertainment for trade union members.

- (2) ***Taxes on production, net.*** This is equal to the sum of “taxes and surtaxes on construction” and “taxes” contained in the general and administrative expenses in the reporting form. The latter refer to taxes on real estate, taxes on vehicles, taxes on land uses, stamp taxes, etc., that are made by enterprises in accordance with tax regulations.
- (3) ***Consumption of fixed capital.*** This is equal to the depreciation expenses that are paid by enterprises for their owned fixed assets in the accounting period.
- (4) ***Operating surplus .*** This is equal to operating profits as reported in the form.

C. The ratio of value added to gross output

44. The ratio of value added to gross output for the construction at qualification four and above is their value added divided by their gross output. The NBS usually makes an upward adjustment when it uses this ratio because the form “Financial Statements of Construction Enterprises” is not detailed enough to exactly meet the requirements for calculating value added, and some very detailed items are neglected that should be included in value added when the form is used to calculate the value added of the construction at qualification four and above. These include expenses on land use contained in general and administrative expenses, part of the insurance expenses on property that are not insurance service charges, etc. The adjustment is usually made on the basis of input-output surveys carried out every five years.

II. The value added of construction as a whole

45. Apart from construction activities engaged in by construction enterprises at qualification four and above, there are the construction activities carried out by construction enterprises below qualification four and by construction units affiliated to non-construction enterprises and government. Because of difficulties in data collection, value added is not directly calculated for these enterprises and units. The procedure used here is to first calculate gross output of all construction activities using the relation between the value of fixed-asset investment and construction activities. Next, the ratio of value added to gross output of construction as a whole is determined using the ratio calculated as described above for construction enterprises rated at qualification four and above. Finally, value added of all construction activities is the product of total gross output and the ratio of value added to gross output.

46. Like the gross output for construction at qualification four and above, gross output of construction as a whole includes five components: construction engineering; equipment installation; repairing buildings and other structures; producing non-standard equipment; and decoration and refurbishment. The first two components constitute the major part of the gross output of construction. In practice, they are estimated using the value of fixed-asset investment and its relations to construction activities. Gross output for these two components are then added to the last three components, which are estimated by using supplementary data, to derive the gross output of construction as a whole.

47. The value of the fixed-asset investment is the most important indicator of fixed-asset investment statistics. It consists of the value of construction engineering, the value of installation engineering, purchases of equipment, tools and apparatus, and other expenses. The value of construction engineering corresponds to the gross output of construction engineering and the value of installation engineering to the gross output of equipment installation. These two values are treated as the gross outputs of construction engineering and equipment installation, data on them being collected from “*Fixed-Asset Investment*

Statistical Forms". Gross output of repairing buildings and other structures, producing non-standard equipment and decoration and refurbishment for construction as a whole is estimated by the following formula:

The gross output of repairing buildings and other structures, producing non-standard equipment and decoration and refurbishment for construction as a whole
equals the gross output for these activities calculated for construction enterprises rated at qualification four and above
times the gross output of construction engineering and equipment installation of construction as a whole
divided by the gross output of construction engineering and equipment installation for construction enterprises rated at qualification four and above.

48. The gross output of construction as a whole is equal to the gross output of construction engineering and equipment installation of construction as a whole plus the gross outputs of repairing buildings and other structures, producing non-standard equipment and decoration and refurbishment of construction as a whole.

49. The ratio of value added to gross output for construction as a whole is calculated using the ratio for construction at qualification four and above and considering the difference in ratios between these enterprises and lower qualified enterprises. The value added of construction as a whole is derived by multiplying the ratio of value added to gross output for construction as a whole by the gross output of construction as a whole.

Section Four. Transport, post and telecommunications

50. Transport, post and telecommunications includes railway transport, highway transport, waterway transport, air transport, pipeline transport, post and telecommunications. Because of the constraints of data sources, the services that are ancillary to transport are also included in transport. For example, highway transport contains the management and maintenance of highways; waterway transport contains harbour services and other ancillary services; air transport comprises airport services and other services ancillary to air transport. Loading and unloading services, and warehousing services are also included in the relevant types of transport.

51. Because of the different data sources available, transport, post and telecommunications are divided into two groups for calculating their value added. These two groups are shown in the following table:

Sub-industries	First group	Second group
Railway transport	National railway transport	Local railway transport
Highway transport	Highway transport carried out by enterprises under the Ministry of Transport; Maintenance of highways	Highway transport outside the system of the Ministry of Transport
Waterway transport	Waterway transport and harbour services carried out by enterprises under the Ministry of Transport;	Waterway transport outside the system of the Ministry of Transport
Air transport	National air transport; local air transport	
Pipeline transport	National pipeline transport	
Post and telecommunications	National post and telecommunications	Local post and telecommunications

1. Calculation of value added for the first group

52. For the first group, value added is calculated on the basis of (aggregated) financial statements of enterprises by summing up the components of value added, i.e. compensation of employees; depreciation of fixed assets; taxes on production, net; operating surplus. These four components are obtained as follows:

Compensation of employees
equals the total of wages and salaries
plus expenses for the welfare of employees
plus expenses on labour insurance
plus expenses on insurance for “waiting for employment” included under general and administrative expenses
plus other items of general and administrative expenses that constitute compensation of labourers

(The last item includes the payment made to the labourers under the headings of business travel fares, conference expenses, and expenses for trade unions.)

Depreciation of fixed assets
equals the amounts paid into the depreciation fund in the accounting period for fixed assets

Taxes on production, net
equals taxes on turnovers and surtaxes
plus the part of general and administrative expenses that constitute taxes on production

(The last item includes stamp taxes, taxes on land uses, taxes on real estate, and taxes on vehicles.)

Operating surplus
equals reconstruction funds (railway reconstruction fund, civil aviation infrastructure fund, etc.)
plus operating profits
less profits from activities other than principal activities

(Reconstruction funds are charges against operating surplus and are considered akin to depreciation charges.)

53. The data sources used above for each sub-industry in the first group are shown in the following table:

Sub-industries		Data sources
Railway transport	National railway transport	“Final statements on transport activities”, the Ministry of Railways
Highway transport	Highway transport carried out by the transport enterprises under the direct guidance of the Ministry of Communications	“Final accounts of the enterprises affiliated to the Ministry of Communications”, the Ministry of Communications
	Highway transport carried out by transport enterprises under the guidance of local authorities in the system of the Ministry of Communications	“Final accounts of the state-owned transport enterprises under the guidance of local authorities”, the Ministry of Communications

Table continued ...

Sub-industries		Data sources
Waterway transport	Waterway transport carried out by transport enterprises under the direct guidance of the Ministry of Communications	“Final accounts of the enterprises affiliated to the Ministry of Communications”, the Ministry of Communications
	Waterway transport carried out by transport enterprises under the guidance of local authorities in the system of the Ministry of Communications	“Final accounts of the state-owned transport enterprises under the guidance of local authorities”, the Ministry of Communications
	Harbour services carried out by transport enterprises under the guidance of local authorities in the system of the Ministry of Communications	“Final accounts of the state-owned transport enterprises under the guidance of local authorities”, the Ministry of Communications
Air transport	National air transport	“Final accounts of the air transport enterprises”, National Administration for Civil Aviation
Pipeline transport	National pipeline transport	“Final statements of pipeline activities”, China Oil and Natural Gas Corporation
Post and telecommunications	National post and telecommunications	“Final accounts of the post and telecommunication enterprises”, the Ministry of Information Industry

54. Most of the various components of value added are reported in the sources listed under “main indicators”, “transport cost form”, “expenses during the period form”, “non-business income and expenditure form” and “profits and losses form”. Some minor components of compensation of employees are estimated on the basis of the latest input-output investigation.

II. The calculation of value added for the second group

55. The basic approach is to estimate the gross output for each activity and multiply them by ratios of value added to gross output that have been calculated for the same activities in the first group, as described above. As mentioned already, the first group has sound business financial statements that allow good estimates of both their gross output and value added.

A. The value added of local railway transport

56. The value added of local railway transport is calculated by multiplying the ratio of value added to gross output of national railway transport by the gross output of local railway transport. The latter is considered as equal to the operating income of local railway transport, which is found in “*Statistics on the Railway Transport of the Country*”, which is published annually by the Ministry of Railways.

B. The value added of the highway and waterway transport outside the system of the Ministry of Communications

57. The highway and waterway transport outside the system of Ministry of Communications refers to transport activities that are carried out by individual entrepreneurs and enterprises that are not governed by the Ministry of Communications. Their gross output is estimated in the following way:

- (1) ***Conversion of the volume of turnover for passenger and freight transport into the same physical units.*** The number of passengers transported is converted into their freight equivalent on the assumption that 10 person-kilometres are equal to one ton-kilometre for highway transport and 2 person-kilometres are equal to one ton-kilometre for waterway transport. Total ton-kilometres of passenger and freight for highway and waterway transport is then calculated. The necessary data are taken from the “*Annual Statistical Report on Transport, Post and Telecommunications*”, NBS.
- (2) ***Calculation of the share of highway and waterway transport provided by individual entrepreneurs and enterprises outside the system of the Ministry of Communications.*** Non-transport enterprises and government units may provide their own transport services. These are treated as ancillary activities and value added in respect of such transport is included in the value added of their main activities. Transport undertaken as an ancillary activity is therefore subtracted from total transport turnover.
- (3) ***The gross output of highway and waterway transport outside the system of the Ministry of Communications.*** This equals the volume of turnover outside the system divided by that inside the system multiplied by the gross output inside the system.
- (4) ***Calculation of value added.*** This is estimated by multiplying gross output by the relevant ratio of value added to gross output, which is determined by adjusting the ratios calculated for enterprises operating within the system of Ministry using information on differences in the ratios outside and within the system as recorded in *1992 Service Census*.

C. The value added of local post and telecommunications

58. Value added of local post and telecommunications is calculated by multiplying the gross output of local post and telecommunications, which is taken from the “financial accounts of post and telecommunications enterprises” in the “*Annual Statistical Report on Transport, Post and Telecommunications*”, by the ratio of value added to gross output for national post and telecommunications.

Section Five. Wholesale and retail trade and catering services

59. Wholesale and retail trade covers: wholesale trade, import and export companies; commercial brokers and agencies, including middlemen and auctioneers; retailers, including shops, mail-order houses, peddlers, pawn-shops; independently-accounting warehousing units attached to wholesale or retail departments. Catering services include restaurants, tea houses, drinkeries, etc., as well as factory canteens that are open to outsiders.

60. As with transport, post and telecommunications, the wholesale and retail trade and catering service are divided into two groups: those with and those without sound business accounts. Value added for the first group is calculated by adding up the components of value added as recorded in the annual final financial accounts. These are collected, aggregated and edited by the government agencies concerned or by NBS. Value added for the second group is estimated by using the ratio of value added to gross output of the group as determined by the latest input-output survey and the ratios calculated for enterprises in the first group.

I. The value added of the first group

61. This group comprises state-owned wholesale and retail enterprises, state-owned catering enterprises, and non-state-owned large or medium-sized wholesale and retail enterprises and catering enterprises. The value added of state-owned enterprises in wholesale and retail trade and catering services is calculated from the final accounts or statements that are collected by the Ministry of Finance, National Bureau of Internal Trade, the Ministry of Foreign Economy and Trade and National Supply and Marketing Co-operatives for the state-owned enterprises under their supervision. Value added of the non-state-owned large or medium-sized enterprises in wholesale and retail trade and catering services is calculated from the financial statements of the enterprises above the cut-off level in wholesale and retail trade and catering services. These are contained in *the "Annual Comprehensive Statistical Report on Wholesale and Retail Trade and Catering Services"* which is collected and edited by the NBS. The calculation formulas are as follows:

Compensation of employees
equals wages and salaries payable from principal activities
plus welfare expenses payable from principal activities
plus expenses on labour insurance
plus expenses on insurance for waiting-for-employment
plus expenses paid for personal uses in general and administrative expenses

Taxes on production, net
equals taxes and surtaxes on the sales of merchandise
plus taxes included in general and administrative expenses
plus value added taxes payable
plus custom duties
minus subsidies to the enterprises dealing in domestic wholesale and retail
minus tax reimbursement on exports

Depreciation of fixed assets
equals the amounts paid into the depreciation fund in the accounting period for fixed assets

Operating surplus
equals operating profits from principal activities
plus the tax reimbursement received by foreign trade enterprises

62. In the formulas above, data on custom duties are collected from government finance statistics; data on expenses paid for personal uses (e.g. business travel, conference, trade union activities) are estimated from the latest input-output survey; data on the other indicators are collected from various final accounts or statements that are prepared by the government agencies concerned.

II. The value added of the second group

63. The second group of wholesale and retail trade and catering services comprises non-state-owned small wholesale and retail enterprises, restaurants, units affiliated to enterprises other than in wholesale and retail trade and catering services or to general government units that are engaged in wholesale and retail trade or supply catering services, plus individual entrepreneurs who deal in wholesale and retail or supply catering services.

64. Value added of the second group is obtained by first estimating their gross output and then multiplying the gross output by the ratio of value added to gross output calculated for the first group.

65. The gross output of the wholesale and retail trade of the second group is estimated in the following formula:

The gross output of wholesale and retail trade
equals the sales of wholesale *times* wholesale margin rate per cent
plus the sales of retail *times* retail margin rate per cent

Data on sales of non-state-owned small wholesale and retail enterprises, individual wholesalers and retailers, and affiliated units are taken from the form “the sales of merchandise on a wholesale or retail below the cut-off level” in “*Annual Comprehensive Statistical Report on Wholesale and Retail Trade and Catering Services*” published by the NBS. Data on sales of merchandise in country fairs are taken from the item of “sales by farmers to non-farmers” in the form “the retail sales of consumer goods in the society”. The margins charged at the wholesale level and at retail trade level are estimated from special surveys, the *1992 Service Census* and the latest input-output survey.

66. The gross output of catering services is the operating income of restaurants, tea houses, etc. Data on the operating income of small enterprises, individual entrepreneurs, and affiliated units are taken from the report on “sales of catering services” in the “*Annual Comprehensive Statistical Report on Wholesale and Retail Trade and Catering Services*”.

67. Value added both for wholesale and retail trade and for catering services below the cut-off level is estimated by multiplying their gross output by the relevant ratios of value added to gross output, which are determined from the service census and the latest input-output survey.

Section Six. Banking and insurance

68. Banking and insurance covers the central bank (The People’s Bank of China), state-owned policy banks, state-owned commercial banks, savings banks and other commercial banks, non-bank financial institutions engaged in trust and investment management, financial leasing and security transactions, security companies, financial companies, insurance companies, etc. Also included are credit co-operatives. These are co-operative financial institutions which are established by pooling money for the purpose of mutual help. They include rural credit co-operatives, urban credit co-operatives and other types of credit co-operatives.

I. The value added of banking and insurance

69. Value added is calculated by the “income approach”, i.e. by adding the components of value added. The calculation formulas are as follows:

Compensation of employees
equals wages and salaries payable
plus welfare expenses
plus expenses on labour insurance
plus expenses on insurance for waiting for employment
plus the part paid for personal uses in general and administrative expenses

Data on wages and salaries payable, welfare expenses, expenses on labour insurance, and expenses on insurance for waiting for employment are taken from the annual final accounts of financial institutions; data on travelling expenses, meeting expenses, and trade union expenses that are for personal uses are taken from the latest input-output survey.

Taxes on production, net
equals taxes and surtaxes on turnover
plus taxes paid from general and administrative expenses

Data on taxes and surtaxes on turnover are taken from the profit and loss statements in the final accounts of financial institutions, while taxes paid from general and administrative expenses include stamp taxes, taxes on land uses, taxes on real estate, and taxes on vehicles.

Depreciation of fixed assets
equals payments into the depreciation fund during the accounting period.

Data on this item are directly taken from the corresponding entry in the final accounts

Operating surplus
equals operating profits
plus income from investment, other than interest on loans.

Data on these two items are directly from the corresponding entries in the final accounts.

70. The data sources for the calculation of value added of banking and insurance are various final accounts or statements of financial institutions. At the present time, China Security Supervision and Management Commission and China Insurance Supervision and Management Commission are responsible for collecting and checking the final accounts of security companies and insurance companies respectively. The coverage is complete, so there is no necessity for the NBS to make any adjustments for coverage of these sub-sectors. However, for other financial institutions, mainly banks, there is no specific government agency responsible for collecting and checking their financial accounts, and the NBS has to collect them itself. The NBS collects data from central bank, state-owned policy and commercial banks, and other important non-state-owned banks, which perform about 80 per cent of banking activities. Value added of the banking system as a whole is obtained by multiplying value added of the banks covered by the NBS survey by total outstanding deposits, plus outstanding loans (averaged over the accounting period) and dividing by the sum of deposits and loans of the banks covered by the NBS. Statistics on deposits and loans are provided by the People's Bank of China.

II. Interest on saving deposit of households

71. According to the present practice of national accounts in China, the treatment of implicit charges for financial intermediary services is neither in line with the 1968 SNA nor with the 1993 SNA. It takes the difference between the interests paid and received by non-financial enterprises as an intermediate input of the non-financial enterprise sector. The net interest paid by non-financial enterprises is usually larger than the net interest received by financial institutions – the difference mainly consists of the interest received by households – thereby leading to an overstatement of the intermediate input of non-financial enterprises. As a result, the value added of the non-financial sector and of the economy as a whole is under-estimated.

72. To solve this problem, the NBS has created a sub-sector called “others” under banking and insurance. The value added (i.e. operating surplus) of the sub-sector is equal to the amount of net interest received by households. The reason why the level of value added is equal to the net interest received by households is that most of the net interest payment made by non-financial sectors (mainly industry) to banks are transferred to households through banks. The purpose of this special adjustment is to avoid underestimating the level of GDP as defined in the 1993 SNA. The NBS recognises that the present practice in the treatment of bank interest is not in line with principles of SNA. The NBS will revise its treatment of interest in the near future.

Section Seven. Real estate

73. Real estate in China covers the following activities:

- (1) ***The development and operation of real estate.*** This consists of the commercial services that are provided by enterprises whose principal activities are the development and operation of real estate and other types of units which develop or deal in real estate, excluding activities such as land levelling, land improvement, building construction, etc., that fall in construction.
- (2) ***House leasing.*** This comprises the activities that are carried out by various types of units and households engaged in leasing out dwellings, houses for production uses and office buildings. In China house leasing is divided into the following categories:
 - (a) Services for profit, i.e. the activities of house leasing that are carried out by real-estate development and operating enterprises, other types of units and urban and rural households for the purpose of making profits;
 - (b) Non-profit services, i.e. housing services that are provided by government agencies responsible for the management of real estate in urban areas and by enterprises, public utility units and government administrative units to their employees and their family members;
 - (c) Owner-occupied dwelling services, i.e. the services that are imputed for the owner-occupiers of dwellings in urban and rural areas.
- (3) ***Real estate agencies.*** Enterprises such as real estate exchanges, real estate valuation agencies. These enterprises act as intermediaries in real estate transactions.

74. In the national accounts of China, the following activities among those mentioned above are not being measured at the present time:

- (1) House leasing for profit carried out by urban and rural households (part of (2) (a) above);
- (2) Provision of housing services by enterprises, public utility units and government administrative units to their employees (part of (2)(b) above);

The first omission - provision of housing services for profit by individual households - is not very important at the present time, but the second omission is more significant because employees of many enterprises and of government are provided with housing by their employers.

The value added of real estate is calculated by summing up its components.

I. Compensation of employees.

75. This includes wages and salaries, welfare income, income in kind and other income.

- (1) ***Wages and salaries and welfare income.*** The data on wages and salaries are taken from statistics on labour compensation in real estate as reported in the “*Annual Statistical Report on Labour*”; welfare income is calculated as the 14 per cent of the wages and salaries.
- (2) ***Income in kind.*** This is estimated on the basis of monthly average income in kind per capita and the annually average number of the workers and staff in real estate using the following formula:

Annual income in kind
equals monthly average income in kind per capita *times* 12
times annually average number of the workers and staff in the real estate

Data on the annual average number of workers and staff in real estate are taken from the “*Annual Statistical Report on Labour*”; data on monthly average income in kind per capita is estimated on the basis of the ratio of income in kind to wages and salaries that are shown in the statistics on “the situation of personal income of workers and staff”.

- (3) ***Other income.*** This refers to the part of the operating expenses incurred by real enterprises and similar units that should be treated as compensation of employees in the context of SNA.

76. The estimate of compensation of employees that is calculated above usually needs to be adjusted upwards on the basis of data from 1992 Service Census.

II. Taxes on production, net

77. This comprises the taxes on turnover and surtaxes and other taxes paid by enterprises and units engaged in the development and operating of real estate, government agencies that are responsible for the management of real estate, and brokers and agents in real estate. The taxes on turnover and surtaxes are obtained from the “*Annual Statistical Report on Real Estate Development*” and the “*Financial Indicators of Real Estate Units*” edited by the Ministry of Construction. The other taxes include stamp taxes, taxes on real estate, taxes on vehicles, taxes on land use, taxes for municipal maintenance, etc. They are estimated according to the ratio of these taxes to operating expenses as reported in the 1992 Service Census.

III. Depreciation of fixed assets

78. This consists of the depreciation of fixed assets owned by various types of real estate enterprises and units and the depreciation of dwellings owned and occupied by households in urban and rural areas. The former is calculated by using the “*Annual Statistical Report on Real Estate Development*”, the “*Annual Statistical Report on Fixed-Asset Investment*” and the “*Financial Indicators of Real Estate Units*” published by the Ministry of Construction. Depreciation of owner-occupied dwellings is computed by multiplying the estimated value of owner-occupied dwellings by a depreciation rate. The depreciation of dwellings owned and occupied by ***urban*** households is equal to the value of dwellings per capita multiplied by the population in rural areas *times* the annual depreciation rate of 4 per cent. Depreciation of the dwellings owned and occupied by ***rural*** households is equal to the housing areas owned and occupied by them multiplied by the construction cost per square meter *times* an annual depreciation rate of

2 per cent. Data for these calculations are taken from relevant urban and rural household budget surveys and the “*Annual Statistical Report*” compiled by the Ministry of Construction.

IV. Operating surplus

79. The operating surplus of real estate mainly consists of the operating profits of the enterprises and units that are engaged in the development and operating of real estate, which is calculated on the basis of the “*Annual Statistical Report on Real Estate Development*”. The other components are estimated on the basis of 1992 Service Census.

80. The valued added of real estate is then obtained by summing up the four components above.

Section Eight. Government agencies, party organs and social organisations

81. Government agencies, party organs and social organisations are composed of:

- (1) ***Government agencies***, including legislative agencies and administrative agencies at each level, army and armed police;
- (2) ***Party organs***, including Chinese Communist Party and its offices at each level, all the democratic parties and their offices at each level, and the Chinese People’s Political Consultative Conference at each level;
- (3) ***Social organisations***, including trade unions at each level, the Chinese Communist Youth League and its offices at each level, the Women’s Federations at each level, cultural federations at each level, the disabled federations at each level, the association of industry and commerce at each level, other types of associations, the Red Cross Society of China, the Welfare Society of China, the Children Protection Society of China, various types of academic organisations and religious organisations;
- (4) ***Popular self-ruling organisations*** at grass-roots level, including various types of urban household commissions and villager commissions.

82. The value added of government agencies, party organs and social organisations is calculated by summing the components of value added.

I. Compensation of employees

83. The compensation of employees of government agencies, party organs and social organisations comprises wages and salaries, welfare income, income in kind, and other income:

- (1) ***Wages and salaries and welfare income***. The data on wages and salaries are taken from the corresponding statistics shown in the “*Annual Statistical Report on Labour*”; the welfare income is calculated as 14 per cent of the wages and salaries. This item includes pension payments to retired employees; these amounts are taken as an estimate of imputed contributions by employers for unfunded pension schemes.
- (2) ***Income in kind***. This is estimated on the basis of monthly income in kind per capita and annually average number of workers and staff using the following formula:

Annual income in kind

equals monthly income in kind per capita *times* 12

times the annually average number of workers and staff in government agencies, party organs and social organisations

The estimate of the average number of workers and staff in government agencies, party organs and social organisations can be found in the “*Annual Statistical Report on Labour*”; the monthly income in kind per capita is estimated using “the ratio of income in kind to wages and salaries” that is shown in the table on “personal income of workers and staff”.

(3) **Other income.** This refers to payments by government agencies, party organs and social organisations for personal use by their workers and staff and is found under public service expenses, business expenses or other expenses. It is estimated by multiplying the “public service expenses, business expenses and other expenses” shown in the “*Annual Financial Statements of Service Sector*” by the ratio of other income to these expenses that is determined by the latest input-output survey.

II. Taxes on Production, net

84. Taxes on production, net paid by government agencies, party organs and social organisations are estimated by multiplying the “public service expenses, business expenses and other expenses” by the ratio of the taxes on production, net to these expenses as determined by the latest input-output survey.

III. Depreciation of fixed assets

85. The following two steps are involved in the calculation of depreciation of fixed assets. The first step is to subtract the depreciation of the fixed assets that were retired in the accounting period from the depreciation of fixed asset calculated for the last accounting period. The second step is to add the depreciation of new fixed assets that are introduced during the accounting period. The depreciation rate for newly created fixed assets, (taken from the “*Annual Report on Fixed-asset Investment*”), is 4 per cent.

Section Nine. Other services

86. Other services consist of services for agriculture, forestry, animal husbandry and fishing, geological prospecting and water conservancy management, social services, health, sports and social welfare, education, culture and art, radio, film and television, scientific research and comprehensive technological services, personal services and others. Estimation of these services are described together because of the similar data sources and calculation methods. Though they are called “other services” in short, they are not a category of the Industrial Classification of National Economy.

87. Value added of other services is calculated by the income approach, i.e. by adding up the components of value added.

I. Compensation of employees

88. The compensation of employees is composed of wages and salaries, welfare income, income in kind, other income, the income earned by farmers from secondary activities, the compensation of employees working in private enterprises, and the compensation of individual entrepreneurs in urban and rural areas. (It should be noted that these items are divided according to data sources, so the compensation

of the employees working in private enterprises is not included in the such items as wages and salaries, welfare income, income in kind, and other income.)

- (1) **Wages and salaries and welfare income.** The data are taken from the “*Annual Statistical Report on Labour*”. The welfare income is calculated as 14 per cent of the wages and salaries.
- (2) **Income in kind.** This is estimated on the basis of monthly income in kind per capita and annual average number of workers and staff using the following formula:

Annual income in kind
equals monthly income in kind per capita *times* 12
times the annually average number of workers and staff of other services

The annual average number of workers and staff in other services can be found in the “*Annual Statistical Report on Labour*”. The monthly income in kind per capita is estimated using “the ratio of income in kind to wages and salaries” that is shown in the table on “personal income of workers and staff”.

- (3) **Other income.** This refers to the payments made by enterprises (excluding private enterprises) for the personal use by their workers and staff which are included under operating expenses and which have not already been included in wages and salaries, welfare income or income in kind above. It is estimated by multiplying total wages and salaries of other services by the ratio of other income to wages and salaries as measured by the latest input-output survey.
- (4) **Income earned by farmers from secondary activities.** This refers to the income that is received by farmers by supplying services as a secondary activity. It is estimated by multiplying annually average wages and salaries by the number of the farmers supplying services as their secondary activities, that is:

The income earned by farmers from secondary activities
equals annual average wages and salaries
times the number of the farmers supplying services as a secondary activity

The number of farmers supplying services as a secondary activity
equals the number of other non-agricultural labourers
minus the number of the farmers who go and work outside as contract workers or casual labourers
times the proportion of the number of workers and staff in other services in the total number of labourers

Data on “the numbers of the farmers who go and work outside as contract workers or casual labourers” are taken from the table on “basic situation and labour resources in rural areas” in the “*Annual Statistical Report on Agriculture, Forestry, Animal Husbandry and Fishing*”; the proportion of the number of workers and staff of other services in the total number of labourers is calculated by dividing the annual average number of workers in other services by the annual average total number of workers as reported in the “*Annual Statistical Report on Labour*” ; the data on annually average wages and salaries are taken from the same report.

- (5) **Compensation of employees working in private enterprises.** This refers to the compensation received by the workers and staff who work in private enterprises in other services. It is calculated by the following formula:

Compensation of employees working in private enterprises
equals the operating income of private enterprises
times the proportion of compensation of employees in the operating income

Data on the operating income of private enterprise are taken from the table on “basic situations of production and operations of private enterprises of the nation” published by the National Administration for Industry and Commerce; the proportion of compensation of employees in the operating income is determined on the basis of 1992 Service Census, adjusted when necessary.

- (6) ***Compensation of individual entrepreneurs in urban and rural areas.*** Compensation received by individual entrepreneurs working in other services is estimated from data on operating income in these activities and the proportion of employee compensation in operating income. The following formula is used for estimation:

The compensation of individual entrepreneurs in urban and rural areas
equals the operating income
times the proportion of employee compensation in operating income

Data on operating incomes are taken from the table on the “basic situations of urban and rural individual entrepreneurs of the country” published by the National Administration for Industry and Commerce; the proportion is determined by 1992 Service Census data, adjusted when necessary.

II. Taxes on production, net

89. Taxes on production are composed of taxes on turnover, taxes for municipal maintenance, taxes on real estate, taxes on vehicles, taxes on land use, stamp taxes, surcharges for education. Subsidies on production comprise subsidies on prices and subsidies on operating losses. The taxes on production, net are estimated from the table on “taxes on turnover by industries” that is included in the “*National Taxes Statistics*” published by National Bureau of Taxes.

III. Depreciation of fixed assets

90. The calculation of depreciation of fixed assets involve two steps. The first step is to subtract the depreciation of the fixed assets that have been retired in the accounting period from the depreciation of fixed asset calculated for the last accounting period. The second step is to add the depreciation of new fixed assets created during the accounting period. The annual depreciation rate on newly created fixed assets (taken from the “*Annual Report on Fixed-Asset Investment*”) is 4 per cent.

IV. Operating surplus

91. Operating surplus is calculated using the following formula:

Operating surplus
equals operating income
times the share of operating surplus in the operating income

The operating income is equal to the sum of the operating income of enterprises of other services shown in the “*Annual Financial Statements of Other Services*”, the operating income of private enterprises of other services shown in the table on the “basic situation on production and operation of private enterprises of the

country ” and the operating income of individual entrepreneurs of other services shown in the table on the “basic situation of urban and rural individual entrepreneurs of the country”. These two tables are published by the National Administration for Industry and Commerce. The share of operating surplus in the operating income is determined by *1992 Service Census* data with necessary adjustment.

CHAPTER TWO

GDP ESTIMATES AT CURRENT PRICE ACCORDING TO THE EXPENDITURE APPROACH

Introduction

1. The estimates of expenditure on the GDP at current prices in China cover the following components:

- Final consumption
 - Household final consumption expenditure
 - Government final consumption expenditure
- Gross capital formation
 - Gross fixed capital formation
 - Changes in inventories
- Net export of goods and services
 - Exports of goods and services
 - Minus* Imports of goods and imports

2. Note that, in principle, government final consumption expenditure covers both individual and collective services. The Chinese national accounts do not at present include the concept of household final consumption which is defined as household final consumption expenditure plus expenditure by government on goods and services that are provided to households on an individual basis. In practice, there are some exceptions to this in that some goods provided free by government agencies to certain households, such as low-income households or those affected by natural disasters, etc., are included, as social transfers in kind, in household final consumption expenditure. The values concerned are, however, relatively small.

Household final consumption expenditure

3. Household final consumption expenditure refers to the total expenditures on goods and services by households for the purpose of final consumption. It comprises both cash expenditures by households and imputed final consumption expenditures. The latter include the goods and services received by households for their final consumption in the form of compensation in kind, some current transfers in kind to households by enterprises and government units, and the goods and services that are produced by households for their own final consumption. Imputed expenditures also include the value of certain goods

that are transferred by government units to individual households in need. Examples include blankets and coal supplied in winter by local government units to elderly people in need.

4. In the Chinese national accounts, household final consumption expenditure is divided into **rural** and **urban** household expenditure.

5. The main sources of data for rural household final consumption expenditure are the NBS statistics on total retail sales of consumer goods, the “Questionnaire on the final consumption expenditures by rural households in cash” and the “Questionnaire on final consumption expenditures by rural households”, both of which are used for the NBS *Rural Household Survey*. The difference between the two questionnaires is that the former includes only monetary expenditures on consumer goods and services by rural households while the latter also covers imputed expenditures on agricultural products and “sideline” products that are produced by rural households for their own use. “Sideline” products are things like knitted goods, cane baskets and bean curd that rural households make as a sideline to their main activity of farming.

6. The statistics on total retail sales of goods are collected monthly. The *Rural Household Survey* is carried out quarterly and yearly.

7. The main sources of data for urban household final consumption expenditure are NBS statistics on total retail sales of consumer goods, the “Questionnaire on the final consumption expenditures by urban households” and the “Questionnaire on income in kind by urban households” both of which are used for the *NBS Urban Household Survey*. The first questionnaire includes only the monetary expenditures on consumer goods and services by urban households in the domestic market, whereas the second one covers:

- (1) consumer goods and services provided by enterprises and government units to their workers in various forms;
- (2) consumer goods given by farmers as a gift to relatives living in urban areas;
- (3) agricultural products and “sideline” products that are produced by urban households;
- (4) consumer goods brought from abroad by returning residents.

8. The *Urban Household Survey* is carried out quarterly and annually.

9. The annex to this chapter gives a simplified version of these questionnaires.

I. Rural household final consumption expenditure

10. Separate estimates are made for the following four components:

- A. consumption of traded consumer goods;
- B. consumption of own-produced consumer goods;
- C. consumption of services (except housing services);
- D. housing and consumption of water, electricity and gas.

A. Consumption of traded consumer goods

11. This is the value of the goods that are purchased by rural households for their own final consumption. The basic source is the statistics on total retail sales of consumer goods.

12. Retail sales of consumer goods include the values of the consumer goods that are sold to both urban and rural households and to enterprises and government units by enterprises in the retail and wholesale trade, catering, manufacturing and other industries. The retail sales statistics also include building materials that are purchased by households for the construction and major repairs of dwellings.

13. In the calculation of the consumption of traded consumer goods by rural households using statistics on **total** retail sales, the first step is to calculate the purchases of traded goods by households for consumption purposes. It equals the total retail sales of consumer goods, minus the retail sales to enterprises, government units and public utilities, minus the purchases of building materials by households for the construction and major repair of houses. That is:

The consumption of traded consumer goods:

equals the total retail sales of consumer goods
minus the retail sales to enterprises, government units and public utilities
minus the purchases of building materials by households for the construction and major repair of houses

14. Retail sales of consumer goods to enterprises, government units and public utilities constitute intermediate consumption, employee compensation in kind or current transfers to households in kind by enterprises and government units. The purchase of building materials by households for the construction and major repair of houses is attributed to intermediate consumption in construction. Neither of them is part of the consumption of consumer goods by households and so must be subtracted from total retail sales.

15. The second step is to calculate the monetary expenditures on consumer **goods** by the rural and urban households using statistics from the “Questionnaire on final consumption expenditures in cash by rural households” and the “Questionnaire on final consumption expenditures by urban households”. Expenditures on **non-consumer goods** and on **services** are deducted from the eight major categories of monetary expenditures in the “Questionnaire on final consumption expenditures in cash by rural households”. Specifically, food processing fees are subtracted from food expenditures; fees for the repair and patching of clothing are subtracted from clothing expenditures; expenditures on building materials for the construction and major repair of houses, the rentals for housing and the fees for water, power and fuel are subtracted from residence expenditures; fees for the repair of equipment and other articles are subtracted from the expenditures on household facilities, articles and services; charges for medical and health care services and fees for the repair of medical and health care articles are subtracted from expenditures on medicine and medical services; transport fees, postal fees and the fees for the repair of vehicles and telecommunication equipment are subtracted from expenditures on transportation and telecommunications; expenditures on recreation, education and cultural services are subtracted from expenditures on consumer goods and services in recreation, education and culture; and expenditures on services are subtracted from expenditures on other goods and services. We now have an estimate of the value of traded **goods for consumption** by rural households.

16. The same procedure is used to compute expenditures on consumer goods by the urban households sampled.

17. The third step is to divide the expenditures on consumer goods by the rural households sampled by the number of the family members in the households sampled to derive the per capita expenditures on consumer goods by the rural households sampled. The latter are then multiplied by the total population of rural households to obtain the expenditures on consumer goods by all the rural population.

18. The same procedure is used to calculate the expenditures on consumer goods by all the urban population.

19. The last step is to divide the consumption of traded consumer goods by all households into the consumption of traded consumer goods by rural households and the consumption of traded consumer goods by urban households. This is done by apportioning the total consumption of traded consumer goods according to the relative shares of urban and rural consumption of traded consumer goods which have been estimated from the survey questionnaires as described above. The NBS does not use statistics from the questionnaires directly because this may result in the under-estimation of consumption of traded consumer goods. The statistics of retail sales are considered to be more accurate.

B. Consumption of own-produced (“self-supplied”) consumer goods

20. This refers to the goods that are produced and used for final consumption by farmers. It is calculated by deducting the expenditures on food, clothing, dwellings and household facilities, articles and services in the “Questionnaire on final consumption expenditures in cash by rural households” from the corresponding items in the “Questionnaire on final consumption expenditures by rural households”. This gives the value of the goods and services that have been produced by households for their own consumption.

C. Consumption of services other than housing

21. Expenditure on services, other than on housing, by rural households is calculated by using the relevant data in the “Questionnaire on final consumption expenditures by rural households” and the figure of the rural population. The questionnaire includes food processing fees under the heading of food; fees for the repair and patching of clothing under the heading of clothing; fees for the repair of household equipment and articles under the heading of household facilities, articles and services; charges for medical and health care services and fees for the repair of medical and health care articles under the heading of medicine and medical services; transport fees, postal fees and fees for the repair of vehicles and telecommunication equipment under the heading of transportation and telecommunications; expenditures on recreation, education and cultural services under the heading of consumer goods and services in recreation, education and culture; and other services expenditures under the heading of other goods and services.

D. Housing and consumption of water, electricity and gas

22. This item consists of the rentals paid by rural households in renting dwellings, the imputed expenditures on owner-occupied dwellings, and expenditures on water, electricity and fuel. The rentals are estimated using data on rentals in the “Questionnaire on consumption expenditures by rural households”. Expenditures on water, electricity and fuel are estimated from data on expenditures on electricity and fuel under the heading of residence and data on expenditures on water under the heading of other consumer goods and services. Imputed expenditure on owner-occupied dwelling is taken to be equal to the consumption of fixed capital – or “depreciation” - in respect of owner-occupied dwellings and is calculated by the following formula:

23. The imputed expenditures on owner-occupied dwelling:

equals the value per single room at the end of accounting year
times the average number of the rooms owned by the rural households sampled
times the number of the households in the rural population
times 2 per cent (depreciation rate)

24. The value of a room is based on construction costs. Data on the average number of rooms owned by rural households and the number of households in the rural population is computed from the rural household surveys. The depreciation rate used – 2 per cent - is based on the assumption that dwellings last for 50 years on average.

II. Urban household final consumption expenditure

25. This consists of the six following components:

- A. consumption of traded consumer goods;
- B. consumption of services other than housing;
- C. housing and consumption of water, electricity and gas;
- D. consumption counterpart of income in kind;
- E. consumption of free medical services;
- F. consumption of collective welfare services.

A. Consumption of traded consumer goods

26. The consumption of traded consumer goods by urban households has been described above in the section dealing with the consumption of traded consumer goods by rural households.

B. Consumption of services other than housing

27. Expenditures on services, other than housing, by urban households are obtained from the “Questionnaire on consumption expenditures by urban households”. These services include food processing fees under the heading of food; fees for sewing and patching of clothing under the heading of clothing; fees for household services under the heading of household facilities, articles and services; charges for medical and health care services under the heading of medicine and medical services; transport fees, postal and telecommunication fees and fees for the repair of the vehicles and telecommunication instrument under the heading of transportation and telecommunications; fees for the repair of durable consumer goods for cultural uses, tuition and miscellaneous fees, fees for kindergartens, fees for adult education and fees for cultural and recreational services under the heading of consumer goods and services in recreation, education and culture; and fees for tourism and other services under the heading of other consumer goods and services.

C. Housing and consumption of water, electricity and gas

28. This consists of the rentals paid by urban households for dwellings, the imputed expenditures on owner-occupied dwellings, and expenditures on water, electricity and fuel. The rentals are estimated using data on rentals and fees for the repair of houses under the heading of residence in the “Questionnaire on consumption expenditures by urban households”; the expenditures on water, electricity and fuel are estimated on the basis of data on expenditures on water, electricity and fuel, and other fees under the heading of residence.

29. The imputed expenditures on owner-occupied dwellings is taken to be equal to the consumption of fixed capital – “depreciation” - in respect of owner-occupied dwellings and is calculated by the following formula:

30. The imputed expenditures on owner-occupied dwellings:

equals the construction cost of a square meter of floor space of the dwellings owned by urban households

times the total floor space of the dwellings owned by urban households

times 4 per cent (depreciation rate)

Data on the construction cost of per square meter of floor space are obtained from the Ministry of Construction. The total floor space of the dwellings owned by the urban households is estimated from statistics in urban household surveys.

D. Consumption counterpart of income in kind

31. This refers to the consumer goods and services that are received free by urban households, such as the goods given to staff and workers as income in kind, the agricultural products given to urban households by farmers as a gift or produced by urban households themselves. Also included are the values of goods brought back from abroad by returning residents. It is estimated from the “Questionnaire on income in kind by urban households”. The formula is as follows:

32. The consumption counterpart of income in kind by urban households:

equals the average income in kind received by each urban household that reported having received income in kind

times the percentage of urban households receiving income in kind among the households sampled

times the number of the urban households in the country

The average income in kind received by each urban household and the percentage of urban households receiving income in kind among the sampled households are calculated from information in the “questionnaire on income in kind by urban households”.

E. Consumption of free medical services

33. This refers to fees for medicine and medical services that are paid by enterprises, public utility units and government administrative units for their staff and workers, including those paid for retired workers. They are calculated from statistics on social security from the Ministry of Labour and Social Security, and include such items as the medical payment by state-owned units, the medical payment by urban collective units, the medical payment by enterprises of other types of ownership, and medical payments for the retired.

F. Consumption of collective welfare services

34. This refers to the payments that are made by enterprises and government units to provide recreational and cultural facilities for their employees. It is calculated using data on social security from the Ministry of Labour and Social Security.

Government final consumption expenditure

35. Government final consumption expenditure refers to the expenditures incurred by government for the provision of public services and the expenditures incurred by government in providing to households consumer goods and services free or at prices lower than market prices. Government final consumption expenditure consists of:

- I. current expenditures in operating expenses within the “scope of budget”;
- II. current expenditures included in operating expenses within the “scope of extra-budget”;
- III. depreciation of fixed assets of government administrative units and non-profit public utility units;
- IV. the difference between the gross output and operating revenue of urban household commissions and rural villager commissions.

I. Current expenditures included in the operating expenses within the scope of budget

36. This is equal to the operating expenses within the scope of budget minus current transfers and minus fixed capital formation. The items of operating expenses within the scope of budget include:

- (1) geological prospecting expenses;
- (2) three types of expenses for science and technology;
- (3) operating expenses for agencies of agriculture, forestry, water conservancy and meteorology;
- (4) operating expenses for agencies of industry and transport;
- (5) operating expenses for trade organisations;
- (6) operating expenses for culture, sports and broadcasting;
- (7) education operating expenses;
- (8) science operating expenses;
- (9) health operating expenses;
- (10) operating expenses of taxation agencies;
- (11) operating expenses for pensions and social assistance benefits;
- (12) operating expenses for the retired employees of government administrative units and public utility units;
- (13) operating expenses for providing social security subsidies;
- (14) defence expenses;
- (15) government administration expenses;
- (16) expenses for diplomacy and foreign affairs;
- (17) expenses for armed police;
- (18) expenses for public security organs, procuratorial organs, people’s courts, and judicial agencies;
- (19) expenses for urban maintenance;
- (20) other expenses.

37. From the expenditures on the above items, the following expenses are treated either as current transfers or as fixed capital formation and are subtracted to obtain consumption expenditures of government:

- (1) costs related to engineering work under geological prospecting expenses;
- (2) expenses on the design and research of basic construction projects under the three types of expenses for science and technology;
- (3) expenses on the construction of small land and water conservancy projects and for compensation for disasters included in operating expenses of agencies of agriculture, forestry, water conservancy and meteorology;

- (4) expenses on one-child healthcare included in the operating expenses for culture, sports and broadcasting;
- (5) expenses for students abroad included in the operating expenses of education, excluding the expenses incurred for the establishment of special schools for students abroad and foreign students at home;
- (6) contributions and subscriptions to international organisations and international academic associations included in science operating expenses;
- (7) expenses for public health services included in health operating expenses;
- (8) subsidies to overseas Chinese returning to settle at home included in the operating expenses of taxation agencies and other agencies and allowances to those in extreme financial difficulties;
- (9) expenses for death, expenses for the disabled, living allowances for members of a revolutionary martyr's family, soldier's dependants and demobilised soldiers, settlement allowances for demobilised soldiers, expenses for officers retired from the army but settled by local governments, social benefit expenses for the rural society, social benefit expenses for the urban society, benefit expenses for laid-off employees, and expenses for disaster damage, all of which are included under expenses for pensions and social assistance benefits ;
- (10) subsidies to social security funds and aid to the staff and workers laid off from state-owned enterprises for their basic living and re-employment, all of which are included under expenses for social security subsidies;
- (11) expenses of military engineering that can be used for civil purposes, such as expenses in the construction of barracks, military wharves and airports which are included under defence expenses;
- (12) the repayment for foreign assets which are included under government administration expenses;
- (13) housing reform expenses and government special allowance which are included under other expenses;
- (14) scholarships, purchases of equipment and subsidies for the main non-staple food that are included in the relevant expense items above.

38. The data on the above items are from the annual final accounts of government, which are compiled by the Ministry of Finance.

II. Current expenditures included in the operating expenses of extra-budgetary units

39. At the present time about a third of government expenditures are "extra-budgetary". These expenditures are made by government units that are financed from charges similar to taxes that are earmarked for the provision of specific services, such as family planning, sanitation, and road repairs. The essential difference between budgetary and extra-budgetary expenditures is that the former are controlled by the Ministry of Finance, while extra-budgetary expenditures are controlled by other ministries or local government units. Extra-budgetary expenditures include the extra-budgetary expenditures by locally financed agencies, by administrative units and public utility units of the central government, by administrative units and public utility units of local governments. They are divided into such items as expenses for urban maintenance; expenses for bonuses and welfare; expenses for administration and public undertakings; other expenses. As in the calculation of current expenditures included in the operating expenses within the budget, current expenditures included in the expenses of operating extra-budgetary units is equal to total extra-budgetary expenditures minus current transfers and investment in fixed-assets.

40. Examples of extra-budgetary funds include: the fund (controlled by the Ministry of Post and Telecommunications) established for the modernisation of telecommunication infrastructure which is funded by levying charges on those who are going to install a telephone; a fund (controlled by the Ministry of Communications) for the construction and repair of roads which is funded by a vehicle tax levied on the

purchase of new vehicles; and the fund (controlled by the Ministry of Energy) for the construction of new power stations which is funded by levying charges on electricity consumers.

41. The data on extra-budgetary expenditures are supplied by the Ministry of Finance.

III. The depreciation of fixed assets of government administrative units and non-profit public utility units

42. In practice, government administrative units and non-profit public utility units normally do not set aside depreciation funds. The depreciation of their fixed assets thus has to be imputed. It is estimated by the following steps. The first step is to calculate the value of fixed assets at historic costs at the end of the accounting year. This is equal to the cumulative total of the values of past investment in fixed-assets minus the values of the retired fixed assets during the period. The second step is to centre these estimates on the middle of the year by calculating the simple mean between the values of fixed assets at the beginning and end of the year. The third step is to calculate the depreciation of fixed assets in the accounting year. It is assumed that the average service life of assets is 25 years and that depreciation follows the straight-line pattern. Depreciation is therefore calculated at 4 per cent of the estimated value of fixed assets.

IV. The difference between the gross output and operating revenue of urban household commissions and rural villager commissions

43. These commissions provide most of their services, such as family planning advice and road cleaning on a non-market basis, but they may also operate market establishments selling such items as steam bread, milling grain etc.

44. This is estimated from *The Census of the Tertiary Industry* which refers to the year 1992.

Gross fixed capital formation

45. Gross fixed capital formation consists of the value of the fixed assets that are purchased, received as transfers from abroad, or produced for own account, *minus* the value of the fixed assets that are sold or transferred to abroad in the accounting period. Most of gross fixed capital formation is covered by *NBS Fixed-Asset Investment Statistics*.

I. Fixed-asset investment

46. The *NBS Fixed-Asset Investment Statistics* gives the value of the fixed assets that are built or purchased by residents in the accounting period plus the related costs of installation and transfer of asset ownership.

A. Components of fixed-asset investment

Building and construction

47. This refers to expenditures on buildings and other structures. It covers:

- (1) the value of buildings such as factories, storehouses, offices, dwellings, shops, schools, hospitals, clubs, canteens, garages, restaurants, comprising the value of pipelines for water supply, drainage, steam supply, etc., power lines and cables that are contained in the cost of completed buildings, the value of equipment for heating, sanitation, ventilation, lighting, gas supply, etc., and the costs of decoration and painting;
- (2) the value of construction engineering like foundations, pillars, operational decks, ladders, chimneys, cool water towers, water pools, lime towers and the value of masonry engineering and metal structure engineering such as coke furnaces, cracking furnaces, steam boilers, etc.;
- (3) the costs of preparing construction sites, engineering geological prospecting, the removal of old structures and obstacles, land levelling, the construction of temporary roads and facilities for the supply of water, electricity and steam, and the value of clearing land for construction sites and environmental afforestation after the completion of the work;
- (4) the value of construction engineering such as railways, highways, bridges and wharves, and the value of shaft sinking, open-mine stripping and well drilling for oil and natural gas, etc.;
- (5) the value of water conservancy facilities like reservoirs, dams, irrigation works and channel improvement;
- (6) the value of special engineering such as structures for air defence, underground structures, etc.

Equipment installation

48. This includes:

- (1) the value of engineering work to install equipment used for production, power generation, lifting, transport, medical treatment and experiments, the value of engineering work to install service platforms, ladders and rails connected to the equipment, and to lay down pipes attached to the equipment, and the value of the work to do insulation, anticorrosion, heat preservation and painting of the equipment installed;
- (2) the value of the work to make experimental operation of one or more pieces of equipment or to make experimental zero-loading co-ordinated operation of the system.

Equipment installation does not include the value of the equipment itself.

Equipment, plant and machinery, tools and other apparatus

49. This covers the value of equipment, tools, plant machinery, instruments and other apparatus that are purchased or produced for own account and that are considered to be fixed assets according to Ministry of Finance regulations. For new engineering projects and for upgrades to existing structures, however, all the equipment, tools and apparatus that are purchased or produced for own account should be recorded as “purchases of equipment, plant and machinery, tools and other apparatus” regardless of whether they are considered to be fixed assets according to Ministry of Finance regulations. Equipment covers production equipment, transmission equipment, power equipment, transport equipment, etc. Instruments and apparatus refer to a variety of production instruments, working tools and apparatus that have specialised uses.

Other costs

50. These are the costs incurred in the construction and purchase of fixed assets that are recorded in the value of fixed-asset investment but are not included in the three groups above. It covers expenses for the purchase of livestock for breeding, dairy and draught purposes; expenses of land levelling, growing and tending of young growth in plantations of trees; expenses for the purchase of furniture and supplies for the purpose of working and living that are needed for the operation of new or upgraded projects in the early period when they have just put into use; expenses incurred in design, hydraulic and geological prospecting by project units or their appointed agents; costs of evaluating project feasibility; expenses for the purchase of land, existing buildings and structures.

51. Fixed-asset investment also covers the value of fixed assets received as a capital transfers from abroad and the value of the fixed assets obtained under financial leases, including the costs incurred in transport, installation and testing.

52. Fixed-asset investment statistics do not include fixed assets below 500 thousand RMB yuan in value that are purchased or built by jointly-run enterprises, joint-stock companies, and foreign-owned enterprises (including those owned by residents of Hong Kong, Macao and Taiwan) and the enterprises and public utility units of other types of ownership.

B. Prices used to calculate fixed-asset investment

Construction and equipment installation

53. For the engineering of construction and installation projects open to public bidding, the prices of the winning bid are used to calculate the value of the work done. If the bidding prices are adjusted later, the new prices are used. For building and construction work done without public bidding, the budgetary prices agreed by construction units and enterprises undertaking projects are used. Here the budgetary prices are the total costs of the engineering that are determined in the design phase.

Equipment, plant and machinery, instruments and other apparatus

54. The value of investment in equipment, instruments and other apparatus is calculated as the actual payments for them. For equipment, instruments and apparatus, their value is composed of the prices paid for their purchase plus the costs incurred in the transport and storing of them. For equipment, instrument and apparatus produced for own use, their value is equal to the actual total costs incurred in their production. If the actual prices have not been settled at the time of installation, the design (plan) prices are used for calculation. Once the actual prices are available, the prices are adjusted.

Other costs

55. Normally the actual payments are used for calculation.

C. Sources of data on fixed-asset investment

56. Comprehensive surveys are used to collect data on investments in fixed assets above 500 thousand RMB yuan that are made by state-owned units, collective units, jointly-run enterprises, joint-stock companies and foreign-owned enterprises (including those owned by residents of Hong Kong,

Macao and Taiwan). Sample surveys are used to collect information on investments made by rural collective units and farmers. The ministries responsible collect data on the construction of dwellings by urban households, and investment in defence facilities.

II. Gross fixed capital formation

57. Gross fixed capital formation consists of:

fixed-asset investment as described above;
plus investment in fixed-asset below 500 thousand RMB yuan;
minus expenses for the purchase of land, existing buildings and structures and existing equipment;
plus the value of the fixed assets that are produced for pilot testing of new products;
plus the margins charged on new dwellings (these margins are needed to convert the producer costs of new dwellings to market prices);
plus the margins charged on non-produced intangible assets (these margins are needed to convert the producer costs of non-produced intangible assets to market prices);
plus costs of the transfer of ownership of dwellings;
plus costs of land improvement.

58. As noted above, the *Fixed-Asset Investment Statistics* cover only investment in fixed-assets with a value of 500 thousand RMB yuan or more for certain enterprises. The investment of fixed-asset below 500 thousand RMB yuan is estimated from comprehensive investment data for the latest base-year and from its growth and composition.

59. The value of the fixed assets that are produced for the pilot testing of new products is assumed to be in the same proportion to other types of investment as the proportion for expenditures for the pilot testing of new products from the final accounts of government.

60. The margins on new dwellings is estimated from statistics on sales of real estate and the proportion between sales and costs in business accounts of real estate enterprises. The Ministry of Land and Resources is the source for these data.

61. The margins charged on non-produced intangible assets should refer to the expenses of mineral prospecting, computer software, entertainment, literary or artistic originals. In practice, due to the difficulty in data collection, only the first item (mineral prospecting) is estimated on the basis of data from the Ministry of Geology and Minerals

62. Costs of the transfer of ownership of dwellings are estimated on the basis of regulations on charges formulated by government and sales of real estate.

63. Costs of land improvement are the expenses in the reclamation of wild land and similar activities, which is estimated based upon the area of newly reclaimed land and cost of reclamation per unit of area from the Ministry of Land and Resources.

III. Changes in inventories

64. Changes in inventories consist of the value of changes in the volume of inventories at market prices in the accounting period, that is, the difference in the value of inventories at the end of the accounting period, minus the value of inventories at the beginning of the accounting period. They are

calculated for the following industry groups: agriculture, forestry, animal husbandry and fishing; industry; construction; transport, post and telecommunication; wholesale and retail trade and catering; and other services.

65. In calculating changes in inventories using data on the values of inventories at the end and beginning of the accounting period, the value of inventories at the beginning should be adjusted by the relevant price indices so as to remove the influence of price factors. Due to the limitation of data sources, the adjustment is made only for industry, wholesale and retail trade and catering.

Agriculture, forestry, animal husbandry and fishing

66. Changes in inventories for these branches are calculated separately for three types of producers: state-owned enterprises, rural collective enterprises, and individual farmers:

(1) The changes in inventories of state-owned enterprises are calculated using data on the values of their inventories at the beginning and end of the accounting period shown in *The Consolidated Balance Sheet of State-owned Enterprises of Agriculture, Forestry, Animal Husbandry and Fishing*. This is compiled by the Ministry of Finance.

(2) The changes in inventories of collective enterprises are computed in the same way as the first group. Data sources are *The Consolidated Balance Sheet of Town and Township Enterprises* that are compiled by the Department of Town and Township Enterprises of the Ministry of Agriculture.

(3) The changes in inventories of farmers are calculated separately for each type of product as follows:

(a) The changes in inventories of sheep and pigs:

equals (the number of them in the stock at the end of the accounting period *minus* the number of them in the stock at the beginning of the accounting period)
times the average prices per head.

Data on the numbers of sheep and pigs are taken from the “Questionnaire on nation-wide production of main animal products” in *The Annual Statistical Report of Rural Social Economy*. The average price per head of pigs is taken as equal to half of the prices per head of fattened pigs, and the average price for sheep is equal to half the prices per head of adult sheep. Data on the prices are taken from the Organisation of Rural Social and Economic Survey, NBS.

(b) The changes in inventories of poultry and other animals:

equals the value of poultry and other animals in the accounting period
minus the value of poultry and other animals in the previous period.

Data on the values of poultry are taken from the “Questionnaire on nation-wide gross output of agriculture, forestry, animal husbandry and fishing by products ” in *The Annual Statistical Report of Rural Social Economy*.

(c) The changes in inventories of grain:

equals (the tonnage of grain at the end of the accounting period *minus* the tonnage of grain at the beginning of the accounting period)

times the mixed average prices of grain.

The tonnage of grain at the beginning and end of the accounting periods is estimated from data on the stocks of grain held per capita in rural areas from a sample survey and data on the population in rural areas. Data on the mixed average prices of grain are obtained from the Organisation of Urban Social and Economic Survey, NBS.

Industry

67. The changes in inventories in industry are divided into two groups - state-owned industrial enterprises plus the independently accounting industrial enterprise of other types of ownership with annual sales above 5 million RMB yuan, and other industrial enterprises. Data on the values of inventories for the first group at the beginning and end of the accounting period are taken from the "Report on main economic indicators of independently accounting industrial enterprises" in *The Annual Industrial Statistical Report*. In the calculation process, the values of inventories at the beginning of the accounting period are adjusted to some degree based on the industrial producers' price index in order to eliminate the effects of holding gains. The changes in inventories for the second group are assumed to bear the same ratio to gross output as for the first group.

Construction

68. The changes in inventories in construction are divided into the changes in inventories of construction enterprises and the changes in inventories of other units undertaking projects. The former is calculated for groups of enterprises assigned to the different "qualification grades". (This is a system used in China for classifying construction enterprises by their ability to carry out particular types of work. Enterprises in the higher number categories are judged to be more skilled than those in lower categories.) For construction enterprises at qualification four and above, data on the values of inventories are used to calculate the changes in inventories at the beginning and end of the accounting period. These are taken from the "Report on financial statements of construction enterprises" in *The Annual Report of Construction Statistics*. The value of the work-in-progress must be eliminated in the calculation. For construction enterprises below qualification four, their changes in inventories are assumed to bear the same relation to gross output as for construction enterprises at qualification four and above. The changes in inventories of the units undertaking construction projects are calculated using data from financial statements of these units that are collected and consolidated by the Chinese Construction Bank.

Transport, post and telecommunications

69. Changes in inventories for these activities are calculated separately for state-owned enterprises, collective enterprises and other enterprises.

- (1) For state-owned enterprises, data on the values of inventories at the beginning and end of the accounting period are taken from financial statements provided by the Ministry of Railways, the Ministry of Communications, the Ministry of Post and Telecommunications, the Civil Aviation Administration and the Bureau of Pipelines.
- (2) For collective enterprises, data are taken from the balance sheets of town and township transport enterprises that are collected and consolidated by the Department of Town and Township Enterprise, Ministry of Agriculture.

- (3) For other enterprises, changes in inventories are calculated by type according to the degree of financial independence that they enjoy. The changes in inventories of independently accounting transport enterprises are calculated using data on the values of inventories at the beginning and end of the accounting period from the “Report on financial statements of independently accounting transport enterprises”. The changes in inventories of non-independently accounting transport enterprises are assumed to bear the same ratio to gross output as for the first group of enterprises.

Wholesale and retail trade and catering

70. Changes in inventories for these activities are divided into “wholesale and retail trade” and “catering”.

- (1) Changes in inventories for wholesale and retail trade are calculated by two groups, the group above the cut-off and the group below the cut-off. Data are here used on the values of inventories at the beginning and end of the accounting period from the “Report on purchases, sales and stocks of merchandise of the enterprises above the cut-off in the retail and wholesale trade” in NBS statistics of wholesale and retail trade. In the process of calculation, the value of inventories at the beginning of the accounting period is adjusted by the retail price index to remove holding gains. For the second group, their changes in inventories are calculated using the figures on changes in inventories for the first group and the ratio of sales of the second group to sales of the first group. Data on sales of merchandise are taken from the “Report on purchases, sales and stocks of merchandise of the enterprises above the cut-off in the retail and wholesale trade” and “Sales of the enterprises below the cut-off in retail and wholesale trade”.
- (2) The changes in inventories for catering are calculated separately for the group above the cut-off and the group below the cut-off. For the first group, data on the values of the inventories at the beginning and end of the accounting period are taken from the “Financial statements of the enterprises above the cut-off in wholesale and retail trade and catering”. The value of inventories at the beginning of the accounting period is adjusted for price changes. For other catering units, changes in inventories are estimated using figures on the changes in inventories of the enterprises of the first group and the ratio of operating revenues of the second group to those of the first group. Data on the revenues are taken from the “Financial statements of the enterprises above the cut-off in wholesale and retail trade and catering” and “Report on sales of catering services”.

Other services

71. The changes in inventories of other service activities are divided into two groups. The first group is composed of the changes in inventories of the following service activities: social services, health, sports, social welfare, education, culture, radio, film and television, scientific research and other technical services. They are calculated using data on the values of inventories of these activities at the beginning and end of the accounting period from the “Report on financial statements of service activities and the public units that are managed in the same way as enterprises”. The second group includes the changes of inventories in the following service industries: geological prospecting, water conservancy management, services for agriculture, forestry, animal husbandry and fishing, real estate, banking and insurance. Changes in inventories for this group are calculated using data from financial statements provided by the Ministry of Land and Resources, the Ministry of Water Conservancy, the Ministry of Agriculture, the Ministry of Construction, and the People’s Bank of China.

Net export of goods and services

72. Net export of goods and services are calculated as the difference between exports of goods and services and imports of goods and services. The former represents the goods and services that are sold or provided free to non-residents by residents, while the latter means the goods and services that are purchased or received free by residents from non-residents. Both exports and imports of goods and services are calculated using data in the Chinese Balance of Payments Statistics. The BOP statistics are compiled in US dollars and are converted into RMB using the average annual exchange rate of RMB yuan to US dollars. Data on the annual exchange rate of RMB yuan to US dollars are taken from the “Report on annual exchanges rates of RMB yuan to major foreign currencies” in *Statistics of Foreign Economy*.

ANNEX

SIMPLIFIED VERSIONS OF THE QUESTIONNAIRES USED FOR SURVEYS OF RURAL AND URBAN CONSUMPTION EXPENDITURES

Table 1. The questionnaire on final consumption expenditures in cash by rural households

Categories of expenditures	Code	Amount
I. Food		
1. Staple food		
2. Non-staple food		
3. Eating and drinking outside family		
4. Food processing		
II. Clothing		
1. Garments		
2. Cloth		
3. Footwear and headgear		
4. Processing and repair of clothing		
5. Others		
III. Residence		
1. Housing		
(1) Building materials		
Of which: for repairs of dwellings		
(2) Rentals		
(3) Others		
2. Electricity		
3. Fuel		
IV. Household equipment, articles and services		
1. Durable consumer goods		
2. Upholstery		
3. Bedclothes		
4. Articles for daily uses		
5. Materials for furniture		
6. Repair of household facilities and articles		
7. Others		
V. Medicine and medical services		
1. Medicine and articles for health care		
2. Medical services		
3. Repair of articles for health care		
4. Others		
VI. Transportation and telecommunications		
1. Vehicles		
2. Communication apparatus		
3. Transportation services		
4. Post and telecommunication services		
5. Repair of vehicles and communication apparatus		
VII. Consumer goods and services in recreation, education and culture		
1. Articles of recreation, education and culture		
2. Services of recreation, education and culture		
VIII. Other consumer goods and services		
1. Consumer goods		
2. Services		

Table 2. The questionnaire on final consumption expenditures by urban households

	Categories of expenditures	Code	Amount
I.	Food		
	1. Grain		
		
	17. Other food		
	18. Eating and drinking outside family		
	19. Food processing		
II.	Clothing		
	1. Garments		
	2. Cloth		
	3. Footwear and headgear		
	4. Processing and repair of clothing		
III.	Household facilities, articles and services		
	1. Durable consumer goods		
	2. Upholstery		
	3. Bedclothes		
	4. Articles for daily uses		
	5. Materials for furniture		
	6. Domestic services		
	(1) Housekeeper services		
	(2) Processing and repair services		
IV.	Medicine and medical services		
	1. Medical apparatus		
	2. Health care articles		
	3. Drugs		
	4. Tonics		
	5. Medical and health care services		
	6. Others		
V.	Transportation and telecommunications		
	1. Transportation		
	(1) Vehicles for family uses		
	(2) Fuel and charging		
	(3) Transportation services		
	(4) Repair of vehicles		
	2. Communications		
	(1) Communication apparatus		
	(2) Transportation services		
	(3) Postal services		
	(4) Others		
VI.	Consumer goods and services in recreation, education and culture		
	1. Durable consumer goods for cultural uses		
	Of which: Repairs		
	2. Education		
	(1) Text books and reference books		
	(2) Tuition and miscellaneous fees		
	(3) Fees for kindergartens		
	(4) Fees for adult education		
	(5) Others		

3. Recreation and culture		
(1) Articles for entertainment and cultural life		
(2) Books, newspapers and magazines		
(3) Fees on entertainment and cultural services		
VII. Residence		
1. Housing		
(1) Building materials		
(2) Rentals		
(3) Repairs		
2. Water, electricity, fuel and others		
3. Fuel		
VIII. Other consumer goods and services		
1. Individual consumption		
(1) Individual articles		
(2) Articles for haircut and beauty		
(3) Tourism		
(4) Charges on services		
2. Other articles		
3. Other services		

Table 3. The questionnaire on income in kind by urban households

Categories	Total		Of which: from working unit	
	quantity	amount	quantity	amount
I. Food				
1. Flour				
2. Rice				
3. Grease				
4. Pork				
5. Beef and mutton				
6. Poultry				
7. Eggs				
8. Fish				
9. Fresh vegetables				
10. Sugar				
11. Cigarette				
12. Liquor				
13. Tea				
14. Drinks				
15. Fresh fruits and nuts				
16. Pastry				
17. Other food				
II. Clothing				
III. Household facilities, articles and services				
IV. Articles for Medical treatment and health care				
V. Transportation and telecommunications				
VI. Recreation, education and cultural services				
VII. Residence				
VIII. Other consumer goods				
Supplementary data: the number of the households sampled, the number of the family members, of which: the number of the households who receive income in kind, and the number of the staff and workers who receive income in kind from their working units				

CHAPTER THREE

GDP ESTIMATES AT CONSTANT PRICES

1. GDP at constant prices can be estimated from both the production (i.e. value added) and expenditure sides. This chapter explains the data sources and calculation methods for constant prices GDP estimates both from the viewpoint of production and expenditure.

GDP estimates of value added at constant prices

2. GDP at constant prices is obtained from the production side by adding up value added at constant prices for each individual industry. This section explains the data sources and calculation methods used.

3. Value added at constant prices may be calculated in two ways - deflation and extrapolation.

(1) Deflation methods are themselves divided into double deflation and single deflation.

- Double deflation means that both output and intermediate inputs at current prices are deflated by the corresponding output price index and intermediate input price index to achieve output and intermediate input at constant prices. The difference between the former and the latter is defined as value added at constant prices.
- Single deflation can be carried out in two ways, that is by deflating value added at current prices in the period by an output price index or by an intermediate input price index. Both methods assume that the prices of both outputs and intermediate inputs change in the same proportion.

(2) Methods of extrapolation are also divided into double extrapolation and single extrapolation similar to the case of deflation.

- Double extrapolation indicates that output and intermediate input at base period prices are extrapolated by using volume indices of output and intermediate input to arrive at output and intermediate input at constant prices in the current accounting period. The difference between the former and the latter is defined as value added at constant prices.
- Single extrapolation can also be done in two ways, that is by extrapolating value added at base period prices by an output volume index or by a volume index of intermediate input. Both methods assume that output volumes and intermediate input volumes change at the same rate.

4. The estimate of value added at constant prices derived through deflation depends upon output, intermediate input, and value added at current prices in the accounting period and related price indices,

whereas the estimate of value added at constant prices derived through extrapolation is determined by output, intermediate input and value added at the prices of the base period and related volume indices.

5. Because of the difference in data sources, value added at constant prices is estimated by different methods from one industry to another. The following paragraphs describe the data sources and calculation methods for each separate industry.

I. Agriculture

6. The value added of agriculture at constant prices is calculated using a combination of deflation and extrapolation. That is to say, extrapolation is used in the calculation of output at constant prices, and deflation in the calculation of intermediate input at constant prices. Value added at constant prices is equal to the extrapolated estimate of output minus the deflated estimate of intermediate inputs. This special combination of extrapolation and deflation is used because of the kinds of basic statistics that are available on agriculture in China.

7. An important component of China's agricultural statistics is statistics on agricultural output at "comparable" (i.e. fixed) prices. Agricultural output at comparable prices is calculated by the following procedure. First the NBS, on behalf of the state, sets fixed prices for a variety of farm products in the base year. Statistical agencies at grass-roots level then calculate agricultural output at comparable prices by multiplying the quantity of farm products by their corresponding fixed prices in the base year. Finally, the value of agricultural output at comparable prices is aggregated from the lowest level to the national level by the NBS. The "comparable prices" set by the NBS for the base year need not be the actual current market prices of that year. This means that agricultural output at comparable prices is not consistent with the agricultural output at constant prices in the context of SNA; the SNA requires that transactions are valued at market prices. The Department of National Accounts in the NBS therefore makes its own estimate of agricultural output at the market prices in the base year. Agricultural output at constant prices for the years after the base year is obtained by extrapolation using the growth rate of the output of each agricultural product at comparable prices.

8. The intermediate input of agriculture at constant prices is derived by deflating the consumption of intermediate goods and the consumption of "material" and "non-material" services at current prices by the corresponding price indices. The price indices used are shown as follows:

Table 1: Intermediate inputs of agriculture and the corresponding price indices used for deflation

Intermediate inputs of agriculture	Corresponding price indices compiled by the Organisation of Urban Social and Economic Survey, NBS
1. Seed	Grain sub-index of retail price index in rural areas
2. Forage	Forage sub-index of retail price index in rural areas
3. Fertiliser	Chemical fertiliser sub-index of price index of agricultural production materials
4. Fuel	Fuel sub-index of retail price index in rural areas
5. Pesticide	Pesticide and agricultural medical instrument sub-index of price index of agricultural production materials
6. Agricultural plastic film	Agricultural plastic film sub-index of price index of agricultural production materials
7. Power	The ratio of the power output at current prices to that at constant prices. The data are from the Department of Industrial and Transport Statistics, NBS.
8. Small farm tool purchases	Small farm tool sub-index of price index of agricultural production materials
9. Office supplies purchases	Furniture sub-index of rural consumers' price index
10. Medicine used for animals	Chinese and Western medicine sub-index of retail price index in rural areas
11. Crude materials	Crude material sub-index of producers' price index of industrial production materials
12. Outlays on material production services	Service sub-index of rural consumers' price index
13. Outlays on non-material production services	Service sub-index of rural consumers' price index

9. It should be noted that the value added of agriculture at constant prices could be calculated by double deflation, that is, by deflating the output of agriculture at current prices by the price index of farm produce purchases and the intermediate input of agriculture by the price indices or sub-indices shown in the table above. Value added at constant prices would then be obtained as the difference between the two. However, the traditional method described above is used in order to preserve continuity because it is the customary way of calculating agricultural value added in China.

II. Industry

10. The value added of industry at constant prices is derived by single deflation. The value added of industry at current prices is deflated by the price index of industrial output.

11. The output of industry at comparable (or fixed) prices is calculated by the same procedure that is used in agriculture. Also for the same reasons as in agriculture, the output of industry at comparable prices is not consistent with the output of industry at constant prices in the context of SNA. Therefore, the Department of National Accounts of the NBS takes the output of industry at current market prices in the base year as the output of industry at constant prices in that year. The outputs of industry at constant prices in the years after the base year are calculated by extrapolating the output of industry at market prices of the base year by the growth rates of the outputs of industry at comparable prices. The output of industry at current prices is then divided by the output of industry at constant prices to obtain the price index of industrial output. This price index is then used to deflate current price value added in industry.

12. In recent years, industrial output prices and intermediate input prices seemed to be diverging more significantly than before, so that the use of single deflation using the output price index may be questioned. For this reason, we make an adjustment to the price index of gross output considering changes in prices index of crude materials. At the moment the NBS is making a pilot study comparing deflation with volume extrapolation. The method of deflation is to deflate the value added of industry at current prices by the producers' price index of industrial products to derive the value added of industry at constant prices. The alternative method is to extrapolate the value added of industry at constant prices in the base period by the volume index of industrial production. The outcome of the pilot work will determine which one of these methods is better than the current procedure.

III. Construction

13. The value added of construction at constant prices is calculated by single deflation. The value added of construction at current prices is deflated by the relevant price index. The price index used at the present time is the construction and installation sub-index of the fixed-asset investment price index. This index is adjusted according to the degree of variance between the sub-indices for labour and materials.

IV. Transport, post and telecommunications

14. The value added of transport, post and telecommunications is derived by volume extrapolation. The volume index for transport is the growth index of the total volume of freight transport and "converted" passenger transport. The volume index for post and telecommunications is the growth index of the volume of post and telecommunications services. Specifically:

- (1) The volume of freight transport is the product of the weight of the freight transported times the distance over which they are transported.

- (2) The volume of passenger transport is the product of the number of the passengers transported times the transport distance, which is converted to an equivalent freight volume using various conversion factors (see next paragraph).
- (3) The volume of post and telecommunications services is the product of the physical quantity of the services times the fixed (i.e. “comparable”) price per unit of the services. This latter is an average price of the various post and telecommunications services provided. Since the foundation of the People’s Republic of China, the Ministry of Post and Telecommunications have changed the fixed prices that are charged per unit of post and telecommunication services on five occasions, i.e. in 1952, 1957, 1970, 1980, and 1990. The base year is now 1990.

15. The value added of transport, post and telecommunications at constant prices is calculated for the following sub-sectors: railway transport, highway transport, waterway transport, civil aviation, pipeline transport, and post and telecommunications.

- (1) The value added of railway transport at constant prices in the current accounting period is equal to the value added at constant prices in the base period times the growth index of the total volume of railway freight transport and converted railway passenger transport. The volume of railway passenger transport is converted into the equivalent volume of freight transport by a conversion coefficient, which is determined by comparing the revenues and costs of transporting one person over one kilometre with the revenues and costs of transporting one ton of freight over the same distance. For railway transport, the coefficient is one person per ton, which indicates that the transport of one ton of freight over one kilometre is equated with the transport of one person over one kilometre.
- (2) Similarly, the value added of highway transport, waterway transport, and civil aviation transport at constant prices is calculated by multiplying the value added in the base year by their corresponding growth indices. The conversion coefficients are ten persons per ton of freight for highway transport, three persons per ton for river transport, one person per ton for ocean transport (or two persons per ton for waterway transport when river transport and ocean transport can not be distinguished) and 13.7 persons per ton for civil aviation.
- (3) The value added of pipeline transport at constant prices is equal to the value added of pipeline transport in the base year times the growth index of the volume of pipeline transport.
- (4) The value added of post and telecommunications at constant prices is equal to the value added of post and telecommunications at constant prices last year times the growth index of the volume of post and telecommunications services. It should be noted that the revenues from some new services for which no base year prices are available have to be estimated at constant prices value by using related price indices before they are included in the volume index for post and telecommunications services.

16. The sum of the value added of the six sub-sectors above is the value added of transport, post and telecommunications.

V. Wholesale and retail trade, catering services

17. The value added of wholesale and retail trade and catering services at constant prices is derived through single deflation in which the national retail price index is used.

VI. Banking and insurance

18. The value added of banking and insurance at constant prices is also derived by single deflation. The price index used in the deflation is the average of the consumers’ price index (CPI) and fixed-asset

investment price index weighted by the two GDP expenditure components: household final consumption and gross fixed capital formation.

VII. Real estate

19. The value added of real estate at constant prices is calculated for four groups:

- (1) For the development of real estate, the sub-item of the real estate price index referring to sales of new buildings is used for deflation;
- (2) For the management of real estate, the CPI is used for deflation;
- (3) For the depreciation of owner-occupied dwellings that are completed in the current year, price index of fixed-asset investment is used for deflation;
- (4) Depreciation of owner-occupied dwellings that existed before the current period is equal to the depreciation calculated in the previous period minus the depreciation of the owner-occupied dwellings that are retired from the stock of dwelling in the current period.

VIII. Public administration and defence and other services

20. These services consist of social services, health, sports and social welfare, education, culture, art, radio, film and television, scientific research and related technological services, services for agriculture, forestry, animal husbandry and fishing, geological prospecting, water conservancy management, government agencies, party organs and social organisations, etc.

21. The same method is used to calculate value added for all these activities. Value added is divided into two components: depreciation of fixed assets and net value added.

- (1) Depreciation of fixed assets at constant prices in the accounting year is equal to the depreciation of fixed assets in the previous year (adjusted for retirements of assets during the year) plus the depreciation of newly-installed fixed assets in the current year. The latter is derived by deflating its current prices counterpart by the fixed-asset investment price index.
- (2) Net value added at constant prices is derived by single deflation. The price indices used for deflation are service sub-indices of CPI, as shown below:

Table 2: Price indices used for deflating value added in “other service” activities

Service industries	Price indices used
Social services	The service-related sub-indices of CPI (e.g. bus fares, hair cut prices, expenses on repairs and other services)
Health, sports and social welfare	The service-related sub-indices of CPI (e.g. expenses on medical treatment)
Education, culture, art, radio, film and television	The service-related sub-indices of CPI (e.g. entertainment expenses and tuition fares)
The services not classified above	The service-related sub-index of CPI

IX. Overall reliability of constant price estimates

22. The price indices and other data sources fall far short of what are required for the purposes of the national accounts. In consequence there are many weaknesses in the estimates of value added at constant

prices at the present time in China. However, the NBS is strengthening the basic statistics in many related areas and the calculation of value added at constant prices will be improved in the future.

Final expenditure on the GDP at constant prices

23. The GDP estimates of final expenditures at constant prices follow the same breakdown as at current prices:

- Final consumption
 - Household final consumption expenditure
 - Government final consumption expenditure
- Gross capital formation
 - Gross fixed capital formation
 - Changes in inventories
- Net export of goods and services
 - Exports of goods and services
 - Minus* Imports of goods and services

24. These aggregates are almost all estimated at constant prices by deflation of the current price estimates using price indices. For a few sub-components, constant price estimates are obtained by extrapolating the base year estimates by volume indices. All the price indices used for deflation are compiled by the NBS except for the export and import price indices which are produced by the Customs Authority of China.

I. Household final consumption expenditure

25. This is divided into rural household final consumption and urban household final consumption.

A. Rural household final consumption expenditure

26. This includes four components: consumption of traded consumer goods; consumption of self-supplied consumer goods; services other than housing; housing and consumption of water, electricity and gas.

27. The consumption of traded consumer goods at constant prices is equal to the consumption of traded goods at current prices divided by the goods sub-index of the rural consumers' price index.

28. The consumption of self-supplied consumer goods at constant prices equals the consumption of self-supplied consumer goods at current prices divided by the implicit price index of the gross output of agriculture, forestry, animal husbandry and fishing. The implicit price index is the ratio of the output at current prices to the output at constant prices.

29. Housing and consumption of water, electricity and gas at constant prices is divided into three parts: house renting services, owner-occupied dwelling services and consumption of water, electricity and gas.

- (1) The house renting services at constant prices are obtained by deflating the current prices estimates by the rental sub-index of the rural consumers' price index.
- (2) The consumption of water, electricity and gas at constant prices is obtained by deflating the current price estimates by the sub-index of water, electricity and gas of the rural consumers' price index.
- (3) Owner-occupied dwelling services at constant prices consist of the housing services provided by new owner-occupied dwellings and the housing services provided by the existing stock of owner-occupied dwellings. The former is derived through deflation using the price index of fixed-asset investment by rural households; the latter is equal to the owner-occupied dwelling services at constant prices in the last year minus the services attributable to owner occupied dwellings that are assumed to have been retired during the year.

30. The consumption of services other than housing is obtained by deflating the current price estimates using the service-index of the rural consumers' price index.

B. Urban household final consumption expenditure

31. Urban household final consumption expenditure at constant prices is broken down in the same way as the estimates at current prices: consumption of traded consumer goods; consumption counterpart of income in kind; consumption of services other than housing; housing and consumption of water, electricity and gas; consumption of public health services; consumption of collective welfare.

32. The consumption of traded consumer goods at constant prices is calculated in two parts. The current prices value of agricultural products that are purchased by urban households at markets for agricultural products is deflated by the price index of agricultural products in these markets; the current prices value of all other goods purchased by urban households is deflated by the goods sub-index of the urban consumers' prices index. The consumption of traded consumer goods at constant prices is equal to the sum of these two components.

33. The consumption counterpart of income in kind at constant prices equals income in kind at current prices divided by the goods sub-index of the urban consumers' price index.

34. The consumption of services other than housing at constant prices is equal to the value of these services at current prices divided by the service sub-index of the urban consumers' price index.

35. Housing and consumption of water, electricity and gas are divided into house renting services, owner-occupied dwelling services and consumption of water, electricity and gas:

- (1) House renting services are deflated by the rental sub-index of urban consumers' price index.
- (2) Consumption of water, electricity and gas is deflated by the sub-index of water, electricity and gas of the urban consumers' price index.
- (3) Owner-occupied dwelling services consist of services provided by new dwellings built during the accounting year plus the services provided by existing dwellings. The services provided by new dwellings are deflated by the price index of fixed-asset investment by urban households, while the services provided by existing dwellings at constant prices is equal to the owner-occupied dwelling services at constant prices in the previous year minus the services provided by dwellings removed from the stock.

36. The consumption of public health services at current prices is deflated by the simple average of the sub-index of articles for medicine and healthcare and the sub- index for medical and healthcare services in the urban consumers' price index.

37. The consumption of collective welfare at constant prices is derived by deflating the estimate at current prices by the service sub-index of the urban consumers' price index.

II. Government final consumption

38. Government final consumption expenditure is divided into four components: expenditures on goods; expenditures on services; expenditures on wages and salaries; and depreciation of fixed assets. Government final consumption expenditure at constant prices is the sum of these four components. Each component is deflated by its own price index.

39. Expenditures on goods covers office supplies and materials used by general government. The retail price index is used to calculate expenditures on these goods at constant prices.

40. Expenditures on services are the fees paid by administrative units and public utility units for post, telecommunications, travel, etc. They are deflated by the service sub-index of the urban consumers' price index.

41. Expenditures on wages and salaries refer to the wages and salaries, allowance and social security contributions paid by administrative units and public utility units to their employees. They are deflated by the urban consumer prices index.

42. Depreciation of fixed assets is the imputed annual cost to general government of using the fixed assets which it owns. It is divided into depreciation on new fixed assets that were created during the accounting period plus depreciation on existing fixed assets. Depreciation on new fixed assets is deflated by the price index of fixed-asset investment. Depreciation on existing fixed assets is equal to depreciation of fixed assets at constant prices in the previous year less the amount of depreciation attributed to assets that are assumed to have been retired during the year.

III. Gross fixed capital formation

43. Gross fixed capital formation is broken down into four components: infrastructure investment; technical upgrading and renovation; buildings; and other fixed assets. The appropriate sub-indices of the price index of fixed asset investment are used to deflate the current price estimates to constant prices.

IV. Changes in inventories

44. Changes in inventories are calculated separately for: agriculture, forestry, animal husbandry and fishing; industry; wholesale and retail trade and catering; and other industries that are not classified above.

A. Agriculture, forestry, animal husbandry and fishing

45. The changes in the inventories of grain, pigs, sheep, poultry at constant prices are calculated as the product of the prices per unit in the base year times the changes in quantity in the current year. Specifically:

- (1) The change in the inventories of grain at constant prices is equal to the weighted average price of grain in the base year times the changes in the stock of grain in the current year. The weighted average price of grain is calculated from data in *The Annual Report of Price Statistics*. The changes in the stock of grain are computed as the difference between the stocks of grain at the beginning and end of the accounting period, which are estimated from data on the stocks of grain per capita from sample surveys multiplied by the rural population.
- (2) Changes in inventories of pigs and sheep at constant prices is equal to their price per head in the base year times the changes in stocks in the current year.
- (3) Changes in the inventories of poultry and small animals at constant prices are calculated as the difference between the gross output of poultry and small animals in the previous year and the current year. The source for these data is *The Annual Statistical Report of Rural Society and Economy*.

B. Industry

46. First, data on inventories at the end of the accounting year held by large industrial enterprises are used to estimate the composition of inventories according to three main types: industrial consumer goods, processed agricultural products, and industrial materials. The following assumptions are adopted in estimating the composition of inventories according to these three groups:

- (1) Industrial consumer goods consist of the inventories held by enterprises engaged in the following activities: food processing, food production, beverage production, tobacco processing, textiles, garments and other fibre products, leather, furs, down and related products, furniture manufacturing, printing, record medium reproduction, cultural, educational and sports goods, and medical and pharmaceutical products;
- (2) Processed agricultural products consist of inventories held by enterprises engaged in activities such as timber processing, bamboo, cane, palm fibre and straw products, and logging and transport of timber and bamboo;
- (3) Industrial materials consist of inventories held by enterprises engaged in coal mining and processing, petroleum and natural gas extraction, ferrous metals mining and dressing, non-ferrous metal mining and dressing, other minerals mining and dressing, petroleum refining and coking, raw chemical materials and chemical products, chemical fibres, rubber products, plastic products, non-metal mineral products, smelting and pressing of ferrous metals, smelting and pressing of non-ferrous metals, metal products, ordinary machinery, special purposes equipment, transport equipment, electric equipment and machinery, electronic and telecommunication equipment, instruments, meters, office machinery, other manufacturing.

47. Second, the composition of inventories estimated as above for larger enterprises is assumed to apply also to inventories held by other industrial enterprises.

48. Finally, the producers' price index of industrial productive materials, the producers' price index of industrial consumer goods and the purchasers' price index of agricultural products are used to deflate the changes in inventories to constant prices. The changes in inventories for total industry is equal to the sum of the three groups at constant prices.

49. Data on inventories of larger enterprises are taken from *The Annual Industrial Statistical Report*.

C. Wholesale and retail trade and catering

50. Inventories held by enterprises in wholesale and retail trade and in catering are divided into three broad commodity groups - agricultural products, industrial materials and industrial consumer goods.

- (1) Changes in inventories of agricultural products are estimated on the basis of the ratio of the value of agricultural products purchased to the value of all goods purchased.
- (2) Inventories of industrial productive materials are assumed to be held by wholesale enterprises trading in energy products, raw materials, machinery and electronic equipment, hardware, electric appliances and chemicals, agricultural producer goods and by retail enterprises selling hardware, electric appliances and chemicals.
- (3) Inventories of industrial consumer goods are assumed to be held by wholesale enterprises dealing in food, beverages, tobacco and household articles for daily uses, by wholesalers and retailers dealing in goods other than those mentioned above and by catering establishments.

51. Changes in inventories of the three groups of goods at constant prices are derived by deflating the current price estimates by the purchasers' price index of agricultural products, the producers' price index of industrial materials, and the producers' price index of industrial consumer goods respectively.

52. Data on the purchases of agricultural products, the total value of the goods purchased and inventories at the end of the accounting year by branches are taken from *The Annual Statistical Report of Wholesale and Retail Trade and Catering*.

D. Other activities

53. Inventories in construction, transport, storage, post and telecommunications are assumed to consist of industrial materials. Inventories held by other service sectors are assumed to consist of industrial consumer goods. The changes in the inventories of these activities at constant prices are obtained by deflating changes in inventories at current prices by the producers' price index of industrial productive materials and the producers' price index of consumer goods respectively.

V. Net export of goods and services

54. Price indices of exports and imports of goods are compiled by the Customs Authorities. These indices are used to deflate the current prices values of services, as well as goods, because price indices of exports and imports of services are not available. This means that the NBS is assuming that goods and services exported or imported have the same price changes. Specifically:

Exports of goods and services at constant prices
equals exports of goods and services at current prices
divided by the price index of exports of goods

Import of goods and services at constant prices
equals imports of goods and services at current prices
divided by the price index of imports of goods

The net export of goods and services at constant prices
equals exports of goods and services at constant prices
minus imports of goods and services at constant prices

CHAPTER FOUR

ACCOUNTS FOR HOUSEHOLDS

I. Introduction

1. The NBS started to compile national accounts by sectors for China in 1992 using a preliminary version of 1993 SNA. The results of the work were first published in the *1998 Statistical Yearbook*.

2. China's national accounts divide the total economy into four institutional sectors:

- (1) non-financial enterprise sector;
- (2) financial institution sector;
- (3) general government sector; and
- (4) household sector.

3. The 1993 SNA includes a fifth institutional sector - "non-profit institution serving households". However, in China, the vast majority of non-profit institutions are controlled and financed (directly or indirectly) by government and the remaining ones are financed and controlled by enterprises. The former are classified in the general government sector and the latter in the sectors of non-financial enterprises or financial institutions. For this reason, there are no separate institutional accounts for non-profit institutions serving households in China's national accounts.

4. This chapter describes the accounts for the household sector. Chapter 5 describes the accounts for the Government Sector and Chapter 6 describes the accounts for the "pseudo-sector", The Rest of the World.

II. Definition of household sector

5. According to the 1993 SNA, a household is defined as a small group of persons who share the same living accommodation, who pool some or all of their income and wealth and who consume certain types of goods and services collectively, mainly housing services and food.

6. Households may engage in any kind of economic activity and not merely consumption. They may, as the supplier of labour, work for others, or they may, as employers, work for themselves by owning

an unincorporated enterprise. Therefore the household sector includes at least two types of households - those who work for others and those who work for themselves by operating an unincorporated enterprise. It also includes households in which no members have any employment, such as households consisting of retired persons.

7. According to the SNA, an unincorporated enterprise is one that does not keep a full set of accounts which would allow the enterprise to be treated as a separate entity from the household which owns it. In China, however, unincorporated enterprises cannot be defined in this way in practice. Instead they are defined in terms of their size, as measured either by output or by the number of employees. Size criteria are used for collecting and tabulating the basic statistics and these same size criteria have to be adopted for the national accounts. For all industrial surveys and censuses, there are always some small enterprises (usually private) that are excluded because they fall below the lowest size group. These enterprises are all classified in the household sector as unincorporated enterprises, even though they may occasionally be corporate enterprises.

III. Production account

8. The production account for unincorporated enterprises contains the following entries:

Uses	Resources
1. Compensation of employees	1. Value added
2. Taxes on production, net	
3. Operating Surplus, gross	

9. Households engage in a great variety of productive activities. They can open an unincorporated enterprise or produce for their own account in any industry. In practice no single, comprehensive investigation is carried out specifically to cover all the activities by households. Statistics on their productive activities are indirectly contained in surveys that are addressed to corporate enterprises or in household budget surveys. The general approach used to measure the productive activities of the household sector is to start from the estimates of gross output and value added by industry (described in Chapter One) and then to deduce by various means what part of the gross output or value added of each industry is attributable to unincorporated enterprises.

A. Value added

10. Value added of household unincorporated enterprises is calculated according to kind of activity as described below.

Agriculture, forestry, animal husbandry and fishing

11. The value added for households

equals the value added of agriculture, forestry, animal husbandry and fishing as a whole
minus the value added of corporate enterprises in these branches

12. The value added of corporate enterprises in agriculture, forestry, animal husbandry and fishing is calculated from their business accounts, which are collected by the Ministry of Agriculture. Data from the Agricultural Census for the year 1996 are used as a benchmark.

Industry

13. The value added of industry for households

equals the gross output of household enterprises
times the ratio of value added to gross output of village industry

14. Data sources are *The Annual Industrial Statistical Report*. The ratio of value added to gross output is based on data for the smallest group of industrial enterprises in *The Industrial Census* or *The Sample Survey for Small Enterprises*.

Construction

15. The value added of construction for households

equals the gross output of construction for households
times the ratio of value added to gross output of the construction as a whole

16. Data on the ratio of value added to gross output are from GDP estimates by industries (see Chapter One). The gross output of construction for households is calculated as follows:

17. The gross output of construction for households

equals the gross output of the construction as a whole
times the proportion of fixed-asset investment by individuals to total fixed-asset investment.

18. Data sources includes “fixed-asset investment in rural areas by individuals ” and “fixed-asset investment in urban and mining areas by individuals” in *The Annual Report of Fixed-asset Investment Statistics*.

Services for agriculture, forestry, animal husbandry and fishing

19. The value added for households in these branches

equals the gross output for households in these branches
times the ratio of value added to gross output of these branches as a whole

20. The gross output for households in these branches is estimated on the basis of data on operating income of individual entrepreneurs in these branches from *The Statistics for Industrial and Commercial Administration* that are compiled by National Administration for Industry and Commerce every year. Data on the ratio of value added to gross output of these branches as a whole is taken from the 1992 *Census of the Tertiary Industry*.

Geological prospecting and water conservancy management

21. Normally households do not engage in geological prospecting and water conservancy management because of the high costs involved and because these activities are subject to government regulations. It is assumed that households do not create any value added in these industries.

Transport, storage, post and telecommunications

22. As regards transport, storage, post and telecommunications, households only engage in highway transport and water transport. The value added for households in these activities is calculated in the following way:

23. The value added of highway transport (or water transport) for households

equals the gross output of highway transport (or water transport) for households
times the ratio of value added to gross output

24. The gross output of highway transport (or water transport) for households is calculated by multiplying the volume of transport output provided by individual entrepreneurs by the operating costs per unit of the volume of transport output provided by transport operators who are subject to the regulatory system of the Ministry of Communications (see Chapter One). Data sources are “freight and passenger transport by the society” in *The Annual Statistical Report of Transport, Post and Telecommunications* and financial statements of transport enterprises.

25. The ratio of value added to gross output is based on the ratios for each year for transport operators who are subject to the regulatory system of the Ministry of Communications. However, these ratios are adjusted using information from the 1992 *Census of the Tertiary Industry*. This census collected statistics on value added to gross output ratios both for operators subject to these regulations and for smaller operators not subject to these regulations. (see Chapter One).

Wholesale and retail trade and catering

26. The value added of wholesale and retail trade and catering for households

equals the gross output of wholesale and retail trade and catering for households
times the ratio of value added to gross output

The ratio is obtained from the latest input-output survey, and adjusted when necessary (See section five in Chapter One). The gross output is estimated as follows:

27. The gross output of wholesale and retail trade and catering for households

equals the gross output of wholesale and retail trade and catering as a whole
times the ratio of retail sales by individual entrepreneurs to total retail sales by all corporate enterprises and individual entrepreneurs.

Data on retail sales are taken from *The Annual Statistical Report of Wholesale and Retail Trade and Catering*.

Banking and insurance.

28. According to government regulations, only those corporate financial institutions that are properly certified can engage in financial transactions. However, in practice, households engage in many informal (and illegal) financial activities in rural areas and small towns in China. They organise loan clubs known as *hui*. Participants make regular contributions into a fund and loans are made either by drawing lots or by

agreement of the *hui* members. Interest rates vary but are usually much higher than those set and managed by the People's Bank of China. The level of borrowing and lending varies with business cycles. These informal financial activities are not covered by regular annual statistics nor by *The Census of the Tertiary Industry*. No estimates are included for the value added of *hui* in the national accounts at the present time.

Real estate

29. The real estate activities engaged in by households consist mainly of renting dwellings and provision of owner-occupied dwelling services. The former is not included in the GDP because there are no data sources on which to base the estimates and because it is believed to be relatively insignificant at the present time. The latter is divided into owner-occupied dwelling services in urban areas and those in rural areas. These are calculated in the following way:

30. The value added of owner-occupied dwelling services in urban areas is taken as equal to the depreciation on dwellings owned and occupied by urban households. This is calculated by multiplying the area in square meters of owner-occupied dwellings by the construction cost per square metre and applying an annual depreciation rate of 4 per cent.

31. The value added of owner-occupied dwelling services in rural areas is also taken as equal to the depreciation on dwellings owned and occupied by rural households. This is calculated by multiplying the area in square meters of owner-occupied dwellings by the construction cost per square metre and applying an annual depreciation rate of 2 per cent.

32. Data for these calculations are taken from the relevant urban and rural household budget surveys and *The Annual Statistical Report of Construction*.

Social services

33. The value added of social services for households is calculated by the following formula:

The value added of social services for households in the accounting period

equals the value added of social services for households in the base year
times the index of the growth in number of self-employed workers ("individual entrepreneurs") in social services
times the services sub-item of CPI

34. The value added of social services for households in the base year is estimated from the *1992 Census of the Tertiary Industry*. The number of self-employed workers in social services is equal to the number of workers in social services as estimated by the 1 per cent population sample survey *minus* the number of workers employed by corporate enterprises and government agencies from the labour statistics reports filled in by these units.

Public health, sports and social welfare, education, art, radio, film, television, scientific research and other technical services

35. For these activities, the valued added for households is calculated in the same way as for social services.

Government agencies, party agencies, social organisations, and similar activities

36. Households do not engage in these activities and no value added is calculated for them.

B. Compensation of employees

37. In the production account for households, compensation of employees covers only the compensation paid to persons working in household, unincorporated enterprises. It is estimated in order to derive the operating surplus of household unincorporated enterprises which is the balancing item to be carried down to the distribution and use of income account for households.

38. In the Chinese accounts, compensation of employees includes both compensation paid to employees and the imputed compensation of self-employed persons.

39. Estimates of compensation of employees are divided into two components:

(1) Compensation of employees from agriculture, forestry, animal husbandry and fishing;

(2) Compensation of employees from all other activities. These consist of industry; construction; services for agriculture, forestry, animal husbandry and fishing; transport, storage, post and telecommunications; wholesale and retail trade and catering; social services; health, sports and social welfare; education, art, radio, film, television, scientific research and other technical services. It is assumed that there are no household unincorporated enterprises in geological prospecting; banking and insurance; real estate; government agencies, party agencies, social organisations, and other similar organisations.

Agriculture, forestry, animal husbandry and fishing

40. The compensation of employees from agriculture, forestry, animal husbandry and fishing is calculated by the following formula:

The compensation of employees from agriculture, forestry, animal husbandry and fishing

equals the sum of net incomes from farming, forestry, animal husbandry, fishing, handicraft, gathering and hunting per capita in rural areas
times the population in rural areas

Data sources are rural household budget surveys and population statistics.

All other activities

41. The compensation of employees in all other activities is calculated by the following formula:

The compensation of employees in each kind of activity

equals the number of persons working in household unincorporated enterprises in each kind of activity
times the annual average wages and salaries received by staff and workers working in the same industry

42. The number of employees working in household unincorporated enterprises and the self-employed in each kind of activity

equals the number of workers in kind of activities

minus the number of employees in corporate enterprises and government agencies in the same industry

43. Data sources are the 0.1 per cent population sample surveys and statistics on labour and employment.

C. Taxes on production, net

44. The taxes on production, net, paid by households are composed of two parts: (1) the taxes within the scope of the budget, and (2) the taxes paid into extra-budgetary funds. They are calculated as described below:

Taxes within the scope of the budget

45. The taxes on production, net, paid by households within the scope of budget

equals the taxes that are paid by households

minus the taxes on personal income

46. Data on the taxes that are paid by households are supplied by the Ministry of Finance. It compiles these statistics in order to monitor the tax burdens on different sectors and groups within the economy - state ownership, collective ownership, households, and others. Data on taxes on personal income are from the final government accounts.

Taxes paid into extra-budgetary funds

47. Taxes on production, net, paid by households into extra-budgetary funds are estimated at 20 per cent of extra-budgetary revenues.

48. Data sources are statistics on extra-budgetary revenues and expenditures. The figure of 20 per cent is used on the advice of fiscal experts, which is arbitrary to some degree. The reason for doing this is that the Ministry of Finance cannot provide statistics on detailed breakdowns of extra-budgetary revenues and expenditures. More information on this point is given in Chapter Five.

D. Operating surplus

49. The gross operating surplus is calculated as the difference between the value added and compensation of employees plus taxes on production, net. Since compensation of employees includes the imputed compensation of self-employed persons, as well as compensation of persons employed in household unincorporated enterprises, operating surplus is a "pure" figure and does not include any returns to labour. This approach is consistent with the 1968 SNA but is not strictly in accordance with the 1993 SNA which introduced the concept of "mixed income" for unincorporated enterprises. Mixed income includes the return to the labour supplied by self-employed persons, as well as the operating surplus which is the return to capital and entrepreneurship.

IV. Distribution and use of income account

50. The distribution and use of income account for households has the following items:

Uses	Resources
1. Property income (1) interest	1. Operating surplus, gross
2. Current transfers (1) taxes on income (2) social contributions (3) others	2. Property income (1) interest (2) dividends (3) other
Disposable income	
3. Household final consumption	3. Compensation of employees
4. Saving, gross	4. Current transfers (1) social insurance benefits (2) social assistance benefits (3) others

A. Operating surplus

51. The operating surplus, gross is carried forward from the production account.

B. Property income

52. In the account, three types of property income are distinguished: (1) interest; (2) dividends; (3) other. The property income received by households is recorded on the resources side of the account, while the property income paid by households enters the uses side of the account.

Interest

53. Interest is divided into interest on deposits and loans; interest on securities other than shares; interest on other accounts receivable/payable.

a) Interest on deposits and loans

54. The interest on deposits and loans consists of three items:

- (1) interest on deposits and loans of legal financial institutions between residents;
- (2) interest on deposits and loans of “social funding”;
- (3) interest on deposits and loans between residents and non-residents.

55. Here “financial institutions” refers to the banks, financial co-operatives and other financial institutions which act as financial intermediaries by borrowing and lending money.

i) Interest on deposits and loans of legal financial institutions between residents

56. In China’s national accounts, “financial intermediation services indirectly measured” (FISIM) are allocated to the institutional sectors which consume them. The effect of this allocation is that the

distribution and use of income accounts show the amounts of interest that the consuming sector (in this case households) would have received on their deposits, and would have paid on loans, if the banks were charging explicitly for the services they provide in managing deposits and in arranging loans. Households would have received more interest on their deposits and would have paid less interest on loans if intermediation services were directly charged by the banks. Net interest payments, i.e. interest received less interest paid, are therefore reduced in the distribution and use of income account by the value of FISIM. According to the 1993 SNA, this same amount should be added to household final consumption expenditure as a purchase of FISIM. Household saving is not, therefore, affected by the allocation of FISIM if the SNA rules are followed. In the national accounts of China, however, purchases of FISIM are not included in household final consumption expenditure with the result that household saving is too high.

57. In the text below interest payments and receipts that have been adjusted for FISIM are referred to as “adjusted interest”.

58. Adjusted interest on deposits with, and loans from, financial institutions between residents is calculated in the following way:

The interest received by households on deposits

equals the actual interest receivable by households on deposits
plus the FISIM allocated to households on deposits

The interest paid by households on loans

equals the actual interest payable by households on loans
minus the FISIM allocated to households on loans

59. In order to calculate adjusted interest, total FISIM is first broken down between FISIM on deposits and FISIM on loans. Next, each of these types of FISIM must then be allocated between households and other consuming sectors. The following paragraphs describe how this is done.

60. Total FISIM is calculated in the standard way as:

Total FISIM
equals the actual interest receivable by financial institutions on loans
minus the actual interest payable by financial institutions on deposits

This total FISIM is then broken down into FISIM on deposits and FISIM on loans in the following way:

The FISIM on deposits
equals FISIM
times the actual interest payable by financial institutions on deposits
divided by (the actual interest receivable by financial institutions on loans *plus* the actual interest payable by financial institutions on deposits)

The FISIM on loans
equals FISIM
times the actual interest receivable by financial institutions on loans
divided by (the actual interest receivable by financial institutions on loans *plus* the actual interest payable by financial institutions on deposits)

61. The part of FISIM on deposits and on loans that is consumed by households is then estimated in the following way:

The FISIM allocated to households on deposits

equals the FISIM on deposits
times the average balance of deposits by households during the accounting period
divided by the average balance of the total deposits during the accounting period

The FISIM allocated to households on loans

equals the FISIM on loans
times the average balance of loans by households during the accounting period
divided by the average balance of the total loans during the accounting period

62. Data on actual interest receivable and payable are taken from annual financial statements of various financial institutions collected by the Department of National Accounts, NBS. Because financial statements are not available for all financial institutions, estimates of interest payments and receipts have to be made for the missing institutions. This is done in proportion to the balance of deposits and loans of the missing institutions in total loans and deposits.

63. Data on balances of deposits and loans are taken from *The Balance Sheet of Credit Receipt and Payment for Financial Institutions* that are compiled by the People's Bank of China every month.

ii) Interest on deposits and loans of "social funding"

64. In China "social funding" is an illegal financial intermediation activity in which households - individuals or families - act as an intermediary to collect money and lend it to other households, business people or non-financial enterprises without government control or authorisation. This is referred to as the *hui* system. Theoretically, the interest should be included in the accounts in the same way as the interest incurred in legal financial intermediation activities. In practice, however, they are not included in the distribution and use of income account for households because there are no reliable sources of data on these activities. As explained above, the GDP estimates also exclude any value added generated by the activities of "social funding".

65. Two points should be noted here:

- (1) Since all these transactions take place within the household sector, net interest payments (and net interest receipts) are zero for the household sector. Omission of interest transactions on social funding do not therefore have any impact on household disposable income or saving.
- (2) Second, although there are no explicit entries for social funding in the accounts, household saving includes saving through social funding as well as saving through official financial institutions. This is because saving is obtained as the difference between disposable income and consumption expenditure. An increase in the amount of saving through social funding will reduce consumption below what it would otherwise have been and saving will therefore show an increase.

iii) Interest on deposits and loans between residents and non-residents

66. China's resident households may deposit their money in non-resident banks, e.g. banks in Hong Kong, which will result in the receipt and payment of interest between residents and non-residents.

Because of the constraint of data sources, the interest receivable and payable between resident households (banks) and non-residents banks (households) are not recorded in the accounts.

b) Interest on securities other than shares

67. This consists of interest on government securities and company bonds.

68. According to 1993 SNA, interest is recorded on an accrual basis. Theoretically, the NBS should record interest on government securities and company bonds on an accrual basis as is done with interest on loans and deposits of financial institutions. But in practice, because of the limitation of data sources, it is impossible to identify the interest rate and life term for each of the great variety of securities other than shares in order to treat interest on an accrual basis. On the other hand, the treatment of interest on a cash basis would result in irregular movement of interest receipt and payments. For these reasons, the interest on securities other than shares is adjusted in the following way.

69. For government bonds, the average interest rate over the last five years is calculated from actual interest payments over the last five years divided by the average balance of outstanding government bonds over the same period. This five-year average interest rate is then applied to the balance of outstanding government bonds during the year in question. This gives what is referred to in China's national accounts as "theoretically accrued interest".

70. For company bonds, the calculation formula is as follows:

The accrued interest on company bonds in the accounting period

equals theoretically-accrued interest rate on government bonds in the accounting period + 0.5 per cent
times the average balance of company bonds during the accounting period

The interest rates for company bonds are assumed to be 0.5 per cent higher than on government securities. This is based on advice from bond market experts.

71. The allocation of interest on securities among the institutional sectors is another difficult issue because securities can be traded between sectors after being issued. In China, households are important holders of government securities and company bonds because households have accumulated large financial savings since the economic reforms. Therefore, 50 per cent of interest on "securities other than shares", i.e. on government securities and company bonds, is allocated to households as interest receivable.

72. Data on securities and interest payments are taken from statistical yearbooks, fiscal yearbooks, and securities and futures yearbooks.

c) Interest on other accounts receivable/payable

73. Most of the "other accounts receivable/payable" consist of trade credits and mainly involve transactions between non-financial enterprises. Because China's financial markets are still somewhat under-developed, enterprises do not normally receive or pay interest on trade credits. It follows that no estimates are presently included in the accounts for interest on other accounts receivable/payable.

Dividends

They are composed of four parts:

- (1) dividends distributed by listed companies;
- (2) dividends distributed by non-listed companies;
- (3) withdrawals from quasi-corporations;
- (4) dividends distributed between residents and non-residents

Dividends distributed by listed companies

74. In China there are two open stock exchanges - the Shanghai and the Shenzhen Exchanges. At the present time about nine hundred companies have their shares traded on the two markets. The shares are divided into A shares and B shares. A shares can be bought or sold by any resident transactor other than banks; B shares can be bought or sold only by non-residents. Compared to foreign companies, Chinese listed companies have a special capital structure. Almost all the listed companies have both “circulating” shares that can be traded on the two exchanges and “non-circulating” shares that are held only by corporate units and government and can not be traded on the two exchanges. Most listed companies have less circulating shares than non-circulating shares.

75. Ideally, the dividends distributed by listed companies should be estimated and allocated on the basis of financial statements and the actual distribution program of each of the listed companies. In practice, however, an indirect method is used to estimate and allocate the dividends distributed by listed companies due to the limitations of data sources and human resources. The method is as follows:

i) The dividends attributed to all A shares

76. The dividends attributed to A shares

equals the total after-tax profits
times the number of A shares
divided by the number of A and B shares
times 60 per cent

77. The figure of 60 per cent was arrived at as follows. According to China’s Corporation Law, the after-tax profits of a listed company must first be used to compensate for deficits in the past and the remainder is then distributed in the following order and proportions:

- withdrawal of 10 per cent of the profits as public reserve funds;
- withdrawal of 5 per cent - 10 per cent of the profits as statutory public welfare funds;
- withdrawal from profits as arbitrary public welfare funds in a proportion that is determined by a share holder conference.

78. Assuming no deficits in the past, at the most only 80 per cent - 85 per cent of the after-tax profits can be distributed. However, research reports show that listed companies tend to retain a substantial part of profit for investment in a new market as in China. It is, therefore, assumed that, on average, 60 per cent of the after-tax profits are distributed as dividends.

ii) The dividends attributed to circulating A shares

79. The dividends attributed to circulating A shares

equals the dividends attributed to A shares
times the number of circulating A shares
divided by the total number of A shares

iii) The dividends allocated to households

80. The dividends allocated to households

*equals the dividends attributed to circulating A shares
times 50 per cent*

The figure of 50 per cent is determined by experts.

81. The data source for the calculation of the dividends distributed by listed companies is the *Securities and Futures Statistics Yearbook*.

Dividends distributed by non-listed companies

82. Listed companies only account for a small part of all the share-issuing companies in most countries and China is no exception. In China, many formerly state-owned enterprises and township enterprises have been transformed into joint stock companies or co-operative enterprises that issue shares to its members. Very few of these, however, are listed on stock exchanges. At the present time there is no information on dividend payments by these companies and, for this reason, dividends distributed by non-listed companies are not recorded in the accounts.

“Other” property income

83. “Other” property income consists of withdrawals from income of quasi-corporations, property income attributed to insurance policyholders and rents.

a) Withdrawals of income from quasi-corporations

84. In China, the laws stipulate that individual entrepreneurs can employ eight employees at most. If they have more than eight employees they must be registered as corporate enterprises. Consequently, the unincorporated companies owned by households as quasi-companies are very small in size. Withdrawals of income from quasi-companies are not estimated for the national accounts.

b) Property income attributed to insurance policyholders

85. This is calculated by the following formula:

Property income attributed to insurance policyholders in the accounting period

*equals investment income of insurance companies in the accounting period
times the average balance of the insurance technical reserve at the beginning and end of the
accounting period
divided by the average balance of the total liabilities plus owners’ equities at the beginning and end of
the accounting period*

86. According to current business accounts of insurance companies, the insurance technical reserve is composed of: reserves for contingent liabilities; reserves for unsettled claims; reserves for the long-term liability; and reserves for life insurance liabilities.

87. The property income attributed to insurance policyholders is allocated to households by the following formula:

The property income allocated to households

equals the property income attributed to insurance policyholders
times the premiums paid by households
divided by the total premiums received by insurance companies

88. Data sources are financial statements of insurance company and statistics on insurance, which are collected and edited by China Insurance Supervision Commission.

c) Rent

89. Land including subsoil assets is divided into state-owned land and rural, collective-owned land. According to Chinese laws, land cannot be sold or bought. Individuals cannot obtain land by purchase, although they can buy the rights to occupy and use land or they can get land free from the state. There is no practice of renting land and so the item of rents is not recorded in China's national accounts.

C. Compensation of employees

90. In the production accounts for households, the item "compensation of employees" refers only to persons working in unincorporated enterprises owned by households. In the distribution and use of income accounts, "compensation of employees" also includes compensation received by employees in enterprises and government units.

91. There are many surveys and administrative records that provide useful information on the compensation of employees received by households. The main sources are:

- (1) Household budget surveys - rural household budget surveys and urban household budget surveys - provide data on net income per capita in rural areas and disposable income per capita in urban areas;
- (2) Statistics on labour and on wages and salaries give data on wages and salaries paid by financial and non-financial enterprises, government agencies, public utility units and other units, to their employees;
- (3) Various censuses, including the *1992 Census of the Tertiary Industry*, the *1995 Industrial Census* and the *1996 Agricultural Census*. These provide more precise data on wages and salaries for the industries covered in the reference years than regular annual statistics on wages and salaries;
- (4) Statistics supplied by financial institutions on wages and salaries paid through financial institutions to staff and workers of corporations;
- (5) BOP statistics, which provide data on payment of wages and salaries between residents and non-residents;
- (6) Other surveys, such as special surveys for the input-output accounts, which provide statistics on wages and salaries by detailed kinds of activity.

92. Use is made of all these data sources in the calculation of compensation of employees. Generally speaking, two independent calculations are made of the compensation of employees received by households.

93. The first method uses the following formula:

The compensation of employees received by households

equals the compensation of employees paid by household sector
plus the compensation of employees paid by corporations
plus the compensation of employees paid by government
plus the compensation of employees paid by non-residents
minus the compensation of employees paid by residents to non-residents

94. Data on the compensation of employees paid by the household sector are from the production account for households; data on the compensation of employees paid by non-residents and the compensation of employees paid by residents to non-residents are from BOP statistics.

95. As regards compensation of employees paid by corporations and government, two kinds of adjustments are made to the basic statistics:

- (1) First, some expenditures recorded made by corporations, such as travel expenses or conference expenses, can be considered as income in kind according to the SNA, but they are not included in the statistics on wages and salaries. Data from input-output investigations are used to estimate this income in kind and add it to wages and salaries.
- (2) Second, for most industries census data are available for certain years. These usually provide better quality data on wages and salaries than is available from the regular annual statistics. In such cases, the census data are used for the reference year and the levels of wages and salaries from regular annual statistics are adjusted using the census data.

96. Even after the adjustments described above, the figures on compensation of employees may still be too low because, in China, corporations tend to understate their payments on wages and salaries in order to avoid paying income taxes and other social contributions. Because of this, an alternative method has been developed to calculate total compensation of employees. This second method is as follows.

97. The compensation of employees received by households in the current year

equals the compensation of employees received by households in the previous year
times the nominal growth rate of the household income as reported in rural and urban household budget surveys.

98. The last term is calculated by the following formula:

The nominal growth rate of the household income as reported by household budget surveys

equals net income recorded by the population in rural areas
minus net property income and net transfers received
plus disposable income recorded for the population in urban areas
minus retirement pensions and net receipts of property income received and transfers
divided by the same aggregate for the previous year.

Data sources are rural household budget surveys and urban household surveys, and statistics on population.

99. The final estimate of compensation of employees is decided after comparing these two independently derived estimates. Usually the higher of the two estimates is used.

D. Current transfers

100. These consist of taxes on income; social contributions; social insurance benefits; social assistance benefits; and other transfers. The current transfers received by households are recorded on the side of resources; the current transfers paid by households are recorded on the side of uses

Taxes on income

101. Theoretically, these consist of “taxes on personal income” excluding fines and penalties on late payments and “taxes on the use and licensing of vehicles and ships” paid by households. In practice, we cannot eliminate fines and penalties on late payments from taxes on personal income, and also do not take the last item into account because of the lack of data sources. In any event the part paid by households is likely to be very small. Taxes on income therefore cover only “taxes on personal income”.

Data sources are the final state accounts.

Social contributions

102. China’s social insurance schemes comprise “basic endowment insurance”, “insurance against injury at work”, “birth insurance” (insurance against loss of earnings during maternity leave), and “medical insurance”. The social contributions paid by households are the payments made by individual entrepreneurs, staff and workers, and enterprises on behalf of their staff and workers working at the enterprises into funds providing these four types of insurance.

103. Data sources on social contributions are *China Social Insurance Yearbook*, compiled by the Ministry of Labour, (now called labour and the Ministry of Labour and Social Security).

Social insurance benefits

104. These are the payments made by the four funds to the households who are covered by social insurance schemes when the circumstances specified in the schemes take place.

105. Data sources on social contributions are *China Social Insurance Yearbook*, compiled by the Ministry of Labour

Social assistance benefits

106. Social assistance benefits play the same role as social insurance benefits, but they are financed out of government budget or by individual government administrative units, public utility units and enterprises, rather than from the funds established under social insurance schemes. They are divided into two kinds - social assistance benefits paid directly from government budgets and social assistance paid by individual units.

107. The social assistance benefits financed directly from government budgets are calculated from statistics on budgetary expenditures. They are:

- (1) Expenses of one-child healthcare included in “operating expenses for culture, sports, and broadcasting”;

- (2) Expenses for students abroad included in “education operating expenses”, excluding the expenses incurred for the establishment of special schools for student abroad and foreign students at home;
- (3) Subsidies to overseas Chinese returned to China for their living and settlement at home included in “operating expenses of taxation agencies and other agencies”;
- (4) Expenses for pensions and social assistance benefits, expenses for funerals, expenses for the disabled, living allowances for members of a revolutionary martyr’s family, soldier’s dependants and demobilised soldiers, settlement allowances for demobilised soldiers, expenses for officers retired from the army but settled by local governments, social benefit expenses for the rural society, social benefit expenses for the urban society, benefit expenses for lay-off employees, compensation for disaster damage;
- (5) “Expenses for social security subsidies”, i.e. aid to the staff and workers laid off from state-owned enterprises for their basic living and re-employment;
- (6) Housing reform expenses and government special allowance included in “other expenses”;
- (7) Scholarships and price allowance for main non-staple food that are included in the relevant expense items above.

108. Social assistance benefits paid by individual units to their staff and workers and their families include:

- (1) Provision of medicine and medical services free or at reduced prices to staff and workers or the retired when they are ill;
- (2) Funeral subsidies and pensions for survivors following the death of staff and workers or the retired;
- (3) Subsidies to the families of staff and workers or the retired who have a low level of living relative to others;
- (4) Expenses on art and sports that are organised for staff and workers or the retired;
- (5) Subsidies to the operating costs of collective welfare services, such as communal baths, haircuts, looking after children, etc.;
- (6) Expenses on facilities of collective welfare, such as purchases of simple equipment or articles for canteens, kindergartens, etc., the repair and maintenance of the facilities and the apartments that are provided for staff and workers and the retired, excluding expenses in the construction of the facilities and other major capital expenses;
- (7) Family planning subsidies, like subsidies made to the staff and workers who have observed government policies on family planning;
- (8) Other subsidies, like travel allowance for the reunion of staff and of workers with their parents, etc.

109. Data sources are from the China Labour Statistical Yearbook.

Other current transfers

110. These consist of net non-life insurance premiums, non-life insurance claims and miscellaneous current transfers.

a) Net non-life insurance premiums

111. Net non-life insurance premiums paid by households

equal net non-life insurance premiums received by all the insurance companies
times the premiums paid by households
divided by the total premiums received

112. According to the SNA, the net non-life insurance premiums received by all the insurance companies are equal to the total claims due. In China households pay premiums for family property insurance, vehicle and other types of casualty insurance, and agricultural insurance.

113. Data for the calculation are from financial statements of insurance companies and insurance statistics, which are collected and compiled by the China Insurance Supervision Commission.

b) Non-life insurance claims

114. Non-life insurance claims received by households equal the claims paid by insurance companies for family property, casualty and agricultural insurance.

115. Data sources are financial statements of insurance companies and insurance statistics, which are collected and compiled by the China Insurance Supervision Commission.

Miscellaneous current transfers

116. For households, miscellaneous current transfers are the remittances paid abroad by households or received from abroad by households. Data are taken from “current transfers” in BOP statistics. Credits are recorded on the resources side of the account, and the debits are recorded on the uses side of the account.

E. Disposable income

117. Household disposable income is calculated as follows:

Household disposable income

equals operating surplus, gross
plus compensation of employees received by households
plus property income received by households
plus current transfers received by households
minus property income paid by households
minus current transfers paid by households

F. Household final consumption

118. Household final consumption is calculated in the estimation of expenditure components of GDP estimates (see Chapter Two).

G. Saving, gross

119. Household saving, gross is calculated as the difference between household disposable income and household final consumption expenditure.

CHAPTER FIVE

ACCOUNTS FOR GENERAL GOVERNMENT

I. Introduction

1. In applying the 1993 SNA, it is often difficult to define the borderline between general government on the one hand and between the corporate sectors and non-profit institutions serving households on the other. This chapter therefore begins with a description of “corporate units” in China and then explains which of these units have been assigned to the general government sector.

II. Corporate units and the sector of general government

A. *Corporate units*

2. Institutional units that exist in the form of legal or social entities are defined as “corporate units” by NBS. The conditions for a corporate unit are:

- (1) It is established by laws with its own name, organisation and sites;
- (2) It is able to assume civil responsibilities in its own name;
- (3) It can own and use (or is empowered to use) assets, assume liabilities and is entitled to sign contracts with other units;
- (4) It has an independent set of accounts and these accounts include balance sheet recording the opening and closing stocks of non-financial and financial assets and liabilities.

3. There are five kinds of “corporate units” in China:

- (1) financial and non-financial corporations;
- (2) government administrative units;
- (3) public utility units;
- (4) corporate social organisations; and
- (5) other corporate units.

This section describes the main features of these five types of corporate units and the next section explains which of them are allocated to the institutional sector “general government”.

Financial and non-financial corporations

4. An enterprise becomes a corporation when it is registered by industrial and commercial administrative agencies at different levels of governments according to “The Registration Regulation for Corporate Enterprises of the People’s Republic of China” and it takes out an “operating license of corporate enterprises” from the relevant government agency. The branches or subsidiaries of foreign enterprises that have taken out “the registration certificate of business offices of foreign funded enterprises” or “the registration certificate of long-standing representative agencies” are also treated as corporate enterprises.

Government administrative units

5. The organs of state power, government ministries, and organs of Parties that are established at the authority of the People’s Congress at various levels or by the Congress of the Communist Party of China are all “government administrative units”. They include:

- (1) the standing committees of the People’s Congress at national, provincial, city and county levels;
- (2) the People’s governments at various levels and the working departments under the them, i.e. government ministries and departments, the People’s courts at various levels, and the People’s procurators at various levels;
- (3) the organs of the Communist Party of China and their subordinated agencies at the central level or the levels of provinces, cities, and counties;
- (4) the organs of the democratic parties and their subordinated agencies at the central level or the levels of provinces, cities, and counties, and the Chinese People’s Political Consultative Conference;
- (5) the government agencies and party organs at the levels of districts, townships, towns, and streets.

6. Temporary agencies or organisations that are set up by government but that are not corporate units, are classified with the corporate government units that have established them.

Public utility units

7. “Public utility units” are organisations providing social services that are established with state-owned assets by government administrative units or other organisations to provide services such as education, scientific and technological services and research, culture, health, etc. According to related provisions of “The Temporary Regulations of Registration and Management of Public Utility Units”, a public utility unit usually satisfies the following conditions:

- (1) Its establishment is ratified by a government agency;
- (2) It has its own name, institutional organisation and site;
- (3) It employs staff and workers in conformity with its activities;
- (4) It has the financial resources in accordance with its activities;
- (5) It is able to assume civil responsibilities in its own name.

8. Public utility units are mainly engaged in activities that are auxiliary or supplementary to the activities of the government administrative units described above. They generally have the following features:

- (1) Compensation of employees who hold established posts is paid from budgetary appropriations, while other staff which they employ are paid from extra-budgetary sources;
- (2) The operating costs that have been agreed with government are financed by budgetary appropriations, but any costs they incur over that amount must be met by the units themselves;
- (3) The capital expenses of the units are usually financed by government, while deficits are financed from the extra-budgetary income that the units have earned by themselves;
- (4) Some of the services provided by public utility units to the community or individuals are sold at prices that are normally determined by government, while other services are free;
- (5) The fees charged for their services are usually determined by tax law and treated as extra-budgetary revenue; operating surplus is regarded as government revenue and its disposal is determined by government regulations;
- (6) The appointment of the heads of public utility units is controlled by the government administrative units to which they are affiliated.

9. Public utility units mainly provide services. Typical examples include: schools: primary schools, secondary schools, universities and technical schools; hospitals; institutions for the research in science and culture set up by government; publishing houses; radio stations and television stations; institutions acting on behalf of government carrying out testing, checking and control functions; units providing logistic services for government administrative units.

Corporate social organisations

10. There are a variety of social organisations that are registered by civil departments at different levels and take out “ the registration certificate of corporate social organisations ” from the relevant departments. They include:

- (1) the trade unions, the Communist Youth League of China, women’s societies, literature and art organisations, associations for the handicapped, and associations of industry and commerce at different levels;
- (2) a variety of associations, academic societies, research societies, foundations, etc.;
- (3) a variety of religious organisations.

11. Corporate social organisations have features similar to public utility units, and most of them are mainly financed from the government budget or extra-budgetary sources.

Other corporate units

12. These are corporate units that are not classified into the groups above. The main examples are grass-roots organisations of the masses that are established through legal procedures such as street household committees and villagers committees.

B. The sector of general government

13. **Financial and non-financial corporations** produce goods and services on a market basis. They are clearly outside the general government sector.

14. It is equally clear that **government administrative units** should be classified in the general government sector.

15. As regards **public utility units** and **corporate social organisations**, the 1993 SNA guidelines need to be considered before deciding whether they should be treated as part of the general government sector. Paragraphs 4.54, 4.60, 4.62, 4.112 of the SNA are relevant here and suggest the following criteria:

- (1) Administrative control - Is the appointment of the administrative heads of the institution controlled by government?
- (2) Financial resources - Are the financial resources of the institution mainly from government sources?
- (3) Operating surplus - Is the operating surplus retained within the unit or surrendered to government?
- (4) Supply of output - Is the output of the institution provided on a market or non-market basis?
- (5) Purpose of the unit - Is the institution established for the provision of a product (usually a service) or for profit-making?

16. Comparing these criteria with the features of public utility units and corporate social organisations described above, the NBS has concluded that these units are non-profit, non-market institutions and should be classified in the general government sector.

17. With regard to **other corporate units** - mainly street household committees and villager committees - they are considered as an extension of government agencies in urban and rural areas. They are therefore also classified into the general government sector.

18. Thus, the sector of general government consists of government administrative units, public utility units, corporate social organisations, and other corporate units.

19. The 1993 SNA provides for the general government sector to be broken down into four sub-sectors. These are central government, state government, local government and social security funds. At the present time no sub-sectors of general government are shown in the national accounts of China. It should be noted here that social security funds in China are operated by departments of finance and departments of labour and social security at various levels of government. It is not considered feasible to separate out their output, value added, final consumption and capital formation, so they cannot be treated as a separate sub-sector as recommended by the 1993 SNA.

III. Production account for general government

20. The form of production account for general government is expressed in China as follows:

Uses	Resources
1. Compensation of employees	1. Value added
2. Taxes on production, net	
3. Operating Surplus, gross	

A. Value added

21. The value added of general government sector is calculated by the “income approach”, i.e. value added is the sum of employee compensation, taxes on production, net, consumption of fixed capital and operating surplus. This is the standard practice in all countries.

22. The value added of general government sector could be calculated by type of units, i.e. government administrative units, public utility units, corporate social organisations and other units, or by the source of financing. The calculation by type of units need detailed (consolidated) financial statements of these units, which are not generally available at the present time; the calculation by source of financing, on the other hand, needs detailed data on expenditures and this information is more widely available.

23. In practice, the two approaches are both used to some extent. The approach by type of unit is used to calculate net taxes on production paid by units of the government sector and the depreciation of the fixed assets that they own. The second approach, by source of funding, is used to calculate compensation of employees.

24. Thus the calculation of the value added of the general government sector can be expressed in the following formula:

The value added of the general government sector

equals the compensation of employees within the scope of the budget
plus the compensation of employees within the scope of extra-budgetary funds
plus the compensation of employees within the scope of other financial resources
plus the taxes on production, net paid by all the units of the sector
plus the depreciation of fixed assets owned by all the units of the sector

25. Here two points should be noted. First, gross operating surplus is equal to depreciation of fixed assets because the units of general government are non-profit units. Second, social security funds are integrated into government administrative units. Their value added is therefore included in the production accounts, although it cannot be separately distinguished.

B. Compensation of employees

26. This is composed of the compensation of employees within the scope of budget, the compensation of employees within the scope of extra-budgetary funds and the compensation of employees within the scope of other financial resources.

The compensation of employees within the scope of budget

27. The data sources for the calculation of the value added and its components are state final accounts within the scope of budget. In calculating compensation of employees, the first step is to distinguish government expenditures on consumption goods and services from expenses on capital goods and to distinguish capital transfers and from current transfers. The Classification of Revenues and Expenditures of Government Budget (CREGB) is used for this purpose.

28. CREGB divides government expenditures into sections, divisions and groups coded with two digits, four digits, and six digits respectively. At the level of sections (first level), it makes a rough division between expenditures on basic construction and expenses for the operation of government

departments and their subordinate agencies. At the level of divisions, it classifies expenditures according to kind of activity. At the level of groups, it further divides expenditures by purpose.

29. In addition to these three category, CREGB also classifies the operating expenses of government departments into the following items:

- (1) Wages and salaries;
- (2) Supplements to wages and salaries;
- (3) Other wages and salaries;
- (4) Employee benefit expenses;
- (5) Expenses for social security;
- (6) Fellowships for students;
- (7) Public affairs expenses;
- (8) Expenses for the purchase of office equipment;
- (9) Expenses on repair and maintenance;
- (10) Business expenses;
- (11) Reception expenses for businesses;
- (12) Other expenses.

30. CREGB is revised by the Ministry of Finance every year, and categories and items may vary somewhat from year to year. But the changes are not so great that they prevent it from being used in national accounts.

31. The first three items above are clearly part of compensation of employees. In addition, however, it is necessary to add certain government expenditures that can be considered income in kind.

32. Table 1 gives a simplified example of the expenditures part of CREGB. Table 2 shows how CREGB classifies expenditures on consumption goods and services, capital goods, current transfers, and other outlays (e.g. lending).

Table 1: The three levels of expenditure categories of CREGB: simplified example

Code			Names of expenditure categories
Sections	Divisions	Groups	
01			Expenses on basic construction
	0101		Expenses on basic construction in metallurgical industry
		010101	Appropriations that should be paid back
		010102	Appropriations that should not be paid back
16			Operating expenses for taxation agencies and other agencies
	1602		Operating expenses for statistical agencies
		160201	Expenses on statistical business
		160202	Expenses on the organisations of sample surveys
		160203	Expenses on the training of statisticians

Table 2: Expenditures on (1) consumer goods and services; (2) capital goods or capital transfers; (3) current transfers; (4) other expenditures.

EXPENDITURE CATEGORIES	(1)	(2)	(3)	(4)
1. Expenses on basic construction		xxx		x
2. Expenses for the technical upgrading and modernisation of enterprises		xxx		x
3. Geological prospecting expenses	xx	xx		
4. Expenses on research and development in science and technology	xx	xx		
5. Expenses on increases in working capital of enterprises		xxxx		
6. Assistance expenses for production in rural areas	x	xxx		
7. Expenses on the integrated development of agriculture	x	xxx		
8. Operating expenses for agencies of agriculture, forestry, water conservancy and meteorology	xx	x	x	
9. Operating expenses for agencies of industry and transport	xx	x	x	
10. Operating expenses for the institutions of trade	xx	x	x	
11. Operating expenses for culture, sports and broadcasting	xx	x	x	
12. Education operating expenses	xx	x	x	
13. Science operating expenses	xx	x	x	
14. Health operating expenses	xx	x	x	
15. Operating expenses for taxation agencies and other agencies	xx	x	x	
16. Expenses for pensions and social assistance benefits	x	x	xx	
17. Expenses for the retired employees of government administrative units and public utility units			xxxx	
18. Expenses for social security subsidies			xxxx	
19. Defence expenses	xx	x	x	
20. Government administration expenses	xx	x	x	
21. Expenses for diplomacy and foreign affairs	xx	x	x	
22. Expenses for armed police.	xx	x	x	
23. Expenses for public security organs, procurator organs, people's courts and judicial agencies	xx	x	x	
24. Expenses for urban maintenance	x	xxx		
25. Subsidies				xxxx
26. Foreign assistance expenses		x	xxx	
27. Expenses for the assistance to underdeveloped areas		xxx	x	
28. Expenses for the construction and development of land and sea		xxxx		
29. Special expenses	x	xx	x	
30. Other expenses	x	x	x	x

Notes: 1) An "x" indicates that some part of the expenditures for a given row falls in expenditure categories (1) through (4).
2) The number of "x's" indicate the share of total expenditures allocated to each expenditure category.

33. Only those expenditures shown in the first column contains expenditures that can be considered to be income in kind. On the basis of Table 2, compensation of employees within the scope of budget is therefore calculated by the following formula:

The compensations of employees paid from each of the relevant expenses in Table 2

equals wages and salaries
plus supplements to wages and salaries
plus other wages and salaries
plus x per cent of public affairs expenses
plus x per cent of business expenses
plus x per cent of reception expenses for businesses
plus x per cent of other expenses.

34. The values of the “x’s” are determined by the most recent input/output investigations, and they are different for the various items in the formula.

Compensation of employees within the scope of extra-budgetary funds

35. In the publication *The Final Accounts of the Nationwide Extra-budgetary Revenues and Expenditures*, compiled by the Ministry of Finance by industrial branches, the following expenditure items by kind of activity are distinguished as follows:

- (1) Expenses for fixed-asset investment;
- (2) Benefit and bonus expenses;
- (3) Public administration operating expenses;
- (4) Expenses made from income other than from budgetary appropriations;
- (5) Other expenses.

36. For each branch, the compensation of employees is calculated by the following formula:

The compensation of employees of a certain branch within the scope of extra-budgetary funds

equals benefit and bonus expenses
plus x per cent *times* (public administration operating expenses *plus* expenses made from income other than from budgetary appropriations *plus* other expenses)

37. The x per cent is determined by referring to the ratio of compensation of employees to the total administrative or operating expenses of the corresponding branch within the scope of the budget. And the compensation of employees within the scope of extra-budgetary funds is the sum of the value for all the branches.

The compensation of employees within the scope of other financial resources

38. The term “other financial resources” refers to the resources raised by villager committees in rural areas and street household committees in urban areas. The compensation of employees within the scope of other financial resources is calculated by the following formula:

The compensation of employees within the scope of other financial resources

equals the payment per capita to the village committees made by rural households
times the population in rural areas
plus the payment per capita to the street household committee made by urban households
times the population in urban areas

39. Data sources are rural household surveys, urban household surveys, and statistics on population.

C. Taxes on production, net of subsidies

40. Units of the general government sector, except government administrative units, have to pay taxes on production. These taxes include turnover taxes, taxes for urban maintenance, taxes on buildings,

stamp taxes, taxes on the use of urban land, taxes on the use of vehicles and ships and licensing taxes. The taxes on production, net paid by these units are estimated by using *Taxes Statistical Yearbook*, which provides data on taxes by branches and by categories of taxes.

D. The depreciation of fixed assets owned by the units of the general government sector

41. This is estimated on the basis of the historic values of fixed assets and the depreciation rates stipulated by the state. Data sources are statistics on state-owned assets, compiled by the Ministry of Finance.

IV. Distribution and use of income account

42. The distribution and use of income account for general government is shown as follows:

Uses	Resources
1. Property income (1) interest (2) dividends (3) others	1. Operating surplus, gross
2. Current transfers (1) current taxes on income, wealth, etc. (2) social insurance benefits (3) social assistance benefits (4) others	2. Property income (1) interest (2) dividends (3) others
Disposable income	
3. Government final consumption	3. Taxes on production, net
4. Saving, gross	4. Current transfers (1) current taxes on income, wealth, etc. (2) social contributions (3) others

A. Operating surplus, gross

43. The operating surplus, gross is carried forward from the production account. It is equal to the depreciation of fixed assets owned by the units of the general government sector

B. Property income

44. In the account three types of property income are distinguished as follows:

- (1) Interest;
- (2) Dividends;
- (3) Other.

The property income received by general government is recorded on the resources side of that account, while the property income paid by general government enters the uses side of the account.

Interest

45. Interest for general government is the interest paid or received on loans and deposits, interest paid on government bonds, and the interest payments and receipts between general government and non-residents. As regards the first two types of interest payments or receipts, there is a detailed discussion in Chapter Four. Here only the basic definitions are given.

a) Interest on deposits and loans

46. Interest on bank deposits and loans is adjusted in the distribution and use of income account for financial intermediation services indirectly measured (FISIM). This is done in the following way:

(1) Adjusted interest (i.e. adjusted for FISIM)

The adjusted interest received by general government on **deposits**

equals the actual interest receivable by general government on deposits
plus the FISIM allocated to government on deposits

The adjusted interest paid by general government on **loans**

equals the actual interest payable by general government on loans
minus the FISIM allocated to general government on loans

(2) Calculation of FISIM

FISIM

equals the actual interest receivable by financial institutions on loans
minus the actual interest payable by financial institutions on deposits

The FISIM on **deposits**

equals FISIM
times the actual interest payable by financial institutions on deposits
divided by (the actual interest receivable by financial institutions on loans *plus* the actual interest payable by financial institutions on deposits)

The FISIM on **loans**

equals FISIM
times the actual interest receivable by financial institutions on loans
divided by (the actual interest receivable by financial institutions on loans *plus* the actual interest payable by financial institutions on deposits)

(3) The FISIM allocated to general government

The FISIM allocated to general government on **deposits**

equals the FISIM on deposits
times the average balance of deposits by general government during the accounting period

divided by the average balance of the total deposits during the accounting period

The FISIM allocated to general government on **loans**

equals the FISIM on loans

times the average balance of loans by general government during the accounting period

divided by the average balance of the total loans during the accounting period

47. Data sources for the calculations are annual financial statements of various financial institutions collected by the Departments of National Accounts, NBS and *The Balance Sheet of Credit Receipt and Payment for financial Institutions* that are compiled by the People's Bank of China every month.

b) The interest paid by general government on government bonds

48. In practice, it is difficult to calculate interest on government bonds on an accrual basis because of the limitation of data sources. On the other hand, the treatment of interest on a cash basis would result in irregular movement of interest receipt and payments. Interest on government securities is therefore adjusted by a smoothing procedure which is described in Chapter Four (paragraphs 68 and 69).

c) The interest between general government and non-residents

49. The Chinese government does not usually invest in bonds issued by non-residents because, as a developing country, China is short of financial resources. Interest paid by non-residents to general government is, therefore, negligible. On the other hand, the government of China raises funds by issuing bonds on international financial markets and there are interest payments by general government to non-residents. The data sources are government finance section, statistical yearbooks.

Dividends

50. With regard to dividends, more detailed description can be found in Chapter Four. At the moment, only the dividends distributed by listed companies are taken into account because of the limitation of data sources.

51. In China, most of the companies listed in stock exchanges were formerly state-owned enterprises. Shares of listed companies may be held by households, corporate enterprises and government. The listed companies give shareholders dividends either in the form of cash or bonus shares. The government usually reinvests cash dividends in the company instead of withdrawing them and dividends in the form of bonus shares gives government increased equity in the company. No matter the form in which dividends are distributed, they are first treated as dividends received by government in the distribution and use of income account, and are then shown as acquisition of shares in the financial accounts of government.

52. The dividends distributed by listed companies are calculated by the following formula:

The dividends received from listed companies

equals the total after-taxes profits of the listed companies

times the number of the shares held by government

divided by the number of the shares of the listed companies

times 60 per cent

53. Chapter Four has explained why it is assumed that 60 per cent of after tax profits are distributed as dividends.

54. The data source for the calculation of the dividends distributed by listed companies is the *Securities and Futures Statistics Yearbook*.

Other property income

55. Rents are not taken into account in China's national accounts (See paragraph 89 of Chapter Four). "Other property income" covers only the property income attributed to insurance policy holders. This is calculated in two steps:

- (1) The first step is to calculate the property income attributed to insurance policy holders using the following formula:

Property income attributed to insurance policyholders in the accounting period

equals investment income of insurance companies in the accounting period
times the average balance of the insurance technical reserve at the beginning and end of the accounting period
divided by the average balance of the total liabilities plus owners' equities at the beginning and end of the accounting period

- (2) The second step is to allocate property income attributed to insurance policyholders to general government in the following formula:

The property income allocated to general government

equals the property income attributed to insurance policyholders
times the premiums paid by general government
divided by the total of the premiums received by insurance companies

56. Data sources are the financial statements of insurance companies and statistics on insurance, which are collected and edited by the China Insurance Supervision Commission.

C. Taxes on production, net

57. The taxes on production, net received by general government are composed of taxes on production, net within the scope of budget and taxes on production, net within the scope of extra-budgetary funds.

The taxes on production, net within the scope of budget

58. As in the measure of the output of general government within the scope of budget, CREGB is used to divide the revenues received by general government within the scope of budget into taxes on production, net and current taxes on income and wealth. The revenue side of CREGB has a similar breakdown to the expenditure side. Table 3 gives a simplified example of the revenue side of CREGB and

Table 4 shows the division of budgetary revenues into taxes on production, net and current taxes on income and wealth.

Table 3: Three levels of revenue categories of CREGB: simplified example

Code			Names of revenue categories
Sections	Divisions	Groups	
01			Taxes on value added
	0101		Taxes on value added, domestic
		010101	Taxes on the value added of state-owned enterprises
		010102	Taxes on the value added of collective enterprises
04			Taxes on the income of enterprises
	0444		Taxes on the income of state-owned banks
		044401	Taxes on the income of the Industrial and Commercial Bank of China
		044402	Taxes on the income of the Agricultural Bank of China

Table 4: The division of revenues into (1) taxes (subsidies) on products; (2) other taxes (subsidies) on production; (3) taxes on income; (4) other current taxes.

NAMES OF REVENUE CATEGORIES	(1)	(2)	(3)	(4)
1. Taxes on value added	x			
2. Excise duties	x			
3. Turnover taxes	x			
4. Taxes on the income of enterprises			x	
5. Refund of taxes on the income of enterprises			x	
6. Taxes on individual income			x	
7. Taxes on natural resources	x			
8. Regulatory taxes on the direction of fixed-asset investment		x		
9. Taxes for urban maintenance and construction		x		
10. Taxes on buildings				x
11. Stamp taxes		x		
12. Taxes on the use of urban land		x		
13. Taxes on the value increase of land		x		
14. Taxes on vehicles and ships and licensing taxes		x		x
15. Taxes on slaughtering		x		
16. Taxes on banquets		x		x
17. Import taxes	x			
18. Taxes on agriculture		x		
19. Taxes on the products of agriculture	x			
20. Taxes on animal husbandry		x		
21. Taxes on the occupation of arable land		x		
22. Taxes on contracts		x		
23. Operating surplus of state-owned assets			x	
24. Subsidies to the planned deficits of state-owned enterprises	x			
25. Administration charges		x		
26. Fines and penalties				x
27. Revenues from the transfer of the rights to use land or sea		x		
28. Special revenues		x		
29. Other revenues	current transfers or property income			

Note: “x” indicates that the categories of taxes in CREGB fall into the four types of taxes defined in the SNA.

59. Taxes on production, net received by general government within the scope of budget are equal to the sum of (1) taxes (subsidies) on products plus (2) other taxes (subsidies) on production in Table 4. Subsidies are treated as negative taxes.

The taxes on production, net within the scope of extra-budgetary funds.

60. The extra-budgetary revenues mainly consist of surtaxes and administration charges. Surtaxes are levied by local finance departments mainly on public utilities, like the supply of electricity, water, natural gas, bus services, etc. Administration charges are levied by ministries and departments of local government for the various purposes of management such as registration, inspection, test, environmental assessment, contract signature, etc. Since the Ministry of Finance that is responsible for the collection and compilation of statistics on extra-budgetary revenues and expenditures does not provide detailed breakdown of extra-budgetary revenues, all the revenues are treated as taxes on production, net in China’s national accounts at the present time.

D. Current transfers

61. These consist of current taxes on income and wealth, social contributions; social insurance benefits; social assistance benefits; and others. The current transfers received by general government are recorded on the side of resources; the current transfers paid by general government are recorded on the side of uses.

Current taxes on income and wealth.

62. Current taxes on income and wealth received by general government are calculated with the help of Table 4. Data sources are the final state accounts.

63. Current taxes on income and wealth paid by the units of general government are calculated by referring to the detailed breakdown of tax statistics, which is provided by the National Bureau of Taxation. Taxes on income and wealth have been levied on certain public utility units such as government printing and publishing houses. They were generally small amounts and have not been levied since 1993.

Social contributions

64. China’s social insurance schemes comprise “basic endowment insurance”, “insurance against injury at work”, “birth insurance”, and “medical insurance”. The social contributions received by general government are the payments made by individual entrepreneurs, staff and workers, and enterprises on behalf of their staff and workers into the funds of the four types of insurance.

65. Data sources on social contributions are *China Social Insurance Yearbook*, compiled by the Ministry of Labour (now merged with another ministry into the Ministry of Labour and Social Security).

Social insurance benefits

66. These are the payments made by the four funds to the households who are covered by social insurance schemes when the circumstances specified in the schemes occur.

67. Data sources on social contributions are *China Social Insurance Yearbook*, compiled by the Ministry of Labour.

Social assistance benefits

68. Social assistance benefits play the same role as social insurance benefits, but they are financed out of government budget or by individual government administrative units, public utility units and enterprises, rather than from the funds established under social insurance schemes.

69. The social assistance benefits financed directly from government budgets are calculated in the light of the relevant categories of budgetary expenditures classified as current transfers in Table 2. Data sources are the final state accounts.

70. The social assistance benefits made by the units of general government to their staff and workers and their families include:

- (1) provision of medicine and medical services free or at reduced prices to staff and workers or retired staff;
- (2) funeral subsidies and pensions for survivors following the death of staff and workers or the retired;
- (3) subsidies to the families of staff and workers or the retired who have a low level of living relatively to others;
- (4) expenditures on cultural and sporting activities that are organised for staff and workers or the retired;
- (5) subsidies for the operation of collective welfare services, such as communal baths, haircuts, looking after children, etc.;
- (6) expenditures on collective welfare facilities, such as purchases of simple equipment or articles for canteens, kindergartens, etc., the repair and maintenance of the facilities and the apartments that are provided for staff and workers and the retired, excluding expenses on the construction of the facilities and other major capital expenses;
- (7) family planning subsidies, like subsidies made to the staff and workers who have observed governments' policies of family planning;
- (8) other subsidies, like travel allowance for the reunion of staff and workers with their parents, etc.

71. Data sources are from the China Labour Statistical Yearbook.

Other current transfers

72. Other current transfers received by general government consist of :

- (1) "fines and penalties" and the relevant items of "other revenues" in Table 4;

- (2) payments made by rural or urban households to village committees or street household committees, which are equal to “the compensation of employees within the scope of other financial resources” described above;
- (3) non-life insurance claims received by the units of general government, which are calculated on the basis of insurance statistics provided by the China Insurance Supervision Commission.

73. Other current transfers paid by general government consist of:

- (1) “foreign assistance expenses” and other relevant items in Table 2;
- (2) the net non-life insurance premiums paid by the units of general government, which are considered as equal to the non-life insurance claims received by the units of general government.

E. Disposable income

74. The disposable income of general government is defined as:

The disposable income of general government

equals operating surplus, gross
plus property income received by general government
plus taxes on production, net received by general government
plus current transfers received by general government
less property income paid by general government
less current transfers paid by general government

F. Final consumption expenditure of general government

75. The final consumption expenditure of general government is calculated in the estimation of expenditure components of GDP (see Chapter Two).

G. Saving, gross

76. The gross saving of general government is the difference between general government disposable income and general government final consumption expenditure.

CHAPTER SIX

THE REST OF THE WORLD ACCOUNT

I. Introduction

1. As the account for the rest of the world sector is compiled on the basis of China's Balance of Payments (BOP), it is helpful here to give a brief introduction to the history of the compilation of China's BOP.

2. China started to compile BOP statistics in 1981. One of the reasons for doing this was to reflect increasingly complicated international transactions as the policies of opening-up and reform were adopted. The other reason was to comply with the compulsory obligations of membership of the International Monetary Fund and the World Bank while China's legal position in these organisations was being restored.

3. From 1981-1995, China's BOP statistics were, for several years, compiled jointly by the State Statistical Bureau (the former name of the NBS) and State Administration for Foreign Exchange, and then by the latter independently. The statistics followed the definitions and principles formulated in the IMF BOP Manual Revision 4. The main data sources used were customs statistics, financial statements of the Bank of China and the People's Insurance Corporation of China, and statistics collected for administrative purposes by the Ministry of Foreign Economy and Trade, the Ministry of Finance, the Ministry of Communications, the Ministry of Railways, and the State Administration for Civil Aviation.

4. When China began to deregulate international trade, international transaction between China and foreign countries and territories grew in importance, and more non state-owned enterprises participated in international activities. As a result, the old data sources tended to cover less and less of the activities between residents and non-residents, and this resulted in implausibly high values of "errors and omissions". So in 1996, the State Administration for Foreign Exchange introduced a new method of data collection - Reporting of Balance of Payments Statistics. In the meantime, the BOP system was converted to the revised version contained in the IMF BOP Manual Revision 5. Revised BOP statistics according to the new system were published from the year 1997.

II. Residents

5. The residents of China are defined as:

- (1) individuals who live within the territory of China for one year or more, excluding students, medical patients from abroad, persons who live within the territory of China in Hong Kong, Macao and Taiwan, staff and their family members in foreign embassies and consulates in China;
- (2) residents who visit abroad for less than one year, students from China who study abroad, patients from China who take medical treatment abroad, and the staff and their family members in China's embassies and consulates in foreign countries;
- (3) corporations and similar bodies that are established under Chinese law, including foreign funded non-financial enterprises and financial institutions, and the branches or business offices set up by foreign corporate bodies in China, excluding agencies set up by international organisations in China and foreign embassies and consulates in China; and
- (4) government agencies of China, social bodies and military personnel in foreign countries.

III. The external account of goods and service

6. The external account of goods and services is expressed in the following form:

Uses	Resources
Exports of goods and services	Imports of goods and services
Exports of goods	Imports of goods
Exports of services	Imports of services
External balance of goods and services	

A. Exports and imports of goods

7. The data sources for exports and imports of goods are customs statistics, while data from the "international receipts and payments reporting" system (see below) are used as a cross check. The customs statistics are produced in China following international standards.

The coverage of customs statistics

8. Customs statistics cover:

- (1) exports and imports of goods as in ordinary foreign trade, including military materials, and exports and imports from and to special economic zones;
- (2) exports and imports of goods in the way of compensation trade;
- (3) exports and imports of the goods that are used for processing and/or assembling;
- (4) exports and imports of the goods donated as gifts;
- (5) exports and imports of samples and models that are exported and imported without payment;
- (6) leased goods for which the leasing period is over one year;
- (7) border trade;
- (8) exports and imports by Chinese-foreign joint ventures, Chinese-foreign co-operating enterprises, and wholly foreign owned enterprises;
- (9) goods in bonded warehouses that pass through borders;
- (10) goods that pass through China's borders for transit trade;

- (11) exports and imports of the goods as samples for display in trade fairs and related advertising purposes if their value exceeds a fixed threshold;
- (12) import goods that are withdrawn from bonded warehouses for sale within the territory of China;
- (13) normal exports and imports of the goods that are not classified into the ten categories above.

9. Customs statistics do not cover:

- (1) goods that are traded between non-residents but pass through China's borders;
- (2) goods for foreign trade that do not pass through China's borders;
- (3) goods that are temporarily exported or imported, and will be re-imported or re-exported at a later date;
- (4) goods that are settled in foreign exchange without passing through borders;
- (5) exports and imports of the goods that are used to make compensation for goods lost or damaged while being transported to or from China;
- (6) exports and imports of goods as samples or for the purpose of advertisement whose values are below a certain threshold;
- (7) exports and imports of the goods that are mailed for personal use or brought by individuals themselves when passing through China's borders;
- (8) goods such as fuel, materials, food and drinks that are purchased by foreign owned aircraft and ships;
- (9) exports and imports of goods that are used by embassies for official business;
- (10) leased goods for which the leasing period is less than one year;
- (11) smuggled goods and other goods that are confiscated by the customs authorities;
- (12) exports and imports of non-commercial printed matter, and other non-trade goods such as salvaged materials.

The commodity catalogue and coding of customs statistics.

10. The latest version of the commodity catalogue and coding of China's customs statistics was formulated on the basis of *The Harmonised Commodity Description and Coding System (HCDCS)* that is widely applied across the countries of the world but with modifications, made in 1997, to meet China's specific situation with regard to exports and imports of goods in 1997. It classifies export and import commodities into 22 groups, 98 categories and 6600 types of goods. The first 97 categories are completely consistent with HCDCS, and the 98th category is a special one for statistical purposes. Types of goods are designated by eight digit codes, the first six numbers and descriptions of the goods being consistent with HCDCS and the last two numbers being designed for the purposes of duties, statistics and trade management. The Customs Head Office of China compiles customs statistics according to the catalogue and coding system, which includes the measure unit, number or weight, etc., of the export and import commodity.

The valuation of exports and imports

11. Imports of goods are valued at c.i.f. prices, which include the original value of the goods, freight transport fees, insurance charges and other expenses before being unloaded in China's customs areas.

Exports of goods are valued at f.o.b. prices, which refer to the actual prices of goods leaving China's customs areas, excluding freight transport fees, insurance charges and other expenses incurred after leaving China's customs areas.

12. For goods that are transported by air or through the mail, imported goods are valued at their prices in the place of receipt designated by the foreign exporter; while exported goods are valued at the prices in the place from which the goods are loaded for transport from China.

13. The values of exports and imports are denominated both in RMB yuan and US dollars. The mid-points of market exchange rates are used in the conversion.

The adjustment of the value of import goods at c.i.f. prices to the value at f.o.b. prices

14. The 1993 SNA requires imports of goods to be valued at f.o.b. prices in the national accounts instead of the c.i.f. prices used for customs statistics. The adjustment process in China is first to determine average ratios of transportation and insurance charges to c.i.f. value of imports on the basis of sample surveys of invoices of imports made by the State Administration for Foreign Exchange. This is done for large groups of imports like grain, crude oil, chemical fertilisers, iron and steel, etc., and some other smaller groups of goods. Next, the transportation and insurance charges, estimated using the average ratios, are deducted from the c.i.f. value of total imports to derive the f.o.b. value of total imports.

B. Exports and imports of services

Categories of exports and imports of services

15. Thirteen categories of services are shown in the rest of world account. They are:

- (1) Transport services, including passenger transport services and freight transport services;
- (2) Tourism, including tourism for official business and tourism for private purpose;
- (3) Post and telecommunications;
- (4) Construction and installation;
- (5) Insurance, including life insurance, non-life insurance, re-insurance;
- (6) Intermediation fees and commissions for financial services, excluding financial intermediation services indirectly measured (FISIM) ;
- (7) Computer and information services;
- (8) Charges for using patents and royalties;
- (9) Consultation services, including legal, accounting, management and technology services;
- (10) Advertising services, including market research;
- (11) Movies and videos, including the rentals incurred on them;
- (12) Other commercial services;
- (13) Government services that are not classified elsewhere.

Data sources

16. In 1996-1997, China began to implement the “system of reporting of balance of payments statistics”. This system, covering all the economic transactions between China’s residents and non-residents, is composed of “indirect” reporting and “direct” reporting. Indirect reporting refers to the reports made by financial institutions on all the transactions between residents and non-residents that are carried out through the financial institutions. Direct reporting refers to the reports made by transactors themselves on their foreign transactions, including statistical reporting on their foreign assets and liabilities, losses and gains on the assets and liabilities of financial institutions; statistical reporting on direct investment; statistical reporting on portfolio investment; statistical reporting on exchange transactions by other transactors. The State Administration for Foreign Exchange and its local offices are responsible for the collection, processing and aggregation of these reports. They do this every quarter.

17. The indirect reporting by financial institutions covers all the types of BOP transactions (except changes in reserve assets) if the corresponding receipts and payments are made through the financial institutions. Indirect reporting covers exports and imports of goods; exports and imports of services; property and entrepreneurial income; current transfers; capital transfers; direct investment and portfolio investment. Two reporting forms are used - Reporting Form for Receipts from Abroad and Reporting Form for Payments Abroad for two types of BOP transactors - corporate units and individuals. The former are required to provide more detailed information than the latter. The financial institutions have the obligation to help their customers to fill in the forms correctly and aggregate and report them every quarter to the State Administration for Foreign Exchange or its local offices.

18. Although indirect reporting could provide the information on exports and imports of goods, it is used only as a cross-check in the compilation of the external account of goods because customs statistics are generally believed to be more reliable than the statistics from the reporting system. For the exports and imports of services except tourism, however, statistics from the reporting system are the only source. In the case of tourism, data from the sample survey made by National Tourism Administration are used.

19. Generally speaking, because of the implementation of tax rebates on exports in recent years and the high import duties for a long time, which has resulted in serious smuggling, it is reckoned that the customs statistics might overstate exports of goods and understate imports of goods. But without strong evidence on the matter, the customs statistics are normally not adjusted for the external account of goods and services. On the other hand, the statistical reporting on BOP transactions, though much better than the old collection method, is still in the process of improvement.

IV. External account of primary income and current transfer

20. The external account of primary income and current transfers contains the following entries:

Uses	Resources
1. Compensation of employees received from abroad	1. External balance of goods and services
2. Property income received from abroad	2. Compensation of employees paid to abroad
(1) Interest payment	3. Property income paid to abroad
(2) Dividend payment	(1) Interest payment
(3) Other payments	(2) Dividend payment
3. Taxes on production, net, received from abroad	(3) Other payments
4. Current transfers received from abroad	4. Taxes on production, net paid to abroad
	5. Current transfer paid to abroad
Current external balance	

Data sources

21. The data used to fill in the account above are collected from the corresponding entries of the following reports:

(1) Reporting of BOP Statistics through Financial Institutions, including:

- (a) reporting form for receipts from abroad (units);
- (b) reporting form for payments to abroad (units);
- (c) reporting form for receipts from abroad (individuals);
- (d) reporting form for payments to abroad (individuals).

(The difference between the forms used for units and those for individuals is that the former have much more detailed categories of BOP transactions than the latter.)

(2) Financial Institutions Reporting on Their Own Overseas Assets and Liabilities, and Gains and Losses, including:

- (a) Reporting form for gains and losses of external transactions;
- (b) Reporting form for profit distribution.

(3) Reporting of Direct Investment Statistics, including:

- (a) Reporting form for the distribution of profits of direct investment enterprises;
- (b) Reporting form for the profits distributed to foreign direct investors.

(4) Reporting of Portfolio Investment Statistics, including:

- (a) Reporting form for non-residents' investment in B shares;
- (b) Reporting form for non-resident's investment in the shares of China's companies that are listed abroad.

V. Capital Account

22. The following table gives the capital account of the rest of the world:

Changes in assets	Changes in liabilities and worth
1. Acquisitions less disposable of non-produced non-financial assets	1. Current external balance
	2. Capital transfers, net Capital transfers, receivable Capital transfers, payable
Net lending (+)/net borrowing(-)	

Data sources

23. The data used to fill in the table are from BOP statistical reporting system. These data are only shown in BOP statistics from 1997 because this account is not part of the BOP system described in the IMF BOP manual, Revision 4. The values in the capital account are not very large and consist mainly of capital transfers to abroad by emigrants.

VI. Financial Account

24. The financial account of the rest world is as follows:

Changes in assets	Changes in liabilities and net worth
Net acquisition of financial assets	Net incurrence of liabilities
1. Monetary gold and SDRs	1. Currency and deposits
2. Currency and deposits	2. Securities other than shares
3. Securities other than shares	3. Loans
4. Loans	4. Shares and other equity
5. Shares and other equity	5. Insurance technical reserves
6. Insurance technical reserves	6. Other accounts payable
7. Other accounts payable	
	Net lending(+)/net borrowing(-)

Data sources

25. Generally speaking, statistics from the BOP reporting system are also used for the compilation of the financial account of the rest of the world. In practice the financial account is compiled by taking the corresponding items from the BOP tables and allocating them to the appropriate items in the financial accounts. The bridge tables from BOP to the SNA account are presented below.

Table 1. Bridge table for financial assets

Transactions in financial account	Items in BOP
1. Monetary gold and SDRs	No corresponding items
2. Currency and deposits	Currency and deposits (3.2.3)
3. Securities other than shares	Debt securities(2.2.2)
4. Loans	Loans(3.2.2)
5. Shares and other equity	Direct investment in China(1.2); equity securities(2.2.1)
6. Insurance technical reserves	Insignificant, no treatment
7. Other accounts payable	Trade credits(3.2.1); other liabilities(3.2.4)

Note: All the items in BOP refer to the balance between the credit and debit i.e. to the net change in assets.

Table 2. Bridge table for financial liabilities

Transactions in financial account	Items in BOP
1. Currency and deposits	Currency and deposits(3.1.3); monetary gold(4.1); SDRs(4.2); reserve position in the Fund(4.3); foreign exchange(4.4); other claims(4.5)
2. Securities other than shares	Debt securities(2.1.2)
3. Loans	Loans(3.1.2)
4. Shares and other equity	Direct investment abroad(1.1); equity securities(2.1.1)
5. Insurance technical reserves	Insignificant, no treatment
6. Other accounts payable	Trade credits(3.1.1); other liabilities(3.1.4)

Note: All the items in BOP refer to the balance between the credit and debit i.e. to the net change in liabilities.

26. The treatment of BOP items for the purposes of the financial account above is not fully consistent with the 1993 SNA. This is a pragmatic approach for the compilation of a complete set of accounts for the rest of the world sector. A more detailed breakdown of BOP items would be required in order to compile financial accounts that are completely consistent with the 1993 SNA.

VII. External assets and liabilities account

27. The account has not yet been compiled because statistics on China's international investment positions are not available at the present time.

STATISTICAL ANNEX

Table 1.	Gross Domestic Product: Current Price Levels and Composition
Table 2.	Gross Domestic Product by Kind of Activity
Table 3.	Annual Growth of the Gross Domestic Product at Constant Prices
Table 4.	Final Expenditure on the Gross Domestic Product
Table 5.	Production Accounts for Households
Table 6.	Distribution and Uses of Income Account for Households
Table 7.	Production Account for General Government
Table 8.	Distribution and Use of Income Account for General Government
Table 9.	Current Accounts for the Rest of the World
Table 10.	Capital Accounts for the Rest of the World

Table 1. Gross Domestic Product: Current Price Levels and Composition

	1991	1992	1993	1994	1995	1996	1997	1998	1999
	<i>in current prices. (100 million RMB Yuan)</i>								
GDP	21617.8	26638.1	34634.4	46759.4	58478.1	67884.6	74462.6	78345.1	82054.3
Primary industry	5288.6	5800.0	6882.1	9457.2	11993.0	13844.2	14211.2	14552.4	14211.9
Secondary industry	9102.2	11699.5	16428.5	22372.2	28537.9	33612.9	37222.7	38619.3	40806.6
Tertiary industry	7227.0	9138.6	11323.8	14930.0	17947.2	20427.5	23028.7	25173.5	27035.9
	<i>percentage composition</i>								
GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary industry	24.5	21.8	19.9	20.2	20.5	20.4	19.1	18.6	17.3
Secondary industry	42.1	43.9	47.4	47.9	48.8	49.5	50.0	49.2	49.7
Tertiary industry	33.4	34.3	32.7	31.9	30.7	30.1	30.9	32.1	32.9

Table 2. Gross Domestic Product by Kind of Activity

(At current prices, 100 million RMB yuan)

Kind of Activity	1991	1992	1993	1994	1995	1996	1997
Primary industry	5288.6	5800.0	6882.1	9457.2	11993.0	13844.2	14211.2
Secondary industry	9102.2	11699.5	16428.5	22372.2	28537.9	33612.9	37222.7
Industry	8087.1	10284.5	14143.8	19359.6	24718.3	29082.6	32412.1
Construction	1015.1	1415.0	2284.7	3012.6	3819.6	4530.5	4810.6
Tertiary Industry	7227.0	9138.6	11323.8	14930.0	17947.2	20427.5	23028.7
Services for agriculture, forestry, animal husbandry, and fishing	53.6	66.6	76.5	101.3	115.8	129.6	177.3
Geological prospecting and water conservancy	76.8	98.0	134.5	191.2	253.3	280.2	302.3
Transport, storage, post and telecommunications	1409.7	1681.8	2123.2	2685.9	3054.7	3494.0	3797.2
Transport and storage	1261.7	1488.0	1823.5	2204.3	2378.0	2626.6	2689.6
Post and telecommunications	148.0	193.8	299.7	481.6	676.7	867.4	1107.6
Wholesale and retail trade and catering	2087.0	2735.0	3090.7	4050.4	4932.3	5560.3	6159.9
Banking and insurance	1288.1	1601.0	2057.0	2767.2	3482.8	4017.4	4534.6
Real estate	368.2	521.1	640.7	870.3	1058.6	1149.3	1258.8
Social services	447.3	599.7	899.2	1200.5	1546.4	1717.7	2177.9
Health care, sports and social welfare	215.2	264.0	333.7	433.8	483.2	564.2	617.1
Education, culture and arts, radio, film and television	454.9	547.7	709.9	977.6	1124.5	1354.9	1573.2
Scientific research and technological services	97.5	125.0	151.8	213.4	277.1	335.7	434.1
Government agencies, parties and social organizations	662.1	809.7	986.4	1279.1	1438.0	1615.3	1763.9
Other	66.6	89.0	120.2	159.3	180.5	208.9	232.4
Gross Domestic Product at market prices	21617.8	26638.1	34634.4	46759.4	58478.1	67884.6	74462.6

Table 3. Annual Growth of the Gross Domestic Product at Constant Prices

(previous year = 100)

Kind of Activity	1991	1992	1993	1994	1995	1996	1997
Primary industry	102.4	104.7	104.7	104.0	105.0	105.1	103.5
Secondary industry	113.9	121.2	119.9	118.4	113.9	112.1	110.5
Industry	114.4	121.2	120.1	118.9	114.0	112.5	111.3
Construction	109.6	121.0	118.0	113.7	112.4	108.5	102.6
Tertiary Industry	108.8	112.4	110.7	109.6	108.4	107.9	109.1
Services for agriculture, forestry, animal husbandry, and fishing	110.7	110.4	102.2	110.3	108.7	105.8	132.5
Geological prospecting and water conservancy	110.9	115.1	111.2	116.3	105.4	105.1	104.3
Transport, storage, post and telecommunications	111.2	110.5	112.4	109.5	112.1	111.4	110.8
Transport and storage	108.6	107.9	105.9	107.1	105.0	103.8	105.3
Post and telecommunications	135.5	130.3	153.3	120.1	139.0	134.1	123.1
Wholesale and retail trade and catering	104.5	113.1	106.6	107.7	105.9	105.4	108.5
Banking and insurance	102.3	108.0	110.9	109.4	108.5	107.5	108.5
Real estate	112.0	134.7	110.8	112.0	112.4	104.0	104.1
Social services	126.8	119.3	118.9	108.3	105.8	105.0	107.9
Health care, sports and social welfare	114.9	109.4	111.8	108.2	106.4	110.3	108.1
Education, culture and arts, radio, film and television	107.8	108.0	114.9	115.0	108.0	113.9	114.8
Scientific research and technological services	112.0	115.3	106.9	117.9	110.5	114.0	112.1
Government agencies, parties and social organizations	114.5	108.6	107.7	108.3	106.0	106.2	107.0
Other	114.8	119.5	117.9	110.6	108.6	109.5	110.2
Gross Domestic Product at market prices	109.2	114.2	113.5	112.6	110.5	109.6	108.8

Table 4. Final Expenditure on the Gross Domestic Product

(At current prices, 100 million RMB yuan)

Year	Total expenditure on the Gross Domestic Product	Final consumption expenditure	Households			Government	Gross capital formation	Fixed capital Formation	Changes in inventories	Net exports of goods and services
				Rural	Urban					
1991	21280.4	13145.9	10315.9	5639.8	4676.1	2830.0	7517.0	5940.0	1577.0	617.5
1992	25863.6	15952.1	12459.8	6571.6	5888.2	3492.3	9636.0	8317.0	1319.0	275.5
1993	34500.6	20182.1	15682.4	7867.2	7815.2	4499.7	14998.0	12980.0	2018.0	-679.5
1994	46690.7	26796.0	20809.8	10308.3	10501.5	5986.2	19260.6	16856.3	2404.3	634.1
1995	58510.5	33635.0	26944.5	13247.1	13697.4	6690.5	23877.0	20300.5	3576.5	998.5
1996	68330.4	40003.9	32152.3	16398.0	15754.3	7851.6	26867.2	23336.1	3531.1	1459.3
1997	74894.3	43579.4	34854.6	17436.8	17417.7	8724.8	28457.6	25154.2	3303.4	2857.2
1998	79853.3	46405.9	36921.1	17667.3	19253.9	9484.8	30396.0	28180.8	2215.1	3051.5

Table 5. Production Account for Households

(100 million RMB yuan)

	1992	1993	1994	1995	1996	1997
Resources						
1. Value added	7720.00	9114.90	13065.40	15789.09	19576.20	21570.30
Total	7720.00	9114.90	13065.40	15789.09	19576.20	21570.30
Uses						
1. Compensation of employees	7037.20	8365.90	11889.50	14446.98	16591.00	19605.23
2. Taxes on production, net	394.69	548.65	661.70	731.80	983.28	985.76
3. Operating surplus, gross	288.11	200.35	514.20	610.31	2001.92	979.31
Total	7720.00	9114.90	13065.40	15789.09	19576.20	21570.30

Table 6. The Distribution and Uses of Income Account for Households

(100 million RMB yuan)

	1992	1993	1994	1995	1996	1997
Resources						
1. Operating surplus, gross	288.11	200.35	514.20	610.31	2001.92	979.31
2. Property income	1191.37	1800.24	2774.06	2971.04	3689.34	3376.74
(1) Interest	1186.66	1789.26	2747.59	2938.19	3625.58	3281.21
(2) Dividends	2.40	7.62	24.67	30.83	36.04	54.27
(3) Other	2.31	3.36	1.80	2.02	27.72	41.26
3. Compensation of employees	15959.60	19633.60	26645.10	33660.00	39279.50	43730.30
4. Current transfers	1319.42	1705.71	2138.12	2734.79	3334.98	4338.90
(1) Social insurance benefits	321.91	472.88	665.75	858.37	1055.10	1311.76
(2) Social assistance benefits	449.60	443.50	503.60	640.00	671.72	792.89
(3) Other	547.91	789.33	968.77	1236.42	1608.16	2234.25
Total	18758.50	23339.90	32071.48	39976.14	48305.74	52425.25
Uses						
1. Property income	6.15	11.78	20.15	16.94	24.13	25.00
(1) Interest	6.15	11.78	20.15	16.94	24.13	25.00
2. Current Transfers	662.08	953.91	1189.32	1468.01	1838.70	2278.93
(1) Taxes on income	4.71	27.25	75.00	131.50	193.19	259.93
(2) Social Contributions	365.80	508.22	716.61	970.74	1207.00	1453.40
(3) Others	291.57	418.44	397.71	365.77	438.51	565.60
Disposable income, gross	18090.27	22374.21	30862.01	38491.19	46442.91	50121.32
3. Final consumption expenditure	12459.80	15682.40	20809.77	26944.45	32152.25	34854.57
4. Saving, gross	5630.47	6691.81	10052.24	11546.74	14290.66	15266.75
Total	18758.50	23339.90	32071.48	39976.14	48305.74	52425.25

Table 7. Production Account for General Government

(100 million RMB yuan)

	1992	1993	1994	1995	1996	1997
Resources						
1. Value Added	2444.00	3173.00	4442.20	5089.34	5513.80	6557.81
Total	2444.00	3173.00	4442.20	5089.34	5513.80	6557.81
Uses						
1. Compensation of employees	1572.00	2037.10	2794.60	3624.47	4684.00	5493.01
2. Taxes on production, net	107.30	127.90	172.40	164.36	60.08	54.47
3. Operating surplus, gross	764.70	1008.00	1475.20	1300.51	769.72	1010.33
Total	2444.00	3173.00	4442.20	5089.34	5513.80	6557.81

Table 8. Distribution and Use of Income Account for General Government

(100 million RMB yuan)

	1992	1993	1994	1995	1996	1997
Resources						
1. Operating Surplus, gross	764.70	1008.00	1475.20	1300.51	769.72	1010.33
2. Property income	79.58	124.23	189.47	159.03	175.07	146.32
(1) Interest	79.58	124.23	189.47	159.03	175.07	146.32
(2) Dividends	0.00	0.00	0.00	0.00	0.00	0.00
(3) Other	0.00	0.00	0.00	0.00	0.00	0.00
3. Taxes on production, net	3495.32	4979.50	6378.62	7777.82	10095.63	10185.18
4. Current transfers	1670.04	1720.68	1936.80	2169.40	2765.35	3294.36
(1) Current taxes on income, etc.	1047.01	917.05	842.01	870.88	1205.70	1291.96
(2) Social contributions	365.80	508.22	716.61	970.74	1207.00	1453.40
(3) Other	257.23	295.41	378.18	327.78	352.65	549.00
Total	6009.64	7832.41	9980.09	11406.76	13805.77	14636.19
Uses						
1. Property income	201.33	296.74	454.89	532.01	658.95	575.82
(1) Interest	201.33	296.74	454.89	532.01	658.95	575.82
(2) Dividends	0.00	0.00	0.00	0.00	0.00	0.00
(3) Others	0.00	0.00	0.00	0.00	0.00	0.00
2. Current transfers	743.38	875.35	1097.35	1370.13	1653.99	2245.98
(1) Current taxes on income etc.	25.60	20.60	0.00	0.00	0.00	0.00
(2) Social insurance benefits	321.91	472.88	665.75	858.37	1055.10	1311.76
(3) Social assistance benefits	394.00	376.10	416.60	509.10	592.38	705.58
(4) Other	1.87	5.77	15.00	2.66	6.51	228.64
Disposable income, gross	5064.93	6660.32	8427.85	9504.62	11492.83	11814.39
3. Final consumption expenditure	3492.30	4499.70	5986.20	6690.50	7851.60	8724.87
4. Saving, gross	1572.63	2160.62	2441.65	2814.12	3641.23	3089.52
Total	6009.64	7832.41	9980.09	11406.76	13805.77	14636.19

Table 9. Current Accounts for the Rest of the World

	(100 million RMB yuan)					
	1992	1993	1994	1995	1996	1997
Resources						
1.Imports of goods and services	4071.20	5666.80	9615.90	11296.99	12814.40	14323.71
2.Compensation of employees paid abroad	0.00	0.00	0.00	0.00	0.00	0.00
3.Property income paid abroad	294.83	326.87	583.83	1416.71	1642.47	1583.11
4.Taxes on Production, net paid abroad	0.00	0.00	0.00	0.00	0.00	0.00
5.Current transfers paid abroad	2.81	6.80	37.32	32.72	19.96	27.60
Total	4368.84	6000.47	10237.05	12746.42	14476.83	15934.42
Uses						
1.Exports of goods and services	4346.70	4987.30	10250.00	12295.50	14273.70	17180.90
2.Compensation of employees received from abroad	0.00	0.00	0.00	0.00	0.00	13.80
3.Property income received from abroad	308.56	252.95	494.55	433.48	608.43	248.74
4.Taxes on production, net	0.00	0.00	0.00	0.00	0.00	0.00
5.Current transfers received from abroad	66.51	74.33	152.55	152.48	197.75	453.60
6.Current external balance	-352.93	685.89	-660.05	-135.04	-603.05	-1962.62
Total	4368.84	6000.47	10237.05	12746.42	14476.83	15934.42

Table 10. Capital Accounts for the Rest of the World

	(100 million RMB yuan)					
	1992	1993	1994	1995	1996	1997
Resources						
1. Current external balance	-352.93	685.89	-660.05	-135.04	-603.05	-1962.62
2. Net capital transfers abroad	0.00	0.00	0.00	0.00	0.00	1.72
Total	-352.93	685.89	-660.05	-135.04	-603.05	-1960.90
Uses						
1. Acquisitions less disposals of other tangible non-produced assets	0.00	0.00	0.00	0.00	0.00	0.00
2. Net lending	-352.93	685.89	-660.05	-135.04	-603.05	-1960.90
Total	-352.93	685.89	-660.05	-135.04	-603.05	-1960.90

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